



HZW
Environmental
Consultants

April 28, 2020

Mr. Christopher DeLuca
CT Consultants, Inc.
8150 Sterling Court
Mentor, Ohio 44060

Subject: *Report of Findings from the Asbestos Bulk Sampling of Roofing Materials Conducted at the Liberty Township Administration Building Located at 1315 Churchill Hubbard Road, Youngstown, Mahoning County, Ohio (HZW Project No. H20067-06)*

Dear Mr. DeLuca:

HZW Environmental Consultants, LLC (HZW) is pleased to submit this letter report that presents the findings from the asbestos bulk sampling of roofing materials conducted at the Liberty Township Administration building located at 1315 Churchill Hubbard Road, Youngstown, Mahoning County, Ohio, herein referred to as the “subject building”. The purpose of conducting the bulk sampling activities was to determine the asbestos content, if any, of the roofing materials associated with the subject building’s roof prior to renovation activities being performed. A Google™ aerial showing the roof of the subject building is provided below.



Photograph 01

Aerial View of the Liberty Township Administration Building’s Roof,
1315 Churchill Hubbard Road, Youngstown, Mahoning County, Ohio

METHODS OF INVESTIGATION

During April 2020, a representative of HZW, certified as an Asbestos Hazard Evaluation Specialist (AHES), visited the subject building's roof to perform the asbestos bulk sampling activities. This certification is required to be maintained by the inspector in accordance with the Asbestos School Hazard Abatement Reauthorization Act (ASHARA) and the Ohio Environmental Protection Agency (Ohio EPA) asbestos regulations.

The asbestos bulk sampling activities were conducted in accordance with the Environmental Protection Agency's (EPA) National Emissions Standard for Hazardous Air Pollutants (NESHAP) sampling protocol. NESHAP regulations require no specific sampling protocol be followed; however, the Asbestos Hazard Emergency Response Act (AHERA) protocol is recommended. Therefore, the bulk sampling activities conducted at the subject building were conducted in accordance with AHERA protocol.

Two (2) building materials suspect for containing asbestos were identified on the roof of the subject building. A total of four (4) bulk samples were collected from these suspect materials and submitted to CA Labs, LLC of Baton Rouge, Louisiana, for analysis of asbestos content by polarized light microscopy (PLM) using the Environmental Protection Agency (EPA) Method 600/R-93/116.

In determining the condition of a material, HZW used the following guidelines:

| General Damage Category | Criteria |
|-------------------------|--|
| Good | No Damage |
| Fair | Up to 10% overall damage Up to 25% localized damage |
| Poor | Over 10% overall damage Over 25% localized damage |

ASBESTOS REGULATIONS

Federal Regulations

The Occupational Safety and Health Administration's (OSHA's) Asbestos Standard for the Construction Industry (29 CFR 1926.1101) regulates all renovation and demolition work involving buildings materials which contain any amount of asbestos. Buildings owners and/or contractors who perform renovation and/or demolition activities which disturb buildings materials identified as containing asbestos are required to conduct these activities in accordance with OSHA's Asbestos Standard. An asbestos-containing material (ACM), as defined by OSHA and the EPA, is any material containing more than one percent (1%) asbestos as determined by Polarized Light Microscopy (PLM).

The Asbestos NESHAP (40 C.F.R. Part 61, Subpart M) regulates which ACMs must be removed prior to renovation and demolition activities being performed. If the quantity of regulated ACMs (RACMs) to be disturbed as part of a renovation or demolition activity meets or exceeds 160 square feet on facility components, 260 linear feet on pipes or 35 cubic feet off facility components, then the activity would be regulated under the Asbestos NESHAP. RACMs are defined as 1) friable ACMs, 2) Category I Nonfriable ACMs that has become friable, 3) Category I Nonfriable ACMs that will be or have been subjected to sanding, grinding, cutting or abrading, or 4) Category II Nonfriable ACMs that have a high probability of becoming or have become crumbled, pulverized, or reduced to powder by the forces expected to act on the materials in the course of the demolition or renovation activities. A friable ACM is a material that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Examples of friable ACMs consist of asbestos-containing pipe insulation, fireproofing, and ceiling tile. Examples of Category I Nonfriable ACMs consist of asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products. Examples of Category II Nonfriable ACMs consist of any material, excluding Category I Nonfriable ACMs.

State Regulations

The Ohio EPA Asbestos regulations are under Chapter 3745-20 and 3745-22 of the Ohio Administrative Code (OAC) also referred to as the “Emission Control Rules”. Chapter 3745-20 is nearly identical to the Asbestos NESHAP, 40 CFR, Part 61, Subpart M, cited above. Chapter 3745-22 is the former Ohio Department of Health asbestos “Licensing Rules”, which on January 1, 2018, were adopted by the Ohio EPA. Chapter 3745-22 encompasses the rules governing asbestos hazard abatement contractors, specialists, project designers, workers, and training courses.

Under the Asbestos NESHAP and Ohio EPA Asbestos regulations the “Notification of Demolition and Renovation” form is required to be submitted ten (10) days prior to any of the following activities being performed:

- Demolition of a facility, regardless of whether asbestos is involved. This includes all structures that will be intentionally burned for fire training purposes.
- Renovation of a facility when the amount of RACM stripped, removed, dislodged, cut, drilled, or similarly disturbed exceeds 260 linear feet on pipes or 160 square feet on other facility components or 35 cubic feet off facility components.
- Abatement at a facility when the activity involves the removal, renovation, enclosure, repair or encapsulation of *friable* ACMs in an amount greater than 50 linear feet on pipes or 50 square feet on other facility components.

FINDINGS

The table below documents the findings from the bulk sampling activities conducted on the roof of the subject building:

| Suspect Material | Sample No. | Asbestos (%) | Condition | Quantity |
|------------------|------------|--------------|-----------|----------------|
| Built-up Roofing | 01 | ND | Fair | Not Applicable |
| | 02 | ND | | |
| Roof Flashing | 04 | ND | Fair | Not Applicable |
| | 04 | ND | | |

ND = No Asbestos Detected

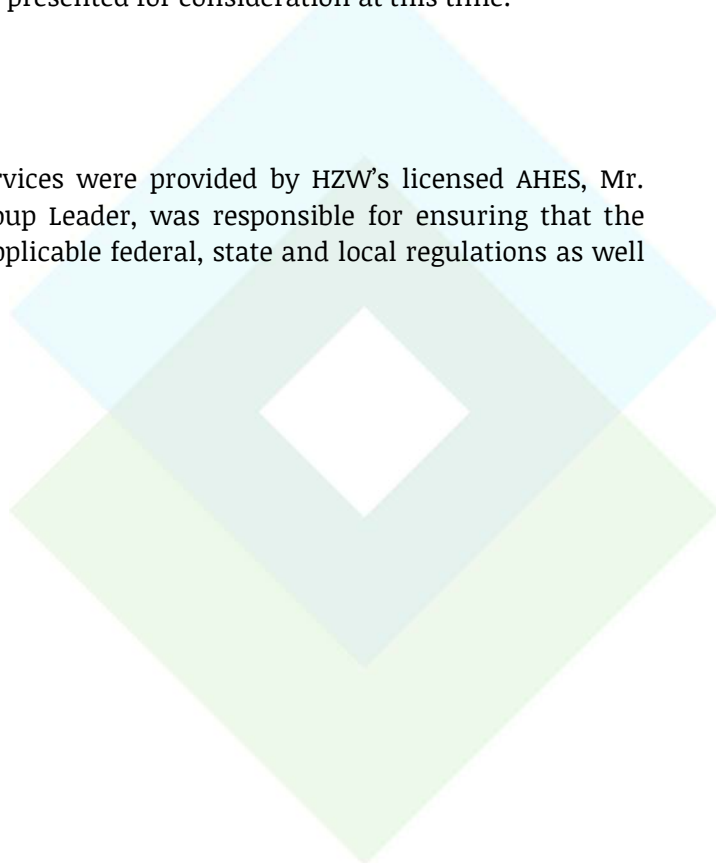
A site sketch of the subject building's roof that documents the bulk sampling locations is included as **Attachment 1**. The laboratory analytical report for the bulk samples collected at the subject building is included as **Attachment 2**.

RECOMMENDATIONS

Based on the findings from the asbestos bulk sampling activities conducted on the roof of the subject building, no recommendations are being presented for consideration at this time.

QUALIFICATIONS

The professional environmental consulting services were provided by HZW's licensed AHES, Mr. Carmen Rocco. Ms. Joan A. Sablar, HZW's Group Leader, was responsible for ensuring that the project was conducted in accordance with all applicable federal, state and local regulations as well as for generation of this report.



Mr. Christopher DeLuca

April 23, 2020

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HZW appreciates the opportunity you have given us to provide professional consulting services to CT Consultants, Inc. Should you have any questions regarding the information presented above, please do not hesitate to contact us.

Sincerely,

HZW ENVIRONMENTAL CONSULTANTS, LLC

Carmen Rocco

Carmen Rocco

Asbestos Hazard Evaluation Specialist
(OEPA License No. ES 33794)

Joan A. Sablar

Joan A. Sablar

Asbestos Hazard Evaluation Specialist
(OEPA License No. ES 31652)

MPF:mpf\jas\H20067-06

Attachments

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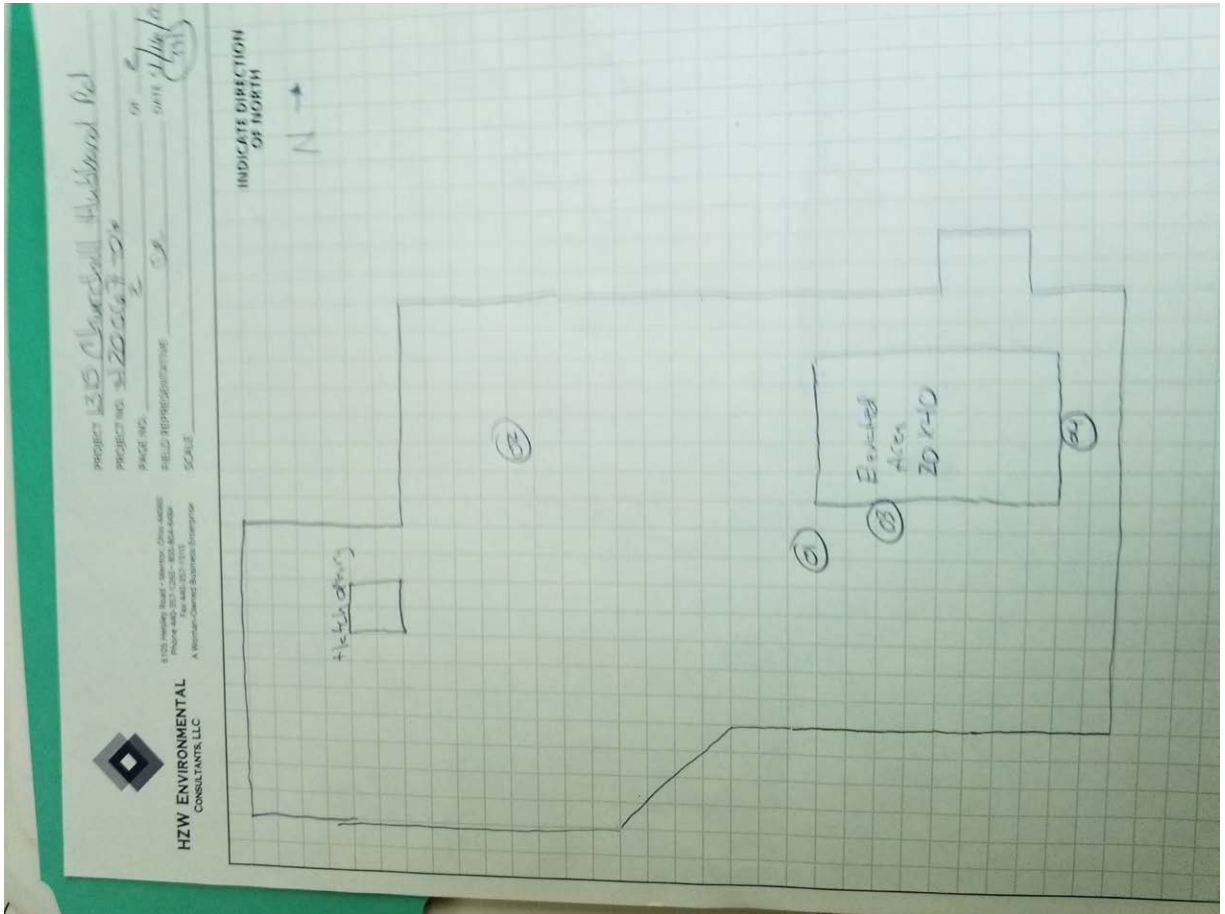




ATTACHMENT 1

- **SITE SKETCH OF BUILDING ROOF DOCUMENTING BULK SAMPLING LOCATIONS**

From: [Carmen Rocco](#)
To: [Matt Fergus](#)
Subject: Photo
Date: Tuesday, April 28, 2020 10:09:24 AM



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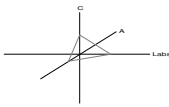


ATTACHMENT 2

- ASBESTOS LABORATORY ANALYTICAL REPORT

CA Labs
Dedicated to
Quality

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634



NVLAP #200772-0
TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

HZW Environmental Consultants

6105 Heisley Rd.
Mentor, OH 44060

Attn: Joan Sablar

Customer Project: 1315 Churchill Hubbard

Reference #: CBR20041681

Date: 4/22/2020

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are performed. Calibrated liquid refractive oils are used as liquid mounting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjunction with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found by PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

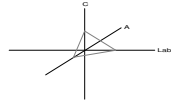
Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines. Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. This report is not covered by the scope of AIHA accreditation. Analysis performed at CA Labs, LLC 12232 Industriplex, Suite 32 Baton Rouge, LA 70809.

CA Labs
Dedicated to
Quality

CA Labs, L.L.C.
 12232 Industriplex, Suite 32
 Baton Rouge, LA 70809
 Phone 225-751-5632
 Fax 225-751-5634



NVLAP #200772-0
TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Overview of Project Sample Material Containing Asbestos

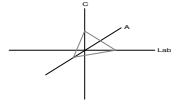
| | | | |
|---|----------------|---|---|
| Customer Project: 1315 Churchill Hubbard | | CA Labs Project #: CBR20041681 | |
| Sample # | Layer # | Analysts Physical Description of Subsample | Asbestos type / calibrated visual estimate percent |
| | | | List of Affected Building Material Types |

No Asbestos Detected.

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

| | | | |
|------------------|--------------|--------------------|--------------------------|
| ca - carbonate | pe - perlite | fg - fiberglass | pa - palygorskite (clay) |
| gypsum - gypsum | qu - quartz | mw - mineral wool | |
| bi - binder | | wo - wollastinite | |
| or - organic | | ta - talc | |
| ma - matrix | | sy - synthetic | |
| mi - mica | | ce - cellulose | |
| ve - vermiculite | | br - brucite | |
| ot - other | | ka - kaolin (clay) | |

This report relates to the items tested. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.



Polarized Light Asbestiform Materials Characterization

Customer Info: Attn: Joan Sablar
HzW Environmental Consultants
6105 Heisley Rd.
Mentor, OH 44060

Customer Project:
1315 Churchill Hubbard

CA Labs Project #:
CBR20041681

Phone # 440-357-1260
Fax # 440-357-1510

Turnaround Time: 5 day


Date: 4/22/2020
Samples Received: 4/17/2020
Date Of Sampling:
Purchase Order #: H20067-06


| Sample # | Com ment | Layer # | Analysts Physical Description of Subsample | Homo- geneo us (Y/N) | Asbestos type / calibrated visual estimate percent | Non-asbestos fiber type / percent | Non-fibrous type / percent |
|----------|-------------|------------|---|-------------------------------|--|--------------------------------------|-------------------------------|
| 01 | | 01-1 | Black Felt and Tar | N | None Detected | 40% ce | 60% qu, ma, bi |
| | | 01-2 | Brown Insulation | Y | None Detected | 100% ce | |
| 02 | | 02-1 | Black Felt and Tar | N | None Detected | 40% ce | 60% qu, ma, bi |
| | | 02-2 | Brown Insulation | Y | None Detected | 100% ce | |
| 03 | | 03-1 | Silver Surfaced Black Tar | N | None Detected | | 100% qu, ma, bi |
| 04 | | 04-1 | Silver Surfaced Black Tar | N | None Detected | | 100% qu, ma, bi |


Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

| | | | |
|-----------------|------------------|-------------------|--------------------------|
| ca - carbonate | mi - mica | fg - fiberglass | ce - cellulose |
| gypsum - gypsum | ve - vermiculite | mw - mineral wool | br - brucite |
| bi - binder | ot - other | wo - wollastinite | ka - kaolin (clay) |
| or - organic | pe - perlite | ta - talc | pa - palygorskite (clay) |
| ma - matrix | qu - quartz | sy - synthetic | |

Approved Signatories:


David Darby
Analyst


Senior Analyst
Alicia Stretz


Laboratory Director
Chris Williams

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze

6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested



CBR20041681

HZW ENVIRONMENTAL
CONSULTANTS, LLC

6105 Heislley Road • Mentor, Ohio 44060
Phone 440-357-1260 • 800-804-8484
Fax 440-357-1510
A Woman-Owned Business Enterprise

PROJECT _____
PROJECT NO. _____
PAGE NO. _____ Shipping \$25.00 _____ OF _____
FIELD REPRESENTATIVE _____ DATE _____
SCALE _____

Project Name: 1315 Churchill Hubbard Road. INDICATE DIRECTION OF NORTH

Project # HZ0067-06
Send to Carmela Locco

Stop at 1st (+)
P/C 3% or less
5 day TAT

HAS

- A) Tar and Gravel Roofing System (01,02)
- B) Roofing Flashings (03,04)

Call / 4-16-20 / 2:30pm

Jennifer Waters
4/17/20 10:15AM