ASBESTOS AND LEAD SURVEY REPORT

HAPPY HOLLOW RECREATION CENTER
4800 WAYNE AVENUE.,
PHILADELPHIA, PA 19144

Prepared For:

Daniel Harkins
Project Coordinator
City of Philadelphia Department of Public Property
702 City Hall.,
Philadelphia, Pennsylvania

Prepared by:

BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713

May 3, 2024
BEA#1093723K

Prepared by:_____
Alyssa Cartagena | Regional Project Manager

Reviewed By:_____
Neeraj Batta |Vice President

Ph: 855.862.2882
Fx: 302.737.5764

BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713

info@battaenv.com
Battaenv.com

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Ph: 855.862.2882
Fx: 302.737.5764

BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713

info@battaenv.com
Battaenv.com

SECTION 1.0

INTRODUCTION

A hazardous materials survey was conducted at the Happy Hollow Recreation Center located at 4800 Wayne Avenue., Philadelphia, PA. The survey was conducted from April 17, 2024, by Steve Woronicak, and Alyssa Cartagena, all AHERA-certified building inspectors from Batta Environmental Associates, Inc. (BEA).

The purpose of the inspection was to identify and report on environmentally hazardous materials within the Happy Hollow Recreation Center property located at the above referenced site that may be impacted by the upcoming planned renovations to the interior of the structure. The inspection included surveying for Asbestos-Containing Material (ACM) and Lead-Based Paint (LBP).

This LBP and ACM report has been prepared by BEA in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty, expressed or implied is made. The intent of this survey report is to assist the building owner or management in locating environmentally hazardous materials in support of future demolition activities. This document is not intended to be utilized as a proposal or a project design document for the remediation of hazardous materials discovered during this investigation.

BEA's interpretations and recommendations are based upon the results of sample collection and analyses in compliance with environmental regulations, quality control and assurance standards, and the scope of work. The results, conclusions, and recommendations contained in this report pertain to conditions observed at the time of the survey.

Ph: 855.862.2882
Fx: 302.737.5764

BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713

info@battaenv.com
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SECTION 2.0

ASBESTOS SURVEY

2.1 ASBESTOS SURVEY METHODS

The site was inspected for suspect ACM, unless otherwise noted. Each observed suspect material was assigned a homogenous area number, described, and measured. Each observed suspect material was sampled or assumed to be asbestos. Samples of suspect ACM were collected using procedures established by the United States (US) Environmental Protection Agency (EPA) Code of Federal Regulations (CFR) Title 40 Part 763 Subpart E, Asbestos-Containing Materials in Schools.

At the beginning of the survey, the inspector(s) conducted a walkthrough of the areas identifying and sampling different types of probable ACM and categorizing these materials.

Each probable ACM was grouped into homogenous areas, which group a particular material by similar characteristics such as appearance, texture, manufacturer, etc. All similar materials within a particular building or process area were in their own homogenous area groups.

ACM's were also further divided into three categories:

- "***Surfacing Materials***" material that is sprayed-on, trowelled on, or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing or other purposes.

- "***Thermal System Insulation***" material applied to pipes, fittings, boilers, breeching, tanks, ducts, or other structural components to prevent heat loss or gain, or water condensation, or for other purposes.

- "***Miscellaneous ACM*** " interior building material on structural components, structural members or fixtures, such as floor and ceiling tiles, and does not include surfacing material or thermal insulation.

ACM's inventoried in this survey are classified as either friable or non-friable. Friable ACM can be crumbled or reduced to powder by hand pressure whereas non-friable ACM cannot.

The EPA asbestos NESHAP regulation further classifies nonfriable ACM into two categories.

Ph: 855.862.2882
Fx: 302.737.5764
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6 Garfield Way
Newark, DE. 19713
info@battaenv.com
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- Category I. Nonfriable ACM includes any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product.

- Category II. Nonfriable ACM includes any nonfriable ACM other than Category I nonfriable ACM.

Samples were collected in air tight, sealed bags for transportation to Batta Environmental, LLC for analysis. During sample collection procedures, good safety and hygiene practices were implemented to prevent asbestos airborne contamination from being introduced into the building's atmosphere.

All field records pertaining to samples collected during this inspection can be found in Appendix B of this report and each sample is listed as follows:

1. Field Number
2. Lab Number
3. AHERA Classification
4. Sample Location
5. Material Sampled
6. Lab Results

All lab data pertaining to the samples analyzed can be found in Appendix A of this report and each sample is listed as follows:

1. Date Analyzed
2. Field Sample Number
3. Lab Sample Number
4. Sample Location
5. Asbestos Content
6. Non-Asbestos Content

Samples were analyzed using an A,B,C… positive stop protocol for each set of homogenous materials (*materials with similar characteristics)*. If a sample in the homogenous set tested **positive** for **asbestos** (***greater than 1% by composition****)* then the other samples in that set were not analyzed. If asbestos was not detected in a sample then all samples from that homogenous set were analyzed for asbestos until one tested positive.

Ph: 855.862.2882
Fx: 302.737.5764

BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713

info@battaenv.com
Battaenv.com

2.2 LABORATORY ANALYSIS METHODS

All samples collected during the survey were analyzed at Batta Laboratories, LLC, an A.I.H.A., NVLAP certified laboratory. Upon arrival at the laboratory, the samples were logged-in and submitted for analysis.

PLM samples were analyzed utilizing the Environmental Protection Agency's test method: "Methods for the determination of Asbestos in Bulk Building Materials" (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's "The Asbestos Particle Atlas" as the principal analytical references. Additional treatment and tests may be required to accurately define composition (i.e. ashing, extraction, acetone treatment, and TEM).

The PLM method utilizes a light microscope equipped with polarizing filters. The identification of asbestos fiber bundles is determined by the visual properties displayed when the sample is treated with various dispersion staining liquids. Identification is substantiated by the actual structure of the fiber and the effect of polarized light on the fiber, all of which is viewed by a trained technician. The limit of detection of asbestos by PLM is about one percent (1%) by area. Samples containing lower levels of asbestos are not reliably detectable by this technique.

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), silicon carbide whiskers, carbon fibers, fibrous non-asbestos constituents (cellulose, synthetic, etc.), and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

The asbestos NESHAP recommends that asbestos bulk samples that are less than 10% by PLM are to be analyzed by point counting for friable ACM and mandates point counting when PLM results for friable ACM are in trace amounts (< 1%) in order to declare that the material is non-asbestos containing. The point-count procedure mandated by NESHAP is in the EPA "Interim" Bulk Method. For each layer to be point counted, eight mounts are made by dispersing 8 pinches of sample in suitable fluid. Each of the mounts is examined under the polarizing light microscope using an eyepiece reticule that superimposes a grid of points over the field of view. Fifty non-empty points are examined for each mount, yielding 400 points – some of which would be identified as asbestos and the rest as non-asbestos material.

A total of 34 bulk samples were collected for PLM analysis during this survey.

Ph: 855.862.2882
Fx: 302.737.5764
BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713
info@battaenv.com
Battaenv.com

2.3 LIMITATIONS

This survey was limited in scope to a Hazardous Materials Inspection Survey at the Happy Hollow Recreation Center located at 4800 Wayne Avenue, in Philadelphia, PA 19136 as defined by contract documents and the project scope of work.

This asbestos and lead survey report has been prepared by BEA in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty, expressed or implied is made. The intent of this survey report is to assist the building owner or management in locating hazardous materials. This document is not intended to be utilized as a proposal or a project design document for the remediation of hazardous materials discovered during this investigation.

BEA's interpretations and recommendations are based upon the results of sample collection and analyses in compliance with environmental regulations, quality control and assurance standards, and the scope of work. The results, conclusions, and recommendations contained in this report pertain to conditions observed at the time of the survey.

2.4 ASBESTOS ANALYSIS RESULTS

A total of 34 samples were collected and 37 samples were analyzed via PLM. The original laboratory report / certificates of analysis are found in Appendix A and survey field records are found in Appendix B.

The following table summarizes the samples collected. Materials are quantified that have been found to contain asbestos greater than 1% (NAD = No Asbestos Detected, RACM = Regulated Asbestos Containing Material, CAT I NF = Category I Non-friable, CAT II NF = Category II Non-friable).

Happy Hollow Recreation Center					
Material	**Location**	**% ACM**	**Category**	**Condition**	**Quantity**
Gym					
Grey 12”x12” Floor Tile	- 1st Floor - 2nd Floor	NAD	N/A	N/A	N/A
Mastic with Grey 12”X12” Floor Tile	- 1st Floor - 2nd Floor	NAD	N/A	N/A	N/A
Blue 12”x12” Floor Tile (Bottom)	- 1st Floor - 2nd Floor	NAD	N/A	N/A	N/A
Mastic with Blue 12”X12” Floor Tile	- 1st Floor - 2nd Floor	NAD	N/A	N/A	N/A

Ph: 855.862.2882
Fx: 302.737.5764
BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713
info@battaenv.com
Battaenv.com

Happy Hollow Recreation Center					
Material	**Location**	**% ACM**	**Category**	**Condition**	**Quantity**
Baseboard	- 1st Floor	NAD	N/A	N/A	N/A
Baseboard Mastic	- 1st Floor	NAD	N/A	N/A	N/A
Stair Tread Material	- Stairs	NAD	N/A	N/A	N/A
Stair Tread Mastic	- Stairs	2% Chrysotile	CAT1NF	Good	45 SF
Transite Panel	- 2nd Floor Water Heater Room	15% Chrysotile	CAT2NF	Good	30 SF
Boxing Gym Building					
Grey 12”x12” Floor Tile	- Hall Outside Office - Outside Men’s Room	NAD	N/A	N/A	N/A
Mastic with Grey 12”X12” Floor Tile	- Hall Outside Office - Outside Men’s Room	NAD	N/A	N/A	N/A
Baseboard Mastic	- Hall Outside Office - Outside Men’s Room	NAD	N/A	N/A	N/A
Rubber Floor Mastic	- Main Area	NAD	N/A	N/A	N/A
Flue Packing	- Basement	NAD	N/A	N/A	N/A
Window Glazing	- Basketball Gym Exterior	NAD	N/A	N/A	N/A
Smooth Plaster Walls	- Main Boxing Gym	NAD	N/A	N/A	N/A

Ph: 855.862.2882
Fx: 302.737.5764

BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713

info@battaenv.com
Battaenv.com

SECTION 3.0

LEAD PAINT EVALUATION

3.1 LEAD BASED PAINT EVALUATION AND XRF RESULTS

BATTA ENVIRONMENTAL ASSOCIATES, INC. performed an evaluation for Lead-Based Paint (LBP) for Happy Hollow Recreation Center located at 4800 Wayne Avenue., Philadelphia, PA. The inspection was performed using a Heuresis Model Pb200i Portable X-Ray fluorescence (XRF) Analyzer by Steve Woronicak.

Various painted surfaces were analyzed using the hand-held XRF Analyzer and a visual assessment of the identified lead-based surfaces was performed. Identified lead-based paint components were visually assessed for paint condition as per the United States Department of Housing & Urban Development (HUD) guidelines.

A total of 145 XRF readings were collected on the interior areas of the subject property. The following items describe the existing paint and condition identified throughout the property during the time of inspection. Lead-Based Paint is highlighted below.

HAPPY HOLLOW RECREATION CENTER								
#	Location	Wall	Color	Component	Substrate	Condition	Pb	Pb +/-
Basketball Gym								
1	Girls Rest Room	A	White	Frame	Metal	Intact	0.1	-
2		A	Blue	Door	Wood	Intact	0.1	-
3		B	White	Wall	Brick	Intact	0.5	-
4		D	White	Wall	Brick	Intact	0.4	-
5		D	White	Stall Door	Metal	Intact	0.3	-
6		C	White	Windowsill	Metal	Intact	0.2	-
7		Ceiling	White	Ceiling	Wood	Intact	0.1	-
8		C	Blue	Conduit	Metal	Damaged	0.2	-
9	Boys Restroom	D	Black	Wall	Brick	Intact	0.4	-
10		A	White	Wall	Brick	Intact	0.1	-
11		C	White	Sink	Ceramic	Intact	28.4	+
12		C	White	Urinal	Ceramic	Intact	0.4	-
13	Main Gym		Blue	Divider	Wood	Intact	0.3	-

Ph: 855.862.2882
Fx: 302.737.5764
BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713
info@battaenv.com
Battaenv.com

HAPPY HOLLOW RECREATION CENTER								
#	Location	Wall	Color	Component	Substrate	Condition	Pb	Pb +/-
14	Gym Front Exterior		Red	Beam	Metal	Intact	1.8	+
15			Red	Drain Pipe	Metal	Intact	0.1	-
16	Walkway		Red	Thin Beam	Metal	Intact	0.1	-
17	Gym Front Exterior		Blue	Wall	Brick	Intact	0.2	-
18			Red	AC Grate	Metal	Intact	0	-
19	Playground		Green	Light Pole	Metal	Intact	0.2	-
20			Blue	Swing Rail	Metal	Damaged	0.1	-
21			Blue	Swing Base	Metal	Intact	0	-
22			Gray Blue	Whale	Metal	Intact	0.9	+
23			Yellow	Rail	Metal	Intact	0.2	-
24			Red	Struct Floor	Metal	Intact	0.2	-
25			Blue	Struct Floor	Metal	Intact	0	-
Recreation Center								
26	Main Room	A	White	Wall	Brick	Intact	0.2	-
27		B	White	Wall	Brick	Intact	0.1	-
28		C	White	Wall	Brick	Intact	0.1	-
29		D	White	Wall	Brick	Intact	0.2	-
30		A	Red	Door	Wood	Intact	0.3	-
31		A	Red	Doorframe	Wood	Intact	27.7	+
32		A	Red	Windowsill	Wood	Intact	0.2	-
33		A	Red	Windowframe	Wood	Intact	0.5	-
34		A	White	Windowframe	Wood	Intact	0.1	-
35		A	Red	Column	Wood	Intact	0.8	+
36		A	Blue	Post	Metal	Intact	0	-
37		C	Red	Windowsill	Wood	Intact	0.8	+
38		C	Red	Windowframe	Wood	Intact	0.4	-
39		C	White	Window	Wood	Intact	0	-
40		C	Red	Column	Wood	Intact	0.4	-
41		B	Tan	Door	Wood	Intact	0.1	-

Ph: 855.862.2882
Fx: 302.737.5764
BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713
info@battaenv.com
Battaenv.com

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#	Location	Wall	Color	Component	Substrate	Condition	Pb	Pb +/-
42		B	Tan	Doorframe	Wood	Intact	0.6	-
43	Closet	A	Tan	Door	Wood	Intact	0.2	-
44		A	Tan	Doorframe	Metal	Intact	0.3	-
45		A	Light Tan	Wall	Brick	Intact	0.2	-
46		B	Light Tan	Wall	Brick	Intact	0.2	-
47		D	Light Tan	Wall	Brick	Intact	0.3	-
48	Computer Lab	A	Blue	Wall	Brick	Intact	0.3	-
49		A	Blue	Doorframe	Wood	Intact	0.1	-
50		A	Tan	Door	Metal	Damaged	0.1	-
51		B	White	Wall	Brick	Intact	0.1	-
52		D	Gray	Wall	Brick	Damaged	0.2	-
53		A	White	Wall	Brick	Intact	0.1	-
54	Women's Bathroom	A	White	Wall	Brick	Intact	0	-
55		C	White	Wall	Brick	Intact	0.3	-
56		C	Blue	Window	Wood	Damaged	7.4	+
57		C	White	Window	Wood	Intact	0.1	-
58		Divider	Blue	Divider	Metal	Intact	0.2	-
59		D	Black	Radiator Cover	Metal	Intact	1.5	+
60		A	Blue	Door	Metal	Intact	0	-
61		A	Tan	Doorframe	Metal	Intact	0.3	-
62	Women's Hallway	C	White	Wall	Brick	Intact	0.2	-
63		C	White	Roof Drain Pipe	Metal	Intact	12.8	+
64		D	Tan	Windowframe	Metal	Intact	0	-
65		D	Red	Frame	Metal	Intact	0.4	-
66	Men's Bathroom	A	White	Wall	Brick	Intact	0.1	-
67		C	White	Wall	Brick	Intact	0.1	-

Ph: 855.862.2882
Fx: 302.737.5764
BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713
info@battaenv.com
Battaenv.com

HAPPY HOLLOW RECREATION CENTER								
#	Location	Wall	Color	Component	Substrate	Condition	Pb	Pb +/-
68		C	Silver	Radiator	Metal	Intact	0.1	-
69	Storage	A	White	Wall	CMU	Intact	0.2	-
70		A	Tan	Frame	Metal	Intact	0.4	-
71		A	Tan	Door	Metal	Intact	0	-
72		D	White	Wall	CMU	Intact	0.2	-
73		D	White	Windowsill	Wood	Intact	5.2	+
74		Floor	Gray	Floor	Concrete	Intact	1.7	+
75		Ceiling	White	Ceiling	Metal	Intact	8.2	+
76	Men's Hall	D	White	Wall	Brick	Intact	0	-
77		D	Red	Frame	Metal	Intact	0.4	-
78		B	White	Wall	Brick	Intact	0.1	-
79		D	White	Wall	CMU	Intact	0.2	-
80	Office	A	White	Wall	CMU	Intact	0.2	-
81		C	White	Wall	Brick	Intact	0.3	-
82		A	Blue	Frame	Metal	Intact	0.2	-
83		A	Tan	Door	Metal	Intact	0.2	-
84	Office Restroom	A	Yellow	Wall	CMU	Intact	0.2	-
85		C	Yellow	Wall	Brick	Intact	0.2	-
86		A	Yellow	Drain Pipe	Metal	Intact	0.1	-
87		C	White	Radiator Cover	Metal	Intact	1	+
88	Front Exterior		Tan	Column	Concrete	Intact	0.6	-
89			Tan	Column	Concrete	Intact	0.1	-
90			Tan	Windowsill	Wood	Intact	0.2	-
91			Tan	Frame	Wood	Intact	37	+
92			Black	Railing	Metal	Intact	0.3	-
93	Rear Exterior		Tan	Windowsill	Wood	Intact	1.7	+
94			Tan	Frame	Wood	Intact	1.3	+
95	Basement	D	White	Wall	Brick	Damaged	0.6	-
96		Ceiling	Gray	Ceiling	Concrete	Damaged	0.3	-

Ph: 855.862.2882
Fx: 302.737.5764
BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713
info@battaenv.com
Battaenv.com

HAPPY HOLLOW RECREATION CENTER								
#	Location	Wall	Color	Component	Substrate	Condition	Pb	Pb +/-
97		B	White	Wall	Concrete	Damaged	0.7	+
98		C	White	Wall	Brick	Intact	0.1	-
99	Gym Main	A	Blue	Wall	Brick	Intact	0.3	-
100		A	Blue	Door	Wood	Intact	0.1	-
101		A	Blue	Doorframe	Wood	Intact	0.2	-
102		A	Blue	Grate	Metal	Intact	0.3	-
103		B	White	Wall	Brick	Intact	0.3	-
104		B	Blue	Beam	Metal	Intact	1.9	+
105		D	Blue	Beam	Metal	Intact	1.4	+
106		C	Blue	Wall	Brick	Intact	0.3	-
107		C	Blue	Door	Metal	Intact	0.3	-
108		C	Blue	Doorframe	Metal	Intact	0.3	-
109	Stairwell	A	White	Wall	Brick	Intact	0.4	-
110		A	Black	Rail	Metal	Intact	0	-
111	Second Floor	A	Tan	Doorframe	Metal	Intact	0	-
112		A	Blue	Door	Metal	Intact	0.1	-
113		C	White	Wall	Drywall	Intact	0.1	-
114		B	White	Wall	Brick	Intact	0.1	-
115	Old Shower	A	Brown	Frame	Wood	Intact	0	-
116		A	Blue	Wall	Ceramic	Intact	2.1	+
117		Floor	White	Floor	Ceramic	Intact	0.4	-
118	Water Heater Room	D	White	Cabinet	Metal	Intact	0.3	-
119	Second Floor Room	A	White	Conduit	Metal	Intact	0.6	-
120	Kitchen	A	White	Wall	Drywall	Intact	0.2	-
121		A	Tan	Doorframe	Metal	Intact	0.4	-
122		A	Tan	Door	Metal	Intact	0.1	-
123		B	Tan	Radiator Cover	Metal	Intact	1	+

Ph: 855.862.2882
Fx: 302.737.5764
BATTA Environmental Associates, Inc
6 Garfield Way
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Battaenv.com

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#	Location	Wall	Color	Component	Substrate	Condition	Pb	Pb +/-
124		B	White	Wall	Drywall	Intact	0.1	-
125		C	White	Wall	Drywall	Intact	0.2	-
126		D	White	Wall	Drywall	Intact	0.2	-
127		C	Black	Fume Hood	Metal	Intact	0	-
128		Ceiling	White	Ceiling	Drywall	Intact	0.1	-
129	Kitchen Storage	A	White	Wall	Ceramic	Intact	0.1	-
130	Hall Outside Kitchen	Ceiling	White	Ceiling	Metal	Intact	2.7	+
Gym								
131	Entrance	A	Blue	Wall	Brick	Intact	0.3	-
132		A	Blue	Doorframe	Metal	Intact	0.3	-
133		A	Black	Door	Metal	Intact	0.3	-
134		A	Blue	Shelf	Metal	Intact	0.1	-
135		D	Blue	Wall	Brick	Intact	0.4	-
136	Entry Office	A	White	Wall	Brick	Intact	0.5	-
137		B	Blue	Windowframe	Metal	Intact	0	-
138		D	Blue	Windowframe	Wood	Intact	0.2	-
Exterior								
139	Playground		Green	Bench	Wood	Damaged	0.3	-
140	Gym Back Exterior		Red	Wall	Brick	Intact	0.3	-
141			Red	Door	Metal	Intact	0.1	-
142			Red	DoorFrame	Metal	Intact	0.2	-
143	Basketball Court		Blue	Floor	Asphalt	Intact	0.2	-
144			Black	Fence	Metal	Intact	0.1	-
145	Basement		Black	Hatch	Metal	Intact	0.2	-

The City of Philadelphia – Department of Health defines Lead-Based Paint (LBP) to contain equal or greater than 0.70 mg/cm^2 lead as measured on a handheld XRF analyzer. LBP is defined by The Federal Department of Housing and Urban Development (HUD) and Environmental Protection Agency (EPA) to contain equal or greater than 1.00 mg/cm2 lead as measured on a handheld XRF analyzer.

Ph: 855.862.2882
Fx: 302.737.5764
BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713
info@battaenv.com
Battaenv.com

SECTION 4.0

RECOMMENDATIONS

4.1 RECOMMENDATIONS FOR CATEGORY I NONFRIABLE ACM (CAT I NF)

The following Category I Nonfraible ACM (CAT I NF) was identified during this survey:

- Stair Tread Mastic

These materials are required to be removed by a Pennsylvania licensed asbestos contractor if proposed renovations or demolition will impact these materials in such a manner as to render them friable and thus RACM. Specifically, any renovation or demolition activity that will crush, abrade, or dissolve the matrix of these materials must be performed by a Pennsylvania licensed Asbestos Contractor. If these materials are in good condition and not impacted by the renovation/demolition or if renovation/demolition work will not render the material friable then they may remain on/in the facility. If demolished, this material and the building components associated with it must be disposed of in a Construction/Demolition landfill and must not be reused or recycled.

4.2 CATEGORY II NONFRIABLE ACM

The following Category II Nonfriable ACM (CAT II NF) was identified during this survey:

- Transite

This Category II Non-friable ACM must be removed prior to any renovation or demolition activity that will crush, abrade, or dissolve the matrix of this material. The removal of this material must be performed by a Pennsylvania licensed Asbestos Contractor. If this material is in good condition and not impacted by the renovation/demolition and will remain on/in the facility, no other special handling, or action is required for this material.

4.3 ASBESTOS 10-DAY NOTIFICATION

The Department of Labor Division of Public Safety & Occupational Safety & Health Asbestos Control & Licensing Section, the Pennsylvania Department of Health and Senior Services Indoor Environments Program Consumer and Environmental Health Services, and the US Environmental Protection Agency – Region II, require notification of intent to renovate or demolish when asbestos is present. Notification must be sent at least 10 working days (5 days

Ph: 855.862.2882
Fx: 302.737.5764
BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713
info@battaenv.com
Battaenv.com

for DEP& L&I) prior to the start of any construction activities. The general contractor should also keep a copy of this survey at the construction site during the entire construction project as proof of compliance with 40 CFR 61 (NESHAP).

4.4 RECOMMENDATIONS FOR LEAD BASED PAINT

Lead-Based Paint (LBP) is defined by the City of Philadelphia – Department of Health as paint that contains lead in concentrations greater than 0.7 mg/cm^2. Lead-Based Paint (LBP) is defined by the Department of Housing and Urban Development (HUD) as paint that contains lead in concentrations greater than one milligram per square centimeter (1.0 mg/cm2) or 0.50% by weight. Lead in paint at any level is regulated under OSHA 29 CFR 1926.62 which applies to all construction work where an employee may be occupationally exposed to lead which includes the demolition or salvage of structures and torch cutting where lead or materials containing lead are present.

Lead Toxicity Characteristic Leaching Procedure (TCLP) samples need to be collected for outgoing demolition waste which contains known or suspected LBP to determine whether or not it is classified as Hazardous Waste under the Resource Conservation and Recovery Act (RCRA) Toxicity Characteristic (TC) Rule (40 CFR 261.24). Certain activities may trigger the necessity of Personal Protective Equipment (PPE) for the renovation/demolition workers based on their work methods as required by OSHA 29 CFR 1926.62.

Ph: 855.862.2882
Fx: 302.737.5764

BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713

info@battaenv.com
Battaenv.com

SECTION 5.0

SIGNATURE PAGE

Submitted by:

Alyssa M. Cartagena
Regional Project Manager

Reviewed by:

Neeraj Batta, PE
Vice President

Ph: 855.862.2882
Fx: 302.737.5764

BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713

info@battaenv.com
Battaenv.com

APPENDIX A
LABORATORY ANALYSIS REPORT – CERTIFICATES OF ANALYSIS

Ph: 855.862.2882
Fx: 302.737.5764

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6 Garfield Way
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info@battaenv.com
Battaenv.com

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batta LABORATORIES

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A Certified MBE Company

Delaware Industrial Park, 6 Garfield Way
Newark, DE19713-5817
Tel. (302)737-3376 Fax (302) 737-5764

Web: http://www.battaenv.com E-mail: battaenv@battaenv.com

EPA Lab ID #DE004

NVLAP Lab Code: 101032-D

Dept. Code: PLM

Rev. #: 0
Batch#: N/A
COC#: N/A

CERTIFICATE OF PLM ANALYSIS

Test Method: EPA/600/R-93/116 in conjunction with Batta SOP

Report Date: 04/22/24

Sampling Data

Date Sampled: 04/17/24
BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481663	01A	1st Floor	Floor Tile	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1481664	01B	2nd Floor	Floor Tile	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1481665	02A	1st Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481666	02B	2nd Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481667	03A	1st Floor	Floor Tile	No	Firm Homogeneous	Blue	100% Non-fibrous Material	No Asbestos Found

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Note 2 Unless otherwise specified, Tr=Trace and correlates to <0.25% (based on a 400-point EPA point count).

Note 3 Materials containing vermiculite are not good candidates for analysis using standard EPA 600 PLM protocol. Results may be low-biased due to inherent limitations caused by the material. The EPA recommends that vermiculite attic insulation (VAI) be prepped and analyzed using EPA 600/R-04/004, known as "The Cincinnati Method".

ANALYST: JJF

REVIEWED BY: _____
QA/QC Officer/Signatory

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Tel. (302)737-3376 Fax (302) 737-5764

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EPA Lab ID #DE004

NVLAP Lab Code: 101032-D

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Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481668	03B	2nd Floor	Floor Tile	No	Firm Homogeneous	Blue	100% Non-fibrous Material	No Asbestos Found
1481669	04A	1st Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481670	04B	2nd Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481671	05A	1st Floor	Baseboard	No	Firm Homogeneous	Black	100% Non-fibrous Material	No Asbestos Found
1481672	05B	1st Floor	Baseboard	No	Firm Homogeneous	Black	100% Non-fibrous Material	No Asbestos Found

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Note 2 Unless otherwise specified, Tr=Trace and correlates to <0.25% (based on a 400-point EPA point count).

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Delaware Industrial Park, 6 Garfield Way
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Tel. (302)737-3376 Fax (302) 737-5764

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Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481673	06A	1st Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481674	06B	1st Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481675	07A	Stairs	Stair Tread	No	Firm Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found
1481676	07B	Stairs	Stair Tread	No	Firm Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found
1481677	08A	Stairs	Mastic	No	Soft Homogeneous	Brown	98% Non-fibrous Material	2% Chrysotile Total Asbestos = 2%

Note 1 *Due to limitations of the EPA PLM method, floor tiles may yield false negative (<1%) results by this method. As such, the EPA recommends further analysis by electron microscopy. Batta recommends the NY 198.4 over the Chatfield method.*

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A Certified MBE Company

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Newark, DE19713-5817
Tel. (302)737-3376 Fax (302) 737-5764

Web: http://www.battaenv.com E-mail: battaenv@battaenv.com

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BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID			Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#		Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481678	08B	**	Stairs	Mastic	n/a				Sample Not Analyzed (positive stop rules)
1481679	09A		2nd Floor water heater rm	Transite	No	Firm Homogeneous	Gray	85% Non-fibrous Material	15% Chrysotile Total Asbestos = 15%
1481680	09B	**	2nd Floor water heater rm	Transite	n/a				Sample Not Analyzed (positive stop rules)
1481681	10A		Boxing gym bldg-Hall outside office	Floor Tile	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1481682	10B		Boxing gym bldg-Outside men's rm	Floor Tile	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found

Note 1 *Due to limitations of the EPA PLM method, floor tiles may yield false negative (<1%) results by this method. As such, the EPA recommends further analysis by electron microscopy. Batta recommends the NY 198.4 over the Chatfield method.*

Note 2 Unless otherwise specified, Tr=Trace and correlates to <0.25% (based on a 400-point EPA point count).

Note 3 Materials containing vermiculite are not good candidates for analysis using standard EPA 600 PLM protocol. Results may be low-biased due to inherent limitations caused by the material. The EPA recommends that vermiculite attic insulation (VAI) be prepped and analyzed using EPA 600/R-04/004, known as "The Cincinnati Method".

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** This sample was not analyzed for reasons noted in the far right column. Batta Labs, LLC will not charge clients for samples not analyzed. Please contact Batta if charged in error.

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A Certified MBE Company

Delaware Industrial Park, 6 Garfield Way
Newark, DE19713-5817
Tel. (302)737-3376 Fax (302) 737-5764

Web: http://www.battaenv.com E-mail: battaenv@battaenv.com

EPA Lab ID #DE004

NVLAP Lab Code: 101032-D

Dept. Code: PLM

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CERTIFICATE OF PLM ANALYSIS

Test Method: EPA/600/R-93/116 in conjunction with Batta SOP

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Date Sampled: 04/17/24
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Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481683	11A	Boxing gym bldg-Hall outside office	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481684	11B	Boxing gym bldg-Outside men's rm	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481685	12A	Boxing gym bldg-Hall outside office	Mastic	No	Soft Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found
1481686	12B	Boxing gym bldg-Outside men's rm	Mastic	No	Soft Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found
1481687	13A	Boxing gym bldg-main area	Mastic	No	Soft Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found

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Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481688	13B	Boxing gym bldg-main area	Mastic	No	Soft Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found
1481689	14A	Boxing gym bldg-basement	Flue Packing	No	Firm Homogeneous	Various	100% Non-fibrous Material	No Asbestos Found
1481690	14B	Boxing gym bldg-basement	Flue Packing	No	Firm Homogeneous	Various	100% Non-fibrous Material	No Asbestos Found
1481691	15A	Boxing gym bldg-basketball entrance	Window Glaze	Yes	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found
1481692	16A	Boxing gym bldg-basketball entrance	Window Glaze	Yes	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found

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Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1482175	16A LAYER	Boxing gym bldg-Main boxing gym	Plaster skim	No	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found
1481693	16B	Boxing gym bldg-Main boxing gym	Plaster base	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1482176	16B LAYER	Boxing gym bldg-Main boxing gym	Plaster skim	No	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found
1481694	16C	Boxing gym bldg-Main boxing gym	Plaster base	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1482172	16C LAYER	Boxing gym bldg-Main boxing gym	Plaster skim	No	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found

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Note 3 Materials containing vermiculite are not good candidates for analysis using standard EPA 600 PLM protocol. Results may be low-biased due to inherent limitations caused by the material. The EPA recommends that vermiculite attic insulation (VAI) be prepped and analyzed using EPA 600/R-04/004, known as "The Cincinnati Method".

ANALYST: JJF

REVIEWED BY: _____
QA/QC Officer/Signatory

Dedicated to a Cleaner Environment Since 1982

NY ELAP LAB# 11993 for PCM, PLM, TEM & Lead

batta LABORATORIES

BATTA LABORATORIES, LLC

A Certified MBE Company

Delaware Industrial Park, 6 Garfield Way
Newark, DE19713-5817
Tel. (302)737-3376 Fax (302) 737-5764

Web: http://www.battaenv.com E-mail: battaenv@battaenv.com

EPA Lab ID #DE004

NVLAP Lab Code: 101032-D

Dept. Code: PLM

Rev. #: 0
Batch#: N/A
COC#: N/A

CERTIFICATE OF PLM ANALYSIS

Test Method: EPA/600/R-93/116 in conjunction with Batta SOP

Report Date: 04/22/24

Sampling Data

Date Sampled: 04/17/24
BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481695	16D	Boxing gym bldg-Main boxing gym	Plaster base	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1482173	16D LAYER	Boxing gym bldg-Main boxing gym	Plaster skim	No	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found
1481696	16E	Boxing gym bldg-Main boxing gym	Plaster base	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1482174	16E LAYER	Boxing gym bldg-Main boxing gym	Plaster skim	No	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found

Note 1 *Due to limitations of the EPA PLM method, floor tiles may yield false negative (<1%) results by this method. As such, the EPA recommends further analysis by electron microscopy. Batta recommends the NY 198.4 over the Chatfield method.*

Note 2 Unless otherwise specified, Tr=Trace and correlates to <0.25% (based on a 400-point EPA point count).

Note 3 Materials containing vermiculite are not good candidates for analysis using standard EPA 600 PLM protocol. Results may be low-biased due to inherent limitations caused by the material. The EPA recommends that vermiculite attic insulation (VAI) be prepped and analyzed using EPA 600/R-04/004, known as "The Cincinnati Method".

ANALYST: JJF

REVIEWED BY: _____
QA/QC Officer/Signatory

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*This report does not constitute endorsement by NVLAP and/or any other US government agencies. PLM analyses do not fall under the purview of AIHA LAP.

*The test data pertain only to the items tested. No assumptions or conclusions should be made to materials or samples not analyzed. Furthermore, Batta Laboratories, LLC assumes no responsibility for the accuracy of results influenced by the use of improper collection techniques or equipment.

*Organically-bound, nonfriable material may interfere with the accurate and reproducible quantification of asbestos. In these cases, the EPA recommends further analysis by a matrix-reduction method. Batta recommends the NY ELAP Item 198.6/198.4 over the Chatfield method. When point count techniques are utilized on organically-bound, nonfriable materials without the EPA-recommended matrix reduction steps, Batta Laboratories assumes no responsibility regarding the accuracy or precision associated with these results. In these cases, Batta employs a modified version of the EPA point count method.

*WRTA refers to a group of fibrous Amphiboles typically associated with 'Libby Amphibole'. Within this classification are: winchite, richterite, tremolite, and actinolite.

BLI#: L363524

NOTE TO ANALYST – Positive Stop Unless Otherwise Noted on this COC

BATTA ENVIRONMENTAL ASSOCIATES, INC.
Delaware Industrial Park
6 Garfield Way
Newark, DE 19713-5817
Ph (302) 737-3376
Fx (302) 737-5764
www.battaenv.com

BULK SAMPLE DATA SHEET

PLM ☑EPA ☐POINT COUNT ☐NOB TEM ☐YES/NO ☐NOB ☐EPA

Date/Time Results Required: 4/22/24 5:12pm HRS
Date/Time Cert of Analysis Req: 4/22/24 5pm HRS
Results to: ☑Inspector ☐Manager: AC, SW, NB
Client: Phone: Fax:
E-mail:

Project Name: Happy Hollow Rec Center BEA# 1093723Y
Site Inspected / Address: 4800 Wayne Avenue, Phila, PA
Inspector(s): Steve Woronicak, Alyssa Cartagena 054187
B.I. #:
Date Inspected 4/17/24

SAMPLE NUMBER FIELD	SAMPLE NUMBER LAB 1481	MATERIAL SAMPLED Note 2 (gym)	AHERA CLASS	Note1 CONDITION G / Dam / S g.Dam		ALL LOCATIONS, Name & Circle Sample Locations (E.1, E.2 ,0.1, 1.1, 1.3, 2.2, ...)	MATERIAL QUANTITY	Note 3 SAMPLE COMPOSITION	SAMPLE COLOR	RESULTS %	RESULTS TYPE
MONTH - DAY -											
1 (A) B, C	6663 6664	12x12 floor tile	m	G	N F	A-1st floor B-2nd floor	800 sf	Homo	grey	NAD	–
2 (A) B, C	6665 6666	mastic alw 12x12 grey	m	G	N F	A-1st floor B-2nd floor	800 sf		—		–
3 (A) B, C	6667 6668	12x12 floor tile (bottom)	m	G	N F		800 sf		blue		–
4 (A) B, C	6669 6670	mastic alw blue 12x12	m	G	N F		800 sf		—		–
5 (A) B, C	671 672	Baseboard	m	G	N F	A+B - 1st floor	350 lf		black		–
6 (A) B, C	673 674	Baseboard mastic	m	D	N F	A+B - 1st floor	350 lf		yellow		–
7 (A) B, C	675 676	Stair Tread material	m	G	N F	A+B - Stairs	45 sf		tan	NAD	–
8 (A) B, C	677 678	Stair Tread mastic	m	G	N F	A+B - Stairs	45 sf		yellow	2	Chry
9 (A) B, C	679 680	Transite Panel	m	G	N F	A+B - 2nd fl water heater room	30 sf		grey	15	Chry
A, B, C		Boxing Gym Building			NF						
10 (A) B, C	681 682	12x12 floor tile	m	G	N F	A-Hall outside office B-outside men's room		Homo	grey	NAD	–
11 (A) B, C	683 684	mastic alw grey 12x12	m	G	N F				yellow		–
12 (A) B, C	685 686	Baseboard mastic	m	G	N F				yellow		–
13 (A) B, C	687 688	Rubber floor mastic	m	G	N F	A+B - main area			yellow		–
14 (A) B, C	689 690	Pipe Packing	T	G	N F	Basement			multi	NAD	–

Notes 1 AHERA Classification: T=Thermal Insulation, S=Surfacing M=Miscellaneous 2 Material Sampled: Pipe Covering Boiler Breeching Ceiling Tile Floor Tiles, Sheet Flooring, etc. 3 Sample Composition: Homogeneous, Mixed, Layered

Relinquished By: Date: / / Time: Received By: Date: / Time:
Delivered By: Date: / / Time: Received By: Date: / Time:
Delivered By: Date: / / Time: Received By: Date: / Time:
Delivered By: Date: / / Time: Received By: Date: / Time:

BLI#: L3e3524

NOTE TO ANALYST – Positive Stop Unless Otherwise Noted on this COC

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BULK SAMPLE DATA SHEET

PLM ☑EPA ☐POINT COUNT ☐NOB TEM ☐YES/NO ☐NOB ☐EPA

Date/Time Results Required: 4/22/24 5pm HRS
Date/Time Cert of Analysis Req: 4/22/24 <4pm HRS
Results to: ☑Inspector ☐Manager: AC, SW, NB
☐Client: ☐Phone: ☐Fax:
☐E-mail:

Project Name: Happy Hollow Rec BEA# 1093723K
Site Inspected / Address: 4500 Wayne Ave, Phila, PA
Inspector(s): Steve Wronicar Alyssa Cartagena 054187
B.I. #:
Date Inspected 4/17/24

SAMPLE NUMBER FIELD	SAMPLE NUMBER LAB	MATERIAL SAMPLED Note 2	AHERA CLASS	Note1 CONDITION G / Dam / Sig.Dam		ALL LOCATIONS, Name & Circle Sample Locations (E.1, E.2 ,0.1, 1.1, 1.3, 2.2, ...)	MATERIAL QUANTITY	Note 3 SAMPLE COMPOSITION	SAMPLE COLOR	RESULTS %	RESULTS TYPE
0417 – 15 A, B, C	691	Window Glazing	M	D	N F	Basketball gym exterior	1EA	Homo	White	NAD	–
16 A, B, C	692-693-694 695-696	Smooth Plaster Walls	S	G	N F	Main Boxing gym	2000SF	Layered	multi	NAD	–
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						

Notes: 1 AHERA Classification: T=Thermal Insulation, S=Surfacing, M=Miscellaneous 2 Material Sampled: Pipe Covering, Boiler Breeching, Ceiling Tile, Floor Tiles, Sheet Flooring, etc. 3 Sample Composition: Homogeneous, Mixed, Layered

Relinquished By: Date: / / Time: Received By: Date: / / Time:
Delivered By: Date: / / Time: Received By: Date: / / Time:
Delivered By: Date: / / Time: Received By: Date: / / Time:
Delivered By: Date: / / Time: Received By: Date: / / Time:

DATE STAMP HERE

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☐ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Birefringence[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic.	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	d yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Asbestos #1 Optical Properties	Asbestos #2 Optical Properties	Asbestos #3 Optical Properties	% Asbestos Type (12) Method of Quant.	%	% Fibrous Non-Asbestos Type (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481663	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample # 01A	Friability[4] / F or N / Sample Color[3] / Texture[5]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan; Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481664	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample # 01B	Friability[4] / F or N / Sample Color[3] / Texture[5]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan; Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481665	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample # 02A	Friability[4] / F or N / Sample Color[3] / Texture[5]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan; Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481666	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample # 02B	Friability[4] / F or N / Sample Color[3] / Texture[5]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan; Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Birefringence[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	d yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6]	nD ∥	Asbestos #2 Optical Properties: Morph[6]	nD ∥	Asbestos #3 Optical Properties: Morph[6]	nD ∥	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481667	8	1							1 2 3 4 5 6 7 8 9		PC			
			Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	VAE		VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	1 2 3 4 5 6 7 8		PC			* scan
		8							VAE		VAE			
03A	F or N	Texture[5]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	1 2 3 4 5 6 7 8		PC			Asbestos Stereo VAE %
		4							VAE		VAE			
											Nonfibrous Types[15] 6		Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6]	nD ∥	Type #2 Optical Properties: Morph[6]	nD ∥	Type #3 Optical Properties: Morph[6]	nD ∥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481668	8	1							1 2 3 4 5 6 7 8 9		PC			
			Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	VAE		VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	1 2 3 4 5 6 7 8		PC			* scan
		8							VAE		VAE			
03B	F or N	Texture[5]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	1 2 3 4 5 6 7 8		PC			Asbestos Stereo VAE %
		4							VAE		VAE			
											Nonfibrous Types[15] 6		Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6]	nD ∥	Type #2 Optical Properties: Morph[6]	nD ∥	Type #3 Optical Properties: Morph[6]	nD ∥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481669	9	1							1 2 3 4 5 6 7 8 9		PC			
			Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	VAE		VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	1 2 3 4 5 6 7 8		PC			* scan
		4							VAE		VAE			
04A	F or N	Texture[5]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	1 2 3 4 5 6 7 8		PC			Asbestos Stereo VAE %
		3							VAE		VAE			
											Nonfibrous Types[15] 6		Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6]	nD ∥	Type #2 Optical Properties: Morph[6]	nD ∥	Type #3 Optical Properties: Morph[6]	nD ∥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481670	9	1							1 2 3 4 5 6 7 8 9		PC			
			Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	VAE		VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	1 2 3 4 5 6 7 8		PC			* scan
		4							VAE		VAE			
04B	F or N	Texture[5]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	1 2 3 4 5 6 7 8		PC			Asbestos Stereo VAE %
		3							VAE		VAE			
											Nonfibrous Types[15] 6		Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☐ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Bire[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_2$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Asbestos #2 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Asbestos #3 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481671	Baseboard	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
05A	F or N	Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4						Nonfibrous Types[15]	6	Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #2 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #3 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481672	Baseboard	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
05B	F or N	Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4						Nonfibrous Types[15]	6	Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #2 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #3 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481673	9	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
06A	F or N	Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		5						Nonfibrous Types[15]	6	Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #2 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #3 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481674	9	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
06B	F or N	Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		5						Nonfibrous Types[15]	6	Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/14/24 Analyst: TC

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Bire[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic.	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6] / nD II	Asbestos #2 Optical Properties: Morph[6] / nD II	Asbestos #3 Optical Properties: Morph[6] / nD II	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481675	Stair Tread	1	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
07A	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4						Nonfibrous Types[15] 6	Percentage 100		0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II	Type #2 Optical Properties: Morph[6] / nD II	Type #3 Optical Properties: Morph[6] / nD II	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481676	Stair Tread	1	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
07B	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4						Nonfibrous Types[15] 6	Percentage 100		0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II	Type #2 Optical Properties: Morph[6] / nD II	Type #3 Optical Properties: Morph[6] / nD II	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481677	9	1	Fiber Color[7] / nD ⊥ 1.552	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	1 2 3 4 5 6 7 8 / VAE	2	PC / VAE			
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
08A	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		5	1 1					Nonfibrous Types[15] 6	Percentage 98		0

Asbestos-Containing ☑ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II	Type #2 Optical Properties: Morph[6] / nD II	Type #3 Optical Properties: Morph[6] / nD II	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481678			Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Poc stop
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
08B	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
								Nonfibrous Types[15]	Percentage		

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]		Visual Gross[2]	Sample Color[3]			Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Birefringence[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):			1 black	7 brown	13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation	6 ceiling tile	1 Homogenous	2 tan	8 blue	14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock	7 linoleum		3 gold	9 white	15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material	8 floor tile	2 Heterogeneous	4 yellow	10 red		Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil	9 mastic/adhesive		5 silver	11 green			5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon (flips)	5 Vermiculite
5 joint compound	10 plaster	3 Layered	6 gray	12 pink			6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Sample Descriptions: Client-Supplied Data	Sample Descriptions: Macroscopic	Asbestos #1: Optical Properties	Asbestos #2: Optical Properties	Asbestos #3: Optical Properties	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481679	Sample Type[1]: Transite	Visual Gross[2]: 1	Morph[6]: 1 / Fiber Color[7]: 1	Morph[6]: 1 / Fiber Color[7]: 1	Morph[6]: / Fiber Color[7]:	1 2 3 4 5 6 7 8 / VAE	15	PC / VAE			* scan
09A	Friability[4]: F or N	Sample Color[3]: 4 / Texture[5]: 4	Pleochroism[8]: 1 / Biref.[9]: 1	Extinction[10]: 1 / Elongation[11]: 1	Pleochroism[8]: / Biref.[9]:	Extinction[10]: / Elongation[11]:		1 2 3 4 5 6 7 8 / VAE		PC / VAE	Asbestos Stereo VAE %
								Nonfibrous Types[15]: 6		Percentage: 85	8

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Sample Descriptions: Client-Supplied Data	Sample Descriptions: Macroscopic	Type #1: Optical Properties	Type #2: Optical Properties	Type #3: Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481680	Sample Type[1]	Visual Gross[2]	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Pac Stop * scan
09B	Friability[4]: F or N	Sample Color[3] / Texture[5]	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE	Asbestos Stereo VAE %
								Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data	Sample Descriptions: Macroscopic	Type #1: Optical Properties	Type #2: Optical Properties	Type #3: Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481681	Sample Type[1]: 8	Visual Gross[2]: 1	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	1 2 3 4 5 6 7 8 / VAE	5	PC / VAE			* scan
10A	Friability[4]: F or N	Sample Color[3]: 4 / Texture[5]: 4	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE	Asbestos Stereo VAE %
								Nonfibrous Types[15]: 6		Percentage: 100	5

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data	Sample Descriptions: Macroscopic	Type #1: Optical Properties	Type #2: Optical Properties	Type #3: Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481682	Sample Type[1]: 8	Visual Gross[2]: 1	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
10B	Friability[4]: F or N	Sample Color[3]: 4 / Texture[5]: 4	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE	Asbestos Stereo VAE %
								Nonfibrous Types[15]: 6		Percentage: 100	0

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Bire 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___		3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	or	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_2$
4 soil 9 mastic/adhesive		5 silver 11 green	Nonfriable	5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other___	other___	6 other___

Lab Sample #	Client-Supplied Data: Sample Type[1]	Client-Supplied Data: Field Sample #	Macroscopic: Visual Gross[2]	Macroscopic: Friability[4]	Macroscopic: Sample Color[3]	Macroscopic: Texture[5]	Asbestos #1 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Asbestos #2 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Asbestos #3 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481683	9		1		4	3																													* scan
11A				F or N																											1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
																																		Nonfibrous Types[15] 6	Percentage 100		

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Client-Supplied Data: Field Sample #	Macroscopic: Visual Gross[2]	Macroscopic: Friability[4]	Macroscopic: Sample Color[3]	Macroscopic: Texture[5]	Type #1 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #2 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #3 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481684	9		1		4	3																													* scan
11B				F or N																											1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
																																		Nonfibrous Types[15] 6	Percentage 100		

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Client-Supplied Data: Field Sample #	Macroscopic: Visual Gross[2]	Macroscopic: Friability[4]	Macroscopic: Sample Color[3]	Macroscopic: Texture[5]	Type #1 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #2 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #3 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481685	9		1		2	3																													* scan
12A				F or N																											1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
																																		Nonfibrous Types[15] 6	Percentage 100		

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Client-Supplied Data: Field Sample #	Macroscopic: Visual Gross[2]	Macroscopic: Friability[4]	Macroscopic: Sample Color[3]	Macroscopic: Texture[5]	Type #1 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #2 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #3 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481686	9		1		2	3																													* scan
12B				F or N																											1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
																																		Nonfibrous Types[15] 6	Percentage 100		

Asbestos-Containing ☐ **Non-Asbestos Containing** ☐ **Analytical Method:** Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/14/24 Analyst:

Analytical Methods:
1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

* If using scan option for ELAP, circle scan in notes block.

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☐ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Bire 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	d yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(fibs)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other___	other___	6 other___

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Asbestos #2 Optical Properties	Asbestos #3 Optical Properties	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481687	9	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			
13A	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		3 / 5						Nonfibrous Types[15]: 6		Percentage: 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481688	9	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			
13B	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		3 / 5						Nonfibrous Types[15]: 6		Percentage: 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481689	Five	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			
14A	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4 / 5						Nonfibrous Types[15]: 6		Percentage: 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481690	Five	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			
14B	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4 / 5						Nonfibrous Types[15]: 6		Percentage: 100	0

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/14/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Birefringence[9]	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			1-lo 3-hi	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	2 medium	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other	or	3 fibrous	3 splayed ends	2 tan		Extinction[10]	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		1 parallel	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	if yes, give color	2 oblique	5 tremolite	5 wollastonite	5 mult. elon (flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other		Elongation[11]	6 actinolite	other	other	6 other
								+ or -				

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Asbestos #1: Sample Color[3] / Pleochroism[8] / Extinction[10]	Asbestos #1: Friability[4] / Texture[5] / Biref.[9] / Elongation[11]	Asbestos #2 Optical Properties	Asbestos #3 Optical Properties	% Asbestos Type (12): Method of Quant. / %	% Fibrous Non-Asbestos Type (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
1481691	Glaze	1		9	F or N: N; 4			1234 5678 / VAE	PC / VAE		* scan; Asbestos Stereo VAE %
15A									Nonfibrous Types[15]: 6; Percentage: 100		

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #1: Sample Color[3] / Pleochroism[8] / Extinction[10]	Type #1: Friability[4] / Texture[5] / Biref.[9] / Elongation[11]	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
1481692	To Stain	1		9	F or N: N; 4			1234 5678 / VAE	PC / VAE		layer; * scan; Asbestos Stereo VAE %
16A									Nonfibrous Types[15]: 6; Percentage: 100		

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #1: Sample Color[3] / Pleochroism[8] / Extinction[10]	Type #1: Friability[4] / Texture[5] / Biref.[9] / Elongation[11]	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
1481693	To Stain	1		9	F or N: N; 4			1234 5678 / VAE	PC / VAE		layer; * scan; Asbestos Stereo VAE %
16B									Nonfibrous Types[15]: 6; Percentage: 100		

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #1: Sample Color[3] / Pleochroism[8] / Extinction[10]	Type #1: Friability[4] / Texture[5] / Biref.[9] / Elongation[11]	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
1481694	To Stain	1		9	F or N: N; 4			1234 5678 / VAE	PC / VAE		layer; * scan; Asbestos Stereo VAE %
16C									Nonfibrous Types[15]: 6; Percentage: 100		0

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Bire[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Asbestos #1 Optical Properties	Asbestos #2 Optical Properties	Asbestos #3 Optical Properties	% Asbestos Type (12) Method of Quant.	%	% Fibrous Non-Asbestos Type (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481695	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Layer
Field Sample #	Friability[4] / Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
16D	F or N / Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Mandatory

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481696	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Layer
Field Sample #	Friability[4] / Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
16E	F or N / Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1482 175	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4] / Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
16A	F or N / Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
176	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4] / Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
16B	F or N / Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ **Non-Asbestos Containing** ☐ **Analytical Method:** Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods:
1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

* If using scan option for ELAP, circle scan in notes block.

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☐ Olympus 222204 (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

Page of

BLI Project # Name of Client/Project:

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Birefringence[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other___	other___	6 other___

Lab Sample #	Sample Descriptions: Client-Supplied Data: Sample Type[1]	Sample Descriptions: Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6] / ∥D ⊥	Asbestos #2 Optical Properties: Morph[6] / ∥D ⊥	Asbestos #3 Optical Properties: Morph[6] / ∥D ⊥	% Asbestos Type (12): Method of Quant. / %	% Fibrous Non-Asbestos Type (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
1482 172	10B4c		Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	1234 5678 / VAE	PC / VAE		
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1234 5678 / VAE	PC / VAE		scan *
16C	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1234 5678 / VAE	PC / VAE		Asbestos Stereo VAE %
							Nonfibrous Types[15]	Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data: Sample Type[1]	Sample Descriptions: Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / ∥D ⊥	Type #2 Optical Properties: Morph[6] / ∥D ⊥	Type #3 Optical Properties: Morph[6] / ∥D ⊥	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
173	10B4c		Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	1234 5678 / VAE	PC / VAE		
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1234 5678 / VAE	PC / VAE		scan *
16D	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1234 5678 / VAE	PC / VAE		Asbestos Stereo VAE %
							Nonfibrous Types[15]	Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data: Sample Type[1]	Sample Descriptions: Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / ∥D ⊥	Type #2 Optical Properties: Morph[6] / ∥D ⊥	Type #3 Optical Properties: Morph[6] / ∥D ⊥	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
174	10B4c		Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	1234 5678 / VAE	PC / VAE		
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1234 5678 / VAE	PC / VAE		scan *
16E	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1234 5678 / VAE	PC / VAE		Asbestos Stereo VAE %
							Nonfibrous Types[15]	Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data: Sample Type[1]	Sample Descriptions: Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / ∥D ⊥	Type #2 Optical Properties: Morph[6] / ∥D ⊥	Type #3 Optical Properties: Morph[6] / ∥D ⊥	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
			Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	1234 5678 / VAE	PC / VAE		
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1234 5678 / VAE	PC / VAE		scan *
	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1234 5678 / VAE	PC / VAE		Asbestos Stereo VAE %
							Nonfibrous Types[15]	Percentage	

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/14/24 Analyst:

Analytical Methods: • If using scan option for ELAP, circle scan in notes block

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAP's definition.

Analysts' Notes

BLI Project # L363524 Client/BEA Project # 1093723K-HAPPY HOLLOW REC. CENTER

Sample Number	Comments

Date: 4/19/24 Analyst:

The handwritten notes on this page are based on the professional judgment of the analyst and are for informational purposes only. Due to this, they should not be considered analytical data.

APPENDIX B
COMPANY AND INDIVIDUAL LICENSES & CERTIFICATIONS

Ph: 855.862.2882
Fx: 302.737.5764

BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713

info@battaenv.com
Battaenv.com

EHS TRAINING INSTITUTE, INC.
A Division of BATTA, Inc.

Certificate of Completion

AHERA Building Inspector
(Refresher)

Awarded To:

Alyssa Cartagena

SS#:XXX-XX-9856
Who has completed this 4-hour course and examination,
EPA Approved under TSCA Title II
AHERA / ASHARA Rule
40 CFR Part 763.

EHS TRAINING INSTITUTE, INC.
A Division of BATTA, Inc.
Delaware Industrial Park • 6 Garfield Way
Newark, DE 19713-5817
(302) 737-3376 • Fax (302) 737-5764

Course Date: **February 1, 2024**
Date of Expiration: **February 1, 2025**
Certification Number : **EHSBIR 240201-00004**

Todd K. Zeisloft, Instructor

Neeraj K. Batta, President

EHS TRAINING INSTITUTE, INC.

A Division of BATTA, Inc.

Certificate of Completion

AHERA Building Inspector

(Refresher)

Awarded To:

Steve Woronicak

SS#:XXX-XX-8821

Who has completed this 4-hour course and examination,
EPA Approved under TSCA Title II
AHERA / ASHARA Rule
40 CFR Part 763.

EHS TRAINING INSTITUTE, INC.

A Division of BATTA, Inc.

Delaware Industrial Park • 6 Garfield Way
Newark, DE 19713-5817
(302) 737-3376 • Fax (302) 737-5764

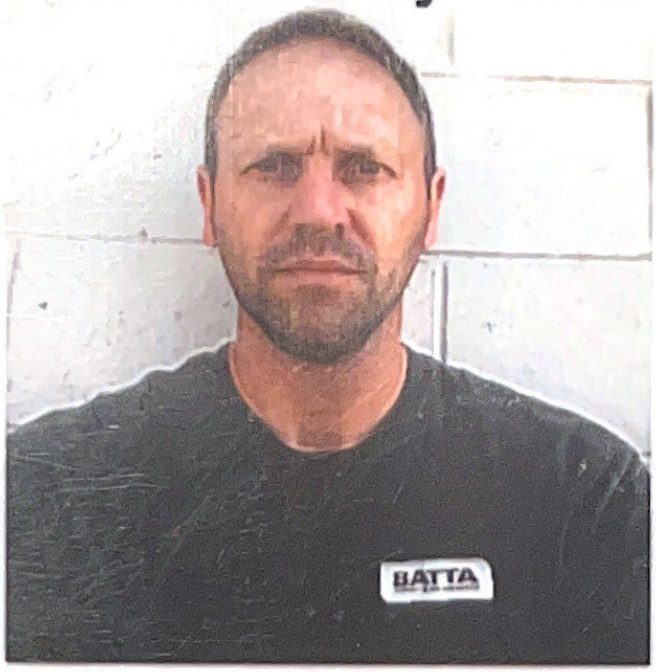
Course Date: **September 21, 2023**
Date of Expiration: **September 21, 2024**
Certification Number : **EHSBIR 230921-00013**

Todd K. Zeisloft, Instructor

Neeraj K. Batta, President

Asbestos Investigator

Certified by AMS



Steve Woronicak

Certificate #: AIC22-000026
Issue Date: 08/09/2022
Expiration: 03/31/2023

City of Philadelphia
Dept. of Public Health
Air Management
Services

ASBESTOS LABORATORY LICENSE
CITY OF PHILADELPHIA
Department of Public Health
Air Management Services

Batta Laboratories, Inc
6 Garfield Way
Newark, DE 19713-5817

Certification #: ALL-112
Issue Date: 04/11/2023
Expiration Date: 04/30/2024

DISPLAY PROMINENTLY

APPENDIX C
CITY OF PHILADELPHIA ASBESTOS INSPECTION REPORT

Ph: 855.862.2882
Fx: 302.737.5764

BATTA Environmental Associates, Inc
6 Garfield Way
Newark, DE. 19713

info@battaenv.com
Battaenv.com

City of Philadelphia - Department of Public Health
Air Management Services, 2nd Fl. Asbestos Control Unit
321 University Ave. Philadelphia, PA 19104

Asbestos Inspection Report

Office Use Only

Date Received L&I:	Date Received AMS:
Date Inspected	Inspector No.

1. Name of Building / Property: HAPPY HOLLOW RECREATION CENTER
Address: 4800 WAYNE AVENUE

2. Name of Building / Property Owner: DEPT OF PUBLIC PROPERTY
Address: 702 CITY HALL
Phone No.: 215.686.1776

3. Name of Philadelphia Certified Investigator: AMBER FRECHETTE
Certification No.: 22-000027
Contact Information / Email / Phone No.: 302.737.3376

L&I Commercial Activity No. (Former Business Privilege License No.): 3702058392/423867
Business Tax ID No.: 5703079

4. Name of Philadelphia Licensed Laboratory: BATTA LABS
License No.: 112
Phone No.: 302.737.3376

5. Scope of Work: (Insert or attach a complete description of the portion of the subject property inspected and the anticipated work that will result in the disturbance of the identified Asbestos Containing Materials (ACMs) (e.g. demolition, asbestos abatement, and / or renovation activities.)

PLANNED RENOVATIONS

6. ☐ Property has been declared to be in imminent danger (ID) of failure or collapse by the City of Philadelphia Department of Licenses & Inspections. Attached is a copy of the L&I Notice of Violation declaring the property I.D. **Note: INVESTIGATOR MUST BE ON SITE DURING DEMOLITION!

7. (ACMs) identified? ☑ Yes (List Below) ☐ No (explain)

8. Suspected ACM's sampled? ☑ Yes (attached are copies of the laboratory chain of custody and bulk sample results.) ☐ No (Why?)

9. List all identified ACM's located in the planned renovation/demolition areas. Damaged ACM must be listed and then repaired or removed prior to renovation. You (Investigator) must label all ACM that may be left in the work area. (Attached are add'tl sheets)

Location	Description	Type (Code 1)	Amount Square	Amount Linear	Condition (Code 2)	Action (Code 3)
GYM - STAIRWELL	STAIR TREAD MASTIC	NF1	45	X	ND	REM
GYM - 2ND FL WATER HEATER ROOM	TRANSITE	NF2	30	X	ND	REM

Code 1
FRI - Friable
NF1 - Non-Friable, Cat. 1
NF2 - Non-Friable, Cat. 2

Code 2
DD - Deteriorated or Delaminated
ND - Non-Damaged

Code 3
REM - Removal necessary prior to Demo/Reno
NRN - No removal necessary, label ACM
REP - Repair & Label ACM, removal not necessary

10. I hereby certify that the foregoing statements are true and the information contained in this report is true. This certification is made subject to the penalties set forth in 18 PA. C.S. S4904 relating to unsworn falsification to authorities. Furthermore I certify that the inspection, sampling, and labeling requirements of section X of the Asbestos Control Regulation (ACR) have been met. The building owner has been notified of the ACR requirements and given a copy of this report. If the inspection has revealed ACM which will be disturbed by the proposed work or if it has revealed ACM in bad condition, the building owner has been notified to remove or repair the ACM in accordance with the ACR prior to renovation or demolition activity.

11. Signature of Certified Asbestos Investigator:	Date:	Signature of Building Owner:	Date:
Amber Frechette	5/3/2024		

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NY ELAP LAB# 11993 for PCM, PLM, TEM & Lead

batta LABORATORIES

BATTA LABORATORIES, LLC

A Certified MBE Company

Delaware Industrial Park, 6 Garfield Way
Newark, DE19713-5817
Tel. (302)737-3376 Fax (302) 737-5764

Web: http://www.battaenv.com E-mail: battaenv@battaenv.com

EPA Lab ID #DE004

NVLAP Lab Code: 101032-D

Dept. Code: PLM

Rev. #: 0
Batch#: N/A
COC#: N/A

CERTIFICATE OF PLM ANALYSIS

Test Method: EPA/600/R-93/116 in conjunction with Batta SOP

Report Date: 04/22/24

Sampling Data

Date Sampled: 04/17/24
BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481663	01A	1st Floor	Floor Tile	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1481664	01B	2nd Floor	Floor Tile	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1481665	02A	1st Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481666	02B	2nd Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481667	03A	1st Floor	Floor Tile	No	Firm Homogeneous	Blue	100% Non-fibrous Material	No Asbestos Found

Note 1 *Due to limitations of the EPA PLM method, floor tiles may yield false negative (<1%) results by this method. As such, the EPA recommends further analysis by electron microscopy. Batta recommends the NY 198.4 over the Chatfield method.*

Note 2 Unless otherwise specified, Tr=Trace and correlates to <0.25% (based on a 400-point EPA point count).

Note 3 Materials containing vermiculite are not good candidates for analysis using standard EPA 600 PLM protocol. Results may be low-biased due to inherent limitations caused by the material. The EPA recommends that vermiculite attic insulation (VAI) be prepped and analyzed using EPA 600/R-04/004, known as "The Cincinnati Method".

ANALYST: JJF

REVIEWED BY: _____
QA/QC Officer/Signatory

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*This report does not constitute endorsement by NVLAP and/or any other US government agencies. PLM analyses do not fall under the purview of AIHA LAP.

*The test data pertain only to the items tested. No assumptions or conclusions should be made to materials or samples not analyzed. Furthermore, Batta Laboratories, LLC assumes no responsibility for the accuracy of results influenced by the use of improper collection techniques or equipment.

*Organically-bound, nonfriable material may interfere with the accurate and reproducible quantification of asbestos. In these cases, the EPA recommends further analysis by a matrix-reduction method. Batta recommends the NY ELAP Item 198.6/198.4 over the Chatfield method. When point count techniques are utilized on organically-bound, nonfriable materials without the EPA-recommended matrix reduction steps, Batta Laboratories assumes no responsibility regarding the accuracy or precision associated with these results. In these cases, Batta employs a modified version of the EPA point count method.

*WRTA refers to a group of fibrous Amphiboles typically associated with 'Libby Amphibole'. Within this classification are: winchite, richterite, tremolite, and actinolite.

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Delaware Industrial Park, 6 Garfield Way
Newark, DE19713-5817
Tel. (302)737-3376 Fax (302) 737-5764

Web: http://www.battaenv.com E-mail: battaenv@battaenv.com

EPA Lab ID #DE004

NVLAP Lab Code: 101032-D

Dept. Code: PLM

Rev. #: 0
Batch#: N/A
COC#: N/A

CERTIFICATE OF PLM ANALYSIS

Test Method: EPA/600/R-93/116 in conjunction with Batta SOP

Report Date: 04/22/24

Sampling Data

Date Sampled: 04/17/24
BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481668	03B	2nd Floor	Floor Tile	No	Firm Homogeneous	Blue	100% Non-fibrous Material	No Asbestos Found
1481669	04A	1st Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481670	04B	2nd Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481671	05A	1st Floor	Baseboard	No	Firm Homogeneous	Black	100% Non-fibrous Material	No Asbestos Found
1481672	05B	1st Floor	Baseboard	No	Firm Homogeneous	Black	100% Non-fibrous Material	No Asbestos Found

Note 1 *Due to limitations of the EPA PLM method, floor tiles may yield false negative (<1%) results by this method. As such, the EPA recommends further analysis by electron microscopy. Batta recommends the NY 198.4 over the Chatfield method.*

Note 2 Unless otherwise specified, Tr=Trace and correlates to <0.25% (based on a 400-point EPA point count).

Note 3 Materials containing vermiculite are not good candidates for analysis using standard EPA 600 PLM protocol. Results may be low-biased due to inherent limitations caused by the material. The EPA recommends that vermiculite attic insulation (VAI) be prepped and analyzed using EPA 600/R-04/004, known as "The Cincinnati Method".

ANALYST: JJF

REVIEWED BY: _____
QA/QC Officer/Signatory

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*This report does not constitute endorsement by NVLAP and/or any other US government agencies. PLM analyses do not fall under the purview of AIHA LAP.

*The test data pertain only to the items tested. No assumptions or conclusions should be made to materials or samples not analyzed. Furthermore, Batta Laboratories, LLC assumes no responsibility for the accuracy of results influenced by the use of improper collection techniques or equipment.

*Organically-bound, nonfriable material may interfere with the accurate and reproducible quantification of asbestos. In these cases, the EPA recommends further analysis by a matrix-reduction method. Batta recommends the NY ELAP Item 198.6/198.4 over the Chatfield method. When point count techniques are utilized on organically-bound, nonfriable materials without the EPA-recommended matrix reduction steps, Batta Laboratories assumes no responsibility regarding the accuracy or precision associated with these results. In these cases, Batta employs a modified version of the EPA point count method.

*WRTA refers to a group of fibrous Amphiboles typically associated with 'Libby Amphibole'. Within this classification are: winchite, richterite, tremolite, and actinolite.

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Delaware Industrial Park, 6 Garfield Way
Newark, DE19713-5817
Tel. (302)737-3376 Fax (302) 737-5764

Web: http://www.battaenv.com E-mail: battaenv@battaenv.com

EPA Lab ID #DE004

NVLAP Lab Code: 101032-D

Dept. Code: PLM

Rev. #: 0
Batch#: N/A
COC#: N/A

CERTIFICATE OF PLM ANALYSIS

Test Method: EPA/600/R-93/116 in conjunction with Batta SOP

Report Date: 04/22/24

Sampling Data

Date Sampled: 04/17/24
BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481673	06A	1st Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481674	06B	1st Floor	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481675	07A	Stairs	Stair Tread	No	Firm Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found
1481676	07B	Stairs	Stair Tread	No	Firm Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found
1481677	08A	Stairs	Mastic	No	Soft Homogeneous	Brown	98% Non-fibrous Material	2% Chrysotile Total Asbestos = 2%

Note 1 *Due to limitations of the EPA PLM method, floor tiles may yield false negative (<1%) results by this method. As such, the EPA recommends further analysis by electron microscopy. Batta recommends the NY 198.4 over the Chatfield method.*

Note 2 Unless otherwise specified, Tr=Trace and correlates to <0.25% (based on a 400-point EPA point count).

Note 3 Materials containing vermiculite are not good candidates for analysis using standard EPA 600 PLM protocol. Results may be low-biased due to inherent limitations caused by the material. The EPA recommends that vermiculite attic insulation (VAI) be prepped and analyzed using EPA 600/R-04/004, known as "The Cincinnati Method".

ANALYST: JJF

REVIEWED BY: _____
QA/QC Officer/Signatory

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*This report does not constitute endorsement by NVLAP and/or any other US government agencies. PLM analyses do not fall under the purview of AIHA LAP.

*The test data pertain only to the items tested. No assumptions or conclusions should be made to materials or samples not analyzed. Furthermore, Batta Laboratories, LLC assumes no responsibility for the accuracy of results influenced by the use of improper collection techniques or equipment.

*Organically-bound, nonfriable material may interfere with the accurate and reproducible quantification of asbestos. In these cases, the EPA recommends further analysis by a matrix-reduction method. Batta recommends the NY ELAP Item 198.6/198.4 over the Chatfield method. When point count techniques are utilized on organically-bound, nonfriable materials without the EPA-recommended matrix reduction steps, Batta Laboratories assumes no responsibility regarding the accuracy or precision associated with these results. In these cases, Batta employs a modified version of the EPA point count method.

*WRTA refers to a group of fibrous Amphiboles typically associated with 'Libby Amphibole'. Within this classification are: winchite, richterite, tremolite, and actinolite.

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Web: http://www.battaenv.com E-mail: battaenv@battaenv.com

EPA Lab ID #DE004

NVLAP Lab Code: 101032-D

Dept. Code: PLM

Rev. #: 0
Batch#: N/A
COC#: N/A

CERTIFICATE OF PLM ANALYSIS

Test Method: EPA/600/R-93/116 in conjunction with Batta SOP

Report Date: 04/22/24

Sampling Data

Date Sampled: 04/17/24
BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID			Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#		Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481678	08B	**	Stairs	Mastic	n/a				Sample Not Analyzed (positive stop rules)
1481679	09A		2nd Floor water heater rm	Transite	No	Firm Homogeneous	Gray	85% Non-fibrous Material	15% Chrysotile Total Asbestos = 15%
1481680	09B	**	2nd Floor water heater rm	Transite	n/a				Sample Not Analyzed (positive stop rules)
1481681	10A		Boxing gym bldg-Hall outside office	Floor Tile	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1481682	10B		Boxing gym bldg-Outside men's rm	Floor Tile	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found

Note 1 *Due to limitations of the EPA PLM method, floor tiles may yield false negative (<1%) results by this method. As such, the EPA recommends further analysis by electron microscopy. Batta recommends the NY 198.4 over the Chatfield method.*

Note 2 Unless otherwise specified, Tr=Trace and correlates to <0.25% (based on a 400-point EPA point count).

Note 3 Materials containing vermiculite are not good candidates for analysis using standard EPA 600 PLM protocol. Results may be low-biased due to inherent limitations caused by the material. The EPA recommends that vermiculite attic insulation (VAI) be prepped and analyzed using EPA 600/R-04/004, known as "The Cincinnati Method".

ANALYST: JJF

REVIEWED BY: _____
QA/QC Officer/Signatory

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** This sample was not analyzed for reasons noted in the far right column. Batta Labs, LLC will not charge clients for samples not analyzed. Please contact Batta if charged in error.

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NY ELAP LAB# 11993 for PCM, PLM, TEM & Lead

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Delaware Industrial Park, 6 Garfield Way
Newark, DE19713-5817
Tel. (302)737-3376 Fax (302) 737-5764

Web: http://www.battaenv.com E-mail: battaenv@battaenv.com

EPA Lab ID #DE004

NVLAP Lab Code: 101032-D

Dept. Code: PLM

Rev. #: 0
Batch#: N/A
COC#: N/A

CERTIFICATE OF PLM ANALYSIS

Test Method: EPA/600/R-93/116 in conjunction with Batta SOP

Report Date: 04/22/24

Sampling Data

Date Sampled: 04/17/24
BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481683	11A	Boxing gym bldg-Hall outside office	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481684	11B	Boxing gym bldg-Outside men's rm	Mastic	No	Soft Homogeneous	Yellow	100% Non-fibrous Material	No Asbestos Found
1481685	12A	Boxing gym bldg-Hall outside office	Mastic	No	Soft Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found
1481686	12B	Boxing gym bldg-Outside men's rm	Mastic	No	Soft Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found
1481687	13A	Boxing gym bldg-main area	Mastic	No	Soft Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found

Note 1 *Due to limitations of the EPA PLM method, floor tiles may yield false negative (<1%) results by this method. As such, the EPA recommends further analysis by electron microscopy. Batta recommends the NY 198.4 over the Chatfield method.*

Note 2 Unless otherwise specified, Tr=Trace and correlates to <0.25% (based on a 400-point EPA point count).

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EPA Lab ID #DE004

NVLAP® Lab Code: 101032-D

Dept. Code: PLM

Rev. #: 0
Batch#: N/A
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CERTIFICATE OF PLM ANALYSIS

Test Method: EPA/600/R-93/116 in conjunction with Batta SOP

Report Date: 04/22/24

Sampling Data

Date Sampled: 04/17/24
BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481688	13B	Boxing gym bldg-main area	Mastic	No	Soft Homogeneous	Tan	100% Non-fibrous Material	No Asbestos Found
1481689	14A	Boxing gym bldg-basement	Flue Packing	No	Firm Homogeneous	Various	100% Non-fibrous Material	No Asbestos Found
1481690	14B	Boxing gym bldg-basement	Flue Packing	No	Firm Homogeneous	Various	100% Non-fibrous Material	No Asbestos Found
1481691	15A	Boxing gym bldg-basketball entrance	Window Glaze	Yes	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found
1481692	16A	Boxing gym bldg-basketball entrance	Window Glaze	Yes	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found

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EPA Lab ID #DE004

NVLAP Lab Code: 101032-D

Dept. Code: PLM

Rev. #: 0
Batch#: N/A
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Report Date: 04/22/24

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BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1482175	16A LAYER	Boxing gym bldg-Main boxing gym	Plaster skim	No	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found
1481693	16B	Boxing gym bldg-Main boxing gym	Plaster base	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1482176	16B LAYER	Boxing gym bldg-Main boxing gym	Plaster skim	No	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found
1481694	16C	Boxing gym bldg-Main boxing gym	Plaster base	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1482172	16C LAYER	Boxing gym bldg-Main boxing gym	Plaster skim	No	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found

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Report Date: 04/22/24

Sampling Data

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BLI Project #: L363524
Sampled By: S.WORONIC
Project Name: 1093723K-HAPPY HOLLOW REC. CENTER-4800 Wayne Avenue
Date Analyzed: 04/19/24

Sample ID		Client-supplied Data			Analytical Data		Reported Results	
Lab Sample#	Client Sample#	Sample Description	Material Type	Friable?	Texture/ Gross	Color	Non-asbestiform Components	Asbestiform Components
1481695	16D	Boxing gym bldg-Main boxing gym	Plaster base	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1482173	16D LAYER	Boxing gym bldg-Main boxing gym	Plaster skim	No	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found
1481696	16E	Boxing gym bldg-Main boxing gym	Plaster base	No	Firm Homogeneous	Gray	100% Non-fibrous Material	No Asbestos Found
1482174	16E LAYER	Boxing gym bldg-Main boxing gym	Plaster skim	No	Firm Homogeneous	White	100% Non-fibrous Material	No Asbestos Found

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BLI#: L363524

NOTE TO ANALYST – Positive Stop Unless Otherwise Noted on this COC

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Delaware Industrial Park
6 Garfield Way
Newark, DE 19713-5817
Ph (302) 737-3376
Fx (302) 737-5764
www.battaenv.com

BULK SAMPLE DATA SHEET

PLM ☑EPA ☐POINT COUNT ☐NOB TEM ☐YES/NO ☐NOB ☐EPA

Date/Time Results Required: 4/22/24 5:12pm HRS
Date/Time Cert of Analysis Req: 4/22/24 5pm HRS
Results to: ☑Inspector ☐Manager: AC, SW, NB
Client: Phone: Fax:
E-mail:

Project Name: Happy Hollow Rec Center BEA# 1093723Y
Site Inspected / Address: 4800 Wayne Avenue, Phila, PA
Inspector(s): Steve Woronicak, Alyssa Cartagena 054187
B.I. #:
Date Inspected 4/17/24

SAMPLE NUMBER FIELD	SAMPLE NUMBER LAB 1481	MATERIAL SAMPLED Note 2 (gym)	AHERA CLASS	Note1 CONDITION G / Dam / S g.Dam		ALL LOCATIONS, Name & Circle Sample Locations (E.1, E.2 ,0.1, 1.1, 1.3, 2.2, ...)	MATERIAL QUANTITY	Note 3 SAMPLE COMPOSITION	SAMPLE COLOR	RESULTS %	RESULTS TYPE
MONTH - DAY -											
1 (A) B, C	6663 6664	12x12 floor tile	m	G	N F	A-1st floor B-2nd floor	800 sf	Homo	grey	NAD	–
2 (A) B, C	6665 6666	mastic alw 12x12 grey	m	G	N F	A-1st floor B-2nd floor	800 sf		—		–
3 (A) B, C	6667 6668	12x12 floor tile (bottom)	m	G	N F		800 sf		blue		–
4 (A) B, C	6669 6670	mastic alw blue 12x12	m	G	N F		800 sf		—		–
5 (A) B, C	671 672	Baseboard	m	G	N F	A+B - 1st floor	350 lf		black		–
6 (A) B, C	673 674	Baseboard mastic	m	D	N F	A+B - 1st floor	350 lf		yellow		–
7 (A) B, C	675 676	Stair Tread material	m	G	N F	A+B - Stairs	45 sf		tan	NAD	–
8 (A) B, C	677 678	Stair Tread mastic	m	G	N F	A+B - Stairs	45 sf		yellow	2	Chry
9 (A) B, C	679 680	Transite Panel	m	G	N F	A+B - 2nd fl water heater room	30 sf		grey	15	Chry
A, B, C		Boxing Gym Building			NF						
10 (A) B, C	681 682	12x12 floor tile	m	G	N F	A-Hall outside office B-outside men's room		Homo	grey	NAD	–
11 (A) B, C	683 684	mastic alw grey 12x12	m	G	N F				yellow		–
12 (A) B, C	685 686	Baseboard mastic	m	G	N F				yellow		–
13 (A) B, C	687 688	Rubber floor mastic	m	G	N F	A+B - main area			yellow		–
14 (A) B, C	689 690	Pipe Packing	T	G	N F	Basement			multi	NAD	–

Notes 1 AHERA Classification: T=Thermal Insulation, S=Surfacing M=Miscellaneous 2 Material Sampled: Pipe Covering Boiler Breeching Ceiling Tile Floor Tiles, Sheet Flooring, etc. 3 Sample Composition: Homogeneous, Mixed, Layered

Relinquished By: Date: / / Time: Received By: Date: / Time:
Delivered By: Date: / / Time: Received By: Date: / Time:
Delivered By: Date: / / Time: Received By: Date: / Time:
Delivered By: Date: / / Time: Received By: Date: / Time:

BLI#: L3e3524

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BULK SAMPLE DATA SHEET

PLM ☑EPA ☐POINT COUNT ☐NOB TEM ☐YES/NO ☐NOB ☐EPA

Date/Time Results Required: 4/22/24 5pm HRS
Date/Time Cert of Analysis Req: 4/22/24 <4pm HRS
Results to: ☑Inspector ☐Manager: AC, SW, NB
☐Client: ☐Phone: ☐Fax:
☐E-mail:

Project Name: Happy Hollow Rec BEA# 1093723K
Site Inspected / Address: 4500 Wayne Ave, Phila, PA
Inspector(s): Steve Wronicar Alyssa Cartagena 054187
B.I. #:
Date Inspected 4/17/24

SAMPLE NUMBER FIELD	SAMPLE NUMBER LAB	MATERIAL SAMPLED Note 2	AHERA CLASS	Note1 CONDITION G / Dam / Sig.Dam		ALL LOCATIONS, Name & Circle Sample Locations (E.1, E.2 ,0.1, 1.1, 1.3, 2.2, ...)	MATERIAL QUANTITY	Note 3 SAMPLE COMPOSITION	SAMPLE COLOR	RESULTS %	RESULTS TYPE
0417 – 15 A, B, C	691	Window Glazing	M	D	N F	Basketball gym exterior	1EA	Homo	White	NAD	–
16 A, B, C	692-693-694 695-696	Smooth Plaster Walls	S	G	N F	Main Boxing gym	2000SF	Layered	multi	NAD	–
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						
A, B, C					N F						

Notes: 1 AHERA Classification: T=Thermal Insulation, S=Surfacing, M=Miscellaneous 2 Material Sampled: Pipe Covering, Boiler Breeching, Ceiling Tile, Floor Tiles, Sheet Flooring, etc. 3 Sample Composition: Homogeneous, Mixed, Layered

Relinquished By: Date: / / Time: Received By: Date: / / Time:
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Delivered By: Date: / / Time: Received By: Date: / / Time:

DATE STAMP HERE

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☐ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Birefringence[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic.	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	d yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Asbestos #1 Optical Properties	Asbestos #2 Optical Properties	Asbestos #3 Optical Properties	% Asbestos Type (12) Method of Quant.	%	% Fibrous Non-Asbestos Type (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481663	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample # 01A	Friability[4] / F or N / Sample Color[3] / Texture[5]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan; Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481664	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample # 01B	Friability[4] / F or N / Sample Color[3] / Texture[5]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan; Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481665	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample # 02A	Friability[4] / F or N / Sample Color[3] / Texture[5]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan; Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481666	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample # 02B	Friability[4] / F or N / Sample Color[3] / Texture[5]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	Pleochroism[8] / Extinction[10] / Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan; Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Birefringence[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	d yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6]	nD ∥	Asbestos #2 Optical Properties: Morph[6]	nD ∥	Asbestos #3 Optical Properties: Morph[6]	nD ∥	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481667	8	1							1 2 3 4 5 6 7 8 9		PC			
			Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	VAE		VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	1 2 3 4 5 6 7 8		PC			* scan
		8							VAE		VAE			
03A	F or N	Texture[5]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	1 2 3 4 5 6 7 8		PC			Asbestos Stereo VAE %
		4							VAE		VAE			
											Nonfibrous Types[15] 6		Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6]	nD ∥	Type #2 Optical Properties: Morph[6]	nD ∥	Type #3 Optical Properties: Morph[6]	nD ∥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481668	8	1							1 2 3 4 5 6 7 8 9		PC			
			Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	VAE		VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	1 2 3 4 5 6 7 8		PC			* scan
		8							VAE		VAE			
03B	F or N	Texture[5]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	1 2 3 4 5 6 7 8		PC			Asbestos Stereo VAE %
		4							VAE		VAE			
											Nonfibrous Types[15] 6		Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6]	nD ∥	Type #2 Optical Properties: Morph[6]	nD ∥	Type #3 Optical Properties: Morph[6]	nD ∥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481669	9	1							1 2 3 4 5 6 7 8 9		PC			
			Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	VAE		VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	1 2 3 4 5 6 7 8		PC			* scan
		4							VAE		VAE			
04A	F or N	Texture[5]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	1 2 3 4 5 6 7 8		PC			Asbestos Stereo VAE %
		3							VAE		VAE			
											Nonfibrous Types[15] 6		Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6]	nD ∥	Type #2 Optical Properties: Morph[6]	nD ∥	Type #3 Optical Properties: Morph[6]	nD ∥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481670	9	1							1 2 3 4 5 6 7 8 9		PC			
			Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	Fiber Color[7]	nD ⊥	VAE		VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	Pleochroism[8]	Extinction[10]	1 2 3 4 5 6 7 8		PC			* scan
		4							VAE		VAE			
04B	F or N	Texture[5]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	Biref.[9]	Elongation[11]	1 2 3 4 5 6 7 8		PC			Asbestos Stereo VAE %
		3							VAE		VAE			
											Nonfibrous Types[15] 6		Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☐ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Bire[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_2$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Asbestos #2 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Asbestos #3 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481671	Baseboard	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
05A	F or N	Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4						Nonfibrous Types[15]	6	Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #2 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #3 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481672	Baseboard	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
05B	F or N	Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4						Nonfibrous Types[15]	6	Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #2 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #3 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481673	9	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
06A	F or N	Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		5						Nonfibrous Types[15]	6	Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #2 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	Type #3 Optical Properties: Morph[6] / nD II / Fiber Color[7] / nD ⊥	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481674	9	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
06B	F or N	Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		5						Nonfibrous Types[15]	6	Percentage 100	0

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/14/24 Analyst: TC

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Bire[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic.	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6] / nD II	Asbestos #2 Optical Properties: Morph[6] / nD II	Asbestos #3 Optical Properties: Morph[6] / nD II	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481675	Stair Tread	1	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
07A	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4						Nonfibrous Types[15] 6	Percentage 100		0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II	Type #2 Optical Properties: Morph[6] / nD II	Type #3 Optical Properties: Morph[6] / nD II	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481676	Stair Tread	1	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
07B	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4						Nonfibrous Types[15] 6	Percentage 100		0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II	Type #2 Optical Properties: Morph[6] / nD II	Type #3 Optical Properties: Morph[6] / nD II	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481677	9	1	Fiber Color[7] / nD ⊥ 1.552	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	1 2 3 4 5 6 7 8 / VAE	2	PC / VAE			
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
08A	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		5	1 1					Nonfibrous Types[15] 6	Percentage 98		0

Asbestos-Containing ☑ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD II	Type #2 Optical Properties: Morph[6] / nD II	Type #3 Optical Properties: Morph[6] / nD II	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481678			Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	Fiber Color[7] / nD ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Poc stop
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
08B	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
								Nonfibrous Types[15]	Percentage		

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]		Visual Gross[2]	Sample Color[3]			Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Birefringence[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):			1 black	7 brown	13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation	6 ceiling tile	1 Homogenous	2 tan	8 blue	14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock	7 linoleum		3 gold	9 white	15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material	8 floor tile	2 Heterogeneous	4 yellow	10 red		Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil	9 mastic/adhesive		5 silver	11 green			5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon (flips)	5 Vermiculite
5 joint compound	10 plaster	3 Layered	6 gray	12 pink			6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Sample Descriptions: Client-Supplied Data	Sample Descriptions: Macroscopic	Asbestos #1: Optical Properties	Asbestos #2: Optical Properties	Asbestos #3: Optical Properties	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481679	Sample Type[1]: Transite	Visual Gross[2]: 1	Morph[6]: 1 / Fiber Color[7]: 1	Morph[6]: 1 / Fiber Color[7]: 1	Morph[6]: / Fiber Color[7]:	1 2 3 4 5 6 7 8 / VAE	15	PC / VAE			* scan
09A	Friability[4]: F or N	Sample Color[3]: 4 / Texture[5]: 4	Pleochroism[8]: 1 / Biref.[9]: 1	Extinction[10]: 1 / Elongation[11]: 1	Pleochroism[8]: / Biref.[9]:	Extinction[10]: / Elongation[11]:		1 2 3 4 5 6 7 8 / VAE		PC / VAE	Asbestos Stereo VAE %
								Nonfibrous Types[15]: 6		Percentage: 85	8

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Sample Descriptions: Client-Supplied Data	Sample Descriptions: Macroscopic	Type #1: Optical Properties	Type #2: Optical Properties	Type #3: Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481680	Sample Type[1]	Visual Gross[2]	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Pac Stop * scan
09B	Friability[4]: F or N	Sample Color[3] / Texture[5]	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE	Asbestos Stereo VAE %
								Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data	Sample Descriptions: Macroscopic	Type #1: Optical Properties	Type #2: Optical Properties	Type #3: Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481681	Sample Type[1]: 8	Visual Gross[2]: 1	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	1 2 3 4 5 6 7 8 / VAE	5	PC / VAE			* scan
10A	Friability[4]: F or N	Sample Color[3]: 4 / Texture[5]: 4	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE	Asbestos Stereo VAE %
								Nonfibrous Types[15]: 6		Percentage: 100	5

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data	Sample Descriptions: Macroscopic	Type #1: Optical Properties	Type #2: Optical Properties	Type #3: Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481682	Sample Type[1]: 8	Visual Gross[2]: 1	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	Morph[6] / Fiber Color[7]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
10B	Friability[4]: F or N	Sample Color[3]: 4 / Texture[5]: 4	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]	Pleochroism[8] / Biref.[9]	Extinction[10] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE	Asbestos Stereo VAE %
								Nonfibrous Types[15]: 6		Percentage: 100	0

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Bire 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___		3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	or	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_2$
4 soil 9 mastic/adhesive		5 silver 11 green	Nonfriable	5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other___	other___	6 other___

Lab Sample #	Client-Supplied Data: Sample Type[1]	Client-Supplied Data: Field Sample #	Macroscopic: Visual Gross[2]	Macroscopic: Friability[4]	Macroscopic: Sample Color[3]	Macroscopic: Texture[5]	Asbestos #1 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Asbestos #2 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Asbestos #3 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481683	9		1		4	3																													* scan
11A				F or N																											1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
																																		Nonfibrous Types[15] 6	Percentage 100		

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Client-Supplied Data: Field Sample #	Macroscopic: Visual Gross[2]	Macroscopic: Friability[4]	Macroscopic: Sample Color[3]	Macroscopic: Texture[5]	Type #1 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #2 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #3 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481684	9		1		4	3																													* scan
11B				F or N																											1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
																																		Nonfibrous Types[15] 6	Percentage 100		

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Client-Supplied Data: Field Sample #	Macroscopic: Visual Gross[2]	Macroscopic: Friability[4]	Macroscopic: Sample Color[3]	Macroscopic: Texture[5]	Type #1 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #2 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #3 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481685	9		1		2	3																													* scan
12A				F or N																											1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
																																		Nonfibrous Types[15] 6	Percentage 100		

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Client-Supplied Data: Field Sample #	Macroscopic: Visual Gross[2]	Macroscopic: Friability[4]	Macroscopic: Sample Color[3]	Macroscopic: Texture[5]	Type #1 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #2 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	Type #3 Optical Properties: Morph[6]	nD ∥	Fiber Color[7]	nD ⊥	Pleochroism[8]	Extinction[10]	Biref.[9]	Elongation[11]	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481686	9		1		2	3																													* scan
12B				F or N																											1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
																																		Nonfibrous Types[15] 6	Percentage 100		

Asbestos-Containing ☐ **Non-Asbestos Containing** ☐ **Analytical Method:** Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/14/24 Analyst:

Analytical Methods:
1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

* If using scan option for ELAP, circle scan in notes block.

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☐ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Bire 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	d yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(fibs)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other___	other___	6 other___

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Asbestos #2 Optical Properties	Asbestos #3 Optical Properties	% Asbestos Type (12): Method of Quant.	%	% Fibrous Non-Asbestos Type (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481687	9	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			
13A	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		3 / 5						Nonfibrous Types[15]: 6		Percentage: 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481688	9	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			
13B	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		3 / 5						Nonfibrous Types[15]: 6		Percentage: 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481689	Five	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			
14A	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4 / 5						Nonfibrous Types[15]: 6		Percentage: 100	0

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant.	%	% Fibrous Non-Asbestos (13): Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481690	Five	1				1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			
14B	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]		1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
		4 / 5						Nonfibrous Types[15]: 6		Percentage: 100	0

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/14/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Birefringence[9]	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			1-lo 3-hi	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	2 medium	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other	or	3 fibrous	3 splayed ends	2 tan		Extinction[10]	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		1 parallel	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	if yes, give color	2 oblique	5 tremolite	5 wollastonite	5 mult. elon (flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other		Elongation[11]	6 actinolite	other	other	6 other
								+ or -				

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Asbestos #1: Sample Color[3] / Pleochroism[8] / Extinction[10]	Asbestos #1: Friability[4] / Texture[5] / Biref.[9] / Elongation[11]	Asbestos #2 Optical Properties	Asbestos #3 Optical Properties	% Asbestos Type (12): Method of Quant. / %	% Fibrous Non-Asbestos Type (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
1481691	Glaze	1		9	F or N: N; 4			1234 5678 / VAE	PC / VAE		* scan; Asbestos Stereo VAE %
15A									Nonfibrous Types[15]: 6; Percentage: 100		

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Mandatory

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #1: Sample Color[3] / Pleochroism[8] / Extinction[10]	Type #1: Friability[4] / Texture[5] / Biref.[9] / Elongation[11]	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
1481692	To Stain	1		9	F or N: N; 4			1234 5678 / VAE	PC / VAE		layer; * scan; Asbestos Stereo VAE %
16A									Nonfibrous Types[15]: 6; Percentage: 100		

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #1: Sample Color[3] / Pleochroism[8] / Extinction[10]	Type #1: Friability[4] / Texture[5] / Biref.[9] / Elongation[11]	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
1481693	To Stain	1		9	F or N: N; 4			1234 5678 / VAE	PC / VAE		layer; * scan; Asbestos Stereo VAE %
16B									Nonfibrous Types[15]: 6; Percentage: 100		

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Client-Supplied Data: Sample Type[1]	Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / nD ∥ / Fiber Color[7] / nD ⊥	Type #1: Sample Color[3] / Pleochroism[8] / Extinction[10]	Type #1: Friability[4] / Texture[5] / Biref.[9] / Elongation[11]	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
1481694	To Stain	1		9	F or N: N; 4			1234 5678 / VAE	PC / VAE		layer; * scan; Asbestos Stereo VAE %
16C									Nonfibrous Types[15]: 6; Percentage: 100		0

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods: * If using scan option for ELAP, circle scan in notes block.

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☑ Leica DM750P (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

BLI Project # L363524 Name of Client/Project: 1093723K-HAPPY HOLLOW REC. CENTEF

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Bire[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other_____	other_____	6 other___

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Asbestos #1 Optical Properties	Asbestos #2 Optical Properties	Asbestos #3 Optical Properties	% Asbestos Type (12) Method of Quant.	%	% Fibrous Non-Asbestos Type (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481695	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Layer
Field Sample #	Friability[4] / Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
16D	F or N / Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Mandatory

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1481696	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Layer
Field Sample #	Friability[4] / Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
16E	F or N / Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
1482 175	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4] / Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
16A	F or N / Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ **Non-Asbestos-Containing** ☐ **Analytical Method:** Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data / Macroscopic	Type #1 Optical Properties	Type #2 Optical Properties	Type #3 Optical Properties	% Asbestos (12) Method of Quant.	%	% Fibrous Non-Asbestos (13) Method of Quant.	%	Optical Characteristics[14]	Analyst's Notes
176	Sample Type[1] / Visual Gross[2]	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	Morph[6] / n_D II; Fiber Color[7] / n_D ⊥	1 2 3 4 5 6 7 8 / VAE		PC / VAE			
Field Sample #	Friability[4] / Sample Color[3]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			* scan
16B	F or N / Texture[5]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1 2 3 4 5 6 7 8 / VAE		PC / VAE			Asbestos Stereo VAE %
							Nonfibrous Types[15]		Percentage	

Asbestos-Containing ☐ **Non-Asbestos Containing** ☐ **Analytical Method:** Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/19/24 Analyst:

Analytical Methods:
1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435:
9. Other (specify):

* If using scan option for ELAP, circle scan in notes block.

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAPs definition.

BATTA PLM Bench Sheet

PLM Scope ID#: ☐ Nikon 202306 (Scope #1) ☐ Olympus 222204 (Scope #2) ☐ Olympus 221810 (Scope #3) ☐ Olympus 240335 (Scope #4) ☐ Nikon 222212 (Scope #5) ☐ Nikon 102293 (Scope #6) ☐ Olympus 202705 (Scope #7)

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BLI Project # Name of Client/Project:

Sample Type[1]	Visual Gross[2]	Sample Color[3]	Friability[4]	Sample Texture[5]	Morphology[6]	Fiber Color[7] (in plane light)	Pleochroism[8]	Birefringence[9] 1-lo 3-hi	Asbestos Types[12]	Non-Asbestos Types[13]	Optical/Morph. Characteristics[14]	Non-Fibrous Types[15]
Temperature (°C):		1 black 7 brown 13 orange		1 cementic	1 wavy			2 medium	1 chrysotile	1 cellulose	1 undulose ext.	1 matrix
1 insulation 6 ceiling tile	1 Homogenous	2 tan 8 blue 14 various	Friable	2 granular	2 straight	1 clear	1 no 2 yes	Extinction[10]	2 amosite	2 fiberglass	2 isotropic	2 binder
2 sheetrock 7 linoleum		3 gold 9 white 15 other___	or	3 fibrous	3 splayed ends	2 tan		1 parallel	3 crocidolite	3 mineral wool	3 shot	3 $CaSO_4$
3 roofing material 8 floor tile	2 Heterogeneous	4 yellow 10 red	Nonfriable	4 firm	4 fiber bundles	3 blue		2 oblique	4 anthophyllite	4 synthetic fiber	4 high birefringence	4 $CaCO_3$
4 soil 9 mastic/adhesive		5 silver 11 green		5 soft	5 single fibers	4 brown	if yes, give color	Elongation[11]	5 tremolite	5 wollastonite	5 mult.elon.(flips)	5 Vermiculite
5 joint compound 10 plaster	3 Layered	6 gray 12 pink		6 paper-like	6 blocky	5 other___		+ or -	6 actinolite	other___	other___	6 other___

Lab Sample #	Sample Descriptions: Client-Supplied Data: Sample Type[1]	Sample Descriptions: Macroscopic: Visual Gross[2]	Asbestos #1 Optical Properties: Morph[6] / ∥D ⊥	Asbestos #2 Optical Properties: Morph[6] / ∥D ⊥	Asbestos #3 Optical Properties: Morph[6] / ∥D ⊥	% Asbestos Type (12): Method of Quant. / %	% Fibrous Non-Asbestos Type (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
1482 172	10B4c		Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	1234 5678 / VAE	PC / VAE		
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1234 5678 / VAE	PC / VAE		scan *
16C	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1234 5678 / VAE	PC / VAE		Asbestos Stereo VAE %
							Nonfibrous Types[15]	Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data: Sample Type[1]	Sample Descriptions: Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / ∥D ⊥	Type #2 Optical Properties: Morph[6] / ∥D ⊥	Type #3 Optical Properties: Morph[6] / ∥D ⊥	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
173	10B4c		Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	1234 5678 / VAE	PC / VAE		
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1234 5678 / VAE	PC / VAE		scan *
16D	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1234 5678 / VAE	PC / VAE		Asbestos Stereo VAE %
							Nonfibrous Types[15]	Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data: Sample Type[1]	Sample Descriptions: Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / ∥D ⊥	Type #2 Optical Properties: Morph[6] / ∥D ⊥	Type #3 Optical Properties: Morph[6] / ∥D ⊥	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
174	10B4c		Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	1234 5678 / VAE	PC / VAE		
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1234 5678 / VAE	PC / VAE		scan *
16E	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1234 5678 / VAE	PC / VAE		Asbestos Stereo VAE %
							Nonfibrous Types[15]	Percentage	

Asbestos-Containing ☐ Non-Asbestos-Containing ☐ Analytical Method: Specify if different

Lab Sample #	Sample Descriptions: Client-Supplied Data: Sample Type[1]	Sample Descriptions: Macroscopic: Visual Gross[2]	Type #1 Optical Properties: Morph[6] / ∥D ⊥	Type #2 Optical Properties: Morph[6] / ∥D ⊥	Type #3 Optical Properties: Morph[6] / ∥D ⊥	% Asbestos (12): Method of Quant. / %	% Fibrous Non-Asbestos (13): Method of Quant. / %	Optical Characteristics[14]	Analyst's Notes
			Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	Fiber Color[7] / ∥D ⊥	1234 5678 / VAE	PC / VAE		
Field Sample #	Friability[4]	Sample Color[3] / Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	Pleochroism[8] / Extinction[10]	1234 5678 / VAE	PC / VAE		scan *
	F or N	Texture[5] / Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	Biref.[9] / Elongation[11]	1234 5678 / VAE	PC / VAE		Asbestos Stereo VAE %
							Nonfibrous Types[15]	Percentage	

Asbestos-Containing ☐ Non-Asbestos Containing ☐ Analytical Method: Specify if different

PC: Point Count; VAE: (Calibrated) Visual Area Estimate (in Weight Percent)

Date of Analysis: 4/14/24 Analyst:

Analytical Methods: • If using scan option for ELAP, circle scan in notes block

1. EPA/600/R-93/116 Without Gravimetry
2. EPA/600/R-93/116 With Gravimetry
3. EPA/600/R-93/116: 400 Point Count
4. EPA/600/R-93/116: 1000 Point Count
5. PLM NOB Chatfield Method
6. NYDOH ELAP 198.1 (Stratified Point Count)
7. State of New Jersey DOLAWD Method (38 N.J.R. 2526)
8. CARB 435
9. Other (specify):

Note: Definition of asbestos containing vs. non-asbestos containing is based on EPA NESHAP's definition.

Analysts' Notes

BLI Project # L363524 Client/BEA Project # 1093723K-HAPPY HOLLOW REC. CENTER

Sample Number	Comments

Date: 4/19/24 Analyst:

The handwritten notes on this page are based on the professional judgment of the analyst and are for informational purposes only. Due to this, they should not be considered analytical data.