

May 17, 2018

Mr. Curtis K. Miyamura CKM ARCHITECTS, LLC 98-829 Leialii Street Aiea, Hawaii 96701

Subject: Hazardous Material Assessment for Hawaii Health Systems Corporation,

Young Building First Floor Laundry and Maintenance Renovation Project, Located at Leahi Hospital, 3675 Kilauea Avenue, Honolulu, Oahu, Hawaii

Dear Mr. Miyamura:

The Benzing Group LLC, (TBG), conducted a hazardous material assessment survey for the Hawaii Health Systems Corporation Young Building first floor laundry and maintenance renovation project located at Leahi Hospital, 3675 Kilauea Avenue, Honolulu, Oahu, Hawaii. The purpose of the assessment was to identify asbestoscontaining materials (ACM) and lead-based paint (LBP) that would be impacted during renovation of the building.

#### **BULK SAMPLING AND OBSERVATIONS**

The Young Building is a six story structure with a basement and is comprised primarily of concrete exterior walls and interior hard plaster on wire lathe walls and ceilings. Work for this project is limited to the first floor of the building which has been vacant for approximately 10 years.

On April 23, 24 and 26, 2016, Mr. Raymond Benzing, State of Hawaii certified Asbestos Building Inspector and Lead Risk Assessor with TBG, conducted the hazardous material assessment. The assessment identified 26 homogeneous types of suspect ACM that may be disturbed as part of this project for asbestos analysis. Three samples were collected of each type to comply with State regulatory requirements.

The assessment also included the collection of 19 paint samples from the first floor of the building of predominantly painted building materials for lead analysis.

The suspect ACM and paint samples were shipped to NVL Labs, a National Voluntary Laboratory Accreditation Program (NVLAP) and American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP) laboratory located in Seattle, Washington for analysis. ACM is defined as a material that

ray@thebenzinggroup.com Project No.: TBG-180010



contains 1 percent or greater asbestos. LBP is defined as a paint with 0.5 percent (%) lead by weight or greater.

## ASBESTOS BULK SAMPLE ANALYTICAL RESULTS

Samples were sent to the laboratory for analysis using polarized light microscopy (PLM) Environmental Protection Agency (EPA) Method 600. The following Table 1 summarizes the sampling analytical results.

Table 1 Summary of Asbestos Analytical Results Leahi Hospital Young Building - First Floor

Sample Number	Homogeneous Area	Sample Location	Asbestos Content and type
LHYB-A1	Hard plaster walls	Room 6S - east wall	ND
LHYB-A2	and ceilings with	Men's restroom above sink	ND
LHYB-A3	thin plaster top coat	Existing storage east wall	ND
LHYB-A4	Grey ceramic tile	Men's restroom by door	ND
LHYB-A5	cove base	Women's restroom by door	ND
LHYB-A6		Men's restroom by sink	ND
LHYB-A7	Black 9-inch by	Room 16M - east side	Chrysotile
LHYB-A8	9-inch floor tile	Room 16N - west side	3% - Tile
LHYB-A9	and associated black mastic	Room opposite existing pharmacy	Chrysotile 2% - mastic
LHYB-A10	2-feet by 4-feet	Janitor's closet doorway	ND
LHYB-A11	white drop ceiling	Outside Room 16L	ND
LHYB-A12	panels in hallway	Outside existing lounge	ND
LHYB-A13	2-feet by 4-feet	Janitor's closet doorway	ND
LHYB-A14	brown drop	Outside Room 16M	ND
LHYB-A15	ceiling panels in hallway	Outside existing lounge	ND
LHYB-A16	12-inch by 12-inch beige with	Hallway outside men's restroom	ND
LHYB-A17	grey patterned floor tile and	Hallway outside Room 16L	ND
LHYB-A18	associated black mastic throughout hallway	Hallway outside existing pharmacy	ND



## Table 1 (continued)

Comple	<b>Потодополи</b>		Asbestos Content
Sample Number	Homogeneous Area	Sample Location	
LHYB-A19	Tan 12-inch by	Room 19	and type ND
LHYB-A20	12-inch floor tile	Room 16S	ND ND
LHYB-A21	with associated		ND
Ln i b-A21	mastic	Existing Pharmacy	ND
LHYB-A22	Door caulking	Men's restroom at hallway	ND
LHYB-A23		Existing pharmacy	ND
LHYB-A24		Outside Room 21	ND
LHYB-A25	Metal cove base	Room 25	ND
LHYB-A26	caulking	Room 28	ND
LHYB-A27		Existing pharmacy	ND
LHYB-A28			
LHYB-A29	Black sink	Room 25	Chrysotile 5%-6%
LHYB-A30	undercoating		
LHYB-A31	4-inch by 4-inch	Room 30	ND
LHYB-A32	blue ceramic tile	Room 27	ND
LHYB-A33	grout/glazing	Existing storage	ND
LHYB-A34	Sink under-	Room 30	Charactile 50 650/
LHYB-A35	lining - silver	Room 27	Chrysotile 59-65%
LHYB-A36	cardboard wrap	Existing storage	
LHYB-A37	4-inch by 4-inch		ND
LHYB-A38	yellow ceramic	Room 27	ND
LHYB-A39	tile grout and		ND
	glazing		ND
LHYB-A40	Gypsum	Hallway outside existing	
	wallboard and	storage (west side)	Chrysotile 2%
LHYB-A41	associated mud	Existing storage - middle room	
LHYB-A42		Existing office reception -	
LHYB-A43	1 foot by 1 foot	Existing storage contar room	Chrysotile 2%
LIII D-A43	1-foot by 1-foot	Existing storage - center room	Cm ysothe 270
LHYB-A44	fiberglass ceiling	Existing storage - center room  Existing storage - east room	ND
	fiberglass ceiling tiles with brown		ND
LHYB-A44 LHYB-A45	fiberglass ceiling tiles with brown adhesive	Existing storage - east room Existing doctor's office	
LHYB-A44 LHYB-A45 LHYB-A46	fiberglass ceiling tiles with brown adhesive 6-inch brown	Existing storage - east room Existing doctor's office  Existing storage - west room	ND
LHYB-A44 LHYB-A45 LHYB-A46 LHYB-A47	fiberglass ceiling tiles with brown adhesive 6-inch brown vinyl cove base	Existing storage - east room Existing doctor's office  Existing storage - west room Existing storage - center room	ND ND
LHYB-A44 LHYB-A45 LHYB-A46	fiberglass ceiling tiles with brown adhesive 6-inch brown vinyl cove base and mastic on	Existing storage - east room Existing doctor's office  Existing storage - west room	ND
LHYB-A44 LHYB-A45 LHYB-A46 LHYB-A47	fiberglass ceiling tiles with brown adhesive 6-inch brown vinyl cove base	Existing storage - east room Existing doctor's office  Existing storage - west room Existing storage - center room	ND ND



## Table 1 (continued)

Sample Number	Homogeneous Area	Sample Location	Asbestos Content and type
LHYB-A49	1-foot by 1-foot	Existing storage	
LHYB-A50	acoustical ceiling tiles	Existing lounge	ND
LHYB-A51	with tan adhesive	Existing work area	
LHYB-A52		Existing storage - center room	ND
LHYB-A53	Lab black counter tops	Existing storage - east room	ND
LHYB-A54		Existing lounge	
LHYB-A55		Existing office	
LHYB-A56	Window glazing	Existing office reception	ND
LHYB-A57		Existing pharmacology - eastern room	ND
LHYB-A58			
LHYB-A59	Grey sink undercoating	Room 16S/16R	ND
LHYB-A60			112
LHYB-A61	White sink		
LHYB-A62	undercoating	Room 16S/16R	ND
LHYB-A63			
LHYB-A64	12-inch by 12-inch gray	Existing storage	
LHYB-A65	floor tile and black	Existing lounge - office	ND
LHYB-A66	mastic	Existing work area - office	
LHYB-A67		Above existing work area - office	
LHYB-A68	Black roofing felt	Above existing lounge - office	ND
LHYB-A69		Above existing lanai	
LHYB-A70	Black roof mastic along	Above existing work area - office	
LHYB-A71	seams	Above existing lounge - office	ND
LHYB-A72		Above existing lanai	
LHYB-A73	Brown sheet flooring	Far west office reception by door	
LHYB-A74	under carpeting and	Far west office reception by wall	ND
LHYB-A75	associated mastic	Supervisors office	
LHYB-A76		Existing Lanai - west window	
LHYB-A77	Window glazing	Existing Lanai - center window	ND
LHYB-A78		Existing Lanai - east window	

ND: None Detected **Bold:** Contains asbestos above the regulatory level of 1 percent



Based on laboratory analysis, asbestos was identified above the regulatory level of 1% in the following building materials sampled on the first floor of the Young Building:

- Approximately 1,800 square feet of black 9-inch by 9-inch floor tiles and associated black mastic located in existing pharmacology rooms, existing doctor's office and existing storage rooms (photo 1)
- One black sink undercoating in existing lab (Room 25-photo 2)
- Four sink underlinings (silver cardboard wrap) in Room 30, Room 27 and existing storage (two sinks Photos 3 and 4).
- Approximately 580 square feet of gypsum wallboard and associated mud located in existing storage walls, existing corridor and existing office reception (Photo 5)
- Approximately 1,800 square feet of 1-foot by 1-foot fiberglass ceiling tile adhesive located in existing doctor's office (Room 27), existing storage rooms, existing lounge and existing work area (Photo 6)
- Approximately 50 linear feet of 6-inch brown vinyl cove base with associated brown mastic on gypsum wallboard in existing storage room and existing office reception (Photo 7).

## **LEAD ANALYTICAL RESULTS FOR PAINT**

The paint samples were analyzed for total lead using flame atomic absorption (FAA) spectrophotometry using EPA Method 7000B. The following Table 2 summarizes the paint analytical results.

Table 2 Summary of Lead Analytical Results Leahi Hospital Young Building - First Floor

Sample Number	Color	Description/Location	Substrate	% lead by weight
LHYB-L1	Tan	Walls throughout	Hard plaster	0.13
LHYB-L2	Gray	Storage closet walls	Hard plaster	0.34
LHYB-L3	Blue	Walls throughout	Hard plaster	0.14
LHYB-L4	Tan	Walls throughout	Hard plaster	0.24
LHYB-L5	Beige	Window frames throughout	Wood	0.12
LHYB-L6	Beige	Base boards throughout	Metal	0.18
LHYB-L7	Beige	Walls throughout	Hard plaster	< 0.0048
LHYB-L8	Beige	Ceilings throughout	Hard plaster	0.090

Page 5 Project No.: TBG-180010



Table 2 (continued)

Sample Number	Color	Description/Location	Substrate	% lead by weight
LHYB-L9	Beige	Built-in furniture	Wood	0.018
LHYB-L10	Beige	Doors throughout	Wood	0.0081
LHYB-L11	Beige	Door frames	Metal	0.027
LHYB-L12	Tan	Closet systems	Wood	0.14
LHYB-L13	Green	Walls	Hard plaster	0.23
LHYB-L14	White	Walls throughout	Hard plaster	0.024
LHYB-L15	Yellow	Cabinets	Wood	0.16
LHYB-L16	Light Yellow	Walls	Hard plaster	0.21
LHYB-L17	Brown	Walls	Hard plaster	< 0.0055
LHYB-L18	Brown	Window frames - Existing lanai (future carpentry shop)	Wood	3.5
LHYB-L19	Beige	Exterior wall - Existing lanai	Hard plaster	0.049

Bold: Indicates Lead-Based Paint

%: percent

The laboratory reported lead at 3.5% lead by weight in the brown paint on seven wood window frames and sills located in the existing lanai area (future carpentry shop). This paint is above 0.5% lead by weight and is classified as LBP (Photo 8). Lead was reported in 16 paint samples at concentrations ranging from 0.018 to 0.34% lead by weight. These paints are classified as lead-containing paint (LCP). Two paint samples reported lead concentrations below the method detection limit and are not considered to contain lead.

#### **SUMMARY AND RECOMENDATIONS**

Asbestos was identified in concentration greater than 1% in the following materials:

- Black 9-inch by 9-inch floor tiles and associated black mastic located in existing pharmacology rooms, existing doctor's office and storage rooms.
- Black sink undercoating in existing lab (Room 25)
- Sink underlining (silver cardboard wrap) in Room 30, Room 27 and existing storage rooms (two sinks).
- Gypsum wallboard and associated mud located in existing storage walls, existing corridor and existing office reception.



- Adhesive associated with 1-foot by 1-foot fiberglass ceiling tiles located in existing doctor's office (Room 27), existing storage rooms, existing lounge and existing work area.
- Drywall mud associated with the brown 6-inch vinyl cove base located in existing storage room and existing office reception.

The laboratory reported lead above 0.5% lead by weight in the brown paint on the seven wooden windows and sills in the existing lanai area (future carpentry shop).

Asbestos-containing materials and lead-based painted building components shall be handled, removed, packaged and disposed of in accordance with State and Federal regulatory requirements. In addition, the disturbance of these materials shall be performed by trained and accredited Contractors under the supervision of a third party industrial hygiene professional.

It is recommended that this report be provided to the Contractor performing the renovation work so that they may comply with the requirements of the Lead in Construction Standard for their employees who come in contact with lead.

Suspended fluorescent light fixtures are located throughout the first floor. Many of these fixtures appear to be original from building construction. These older fixtures may contain light ballasts with polychlorinated biphenyls (PCBS). The Contractor shall inspect each light fixture ballast during removal. Light ballasts that are not labelled as "non-PCB" are assumed to contain PCBs. Light tubes and ballasts shall be packaged and disposed of in accordance with applicable Federal and State regulations.

This report was prepared by:

Raymond Benzing, M.P.H.

State of Hawaii Asbestos Inspector

HIASB-0350 (expires 02/10/2018) State of Hawaii Lead Risk Assessor

#PB-0175 (expires 4/22/2020)

Attachment 1: Asbestos Laboratory Report Attachment 2: Lead Paint Laboratory Report

Attachment 3: Photographs



# Attachment 1

Asbestos Laboratory Report

L A B S
INDUSTRIAL
H Y G I E N E
S E R V I C E S

Laboratory | Management | Training

Ray Benzing The Benzing Group, LLC 329 Auwinala Road Kailua, HI 96734

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1808512.00

Client Project: TBG-180010

Location: Leahi Hospital Young Building First Floor

Dear Mr. Benzing,

Enclosed please find test results for the 15 sample(s) submitted to our laboratory for analysis on 5/4/2018.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both **EPA 600/M4-82-020**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116** Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample Results

1.888.NVL.LABS 1.888.(685.5227) www.nvllabs.com Lab Code: 102063-0



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Batch #: 1808512.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Lab ID: 18044563 Client Sample #: LHYB-A1

Location: Leahi Hospital Young Building First Floor

**Layer 1 of 3 Description**: White compacted powdery material

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Calcareous binder, Fine particles None Detected ND None Detected ND

Layer 2 of 3 Description: White brittle skim coat material with paint

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler None Detected ND None Detected ND

Layer 3 of 3 Description: Beige sandy/brittle material

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Sand, Binder/Filler Cellulose 3% None Detected ND

Lab ID: 18044564 Client Sample #: LHYB-A2

Location: Leahi Hospital Young Building First Floor

Layer 1 of 2 Description: White brittle skim coat material with paint

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler None Detected ND None Detected ND

Layer 2 of 2 Description: Beige sandy/brittle material

Sand, Binder/Filler Cellulose 2% None Detected ND

Lab ID: 18044565 Client Sample #: LHYB-A3

Location: Leahi Hospital Young Building First Floor

Layer 1 of 2 Description: Gray sandy/brittle material with metal

Binder/Filler, Metal, Sand None Detected ND None Detected ND

Sampled by: Client

Analyzed by: Lauren Wetzel

Date: 05/08/2018

Reviewed by: Nick Ly

Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808512.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Description: Beige sandy/brittle material Layer 2 of 2

Non-Fibrous Materials:

Sand. Binder/Filler

Other Fibrous Materials:%

Cellulose 2%

ND

Asbestos Type: %

**None Detected ND** 

Lab ID: 18044566 Client Sample #: LHYB-A4

Location: Leahi Hospital Young Building First Floor

Layer 1 of 3 **Description:** Gray ceramic tile

Non-Fibrous Materials:

Ceramic/Binder

Binder/Filler

Other Fibrous Materials:% None Detected

**Asbestos Type: %** 

**None Detected ND** 

Laver 2 of 3 **Description:** Black brittle material

Non-Fibrous Materials:

Other Fibrous Materials:% None Detected ND Asbestos Type: % **None Detected ND** 

Layer 3 of 3 **Description:** Beige sandy/brittle material

Non-Fibrous Materials:

Sand, Binder/Filler

Other Fibrous Materials:%

**Asbestos Type: %** 

None Detected

**None Detected ND** 

Lab ID: 18044567 Client Sample #: LHYB-A5

Location: Leahi Hospital Young Building First Floor

Layer 1 of 3 Description: Gray ceramic tile

> Non-Fibrous Materials: Ceramic/Binder

Other Fibrous Materials:% None Detected ND Asbestos Type: % None Detected ND

Layer 2 of 3 **Description:** Black brittle material

Non-Fibrous Materials:

Other Fibrous Materials:% None Detected

Asbestos Type: % **None Detected ND** 

Layer 3 of 3 **Description:** Beige sandy/brittle material

Non-Fibrous Materials:

Sand, Binder/Filler

Binder/Filler

Other Fibrous Materials:%

Asbestos Type: %

None Detected ND None Detected ND

ND

Sampled by: Client

Analyzed by: Lauren Wetzel Reviewed by: Nick Ly

Date: 05/08/2018 Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808512.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Lab ID: 18044568 Client Sample #: LHYB-A6 Location: Leahi Hospital Young Building First Floor Layer 1 of 3 **Description:** Gray ceramic tile Non-Fibrous Materials:

Asbestos Type: % Other Fibrous Materials:% None Detected ND Ceramic/Binder None Detected ND

Layer 2 of 3 **Description:** Black brittle material

> Non-Fibrous Materials: Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler

None Detected ND **None Detected ND** 

Description: Beige sandy/brittle material

Non-Fibrous Materials: Sand, Binder/Filler Other Fibrous Materials:% None Detected

ND

Asbestos Type: % None Detected ND

**Chrysotile 3%** 

Asbestos Type: %

Asbestos Type: %

Client Sample #: LHYB-A7 Lab ID: 18044569

Location: Leahi Hospital Young Building First Floor

Layer 1 of 2 Description: Black vinyl tile

Laver 3 of 3

Asbestos Type: % Other Fibrous Materials:% Non-Fibrous Materials:

Vinyl/Binder, Mineral grains None Detected ND

**Description:** Black mastic Layer 2 of 2

> Non-Fibrous Materials: Other Fibrous Materials:%

> > Mastic/Binder Cellulose

**Chrysotile 2%** 

Lab ID: 18044570 Client Sample #: LHYB-A8 Location: Leahi Hospital Young Building First Floor

Description: Black vinyl tile Layer 1 of 2

> Other Fibrous Materials:% Non-Fibrous Materials:

**Chrysotile 3%** Vinyl/Binder, Mineral grains None Detected ND

Sampled by: Client

Analyzed by: Lauren Wetzel Date: 05/08/2018 Reviewed by: Nick Ly Date: 05/09/2018

Nick Ly, Technical Director

By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Batch #: 1808512.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Layer 2 of 2 Description: Black mastic

Non-Fibrous Materials:

Mastic/Binder

Other Fibrous Materials:%

Asbestos Type: %

Cellulose 2%

Chrysotile 2%

Lab ID: 18044571 Client Sample #: LHYB-A9

Location: Leahi Hospital Young Building First Floor

Layer 1 of 2 Description: Black vinyl tile

Non-Fibrous Materials:

Vinyl/Binder, Mineral grains

Other Fibrous Materials:%

Asbestos Type: %

None Detected ND

**Chrysotile 3%** 

Layer 2 of 2 Description: Black mastic

Non-Fibrous Materials:

Binder/Filler, Styrofoam

Other Fibrous Materials:%

Asbestos Type: %

Mastic/Binder

Cellulose 2%

Chrysotile 2%

Lab ID: 18044572 Client Sample #: LHYB-A10

Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 Description: White compressed fibrous material

Non-Fibrous Materials: Other Fibrous Materials:%

Cellulose 23%

Asbestos Type: %
None Detected ND

Glass fibers 20%

Lab ID: 18044573 Client Sample #: LHYB-A11

Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 Description: White compressed fibrous material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Styrofoam, Paint

Cellulose 28%

None Detected ND

Glass fibers 22%

Sampled by: Client

Analyzed by: Lauren Wetzel Reviewed by: Nick Ly

Date: 05/08/2018 Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Client Project #: TBG-180010 Date Received: 5/4/2018

> Samples Received: 15 Samples Analyzed: 15

Batch #: 1808512.00

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Method: EPA/600/R-93/116 & EPA/600/M4-82-020

**Asbestos Type: %** 

Asbestos Type: %

None Detected ND

Lab ID: 18044574 Client Sample #: LHYB-A12

Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 **Description:** White compressed fibrous material with paint

Non-Fibrous Materials: Other Fibrous Materials:%

Binder/Filler, Styrofoam, Paint Cellulose 25%

Glass fibers 22%

Lab ID: 18044575 Client Sample #: LHYB-A13

Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 Description: Brown compressed fibrous material with paint

> Non-Fibrous Materials: Other Fibrous Materials:%

None Detected ND Binder/Filler, Paint Cellulose 30%

Glass fibers 20%

Lab ID: 18044576 Client Sample #: LHYB-A14

Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 **Description:** Brown compressed fibrous material with paint

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

**None Detected ND** Binder/Filler, Paint Cellulose 29%

Glass fibers 25%

Client Sample #: LHYB-A15 Lab ID: 18044577

Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 **Description:** Brown compressed fibrous material with paint

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

**None Detected ND** Binder/Filler, Paint Cellulose 26%

24%

Sampled by: Client

Analyzed by: Lauren Wetzel Date: 05/08/2018 Reviewed by: Nick Ly Date: 05/09/2018 Nick Ly, Technical Director

## **NVL Laboratories, Inc.**

# ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

4708 Aurora Ave IN, Seattle, WA 98103	3
n 206 547 0100   f 206 634 1936	l www.nyllabs.com

	The Benzing Group, LLC 329 Auwinala Road	NVL Batch Number 1808512.0	<b>00</b> <b>AH</b> No	
	Kailua, HI 96734	Rush TAT		
Project Manager	Mr. Ray Benzing	Due Date 5/9/2018 Time	9:15 AM	
Phone (808) 261-7982		Email raybenzing@yahoo.com		
Cell	(808) 725-7814	Fax		
Project Name/	Number: TBG-180010 Project Loca	tion: Leahi Hospital Young Building	g First Floor	
Subcategory PL	_M Bulk			
Item Code AS	SB-02 EPA 600/R-93-116 Asbesto	os by PLM <bulk></bulk>		
Total Numl	per of Samples 15		Rush Samples	

To	tal Numbe	er of Samples	15	Rush Samples
	Lab ID	Sample ID	Description	A/R
1	18044563	LHYB-A1		A
2	18044564	LHYB-A2		A
3	18044565	LHYB-A3		A
4	18044566	LHYB-A4		A
5	18044567	LHYB-A5		A
6	18044568	LHYB-A6		A
7	18044569	LHYB-A7		A
8	18044570	LHYB-A8		A
9	18044571	LHYB-A9		A
10	18044572	LHYB-A10		A
11	18044573	LHYB-A11		A
12	18044574	LHYB-A12		A
13	18044575	LHYB-A13		A
14	18044576	LHYB-A14		A
15	18044577	LHYB-A15		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Emily Schubert		NVL	5/4/18	915
Analyzed by	Lauren Wetzel		NVL	5/8/18	
Results Called by					
Faxed Emailed					
Special Instructions:		'			

Date: 5/4/2018 Time: 11:14 AM

Entered By: Emily Schubert



1808512

## ASBESTOS CHAIN OF CUSTODY

			Turn Ar	ound Time	
		2 Hour	4 Hour	□ 24 Hours	2 Days
		3 Days	4 Days	5 Days	☐ 10 Days
The Benzing Group LLC 329 Auwinala Road, Kailua Telephone: (808) 725-7814 ray@thebenzinggroup.com raybenzing@yahoo.com Project Manager: Ray Benz	cell, (808) 261-7982 offic	ce			
Project Name/Number: Leahi F Project Location: First floor	Hospital Young Building/TE	<b>3G</b> -180010			
Analysis Requested:  PCM Air (NIOSH 7400)  PLM (EPA 600/R-93-116)	☐ TEM (NIOSH 7402) ☐ EPA 400 Points (600/R	☐ TEM (AHER -93-116)	,	☐ TEM (EPA Level II) 000Points (600/R-93-1	
Reporting Instructions:					

	Sample ID	Homogeneous Area	Sample Location
1	LHYB-A1	Hard plaster walls/ceilings	Rm 6S - east wall
2	LHYB-A2	with thin plaster top coat	Men's restroom above sink
3	LHYB-A3		<b>Existing storage wall</b>
4	LHYB-A4	Grey ceramic tile cove base	Men's restroom by door
5	LHYB-A5		Women's restroom by door
6	LHYB-A6		Men's restroom by sink
7	LHYB-A7	Black 9-inch by 9-inch floor	Rm 16M - east side
8	LHYB-A8	tile and associated black	Rm 16N - west side
9	LHYB-A9	mastic	Rm opposite existing pharmacy
10	LHYB-A10	2-feet by 4-feet white drop	Janitor's closet doorway
11	LHYB-A11	ceiling panels in hallway	Outside Rm 16L
12	LHYB-A12		Outside existing lounge
13	LHYB-A13	2-feet by 4-feet brown drop	Janitor's closet doorway
14	LHYB-A14	ceiling panels in hallway	Outside Rm 16M
15	LHYB-A15		Outside existing lounge

Total Number of Samples: 15

	Name	Signature	Date	Time
Sampled by	Ray Benzing	Faston T	4/25/18	
Relinquished by	Ray Benzing	1/2 Bend	5/2/18	
DC1() to 1	LA A A A A A A	The state of the s	CIZITO	

page 8 of 8

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L A B S

INDUSTRIAL
H Y G I E N E
S E R V I C E S

Laboratory | Management | Training

Ray Benzing The Benzing Group, LLC 329 Auwinala Road Kailua, HI 96734

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1808510.00

Client Project: Leahi Hospital Young Building TBG-180010

Location: First Floor

Dear Mr. Benzing,

Enclosed please find test results for the 15 sample(s) submitted to our laboratory for analysis on 5/4/2018.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both **EPA 600/M4-82-020**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116** Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Matt Macfarlane, Asbestos Supervisor

Enc.: Sample Results

1.888.NVL.LABS 1.888.(685.5227) www.nvllabs.com

Lab Code: 102063-0

Kailua, HI 96734



## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: The Benzing Group, LLC

Batch #: 1808510.00

Address: 329 Auwinala Road Client Project #: Leahi Hospital Young Building TBG-180010

Date Received: 5/4/2018
Samples Received: 15

Samples Analyzed: 15

Attention: Mr. Ray Benzing

Samples Analyzed: 15

Project Location: First Floor

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

**None Detected ND** 

Lab ID: 18044545 Client Sample #: LHYB-A16 Location: First Floor Layer 1 of 2 Description: Beige vinyl tile Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:% None Detected ND Vinyl/Binder, Mineral grains None Detected ND Layer 2 of 2 **Description:** Black mastic Asbestos Type: % Other Fibrous Materials:% Non-Fibrous Materials:

Mastic/Binder

Lab ID: 18044546 Client Sample #: LHYB-A17

Location: First Floor

Layer 1 of 2 Description: Beige vinyl tile

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Cellulose

3%

Vinyl/Binder, Mineral grains None Detected ND None Detected ND

Layer 2 of 2 Description: Black mastic

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Mastic/Binder Cellulose 3% None Detected ND

Lab ID: 18044547 Client Sample #: LHYB-A18

Location: First Floor

Layer 1 of 2 Description: Beige vinyl tile

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Vinyl/Binder, Mineral grains None Detected ND None Detected ND

Layer 2 of 2 Description: Black mastic

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Mastic/Binder Cellulose 3% None Detected ND

Sampled by: Client

Analyzed by: Lauren Wetzel Date: 05/09/2018
Reviewed by: Matt Macfarlane Date: 05/09/2018

Matt Macfarlane, Asbestos Supervisor

Project Location: First Floor

Kailua, HI 96734



## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Batch #: 1808510.00 Client: The Benzing Group, LLC

Client Project #: Leahi Hospital Young Building TBG-180010 Address: 329 Auwinala Road

> Date Received: 5/4/2018 Samples Received: 15

Samples Analyzed: 15 Attention: Mr. Ray Benzing

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Asbestos Type: %

**None Detected ND** 

Lab ID: 18044 Location: First F	-		
Layer 1 of 4	Description: Tan vinyl tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Vinyl/Binder, Mineral grains	None Detected ND	None Detected ND
Layer 2 of 4	Description: Yellow mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Mastic/Binder	Cellulose 2%	None Detected ND
Layer 3 of 4	Description: Beige vinyl tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Vinyl/Binder, Mineral grains	Cellulose 2%	None Detected ND
Layer 4 of 4	Description: Clear adhesive		
	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Adhesive/Binder	Cellulose 3%	None Detected ND
Lab ID: 18044	549 Client Sample #: LHYB-A20		
Location: First F	Floor		
Layer 1 of 2	Description: Tan vinyl tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	Asbestos Type: %
	Vinyl/Binder, Mineral grains	None Detected ND	None Detected ND

Lab ID: 18044550 Client Sample #: LHYB-A21

**Description:** Yellow mastic

Location: First Floor

Layer 2 of 2

Sampled by: Client

Analyzed by: Lauren Wetzel Date: 05/09/2018 Reviewed by: Matt Macfarlane Date: 05/09/2018 Matt Macfarlane, Asbestos Supervisor

Non-Fibrous Materials:

Mastic/Binder

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Other Fibrous Materials:%

Cellulose

3%



By Polarized Light Microscopy

Batch #: 1808510.00 Client: The Benzing Group, LLC

Client Project #: Leahi Hospital Young Building TBG-180010 Address: 329 Auwinala Road

> Date Received: 5/4/2018 Samples Received: 15

Samples Analyzed: 15 Attention: Mr. Ray Benzing Method: EPA/600/R-93/116 Project Location: First Floor

& EPA/600/M4-82-020

**None Detected ND** 

**None Detected ND** 

Description: Tan vinyl tile Layer 1 of 2

Kailua, HI 96734

Asbestos Type: % Other Fibrous Materials:% Non-Fibrous Materials: None Detected ND

Vinyl/Binder, Mineral grains None Detected ND

Layer 2 of 2 **Description:** Yellow mastic on black paint

> Asbestos Type: % Other Fibrous Materials:% Non-Fibrous Materials:

**None Detected ND** Mastic/Binder, Paint Cellulose 4%

Lab ID: 18044551 Client Sample #: LHYB-A22

Location: First Floor

Laver 1 of 1 **Description:** White soft material with paint

> Asbestos Type: % Other Fibrous Materials:% Non-Fibrous Materials:

Binder/Filler, Paint None Detected ND

Lab ID: 18044552 Client Sample #: LHYB-A23

Location: First Floor

Description: White soft material with paint Layer 1 of 2

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

Binder/Filler, Paint None Detected ND

**Description:** White powdery material Layer 2 of 2

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

> > **None Detected ND** Binder/Filler None Detected

Lab ID: 18044553 Client Sample #: LHYB-A24

Location: First Floor

Layer 1 of 2 **Description:** White soft material with paint

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

**None Detected ND** Binder/Filler, Paint None Detected ND

Sampled by: Client

Analyzed by: Lauren Wetzel Date: 05/09/2018

Reviewed by: Matt Macfarlane Date: 05/09/2018 Matt Macfarlane, Asbestos Supervisor

Project Location: First Floor



## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: The Benzing Group, LLC

Batch #: 1808510.00

Address: 329 Auwinala Road Client Project #: Leahi Hospital Young Building TBG-180010

Date Received: 5/4/2018 Samples Received: 15

Attention: Mr. Ray Benzing Samples Analyzed: 15

Method: EPA/600/R-93/116 & EPA/600/M4-82-020

None Detected ND

Layer 2 of 2 Description: White powdery material

Kailua, HI 96734

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler None Detected ND None Detected ND

Lab ID: 18044554 Client Sample #: LHYB-A25

Location: First Floor

Layer 1 of 1 Description: White soft/foamy material with paint

Binder/Filler, Paint None Detected ND None Detected ND

Lab ID: 18044555 Client Sample #: LHYB-A26

Location: First Floor

**Layer 1 of 2 Description:** White soft/foamy material with paint

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Paint None Detected ND

**Layer 2 of 2 Description**: White soft material with paint

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Paint None Detected ND None Detected ND

Lab ID: 18044556 Client Sample #: LHYB-A27

Location: First Floor

Layer 1 of 1 Description: White soft/foamy material with paint

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Paint None Detected ND None Detected ND

Location: First Floor

Sampled by: Client

Analyzed by: Lauren Wetzel Date: 05/09/2018
Reviewed by: Matt Macfarlane Date: 05/09/2018

Matt Macfarlane, Asbestos Supervisor

#### **NVL Laboratories, Inc.**

4708 Aurora Ave N, Seattle, WA 98103

Project Location: First Floor

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



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## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: The Benzing Group, LLC

Batch #: 1808510.00

Address: 329 Auwinala Road Client Project #: Leahi Hospital Young Building TBG-180010

Date Received: 5/4/2018 Samples Received: 15

Attention: Mr. Ray Benzing Samples Analyzed: 15

Method: EPA/600/R-93/116 & EPA/600/M4-82-020

Layer 1 of 1 Description: Black soft material

Kailua, HI 96734

Non-Fibrous Materials: Other Fibrous Materials: **Asbestos Type: %** 

Binder/Filler None Detected ND Chrysotile 5%

Lab ID: 18044558 Client Sample #: LHYB-A29

Location: First Floor

Layer 1 of 1 Description: Black soft material

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler None Detected ND Chrysotile 6%

Lab ID: 18044559 Client Sample #: LHYB-A30

Location: First Floor

Layer 1 of 1 Description: Black soft material

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler None Detected ND Chrysotile 5%

Sampled by: Client

Analyzed by: Lauren Wetzel Date: 05/09/2018
Reviewed by: Matt Macfarlane Date: 05/09/2018

Matt Macfarlane, Asbestos Supervisor

## **NVL Laboratories, Inc.**

## ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com

Company	The Benzing Group, LLC	NVL Batch	Number 18	308510	0.00
Address	329 Auwinala Road	TAT 3 Da	ys		<b>AH</b> No
	Kailua, HI 96734	Rush TAT			
ct Manager	Mr. Ray Benzing	Due Date	5/9/2018	Time	9:15 AM
Phone	(808) 261-7982	Email rayb	enzing@yah	oo.com	

Proje	ct Manager M	r. Ray Benzing		Due Date	5/9/2018	Time	9:15 AM	
	Phone (8	8) 261-7982 Email raybenzing@yahoo.com						
	Cell (8	08) 725-7814		Fax				
Proj	ect Name/Nu	mber: Leahi Hospital Young Building	TBG Project Loc	cation: First F	loor			
Subc	ategory PLM	Bulk						
Ite	m Code ASB-	02 <u>E</u> PA	A 600/R-93-116 Asbes	stos by PLM <	<bul><li>bulk&gt;</li></bul>			
То	tal Numbe	r of Samples1	15				Rush Samples	
	Lab ID	Sample ID	Description					A/R
1	18044545	LHYB-A16						А
2	18044546	LHYB-A17						Α
3	18044547	LHYB-A18						Α
4	18044548	LHYB-A19						Α
5	18044549	LHYB-A20						Α
6	18044550	LHYB-A21						А
7	18044551	LHYB-A22						Α
8	18044552	LHYB-A23						Α
9	18044553	LHYB-A24						Α
10	18044554	LHYB-A25						Α
11	18044555	LHYB-A26						А
12	18044556	LHYB-A27						А
13	18044557	LHYB-A28						А
14	18044558	LHYB-A29						А
15	18044559	LHYB-A30						Α

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Emily Schubert		NVL	5/4/18	915
Analyzed by	Lauren Wetzel		NVL	5/9/18	
Results Called by					
Faxed Emailed					
Special		'			

Date: 5/4/2018 Time: 11:07 AM

Entered By: Emily Schubert



## ASBESTOS CHAIN OF CUSTODY

			Turn A	round Time	
		2 Hour	🗆 4 Hou	ır 24 Hours	2 Days
		3 Days	☐ 4 Day	s 🗆 5 Days	☐ 10 Days
The Benzing Group LLC 329 Auwinala Road, Kailua Telephone: (808) 725-7814 ray@thebenzinggroup.com raybenzing@yahoo.com Project Manager: Ray Benz	cell, (808) 261-7982 office	ce			
Project Name/Number: Leahi I Project Location: First floor	Hospital Young Building/Th	<b>3G</b> -180010			
Analysis Requested:  PCM Air (NIOSH 7400)  PLM (EPA 600/R-93-116)	☐ TEM (NIOSH 7402) ☐ EPA 400 Points (600/R	,	,	☐ TEM (EPA Level I 1000Points (600/R-93-1	•
Reporting Instructions:					
Total Number of Samples:	<u>15</u>				

	Sample ID	Homogeneous Area	Sample Location
1	LHYB-A16	12-inch by 12-inch beige with	Hallway outside men's restroom
2	LHYB-A17	grey markings and black	Hallway outside Rm 16L
3	LHYB-A18	associated mastic in hallway	Hallway outside existing pharmacy
4	LHYB-A19	12-inch by 12-inch tan floor	Room 19
5	LHYB-A20	tile with associated mastic	Rm 16S
6	LHYB-A21		<b>Existing Pharmacy</b>
7	LHYB-A22	Door caulking	Men's restroom at hallway
8	LHYB-A23		Existing pharmacy
9	LHYB-A24		Outside Room 21
10	LHYB-A25	Metal cove base caulking	Room 25
11	LHYB-A26		Room 28
12	LHYB-A27		Existing pharmacy
13	LHYB-A28	Black sink undercoating	Room 25
14	LHYB-A29		
15	LHYB-A30		

	Name	Signaturn	Date	Time
Sampled by	Ray Benzing	1 Den x	4/25/18	
Relinquished by	Ray Benzing	1/2/m	5/2/18	
Received &	on Emily	13/10/10	VL 5.4-18	115 PEDE

Ray Benzing The Benzing Group, LLC 329 Auwinala Road Kailua, HI 96734



Laboratory | Management | Training

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1808508.00

Client Project: TBG-180010

Location: Leahi Hospital Young Building First Floor

Dear Mr. Benzing,

Enclosed please find test results for the 15 sample(s) submitted to our laboratory for analysis on 5/4/2018.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both EPA 600/M4-82-020, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and EPA 600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample Results

1.888.NVL.LABS 1.888.(685.5227) www.nvllabs.com

Lab Code: 102063-0

# NVL TABLE

## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808508.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

None Detected ND

None Detected ND

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Lab ID: 18044528 Client Sample #: LHYB-A31

Location: Leahi Hospital Young Building First Floor

Layer 1 of 2 Description: Off-white ceramic tile with light blue surface

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Ceramic/Binder None Detected ND

Layer 2 of 2 Description: Off-white brittle material with trace paint

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Calcareous particles, Paint None Detected ND None Detected ND

Lab ID: 18044529 Client Sample #: LHYB-A32

Location: First Floor

Layer 1 of 2 Description: Off-white brittle material

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Insect parts

None Detected ND

Layer 2 of 2 Description: Light gray brittle material

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Granules None Detected ND None Detected ND

Lab ID: 18044530 Client Sample #: LHYB-A33

Location: First Floor

Layer 1 of 4 Description: Off-white ceramic tile with light blue surface

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Ceramic/Binder None Detected ND None Detected ND

Layer 2 of 4 Description: Gray brittle material

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Sand None Detected ND None Detected ND

Sampled by: Client

Analyzed by: Alla Prysyazhnyuk

Reviewed by: Nick Ly

Date: 05/09/2018

Nick L

Nick Ly, Technical Director



Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Batch #: 1808508.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Layer 3 of 4 Description: Cream sandy/brittle material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Granules, Sand

None Detected ND

None Detected ND

Layer 4 of 4 Description: White brittle material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Paint, Rust None Detected ND

**None Detected ND** 

Lab ID: 18044531 Client Sample #: LHYB-A34

Location: First Floor

Layer 1 of 3 Description: Silver paint

Non-Fibrous Materials:

Metallic paint

Binder/Filler

Other Fibrous Materials:%

ND

Asbestos Type: %
None Detected ND

Layer 2 of 3 Description: Off-white compressed fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

None Detected ND

None Detected

Asbestos Type: % Chrysotile 65%

Layer 3 of 3 Description: Brown brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Mastic/Binder

None Detected ND

None Detected ND

Location: First Floor

Layer 1 of 3 Description: Silver paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Metallic paint

None Detected ND

None Detected ND

Layer 2 of 3 Description: Off-white compressed fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

**Chrysotile 62%** 

Binder/Filler None Detected ND

Sampled by: Client

Analyzed by: Alla Prysyazhnyuk Reviewed by: Nick Ly Date: 05/09/2018 Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Batch #: 1808508.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Layer 3 of 3 Description: Brown brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Mastic/Binder

Metallic paint

None Detected ND

None Detected ND

Lab ID: 18044533 Client Sample #: LHYB-A36

Location: First Floor

Layer 1 of 3 Description: Silver paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

None Detected ND

None Detected ND

Layer 2 of 3 Description: Off-white compressed fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

**Chrysotile 59%** 

Binder/Filler None Detected ND

Layer 3 of 3

**Description:** Brown brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

None Detected ND

Asbestos Type: %
None Detected ND

Client Sample #: LHYB-A37

Mastic/Binder

Lab ID: 18044534 Location: First Floor

Comments: Unable to separate mastics for analysis in layer 3.

Layer 1 of 3

Description: Off-white ceramic tile

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Ceramic/Binder

None Detected ND

**None Detected ND** 

Layer 2 of 3

**Description:** Off-white brittle material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Caulking compound

None Detected ND

None Detected ND

Sampled by: Client

Analyzed by: Alla Prysyazhnyuk Reviewed by: Nick Ly **Date:** 05/09/2018 **Date:** 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808508.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 15

& EPA/600/M4-82-020

Asbestos Type: %

**None Detected ND** 

None Detected ND

Samples Analyzed: 15

Method: EPA/600/R-93/116

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Description: Trace thin off-white textured powdery material with paint and mastic

Other Fibrous Materials:% Non-Fibrous Materials:

None Detected ND Binder/Filler, Fine particles, Mastic/Binder Cellulose 2%

Lab ID: 18044535 Client Sample #: LHYB-A38

Location: First Floor

Layer 3 of 3

Layer 1 of 2 Description: Off-white ceramic tile with cream surface

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

Ceramic/Binder None Detected ND

Laver 2 of 2 **Description:** Off-white brittle material with debris

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

Binder/Filler, Fine particles, Debris Cellulose 2%

Lab ID: 18044536 Client Sample #: LHYB-A39

Location: First Floor

Description: Off-white ceramic tile Layer 1 of 2

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

Ceramic/Binder None Detected **None Detected ND** ND

Laver 2 of 2 Description: Off-white brittle material with trace paint

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

Cellulose <1% None Detected ND Binder/Filler, Calcareous particles, Paint

Lab ID: 18044537 Client Sample #: LHYB-A40

Location: First Floor

Layer 1 of 4 Description: Light gray compacted powdery material with paint

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

None Detected ND 2% Binder/Filler, Calcareous particles, Paint Cellulose

Perlite

Sampled by: Client

Analyzed by: Alla Prysyazhnyuk Date: 05/09/2018 Reviewed by: Nick Ly Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road Kailua, HI 96734 Batch #: 1808508.00 Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 15

**Chrysotile 2%** 

None Detected ND

**Chrysotile 2%** 

Samples Analyzed: 15

Method: FPA/600/R

Method: EPA/600/R-93/116 & EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Layer 2 of 4 Description: Off-white compacted powdery material with paint

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Calcareous particles, Paint None Detected ND

Layer 3 of 4 Description: Trace thin yellow brittle mastic

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Mastic/Binder None Detected ND None Detected ND

Layer 4 of 4 Description: Peach chalky material with paper & paint

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Gypsum/Binder, Paint Cellulose 23%

Mica Glass fibers 10%

Lab ID: 18044538 Client Sample #: LHYB-A41

Location: First Floor

Layer 1 of 2 Description: Off-white compacted powdery material with paint

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Calcareous particles, Paint None Detected ND

Layer 2 of 2 Description: Peach chalky material with paper

Binder/Filler, Gypsum/Binder, Mica Cellulose 20% None Detected ND

Glass fibers 7%

Lab ID: 18044539 Client Sample #: LHYB-A42

Location: First Floor

Layer 1 of 3 Description: Off-white compacted powdery material with paint

Non-Fibrous Materials: Other Fibrous Materials: Asbestos Type: %

Binder/Filler, Calcareous particles, Paint None Detected ND Chrysotile 2%

Sampled by: Client

Analyzed by: Alla Prysyazhnyuk Date: 05/09/2018
Reviewed by: Nick Ly Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Batch #: 1808508.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116 & EPA/600/M4-82-020

Layer 2 of 3 Description: Beige thin fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler

**Description:** Off-white chalky material with paper

Cellulose 27% None Detected ND

\_\_\_\_\_

Non-Fibrous Materials:

Binder/Filler, Gypsum/Binder

Other Fibrous Materials:%

Asbestos Type: %

**None Detected ND** 

Cellulose 24% Glass fibers 5%

Lab ID: 18044540 Client Sample #: LHYB-A43

Location: First Floor

Layer 3 of 3

Layer 1 of 4 Description: White textured powdery material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Fine particles

Wollastonite 3%

None Detected ND

Layer 2 of 4 Description: Yellow fibrous material

Non-Fibrous Materials:

Binder/Filler

Other Fibrous Materials:%
Glass fibers 89%

Asbestos Type: %
None Detected ND

Layer 3 of 4 Description: Off-white sandy/brittle material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Granules, Sand

None Detected ND

Wollastonite

2%

None Detected ND

Layer 4 of 4 Description: Brown brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

**Chrysotile 2%** 

Client Sample #: LHYB-A44

Mastic/Binder

Lab ID: 18044541 Location: First Floor

Sampled by: Client

Analyzed by: Alla Prysyazhnyuk Reviewed by: Nick Ly Date: 05/09/2018 Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808508.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116 & EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Layer 1 of 4 **Description:** White textured powdery material Asbestos Type: % Other Fibrous Materials:% Non-Fibrous Materials: **None Detected ND** Binder/Filler, Fine particles Wollastonite 3% Layer 2 of 4

**Description:** Yellow layered fibrous material

Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:% **None Detected ND** Binder/Filler Glass fibers 92%

Layer 3 of 4 **Description:** Off-white sandy/brittle material

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:% None Detected ND Binder/Filler, Granules, Sand None Detected ND

Layer 4 of 4 **Description:** Brown brittle mastic

> **Asbestos Type: %** Other Fibrous Materials:% Non-Fibrous Materials:

Mastic/Binder Cellulose <1% **None Detected ND** 

Lab ID: 18044542 Client Sample #: LHYB-A45

Location: First Floor

Layer 1 of 5 **Description:** White textured powdery material

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:% Binder/Filler, Fine particles Wollastonite 2% None Detected ND

Layer 2 of 5 **Description:** Yellow layered fibrous material

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

> > Binder/Filler **None Detected ND** Glass fibers 89%

Layer 3 of 5 **Description:** Tan compressed fibrous material

> Non-Fibrous Materials: Other Fibrous Materials:% Asbestos Type: %

None Detected ND Binder/Filler Cellulose 76%

Sampled by: Client

Analyzed by: Alla Prysyazhnyuk Date: 05/09/2018 Reviewed by: Nick Ly Date: 05/09/2018 Nick Ly, Technical Director

Layer 5 of 5



**Bulk Asbestos Fibers Analysis** 

By Polarized Light Microscopy

Client: The Benzing Group, LLC Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808508.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 15

Samples Analyzed: 15

Samples Analyzed

Method: EPA/600/R-93/116 & EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Layer 4 of 5 Description: Brown brittle mastic

Non-Fibrous Materials:

Mastic/Binder

**Description:** Off-white sandy/brittle material

Non-Fibrous Materials:

Binder/Filler, Granules, Sand

Organic debris

Other Fibrous Materials:%

None Detected

None Detected ND

Asbestos Type: %

None Detected ND

Other Fibrous Materials:% Asbestos Type: %

ND

None Detected ND

Sampled by: Client

Analyzed by: Alla Prysyazhnyuk

Reviewed by: Nick Ly

Date: 05/09/2018

Date: 05/09/2018

Nick Ly, Technical Director

## **NVL Laboratories, Inc.**

# ASBESTOS LABORATORY SERVICES



4708 Aurora Ave N, Seattle, WA 98103

n 206 547 0100	Τ.	f 206 634 1936	1	www.nvllahs.com

	Company 3	The Benzing Group,	LLC	NVL Batch Number 1808508.00	
	Address 3	329 Auwinala Road		TAT 3 Days AH No	
	ŀ	Kailua, HI 96734		Rush TAT	
Proj	ect Manager I	Mr. Ray Benzing		<b>Due Date</b> 5/9/2018 <b>Time</b> 9:15 AM	
	Phone (	808) 261-7982		Email raybenzing@yahoo.com	
	Cell (	808) 725-7814		Fax	
Dro	iaat Nama/N	umbari TDC 19001	O Project La	ocation: Leahi Hospital Young Building First Floor	
PIO	ject Name/N	ulliber. 16G-160010	Project Lo	cation. Learn Hospital Young Building First Floor	
Cub	natagami DLN	A Dulk			
	category PLN		DA 000/D 00 440 A I		
Ite	em Code ASE	3-02 E	PA 600/R-93-116 Asb	estos by PLM <bulk></bulk>	
т.	stal Niimaba	or of Comples	4.5	5	
1 (	otai Numbe	er of Samples _		Rush Sample	<b></b> \$\$
	Lab ID	Sample ID	Description		A/R
1	+	LHYB-A31			A
2		LHYB-A32			A
3	18044530	LHYB-A33			A
4	18044531	LHYB-A34			A
5	18044532	LHYB-A35			A
6	18044533	LHYB-A36			A
7	18044534	LHYB-A37			A
8	18044535	LHYB-A38			A
9	18044536	LHYB-A39			A
10	18044537	LHYB-A40			Α
11	18044538	LHYB-A41			Α
12	18044539	LHYB-A42			А
13	18044540	LHYB-A43			А
14	18044541	LHYB-A44			А
15	18044542	LHYB-A45			А

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Emily Schubert		NVL	5/4/18	915
Analyzed by	Alla Prysyazhnyuk		NVL	5/9/18	
Results Called by					
☐ Faxed ☐ Emailed					
Special Instructions:		'			

Date: 5/4/2018 Time: 10:40 AM

Entered By: Emily Schubert

386



1808508

# ASBESTOS CHAIN OF CUSTODY

			Turn Aro	und Time	
		🔾 2 Hour	4 Hour	24 Hours	2 Days
		3 Days	4 Days	☐ 5 Days	☐ 10 Days
The Benzing Group LLC 329 Auwinala Road, Kailua Telephone: (808) 725-7814 ray@thebenzinggroup.com raybenzing@yahoo.com Project Manager: Ray Benzing	cell, (808) 261-7982 off	iice			
Project Name/Number: Leahi I Project Location: First floor	Hospital Young Building/T	BG-180010			
Analysis Requested:  PCM Air (NIOSH 7400)  PLM (EPA 600/R-93-116) Reporting Instructions:	☐ TEM (NIOSH 7402) ☐ EPA 400 Points (600/1	□ TEM (AHER R-93-116)	•	TEM (EPA Level II 0Points (600/R-93-1	,
Total Number of Samples:	<u>15</u>				

	Sample ID	Homogeneous Area	Sample Location	
1	LHYB-A31	4-inch by 4-inch blue ceramic tile	Room 30	
2	LHYB-A32	grout/glazing	Room 27	
3	LHYB-A33		Existing storage	
4	LHYB-A34	Sink lining - silver cardboard	Room 30	
5	LHYB-A35	wrap with	Room 27	
6	LHYB-A36		Existing storage	
7	LHYB-A37	4-inch by 4-inch yellow ceramic	Room 27	
8	LHYB-A38	tile grout and glazing		
9	LHYB-A39			
10	LHYB-A40	Gypsum wallboard and associated	Hallway	
11	LHYB-A41	mud	Existing storage	
12	LHYB-A42		Small room	
13	LHYB-A43	1-foot by 1-foot acoustical tiles		
14	LHYB-A44	with brown adhesive		
15	LHYB-A45			

	Name	Signature	Date ,	Time
Sampled by	Ray Benzing	Demos	4/26/18	
Relinquished by	Ray Benzing	2 Bun To	5/2/18	
Received be	1 Emily	s' Deed ,	NL 5.4.1	8 915 FE

L A B S

INDUSTRIAL
H Y G I E N E
S E R V I C E S

Laboratory | Management | Training

Ray Benzing The Benzing Group, LLC 329 Auwinala Road Kailua, HI 96734

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1808507.00

Client Project: TBG-180010

Location: Leahi Hospital Young Building First Floor

Dear Mr. Benzing,

Enclosed please find test results for the 15 sample(s) submitted to our laboratory for analysis on 5/4/2018.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both **EPA 600/M4-82-020**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116** Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample Results

1.888.NVL.LABS 1.888.(685.5227) www.nvllabs.com PAJVN

Lab Code: 102063-0



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Batch #: 1808507.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Lab ID: 18044513 Client Sample #: LHYB-A46

Location: Leahi Hospital Young Building First Floor

Description on field data sheet does not match sample composition Comments:

Layer 1 of 3 **Description:** Brown rubbery material

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

**None Detected ND** Rubber/Binder None Detected ND

**Description:** Yellow mastic Layer 2 of 3

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

> > None Detected ND Mastic/Binder Cellulose 2%

Layer 3 of 3 **Description:** White compacted powdery material with paint

> **Asbestos Type: %** Other Fibrous Materials:% Non-Fibrous Materials:

Calcareous binder, Fine particles, Paint None Detected **Chrysotile 2%** 

Lab ID: 18044514 Client Sample #: LHYB-A47

Location: Leahi Hospital Young Building First Floor

Comments: Description on field data sheet does not match sample composition

Layer 1 of 3 **Description:** Brown rubbery material

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

None Detected ND Rubber/Binder None Detected ND

Layer 2 of 3 **Description:** Yellow mastic

> **Asbestos Type: %** Non-Fibrous Materials: Other Fibrous Materials:%

None Detected ND Mastic/Binder Cellulose 3%

Layer 3 of 3 **Description:** White compacted powdery material with paint

> Non-Fibrous Materials: Other Fibrous Materials:% Asbestos Type: %

**Chrysotile 2%** Calcareous binder, Fine particles, Paint None Detected ND

Sampled by: Client

Analyzed by: Lauren Wetzel Date: 05/08/2018 Reviewed by: Nick Ly Date: 05/09/2018 Nick Ly, Technical Director

Lab ID: 18044515

#### p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



## Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Attention: Mr. Ray Benzing

Kailua, HI 96734

Batch #: 1808507.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

None Detected ND

Project Location: Leahi Hospital Young Building First Floor

Location: Leahi Hospital Young Building First Floor

Description on field data sheet does not match sample composition Comments:

Client Sample #: LHYB-A48

Layer 1 of 3 **Description:** Brown rubbery material

> **Asbestos Type: %** Non-Fibrous Materials: Other Fibrous Materials:%

**None Detected ND** Rubber/Binder None Detected ND

**Description:** Yellow mastic Layer 2 of 3

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

> > Mastic/Binder Cellulose 4%

Layer 3 of 3 **Description:** White compacted powdery material with paint

> **Asbestos Type: %** Other Fibrous Materials:% Non-Fibrous Materials:

Calcareous binder, Fine particles, Paint None Detected **Chrysotile 2%** 

Lab ID: 18044516 Client Sample #: LHYB-A49

Location: Leahi Hospital Young Building First Floor

Comments: Description on field data sheet does not match sample composition

Layer 1 of 2 **Description:** Gray compressed fibrous material with paint

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

None Detected ND Binder/Filler, Paint Glass fibers 26%

Cellulose 21%

Layer 2 of 2 **Description:** Tan mastic

> **Asbestos Type: %** Non-Fibrous Materials: Other Fibrous Materials:%

Mastic/Binder None Detected ND None Detected ND

Lab ID: 18044517 Client Sample #: LHYB-A50

Location: Leahi Hospital Young Building First Floor

Description on field data sheet does not match sample composition Comments:

Sampled by: Client

Analyzed by: Lauren Wetzel Date: 05/08/2018 Nick Ly, Technical Director Reviewed by: Nick Ly Date: 05/09/2018



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808507.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116 & EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Layer 1 of 2 **Description:** Gray compressed fibrous material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Paint

Glass fibers 25%

**None Detected ND** 

Cellulose 20%

Layer 2 of 2 **Description:** Tan mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Mastic/Binder

None Detected ND None Detected ND

Lab ID: 18044518 Client Sample #: LHYB-A51

Location: Leahi Hospital Young Building First Floor

Comments: Description on field data sheet does not match sample composition

Layer 1 of 2 **Description:** Gray compressed fibrous material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Paint

Glass fibers 26%

**None Detected ND** 

Cellulose 22%

Layer 2 of 2 **Description:** Tan mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Mastic/Binder

None Detected ND **None Detected ND** 

Lab ID: 18044519 Client Sample #: LHYB-A52

Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 Description: Black brittle material on brown fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Binder/Filler

Cellulose 44%

None Detected ND

Lab ID: 18044520 Client Sample #: LHYB-A53

Location: Leahi Hospital Young Building First Floor

Sampled by: Client

Analyzed by: Lauren Wetzel Date: 05/08/2018 Reviewed by: Nick Ly Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808507.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 **Description:** Black brittle material on brown fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Binder/Filler

Cellulose 40%

**None Detected ND** 

Lab ID: 18044521 Client Sample #: LHYB-A54

Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 Description: Black brittle material on brown fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler

Cellulose 41%

**None Detected ND** 

Client Sample #: LHYB-A55 Lab ID: 18044522

Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 **Description:** Tan brittle material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Binder/Filler, Paint

None Detected ND **None Detected ND** 

Lab ID: 18044523 Client Sample #: LHYB-A56

Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 **Description:** Tan brittle material with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

None Detected Binder/Filler, Paint ND None Detected ND

Lab ID: 18044524 Client Sample #: LHYB-A57

Location: Leahi Hospital Young Building First Floor

Description: Tan brittle material with paint Layer 1 of 1

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Paint

None Detected

None Detected ND

Client Sample #: LHYB-A58 Lab ID: 18044525

Location: Leahi Hospital Young Building First Floor

Sampled by: Client

Analyzed by: Lauren Wetzel Reviewed by: Nick Ly

Date: 05/08/2018 Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808507.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 15

Samples Analyzed: 15

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 **Description:** Gray soft material

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Cellulose 10%

**None Detected ND** 

Lab ID: 18044526 Client Sample #: LHYB-A59

Location: Leahi Hospital Young Building First Floor **Description:** Gray soft material Layer 1 of 1

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler

Binder/Filler

Cellulose 11%

**None Detected ND** 

Lab ID: 18044527 Client Sample #: LHYB-A60

Location: Leahi Hospital Young Building First Floor Layer 1 of 1 **Description:** Gray soft material

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Binder/Filler

Cellulose 8% **None Detected ND** 

Sampled by: Client

Analyzed by: Lauren Wetzel

Reviewed by: Nick Ly

Date: 05/08/2018 Date: 05/09/2018

Nick Ly, Technical Director

#### **NVL Laboratories, Inc.**

Company The Benzing Group, LLC

# ASBESTOS LABORATORY SERVICES

NVL Batch Number 1808507.00



4708 Aurora Ave I	N, Seattle, WA 9810	3			
p 206.547.0100	f 206.634.1936	www.nvllabs.com			

	1		IM.
L	Α	В	S

	Address	329 Auwinala Ro		TAT 3 Days AH No					
		Kailua, HI 96734				-1010010			
Projec	_	Mr. Ray Benzing						9:15 AM	
		` '			Email rayb	enzing@yah	oo.com		
	Cell	(808) 725-7814			Fax				
Proje	ect Name/I	Number: TBG-180	010	Project Lo	ocation: Leahi	Hospital You	ng Buildi	ng First Floor	
Subca	ategory PL	M Bulk							
Iter	n Code AS	SB-02	EPA 6	00/R-93-116 Asbe	estos by PLM <	<bulk></bulk>			
					•				
To	tal Numb	per of Samples	15					Rush Samples	
	Lab ID	Sample ID		Description					A/R
1	18044513	LHYB-A46							Α
2	18044514	LHYB-A47							Α
3	18044515	LHYB-A48							Α
4	18044516	LHYB-A49							Α
5	18044517	LHYB-A50							Α
6	18044518	LHYB-A51							Α
7	18044519	LHYB-A52							Α
8	18044520	LHYB-A53							Α
9	18044521	LHYB-A54							Α
10	18044522	LHYB-A55							Α
11	18044523	LHYB-A56							Α
12	18044524	LHYB-A57							Α
13	18044525	LHYB-A58							А
14	18044526	LHYB-A59							А
15	18044527	LHYB-A60							А

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Emily Schubert		NVL	5/4/18	915
Analyzed by	Lauren Wetzel		NVL	5/8/18	
Results Called by					
Faxed Emailed					
Special		'	·		

Date: 5/4/2018 Time: 10:25 AM

Entered By: Emily Schubert

486



# 1808507

# ASBESTOS CHAIN OF CUSTODY

			Turn Aro	und Time	
		2 Hour		☐ 24 Hours	2 Days
		3 Days	4 Days	☐ 5 Days	☐ 10 Days
The Benzing Group LLC					
329 Auwinala Road, Kailua	ı, Hawaii 96734				
Telephone: (808) 725-7814	cell, (808) 261-7982 offi	ice			
ray@thebenzinggroup.com					
raybenzing@yahoo.com					
Project Manager: Ray Benz	zing				
Project Name/Number: Leahi	Hospital Young Building/T	BG-180010			
Project Location: First floor					
Analysis Requested:					
☐ PCM Air (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHER	RA)	TEM (EPA Level I	I Modified)
PLM (EPA 600/R-93-116)	☐ EPA 400 Points (600/F	`	,	00Points (600/R-93-1	,
Reporting Instructions:	<b>2</b> E171 400 1 0 m is (000/19	(-)5-110)	a DIA 100	701 Ollis (000/1C-75-1	10)
reporting modifications.					
Total Number of Samples:	<u>15</u>				
·					

	Sample ID	Homogeneous Area	Sample Location
1	LHYB-A46	1-foot by 1-foot ceiling tiles with	
2	LHYB-A47	adhesive	
3	LHYB-A48		
4	LHYB-A49	6-inch brown vinyl cove base and	
5	LHYB-A50	mastic	
6	LHYB-A51		
7	LHYB-A52	Lab black counter tops	
8	LHYB-A53	_	
9	LHYB-A54		
10	LHYB-A55	Window glazing	
11	LHYB-A56		
12	LHYB-A57		
13	LHYB-A58	Grey sink undercoating	Room 16S/16R
14	LHYB-A59		
15	LHYB-A60		

	Name	Signature2	,	Date	1	Time	
Sampled by	Ray Benzing	To then	77	4/24	118		
Relinquished by	Ray Benzing	15/15en	72	5/2/	18		
Received by	Emry	de	9	16 5.	4.18	915	FEPE,

Ray Benzing The Benzing Group, LLC 329 Auwinala Road Kailua, HI 96734



Laboratory | Management | Training

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 1808506.00

Client Project: TBG-180010

Location: Leahi Hospital Young Building First Floor

Dear Mr. Benzing,

Enclosed please find test results for the 18 sample(s) submitted to our laboratory for analysis on 5/4/2018.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both **EPA 600/M4-82-020**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116** Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample Results

1.888.NVL.LABS 1.888.(685.5227) www.nvllabs.com Lab Code: 102063-0



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Attention: Mr. Ray Benzing

Kailua, HI 96734

Batch #: 1808506.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 18

Samples Analyzed: 18

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Project Location: Leahi Hospital Young Building First Floor

Lab ID: 18044495 Location: First Floor

Layer 1 of 1 **Description:** White flaky material

Non-Fibrous Materials:

Client Sample #: LHYB-A61

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler, Fine particles

Cellulose 12%

**None Detected ND** 

Lab ID: 18044496 Client Sample #: LHYB-A62

Location: First Floor

**Description:** White flaky material Layer 1 of 1

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Binder/Filler, Fine particles

Cellulose 10%

None Detected ND

Lab ID: 18044497 Client Sample #: LHYB-A63

Location: First Floor

Layer 1 of 1 Description: White flaky material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

None Detected ND

Binder/Filler, Fine particles Client Sample #: LHYB-A64

Lab ID: 18044498 Location: First Floor

Layer 1 of 2 Description: White vinyl tile with paint

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Vinyl/Binder, Paint, Carbonaceous material

Cellulose 2%

Cellulose 13%

None Detected ND

Layer 2 of 2 **Description:** Brown soft mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Cellulose

Asbestos Type: %

None Detected ND

Mastic/Binder, Fine grains, Fine particles

Lab ID: 18044499 Client Sample #: LHYB-A65

Location: First Floor

Sampled by: Client

Analyzed by: William Minor Reviewed by: Nick Ly

Date: 05/18/2018

Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808506.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 18

Samples Analyzed: 18

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Description: White vinyl tile Layer 1 of 2

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

None Detected ND

Vinyl/Binder, Fine particles

Non-Fibrous Materials:

**Description:** Yellow soft mastic

Other Fibrous Materials:%

Asbestos Type: %

Mastic/Binder, Fine particles

Cellulose 4%

Cellulose <1%

**None Detected ND** 

Lab ID: 18044500 Client Sample #: LHYB-A66

Location: First Floor

Layer 2 of 2

Layer 1 of 2 Description: Tan vinyl tile

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Vinyl/Binder

Cellulose 2%

4%

None Detected ND

Layer 2 of 2 **Description:** Yellow soft mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Cellulose

**Asbestos Type: % None Detected ND** 

Mastic/Binder, Fine particles

Client Sample #: LHYB-A67

Lab ID: 18044501

Location: First Floor

Layer 1 of 5 Description: Black asphaltic material with multi-colored mineral grains

Non-Fibrous Materials:

Other Fibrous Materials:%

Glass fibers 18% None Detected ND

Asphalt/Binder, Mineral grains, Fine grains

Cellulose 2%

Layer 2 of 5 **Description:** Black brittle asphaltic material

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Asbestos Type: %

Asphalt/Binder, Fine grains, Fine particles

Cellulose 3% None Detected ND

Glass fibers

2%

Sampled by: Client

Analyzed by: William Minor Reviewed by: Nick Ly

Date: 05/18/2018 Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Batch #: 1808506.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 18

Samples Analyzed: 18

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Laver	3	of	5	Description	: Black	fibrous	material
Layer	J	VI.	J	Description	. DIACK	HDIOUS	шаша

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Glass fibers 85% Asphalt/Binder, Fine grains

**None Detected ND** 

Cellulose 3%

Layer 4 of 5 **Description:** Black soft asphaltic material

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

Asphalt/Binder, Fine particles

Cellulose 3% None Detected ND

Glass fibers <1%

Layer 5 of 5 **Description:** Black fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Asbestos Type: %

Asbestos Type: %

None Detected ND Glass fibers 90%

Lab ID: 18044502 Client Sample #: LHYB-A68

Location: First Floor

Layer 1 of 5 Description: Black asphaltic material with multi-colored mineral grains

Asphalt/Binder, Fine grains, Fine particles

Non-Fibrous Materials: Other Fibrous Materials:%

None Detected ND Asphalt/Binder, Mineral grains, Fine grains Glass fibers 15%

> Cellulose 2%

Layer 2 of 5 **Description:** Black brittle asphaltic material

> Non-Fibrous Materials: Other Fibrous Materials:%

Cellulose **None Detected ND** Asphalt/Binder, Fine grains, Fine particles 3%

Glass fibers <1%

**Description:** Black fibous material Layer 3 of 5

> Other Fibrous Materials:% Asbestos Type: % Non-Fibrous Materials:

None Detected ND Glass fibers 91% Asphalt/Binder, Fine grains, Fine particles

Sampled by: Client

Analyzed by: William Minor Date: 05/18/2018 Reviewed by: Nick Ly Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Kailua, HI 96734

Address: 329 Auwinala Road

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Batch #: 1808506.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 18 Samples Analyzed: 18

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Cellulose <1%

Layer 4 of 5 **Description:** Black soft asphaltic material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Asphalt/Binder, Fine grains, Fine particles

None Detected ND

Glass fibers <1%

Cellulose

Layer 5 of 5 **Description:** Black fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Asphalt/Binder, Fine particles

Glass fibers 94%

None Detected ND

Asbestos Type: %

Cellulose 2%

Lab ID: 18044503 Client Sample #: LHYB-A69

Location: First Floor

Layer 1 of 5 Description: Black asphaltic material with multi-colored mineral grains

> Non-Fibrous Materials: Other Fibrous Materials:%

None Detected ND Glass fibers 14% Asphalt/Binder, Mineral grains

> Cellulose 2%

Layer 2 of 5 **Description:** Black brittle asphaltic material

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

Asphalt/Binder, Fine grains, Fine particles **None Detected ND** Cellulose 5%

Glass fibers < 1%

Layer 3 of 5 **Description:** Black fibrous material

> Asbestos Type: % Non-Fibrous Materials: Other Fibrous Materials:%

Glass fibers 91% None Detected ND Asphalt/Binder, Fine grains

Sampled by: Client

Analyzed by: William Minor Date: 05/18/2018 Reviewed by: Nick Ly Date: 05/09/2018

Nick Ly, Technical Director

# NVID.

## **Bulk Asbestos Fibers Analysis**

By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

a Road Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 18

Batch #: 1808506.00

Samples Analyzed: 18

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Layer 4 of 5 Description: Black soft asphaltic material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Asphalt/Binder, Fine particles

Cellulose 4%

None Detected ND

Glass fibers <1%

Glass fibers 96%

Layer 5 of 5 Description: Black fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

**None Detected ND** 

Asphalt/Binder, Fine grains, Fine particles

Lab ID: 18044504 Location: First Floor Client Sample #: LHYB-A70

Layer 1 of 3 Description: Black asphaltic material with multi-colored mineral grains

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Asphalt/Binder, Mineral grains, Fine grains

Glass fibers 10%

None Detected ND

Cellulose 3%

Layer 2 of 3 Description: Black brittle asphaltic material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Asphalt/Binder, Fine particles

Cellulose 6%

Glass fibers 92%

None Detected ND

Layer 3 of 3 Description: Black fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

None Detected ND

Asphalt/Binder, Fine particles

Client Sample #: LHYB-A71

Lab ID: 18044505 Location: First Floor

Layer 1 of 2

Description: White fibrous material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Binder/Filler

Cellulose 65%

None Detected ND

Sampled by: Client

Analyzed by: William Minor Reviewed by: Nick Ly

Date: 05/18/2018 Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Batch #: 1808506.00

Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 18

Samples Analyzed: 18

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

**Description:** Black asphaltic material Layer 2 of 2

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Asphalt/Binder, Fine particles

Cellulose

**None Detected ND** 

Lab ID: 18044506 Client Sample #: LHYB-A72

Location: First Floor

Layer 1 of 1 **Description:** Black asphaltic fibrous built-up material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Asphalt/Binder, Mineral grains, Fine grains

Glass fibers 9% **None Detected ND** 

4% Cellulose

Lab ID: 18044507 Client Sample #: LHYB-A73

Location: First Floor

Layer 2 of 4

Layer 1 of 4 **Description:** Brown brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Cellulose

Cellulose 95%

Cellulose 16%

**Asbestos Type: % None Detected ND** 

Mastic/Binder, Fine particles

**Description:** Brown woven fibers

Non-Fibrous Materials: Other Fibrous Materials:%

Asbestos Type: % None Detected ND

Layer 3 of 4 **Description:** Brown firm material

Non-Fibrous Materials:

Linoleum/Binder

Mastic/Binder

Binder/Filler

Other Fibrous Materials:%

Asbestos Type: % None Detected ND

Layer 4 of 4 **Description:** Yellow brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

**Asbestos Type: %** 

**None Detected ND** Cellulose

Lab ID: 18044508 Client Sample #: LHYB-A74

Location: First Floor

Sampled by: Client

Analyzed by: William Minor Reviewed by: Nick Ly

Date: 05/18/2018 Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808506.00 Client Project #: TBG-180010

Date Received: 5/4/2018

Samples Received: 18

Samples Analyzed: 18

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Layer 1 of 4 Description: Brown brittle mastic

Non-Fibrous Materials:

Mastic/Binder, Fine particles

Other Fibrous Materials:%

Cellulose

Cellulose 97%

Cellulose 24%

2%

3%

4%

Asbestos Type: %

None Detected ND

**Description:** Brown woven fibers

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

**None Detected ND** 

Binder/Filler

**Description:** Brown firm material

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

None Detected ND

Linoleum/Binder

**Description:** Yellow brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Mastic/Binder

Cellulose 3%

None Detected ND

Location: First Floor

Layer 2 of 4

Layer 3 of 4

Layer 4 of 4

Layer 1 of 1 Description: Brown brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Mastic/Binder Cellulose

None Detected ND

Lab ID: 18044510 Client Sample #: LHYB-A76

Location: First Floor

Layer 1 of 1 Description: Brown brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Cellulose

Asbestos Type: %

**None Detected ND** 

Mastic/Binder, Adhesive/Binder

Lab ID: 18044511

Client Sample #: LHYB-A77

Location: First Floor

Sampled by: Client

Analyzed by: William Minor Reviewed by: Nick Ly

Date: 05/18/2018 Date: 05/09/2018

Nick Ly, Technical Director



By Polarized Light Microscopy

Client: The Benzing Group, LLC

Address: 329 Auwinala Road

Kailua, HI 96734

Batch #: 1808506.00

Client Project #: TBG-180010

Date Received: 5/4/2018 Samples Received: 18

Samples Received: 18
Samples Analyzed: 18

Method: EPA/600/R-93/116

& EPA/600/M4-82-020

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Layer 1 of 1 Description: Brown brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Mastic/Binder, Fine particles

Cellulose 3%

None Detected ND

Lab ID: 18044512 Client Sample #: LHYB-A78

Location: First Floor

Layer 1 of 1 Description: Brown brittle mastic

Non-Fibrous Materials:

Other Fibrous Materials:%

Asbestos Type: %

Mastic/Binder, Fine particles

Cellulose 2%

None Detected ND

Sampled by: Client

Analyzed by: William Minor Reviewed by: Nick Ly

Date: 05/18/2018 Date: 05/09/2018

Nick Ly, Technical Director

#### **NVL Laboratories, Inc.**



4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.co

ASBESTOS LABORATORY SERVICES	NVID.
om	L A B S

			•				<b>)</b> <b>AH</b> No		
		Kailua,	HI 96734		Rush TAT				
Proje	ct Manager	Mr. Ray	Benzing		<b>Due Date</b> 5/9/20	18 <b>Time</b> 9:	:15 AM		
-	_		•			vahoo.com			
		,	25-7814		_	,			
	-	()							
Proj	ect Name/N	lumber	: TBG-180010	Project Loca	<b>ition:</b> Leahi Hospital `	Young Building F	First Floor		
Subc	ategory PLI	M Bulk							
Ite	m Code AS	B-02	EPA 60	00/R-93-116 Asbest	os by PLM <bulk></bulk>				
_		•							
10			Samples <u>18</u>	— Decembration			Rush Sam	oles	
4	Lab ID		nple ID	Description					A/R
1	18044495		B-A61						A
3	18044496 18044497		B-A62 B-A63						A
4	18044498		B-A64						A
5	18044499		B-A65						A
6	18044500		B-A66						A
7	18044501		B-A67						A
8	18044502		B-A68						A
9	18044503		B-A69						A
10			B-A70						A
11	18044505		B-A71						A
12			B-A72						A
			B-A73						A
_	18044508		B-A74						A
_	18044509		B-A75						A
16	18044510		B-A76						A
17	18044511		B-A77						A
18	18044512		B-A78						A
			Print Name	Signature	Compan	у	Date	Time	
	Sampled		Client				_		
	Relinquishe	ed by	Federal Express						
Of	ffice Use Or	nly	Print Name	Signature	Compan	у	Date	Time	
	Receive	ed by	Emily Schubert		NVL		5/4/18	915	
	Analyze	ed by	William Minor		NVL		5/18/18		
	Results Cal								
	Faxed I	Emailed							
In	Special structions			·					

Date: 5/4/2018 Time: 10:17 AM

Entered By: Emily Schubert

The Benzing Group

586

## ASBESTOS CHAIN OF CUSTODY

1808506

Turn Around Time

		☐ 2 Hour			☐ 2 Days
		3 Days	4 Days	☐ 5 Days	🛘 10 Days
The Benzing Group LLC 329 Auwinala Road, Kailua Telephone: (808) 725-7814 ray@thebenzinggroup.com raybenzing@yahoo.com Project Manager: Ray Benz	cell, (808) 261-7982 office	ce			
Project Name/Number: Leahi I Project Location: First floor	Hospital Young Building/TE	<b>3G-180010</b>			
Analysis Requested:  PCM Air (NIOSH 7400)  PLM (EPA 600/R-93-116)  Reporting Instructions:	☐ TEM (NIOSH 7402) ☐ EPA 400 Points (600/R	,	,	☐ TEM (EPA Level I 000Points (600/R-93-1	,
Total Number of Samples: _	<u>15</u>				

	Sample ID	Homogeneous Area	Sample Location
1	LHYB-A61	White sink undercoating	Room 16S/16R
2	LHYB-A62		
3	LHYB-A63		
4	LHYB-A64	12-inch by 12-inch gray	Existing storage
5	LHYB-A65	floor tile and black	Office
6	LHYB-A66	mastic	office
7	LHYB-A67	Black roofing felt	Future carpentry shop
8	LHYB-A68		
9	LHYB-A69		
10	LHYB-A70	Black roof mastic along	Future carpentry shop
11	LHYB-A71	seams	
12	LHYB-A72		
13	LHYB-A73	Brown sheet flooring	Far west office reception by door
14	LHYB-A74	under carpeting and	Far west office reception by wall
15	LHYB-A75	associated mastic	Supervisors office

	Name	Signature	Date /	Time	
Sampled by	Ray Benzing	15thm-Rx	4/26/18		
Relinquished by	Ray Benzing	200	5/2/18		
Received by	Enrily	s Karon	NVL 5.4.1	8 915	FEDEX



636 1808506

## **ASBESTOS CHAIN OF CUSTODY**

			Turn Around	<u>l Time</u>	
		2 Hour	4 Hour	24 Hours	2 Days
		3 Days	☐ 4 Days	☐ 5 Days	☐ 10 Days
The Benzing Group LLC 329 Auwinala Road, Kailua Felephone: (808) 725-7814 ray@thebenzinggroup.com raybenzing@yahoo.com Project Manager: Ray Benz	cell, (808) 261-7982 offic				
Project Location: First floor	Topical Total Building 12	3 100010			
Analysis Requested:					
PCM Air (NIOSH 7400)	☐ TEM (NIOSH 7402)	TEM (AHER	RA) 🗆 T	EM (EPA Level I	I Modified)
PLM (EPA 600/R-93-116) Reporting Instructions:	☐ EPA 400 Points (600/R-	93-116)	□ EPA 1000P	oints (600/R-93-1	116)
Total Number of Samples: _	<u>3</u>				

	Sample ID	Homogeneous Area	Sample Location
1	LHYB-A76	Window glazing	Future carpentry shop
2	LHYB-A77		
3	LHYB-A78		
4			
5			
6			
7			×.
8			
9			
10			
11			
12			
13			
14	V		
15			

	Name	Signature	Date /	Time	
Sampled by	Ray Benzing	1 mg	4/26/18		
Relinquished by	Ray Benzing	1 Alexander	5/2/18		
Received by	EmilyS	(elin) de	JUL 5-4-18	3 915	FEDE



# Attachment 2

Lead Laboratory Report

Page 56 Project No.: TBG-180010 May 7, 2018

Ray Benzing

The Benzing Group, LLC
329 Auwinala Road
Kailua. HI 96734



RE: Metals Analysis; NVL Batch # 1808504.00

Dear Mr. Benzing,

Enclosed please find the test results for samples submitted to our laboratory for analysis. Preparation of these samples was conducted following protocol outlined in EPA Method SW 846-3051 unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with U.S. EPA, NIOSH, OSHA and other ASTM methods.

For matrix materials submitted as paint, dust wipe, soil or TCLP samples, analysis for the presence of total metals is conducted using published U.S. EPA Methods. Paint and soil results are usually expressed in mg/Kg which is equivalent to parts per million (ppm). Lead (Pb) in paint is usually expressed in mg/Kg (ppm), Percent (%) or mg/cm² by area. Dust wipe sample results are usually expressed in ug/wipe and ug/ft². TCLP samples are reported in mg/L (ppm). For air filter samples, analyses are conducted using NIOSH and OSHA Methods. Results are expressed in ug/filter and ug/m³. Other matrix materials are analyzed accordingly using published methods or specified by client. The reported test results pertain only to items tested and are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more details.

This report is considered highly confidential and will not be released without your approval. Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. if you need further assistance please feel free to call us at 206-547-0100 or 1-888-NVLLABS.

Sincerely,

Shalini Patel, Laboratory Analyst





#### **NVL Laboratories, Inc.**

4708 Aurora Ave N, Seattle, WA 98103

p 206.547.0100 | f 206.634.1936 | www.nvllabs.com



# **Analysis Report**

Total Lead (Pb)

Client: The Benzing Group, LLC Address: 329 Auwinala Road

Kailua, HI 96734

Attention: Mr. Ray Benzing

Project Location: Leahi Hospital Young Building First Floor

Batch #: 1808504.00

Matrix: Paint Method: EPA 3051/7000B Client Project #: TBG-180010 Date Received: 5/4/2018

Samples Received: 19
Samples Analyzed: 19

Lab ID	Client Sample #	Sample Weight (g)	RL in mg/Kg	Results in mg/Kg	Results in percent
18044468	LHYB-L1	0.1863	54	1300	0.13
18044469	LHYB-L2	0.1802	55	3400	0.34
18044470	LHYB-L3	0.1946	51	1400	0.14
18044471	LHYB-L4	0.1980	51	2400	0.24
18044472	LHYB-L5	0.1853	54	1200	0.12
18044473	LHYB-L6	0.1911	52	1800	0.18
18044474	LHYB-L7	0.2087	48	< 48	<0.0048
18044475	LHYB-L8	0.1875	53	900	0.090
18044476	LHYB-L9	0.1949	51	180	0.018
18044477	LHYB-L10	0.1954	51	81	0.0081
18044478	LHYB-L11	0.1934	52	270	0.027
18044479	LHYB-L12	0.1911	52	1400	0.14
18044480	LHYB-L13	0.1951	51	2300	0.23
18044481	LHYB-L14	0.2074	48	240	0.024
18044482	LHYB-L15	0.2088	48	1600	0.16
18044483	LHYB-L16	0.1870	53	2100	0.21
18044484	LHYB-L17	0.1806	55	< 55	<0.0055
18044485	LHYB-L18	0.1887	53	35000	3.5
18044486	LHYB-L19	0.1987	50	490	0.049

Sampled by: Client

Analyzed by: Yasuyuki Hida Date Analyzed: 05/07/2018
Reviewed by: Shalini Patel Date Issued: 05/07/2018

Shalini Patel, Laboratory Analyst

mg/ Kg =Milligrams per kilogram

Percent = Milligrams per kilogram / 10000

'<' = Below the reporting Limit

RL = Reporting Limit

Note: Method QC results are acceptable unless stated otherwise.

Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

Bench Run No: 2018-0507-2

#### N'



470

p 20

VL Laboratories, Inc.	LEAD LABORATORY SERVICES	
08 Aurora Ave N, Seattle, WA 98103		TM
06.547.0100   f 206.634.1936   www.nvllabs.com		L A B S

			nzing Group, LLC				Number '				
	Address		winala Road				ays		AH No		
		,					5/9/2018		0.15 AM		
Proje	_	-	Benzing								
			61-7982			=					
	Cell	(808) 72	25-7814			Fax					
Pro	ject Name/l	Number	: TBG-180010	F	Project Loc	ation: Leahi	Hospital Yo	oung Buildin	g First Floor		
Sub	category Fla	ame AA	(FAA)								
lte	em Code EA	AA-02	EPA 70	000B L	ead by FAA	<paint></paint>					
To			Samples 19						Rush Samp	oles	
	Lab ID		nple ID	Descr	iption						A/R
1			B-L1								A
2	_		B-L2								A
4			B-L3 B-L4								A
5			B-L4 B-L5								A
6			B-L6								A
7			B-L7								A
8			B-L8								A
9			B-L9								A
10			B-L10								Α
11			B-L11								Α
12	2 18044479	LHY	B-L12								А
13	3 18044480	LHY	B-L13								Α
14	18044481	LHY	B-L14								Α
15	18044482	LHY	B-L15								Α
16	18044483	LHY	B-L16								Α
17	7 18044484	LHY	B-L17								Α
18	18044485	LHY	B-L18								Α
			Print Name	Sig	nature		Company		Date	Time	
	Sample	d by	Client								
	Relinquish	ed by	Federal Express								
C	Office Use O	nly	Print Name	Sig	nature		Company		Date	Time	
	Receiv	ed by	Emily Schubert				NVL		5/4/18	915	
	Analyz	ed by	Yasuyuki Hida				NVL		5/7/18		
	Results Ca	alled by									
	Faxed	Emailed									
	Specia										

Date: 5/4/2018 Time: 10:08 AM

Entered By: Emily Schubert

#### **NVL Laboratories, Inc.**

# LEAD LABORATORY SERVICES



4708 Aurora Ave N. Seattle, WA 98103

4706 Aurora Ave i	v, seattle, WA 9010	3
p 206.547.0100	f 206.634.1936	www.nvllabs.cor

	The Benzing Group, LL0 329 Auwinala Road Kailua, HI 96734	2	NVL Batch Number TAT 3 Days Rush TAT	<b>1808504.00 AH</b> No	
Phone	Mr. Ray Benzing (808) 261-7982 (808) 725-7814		Due Date 5/9/2018 Email raybenzing@ya		
Project Name/	Number: TBG-180010	Project Loc	ation: Leahi Hospital Yo	oung Building First Floor	
Subcategory Ele Item Code EA	, ,	7000B Lead by FAA	<paint></paint>		
Total Numl	per of Samples1	9		Rush Samples	
Lab ID 19 18044486	Sample ID LHYB-L19	Description			A/R A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				
Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Emily Schubert		NVL	5/4/18	915
Analyzed by	Yasuyuki Hida		NVL	5/7/18	
Results Called by					
☐ Faxed ☐ Emailed					
Special Instructions:					

Date: 5/4/2018 Time: 10:08 AM

Entered By: Emily Schubert



#### **LEAD CHAIN OF CUSTODY**

			d Time 24 Hours 5 Days	•
The Benzing Group LLC 329 Auwinala Road, Kailua, Hawaii 96734 Telephone: (808) 725-7814 cell, (808) 261-7982 office ray@thebenzinggroup.com raybenzing@yahoo.com Project Manager: Ray Benzing	,			
Project Name/Number: Leahi Hospital Young Building/TBG-Project Location: First floor	180010			
Analysis Requested: Total Metals Reporting Instructions: Please report on % lead by weight	□ FAA ght	(ppm)		
Total Number of Samples:				

#### To

	Sample ID	Description	Color	Substrate	Comment
1	LHYB-LI	WALS	TAN	hard playter	
2	HYB-LZ	storogecloset wally	GRAY	Lard deader	
3	LHYB-L3	Walls	Dlue	hara peaseer	
4	LHYB-L4	Walls	Tan	Rand planter	
5	LHYB-LS	window frames	Beige	Works	
6	LHYB-L6	base boards	Beige	netre	
7	LHYB-L7	wplls	Beige	hard plastep	
8	LHYB-L8	ceiling.	Beine	Paro plante	
9	LHYB-L9	Britt-in furnitue	Beiga	Mass	
10	4443-110	door	Beige	WOOD	
11	L47B-1-11	door Exames	Betas	netas	
12	LHYB-L12	closet systems	tan	WOOD	
13	LHY13-43	Walls	neen	for a planter	
14	LH13-L14	walls 1	Mite	For plaster	
15	44YB-L15	calsinets	yellow	woode	

	Name	Signature /	Date /	Time	
Sampled by	Ray Benzing	18 Juny	4/24/18		
Relinquished by	Ray Benzing	1/ Hen 20	5/2/18		
Received by	Emilys	"ASO	VL 5.4.1	8 915	Fales



LEAD CHAIN OF CUSTODY						
			□ 2 Hour  → 3 Days	Turn Around  ☐ 4 Hour  ☐ 4 Days	☐ 24 Hot	urs 2 Days
329 Au Teleph ray@th rayben Project	nebenzinggroup.com zing@yahoo.com t Manager: Ray Benz	cell, (808) 261-7982 office	•			
Project Name/Number: Leahi Hospital Young Building/TBG-180010 Project Location: First floor						
Analysis Requested:  Total Metals  Reporting Instructions: Please report on % lead by weight						
Total Number of Samples:						
	Sample ID	Description	Color	<b>∆</b> Substrat	g	Comment
1	LH7B-L16	Walls	Light yel	MAN FOUND	glasser	
2	UHYB-U7	walls	grann	Trasa	Blass	~
3	LHYB - LIX	window frames	moun	Woo	Carles	_
5	-412-CI)	extagor and	porge	Nemon	peace(~.	
6						
7						

	Name	Signature	Date 1	Time
Sampled by	Ray Benzing	A Hen	7 4,124/18	
Relinquished by	Ray Benzing	1/2 Bonn	0 5/2/18	



Attachment 3

Photographs

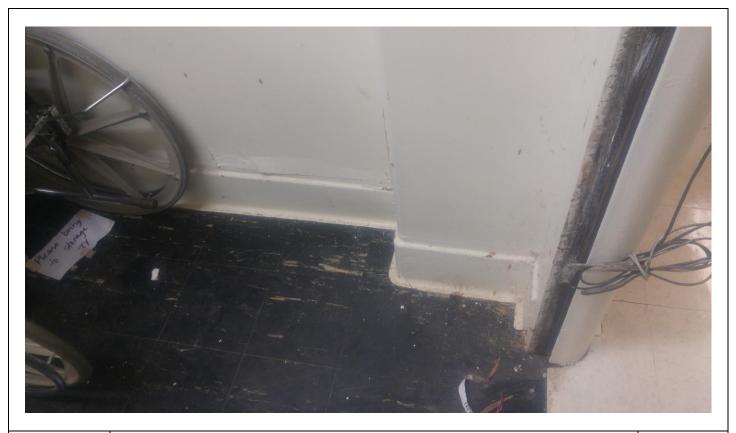


Photo 1 April 26, 2018 Project Site: Young Building - First Floor – Leahi Hospital, Honolulu, Hawaii Description: Asbestos-containing 9-inch by 9-inch floor tiles and associated mastic Client: CKM Architects, LLC.

Project No. TBG-180010



Photo 2 April 26, 2018 Project Site: Young Building - First Floor –Leahi Hospital, Honolulu, Hawaii

Description: Asbestos black sink undercoating in existing doctor's office (Room 27).

Client: CKM Architects, LLC.



Photo 3 April 26, 2018 Project Site: Young Building - First Floor – Leahi Hospital, Honolulu, Hawaii

Description: Asbestos sink underlining in existing lab (Room 30).

Client: CKM Architects, LLC.

Project No. TBG-180010

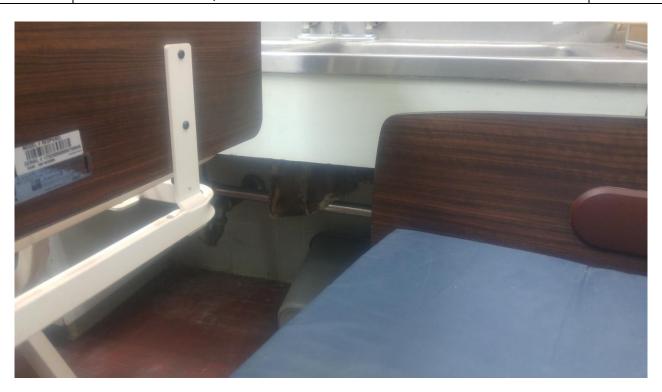


Photo 4				
April 2	6, 2018			

Project Site: Young Building - First Floor — Leahi Hospital, Honolulu, Hawaii Description: Asbestos sink underlining hanging off sink in existing storage room (poor condition).

Client: CKM Architects, LLC.

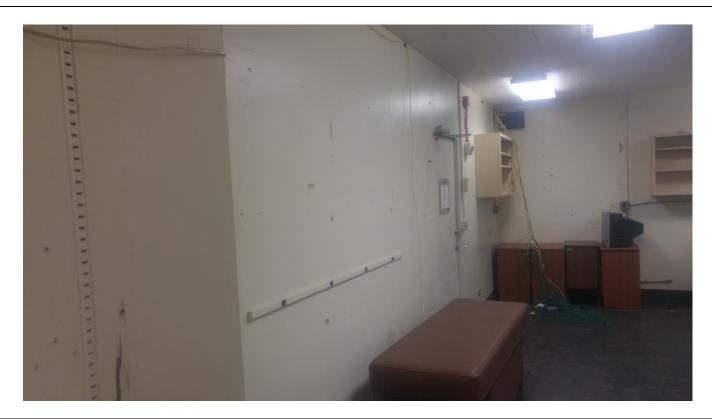


Photo 5 April 26, 2018 Project Site: Young Building - First Floor – Leahi Hospital, Honolulu, Hawaii Description: Asbestos-containing gypsum wallboard and mud in existing storage. Client: CKM Architects, LLC.

Project No. TBG-180010



Photo 6	
April 26.	2018

Project Site: Young Building - First Floor — Leahi Hospital, Honolulu, Hawaii Description: Ceiling 1-foot by 1-foot acoustical tiles with asbestos-containing brown mastic.

Client: CKM Architects, LLC.



Photo 7 April 26, 2018 Project Site: Young Building - First Floor – Leahi Hospital, Honolulu, Hawaii Description: Brown 6-inch vinyl cove base on gypsum wallboard in existing

Project No. TBG-180010

storage room.
Client: CKM Architects, LLC.



Photo 8				
April	26,	2018		

Project Site: Young Building - First Floor – Leahi Hospital, Honolulu, Hawaii Description: Brown LBP on window frames and sills in the existing lanai (future carpentry shop).

Client: CKM Architects, LLC.