

Pre-Demolition Hazardous Building Materials Survey

Residential Structure and Adjacent Barn
250 NW Lake Road
Camas, WA 98607

Prepared for:

City of Camas

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Sample Inventories	2.1
Laboratory Data	Not Numbered
AHERA Certificates	Not Numbered



May 2021

Project No.: 23212.002 Phase No.: 0001

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PBSUSA.COM

GENERAL INFORMATION

BUILDING DATA

Residential Structure and Adjacent Barn
250 NW Lake Road
Camas, WA 98607

CLIENT DATA

City of Camas
616 NE 4th Avenue
Camas, WA 98607

BACKGROUND INFORMATION

SURVEY SCOPE

PBS Engineering and Environmental Inc. (PBS) has performed a pre-demolition hazardous building materials survey of accessible building areas of a residential structure in accordance with Washington Administrative Code (WAC) 296-62-07721 and compiled a report with the following information:

- The type, location, and approximate quantity of suspect asbestos-containing materials
- Bulk sampling of selected suspect building materials
- Lead paint sampling
- Inspection summary
- Suspect polychlorinated biphenyl (PCB) light ballast and mercury light tube inspection
- Laboratory analytical data of bulk material sampled


PBS endeavored to locate all the suspect asbestos-containing materials in the building; however, suspect asbestos-containing materials may be present and concealed within wall, ceiling, or floor spaces. If suspect materials are uncovered during demolition activities that are not identified in this report, testing should be performed prior to impact.

PBS has conducted a physical inspection of the building, compiled this report consistent with the survey scope, and certifies that the information is correct and accurate within the standards of professional quality and contractual obligations.

Joe Lucas

Project Manager

Accreditation #: IRO-21-3527B

 Digitally signed by
Joe Lucas
Date: 2021.05.25
09:45:05 -07'00'

Signature

Date

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INSPECTION SUMMARY

DATES	SURVEYED BY	ACTIVITY
7/18/2014	Jay Doane	Inspect and Sample
3/30/2021	David Toy	Inspect and Sample
3/30/2021	Travis Long	Inspect and Sample
5/20/2021	Joe Lucas	Final Report

PBS has investigated accessible areas inside of the structures to locate suspect asbestos-containing building materials (ACBM). Suspect materials may be present in concealed areas (e.g., behind walls and under carpet). The findings are listed below.

ASBESTOS MATERIALS

The following materials either tested positive, or, based on the experience of PBS field personnel, were not tested and should be considered asbestos-containing. Materials that had mixed results are considered positive. Materials not sampled may not contain asbestos and should be tested to verify asbestos content prior to impact through demolition, renovation, etc.
 (+) Tested Positive, (M) Mixed Results, (P) Presumed Positive, (T) Previously Tested Positive.

See sample inventory for specific results.

Results	Material Description	Location	Details
(+)	<1% Window Glazing Compound	Residential exterior windows	NOT QUANTIFIED Non-friable Good
(+)	Black Sink Undercoating	Kitchen, on stainless steel sink	1 EA Non-friable Good
(+)	Built-up Asphaltic Roofing and Associated Silver Paint	Barn roof	1,300 SF Non-friable Good
(+)	Sheet Floor Covering	Living room, under carpet, on wood	250 SF Friable Good

INSPECTION SUMMARY

MATERIALS THAT TESTED NEGATIVE FOR ASBESTOS

The following materials tested negative based on ASHARA sampling minimums and testing by NVLAP participating laboratories. Although no asbestos was detected, it is possible that further sampling could indicate asbestos content. It may be prudent to test prior to impact through demolition, renovation, etc.

<u>Material (type)</u>	<u>Location</u>
3-tab Shingle Roofing	Residence roof
Composition Shingles	Residence roofing, two layers
Fibrous Ceiling Panels	Throughout residence
Fibrous Wall Panels	Throughout residence
Mortar	Barn chimney
Sheet Floor Covering	Kitchen and bath/laundry room
Window Glazing Compound	Barn

INSPECTION SUMMARY

BACKGROUND

On July 18, 2014, PBS Engineering and Environmental Inc. (PBS) performed a pre-demolition hazardous building materials survey of a residential structure located at 250 NW Lake Road in Camas, Washington. PBS returned on March 30, 2021, to updated the initial survey effort and survey the adjacent barn structure in anticipation of demolition. The purpose of the survey was to identify asbestos-containing building materials, lead paint, and other building materials that may be impacted by the proposed demolition of the structures.

The site consists of a single-story, wood framed, one-bedroom residential structure with a shingled, pitched roof. The adjacent barn is a single-story, wood framed unfinished building.

This survey is compiled to satisfy the requirements to perform an asbestos inspection prior to renovation or demolition activities and Occupational Safety and Health Administration (OSHA) hazard communication requirements. It is not intended to serve as an abatement specification or bidding document. The following is a summary of our findings.

ASBESTOS SUMMARY

Bulk samples of suspect asbestos-containing materials (ACM) were collected by a PBS Asbestos Hazard Emergency Response Act (AHERA) accredited inspector and submitted under chain-of-custody to Lab/Cor, Inc. of Portland, Oregon, for polarized light microscopy (PLM) analysis.

- Approximately 250 square feet of asbestos-containing sheet flooring was observed in the living room. The sheet flooring is located under the carpeting on a wood subfloor.
- Approximately 1,300 square feet of asbestos-containing asphaltic built-up roofing and associated silver paint. The roofing material is located on wood decking.
- Approximately 1 stainless steel sink with asbestos-containing black undercoating was observed in the kitchen.
- Less than 1% (<1%) asbestos-containing window glazing was identified on each of the residential structure windows. This material was not quantified.

All materials sampled as part of this survey were found intact and in good condition.

Asbestos Regulatory Issues

Southwest Clean Air Agency (SWCAA) 476-040 and Washington Administrative Code (WAC) 296-62-07721 require that an asbestos survey be completed before demolition or renovation activities. These regulations also require proper removal and disposal of ACM prior to building renovation or demolition. PBS recommends that all ACM to be impacted by the project be removed prior to renovation activities. A qualified Washington State licensed asbestos abatement contractor should be employed to remove all such ACM according to applicable local, state, and federal regulations.

OSHA provides federal regulations governing asbestos (29 CFR Part 1926, 1101). These regulations have made significant changes in work procedures and how ACM are removed. OSHA believes that the single biggest problem is to workers who unknowingly or improperly disturb ACM. Hazard communication, training, personal protection, work practices, exposure monitoring, and recordkeeping are all major components of the regulation. Work impacting asbestos is subject to the requirements of various regulations, including, but not limited to: 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAPS); 40 CFR Part 763, AHERA; WAC 296-62 and 296-65; and local clean air agency regulations.

INSPECTION SUMMARY

Materials with <1% asbestos are not regulated by the Environmental Protection Agency (EPA) and may be disposed of as general construction debris. However, workers impacting these materials must adhere to regulatory requirements outlined in WAC 296-62-17712 (2) and training as outlined in WAC 296-62-07722 (5) and WAC 296-62-0728. Personal protective equipment and proper work practices are required pending the completion of a negative exposure assessment.

INSPECTION SUMMARY

LEAD PAINT SUMMARY

Representative bulk samples of suspect paint applications were collected on selected exterior and interior building surfaces. The paint samples were submitted to a qualified laboratory for lead analysis.

Lead analysis results ranged between 2,570 parts per million (ppm) and 29,600 ppm. See the lead sample inventory section of this report for representative building components and corresponding results.

The paint testing conducted for this survey was limited in scope. The report information and testing results are not to be construed as an exhaustive investigation of lead-containing paint on all building surfaces. All painted surfaces not identified in this report should be presumed to have lead in the paint.

Lead-Containing Paint Regulations

The Consumer Product Safety Commission limit for lead in consumer paint products is 0.009% or 90 ppm or greater. The Department of Housing and Urban Development (HUD) and the EPA define lead-based paint as that which contains 0.5% or 5,000 ppm. Under the Washington State Department of Labor and Industries, any lead concentration in paint that may become airborne during construction operations triggers requirements in the Lead in Construction Standard WAC 296-155-176 to protect employees impacting the paint.

INSPECTION SUMMARY

Polychlorinated Biphenyls (PCBs) Containing Components

PBS inspected representative fluorescent light fixture ballasts throughout the building and found magnetic ballasts with "No PCBs" labeling. PBS recommends all light ballasts be inspected prior to disposal. Magnetic ballasts, regardless of "No PCBs" labeling, should be presumed to contain PCBs and properly removed, stored, transported, and disposed of in accordance with applicable regulations.

Mercury Containing Components

Fluorescent lamps are known to contain mercury. PBS noted approximately 10 fluorescent lamps. Fluorescent lamps included 4-foot tubes and U-shaped lamps. PBS recommends that all fluorescent lamps be handled and recycled in accordance with applicable regulations prior to demolition activities. Breakage of lamps is to be prevented. All lamps should be properly packaged and recycled or disposed of at a facility permitted to accept such material. The Division of Occupational Safety and Health (DOSH) requires specific training, handling, engineering controls, and disposal practices when performing this work.

This report is not suitable as a bid document or an asbestos abatement design. The purpose of this report is risk hazard communication only.

BULK SAMPLE INVENTORY

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>	
23212.002-0001	Ceiling Panel	Living room; fibrous ceiling panel		Lab Cor	
		Layer: Layer 1	Description: compressed fibers, brown with paint, white		Analysis: No Asbestos Detected
23212.002-0002	Ceiling Panel	Kitchen; fibrous ceiling panel		Lab Cor	
		Layer: Layer 1	Description: compressed fibers, brown with paint, white		Analysis: No Asbestos Detected
23212.002-0003	Wall Panel	Living room; fibrous wall panel		Lab Cor	
		Layer: Layer 1	Description: compressed fibers, brown with paint, white		Analysis: No Asbestos Detected
23212.002-0004	Wall Panel	Bedroom; fibrous wall panel		Lab Cor	
		Layer: Layer 1	Description: compressed fibers, brown with paint, white		Analysis: No Asbestos Detected
23212.002-0005	Sheet Floor Covering (1)	Living room; under carpet		Lab Cor	
		Layer: Layer 1	Description: vinyl sheet, tan		Analysis: No Asbestos Detected
		Layer 2	fibrous backing, gray with mastic, brown		35% Chrysotile
23212.002-0006	Sheet Floor Covering (2)	Kitchen/bathroom; sheet flooring		Lab Cor	
		Layer: Layer 1	Description: vinyl sheet, off-white		Analysis: No Asbestos Detected
		Layer 2	fibrous backing, tan with powder		No Asbestos Detected
		Layer 3	vinyl sheet, off-white		No Asbestos Detected
		Layer 4	fibrous backing, tan with mastic, orange		No Asbestos Detected
23212.002-0007	Composition Shingles	Exterior; roof, bottom layer		Lab Cor	
		Layer: Layer 1	Description: rocky fibrous tar, black		Analysis: No Asbestos Detected
23212.002-0008	Composition Shingles	Exterior; roof, top layer		Lab Cor	
		Layer: Layer 1	Description: rocky fibrous tar, black		Analysis: No Asbestos Detected

BULK SAMPLE INVENTORY

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
23212.002-0009	Mastic	250 kitchen; east wall at sink, brown mastic with black paper		Lab Cor
		Layer:	Description:	Analysis:
		Layer 01	fibrous material, black	No Asbestos Detected
		Layer 02	mastic material, brown/black	No Asbestos Detected
		Layer 03	wood, tan, with thin coating, yellow	No Asbestos Detected
23212.002-0010	Sink Undercoating	250 kitchen; sink, black sink undercoating, painted yellow		Lab Cor
		Layer:	Description:	Analysis:
		Layer 1	loose particulate, black/white	3% Chrysotile
23212.002-0011	Window Glazing Compound	250; southeast exterior window, gray window glaze		Lab Cor
		Layer:	Description:	Analysis:
		Layer 1	compact powdery material, gray/off-white	<1% Chrysotile
23212.002-0012	Window Glazing Compound	250 barn; south exterior window, gray window glaze		Lab Cor
		Layer:	Description:	Analysis:
		Layer 1	compact powdery material, gray/white/off-white	No Asbestos Detected
23212.002-0013	Built-up Roofing	250 barn; roofing		Lab Cor
		Layer:	Description:	Analysis:
		Layer 01	tar, black, with coating, silver	4% Chrysotile
		Layer 02	fibrous tar, black	No Asbestos Detected
		Layer 03	tar, black	4% Chrysotile
		Layer 04	fibrous tar, black, with tar, black	8% Chrysotile
23212.002-0014	Mortar	250 barn; chimney		Lab Cor
		Layer:	Description:	Analysis:
		Layer 1	loose granular material, gray/red	No Asbestos Detected

LEAD SAMPLE INVENTORY

<u>Code</u>	<u>Material</u>	<u>Analysis</u>	<u>Location</u>	<u>Lab</u>
PAINT				
LB23212.002-1001	Paint	29,600 ppm	Exterior; window frame, wood, white, good condition	R.J. Lee Group
LB23212.002-1002	Paint	8,010 ppm	Exterior; siding, wood, white, good condition	R.J. Lee Group
LB23212.002-1003	Paint	5,820 ppm	Living room; door frame, wood, tan, good condition	R.J. Lee Group
LB23212.002-1004	Paint	2,570 ppm	Kitchen; wall, panel, tan, good condition	R.J. Lee Group
LB23212.002-1005	Paint	17,600 ppm	Barn; exterior wood siding, teal, poor condition	R.J. Lee Group

Client: PBS Engineering and Environmental
4412 SW Corbett Avenue
Portland, OR 97239

Report Number: 141745R01
Report Date: 07/23/2014

Job Number: 141745

P.O. No: n/a

Project Name: 250 Lake Road

Project Number: 23212.002 Phase 0001

Project Notes:

Client Sample ID:	23212.002-0001	Sample ID:	S1	Date Analyzed:	07/23/2014	
Client Sample Description:	asbestos bulk	Analyst:	Ryan Brown			
Asbestos Mineral Fibers	Layer					Percent Asbestos:
	Percent:	Chrysotile	Amosite	Crocidolite		
Homogeneous						
compressed fibers, brown with paint, white	100 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
	-	90 %	-	-	-	10 %

Client Sample ID:	23212.002-0002	Sample ID:	S2	Date Analyzed:	07/23/2014	
Client Sample Description:	asbestos bulk	Analyst:	Ryan Brown			
Asbestos Mineral Fibers	Layer					Percent Asbestos:
	Percent:	Chrysotile	Amosite	Crocidolite		
Homogeneous						
compressed fibers, brown with paint, white	100 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
	-	90 %	-	-	-	10 %

Client Sample ID:	23212.002-0003	Sample ID:	S3	Date Analyzed:	07/23/2014	
Client Sample Description:	asbestos bulk	Analyst:	Ryan Brown			
Asbestos Mineral Fibers	Layer					Percent Asbestos:
	Percent:	Chrysotile	Amosite	Crocidolite		
Homogeneous						
compressed fibers, brown with paint, white	100 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
	-	90 %	-	-	-	10 %

Client Sample ID:	23212.002-0004	Sample ID:	S4	Date Analyzed:	07/23/2014	
Client Sample Description:	asbestos bulk	Analyst:	Ryan Brown			
Asbestos Mineral Fibers	Layer					Percent Asbestos:
	Percent:	Chrysotile	Amosite	Crocidolite		
Homogeneous						
compressed fibers, brown with paint, white	100 %	-	-	-		NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other	Matrix
	-	90 %	-	-	-	10 %

Job Number: 141745

Report Number: 141745R01

Report Date: 07/23/2014

Client Sample ID: 23212.002-0005	Sample ID: S5	Date Analyzed: 07/23/2014	
Client Sample Description: asbestos bulk		Analyst: Ryan Brown	
Asbestos Mineral Fibers	Layer		Percent Asbestos:
	Percent: Chrysotile Amosite Crocidolite		
Layer 01			
vinyl sheet, tan	45 % - -		NAD
Layer 02			
fibrous backing, gray with mastic, brown	55 % 35 % - -		35 %
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other		Matrix
Layer 01	- - - - -	-	100 %
Layer 02	- 65 % - - -	-	0 %

Client Sample ID: 23212.002-0006	Sample ID: S6	Date Analyzed: 07/23/2014	
Client Sample Description: asbestos bulk		Analyst: Ryan Brown	
Asbestos Mineral Fibers	Layer		Percent Asbestos:
	Percent: Chrysotile Amosite Crocidolite		
Layer 01			
vinyl sheet, off-white	15 % - - -		NAD
Layer 02			
fibrous backing, tan with powder	35 % - - -		NAD
Layer 03			
vinyl sheet, off-white	20 % - - -		NAD
Layer 04			
fibrous backing, tan with mastic, orange	30 % - - -		NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other		Matrix
Layer 01	- - - - -	-	100 %
Layer 02	- 75 % - - -	-	25 %
Layer 03	- - - - -	-	100 %
Layer 04	- 75 % - - -	-	25 %

Client Sample ID: 23212.002-0007	Sample ID: S7	Date Analyzed: 07/23/2014	
Client Sample Description: asbestos bulk		Analyst: Ryan Brown	
Asbestos Mineral Fibers	Layer		Percent Asbestos:
	Percent: Chrysotile Amosite Crocidolite		
Homogeneous			
rocky fibrous tar, black	100 % - - -		NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other		Matrix
	- 40 % - Trace - -	-	60 %

Client Sample ID: 23212.002-0008	Sample ID: S8	Date Analyzed: 07/23/2014	
Client Sample Description: asbestos bulk		Analyst: Ryan Brown	
Asbestos Mineral Fibers	Layer		Percent Asbestos:
	Percent: Chrysotile Amosite Crocidolite		
Homogeneous			
rocky fibrous tar, black	100 % - - -		NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other		Matrix
	10 % - - - -	-	90 %



Lab/Cor Portland, Inc.

4321 SW Corbett Ave., Ste A
Portland, OR 97239

BULK SAMPLE ASBESTOS ANALYSIS

Phone: (503) 224-5055
Fax: (503) 228-8282
<http://www.labcorpdx.net>

Asbestos and Environmental Analysis

Job Number: 141745

Report Number: 141745R01

Report Date: 07/23/2014

This laboratory participates in the National Voluntary Laboratory Accreditation Program (NVLAP).
Testing method is per 40 CFR 763 Subpart F, Appendix A, PLM.

Layered samples are considered non-homogeneous."Misc" is miscellaneous. "NAD" is No Asbestos Detected.
Asbestos consists of the following minerals: chrysotile, amosite, crocidolite, tremolite, actinolite, anthophyllite.
Small diameter fibers such as those found in vinyl floor tiles, may not be detected by PLM.
Asbestos detection interferences may result from material binders.

Qualitative and quantitative TEM analysis may be recommended for difficult samples.

Quantitative analysis by PLM point count or TEM is recommended for samples testing at < or = to 1% asbestos.

The following estimate of error for this method by visual estimation of asbestos percent are as follows:

1% asbestos: 0-3% error, 5% asbestos: 1-9% error, 10% asbestos: 5-15% error, 20% asbestos: 10-30% error.

This report pertains only to the samples listed on the report. Report considered valid only when signed by analyst.

Reviewed by:

Ryan M. Brown
Ryan Brown

Analyst



141745



Engineering + Environmental

LABORATORY TRANSMITTAL AND CHAIN OF CUSTODY

Project No.: 23212.002 Phase No.: 0001 Task No.:

Project Site/Location: 250 Lake Road

Individuals signing this form warrant that the information provided is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

RECEIVER (lab use only)

Date Sent: July 21, 2014

Date Received: 7/21/14 11:45

PBS Engineering + Environmental
4412 SW Corbett Avenue
Portland, Oregon 97239
503.248.1939 Fax: 503.248.0223

Company:
Address:
Phone:

Harmony Kellay
Name
Authorized Signature: [Signature] Date: 7/21/14

Abel Johnson
Receiver Name
Authorized Signature: [Signature] Date: 7/21/14

Email Results To: harmony-kellay@pbsenv.com
Verbal Results To: Phone:

Table with 3 columns: Sample No., Sample Type & Description (asb. /lead, bulk/air, vol. /area, etc.), Analysis Requested. Row 1: -0001, asbestos bulk, PLM. Rows 2-9: -0002 to -0008 with downward arrows in description and analysis columns.

TURNAROUND DESIRED: 48 Hour

SPECIAL INSTRUCTIONS:

Please email the results to the above Sender. Please archive any remaining sample components for a minimum of thirty days after analysis date.





PLM - Visual Estimate Extended Final Report

Job Number: 211100

Client: PBS Engineering and Environmental

**Address: 4412 S Corbett Avenue
Portland, OR 97239**

Report Number: 211100R01

Report Date: 4/5/2021

Project Name:

Project No.: 23212.002 Phase 0001

PO Number:

Sub Project:

Reference No.:

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
211100 - S1	23212.002-0009 -	PLM - Visual Estimate Extended		3/31/2021
211100 - S2	23212.002-0010 -	PLM - Visual Estimate Extended		3/31/2021
211100 - S3	23212.002-0011 -	PLM - Visual Estimate Extended		3/31/2021
211100 - S4	23212.002-0012 -	PLM - Visual Estimate Extended		3/31/2021
211100 - S5	23212.002-0013 -	PLM - Visual Estimate Extended		3/31/2021
211100 - S6	23212.002-0014 -	PLM - Visual Estimate Extended		3/31/2021



PLM - Visual Estimate Extended Final Report

Job Number: 211100

Client: PBS Engineering and Environmental

Report Number: 211100R01

Report Date: 4/5/2021

Project Name:

PLM - Visual Estimate Extended The submitted sample(s) were analyzed according to the EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials and EPA - 40CFR App. E to Subpart E of Part 763. The sample(s) were analyzed with a digital microscope in order to determine homogeneity, the presence of fibers, and make a preliminary estimate of any asbestos fibers present in the sample. The sample(s), and any observed layers, were then homogenized through techniques appropriate to that material and prepared for analysis by polarized light microscopy (PLM).

Three slide mount preparations were made from random subsamples of the homogenized material. This material was then mounted in the suitable refractive index liquid needed to perform a full optical characterization of the observed fibers. When necessary, dilute HCl, instead of RI liquids, were used to remove cementitious binders to facilitate analysis. The entirety of the slide mount preparations were then analyzed by PLM. Any observed fibers were reported and their optical characteristics recorded according to the EPA 600-R-93-116 method.

Disclaimer This report, and the data contained therein, cannot be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government. The results found in this report are based only on the submitted sample(s). LabCor has no control over sampling procedures. This report is only valid when signed by an analyst.

NAD is No Asbestos Detected. Asbestos consists of the six following minerals: chrysotile, amosite, crocidolite, anthophyllite, actinolite, and tremolite.

Additional gravimetric, point-count or TEM analysis may be recommended for samples testing at < or = 1% asbestos, or those with material binders that prevent the detection of small diameter fibers.

The following estimate of error for this method by visual estimation of asbestos percent are as follows:

- 1% asbestos: >0-3% error,
- 5% asbestos: 1-9% error,
- 10% asbestos: 5-15% error,
- 20% asbestos: 10-30% error.

Sincerely,



Tim Cammann
Senior Analyst

BULK SAMPLE ASBESTOS ANALYSIS

Client: PBS Engineering and Environmental
4412 S Corbett Avenue
Portland, OR 97239

Report Number: 211100R01
Report Date: 04/05/2021

Job Number: 211100

P.O. No: n/a

Project Name:

Project Number: 23212.002 Phase 0001

Project Notes:

Client Sample ID: 23212.002-0009	Sample ID: S1	Date Analyzed: 04/05/2021	
Client Sample Description:		Analyst: Tim Cammann	
Asbestos Mineral Fibers	Layer Percent:	Chrysotile	Amosite
			Crocidolite
			Percent Asbestos:
Layer 01			
fibrous material, black	25 %	-	-
			NAD
Layer 02			
mastic material, brown/black	10 %	-	-
			NAD
Layer 03			
wood, tan, with thin coating, yellow	65 %	-	-
			NAD
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic
			Other
			Matrix
Layer 01	-	75 %	-
			25 %
Layer 02	-	Trace	-
			100 %
Layer 03	-	95 %	-
			5 %

Client Sample ID: 23212.002-0010	Sample ID: S2	Date Analyzed: 04/05/2021	
Client Sample Description:		Analyst: Tim Cammann	
Asbestos Mineral Fibers	Layer Percent:	Chrysotile	Amosite
			Crocidolite
			Percent Asbestos:
Homogeneous			
loose particulate, black/white	100 %	3 %	-
			3 %
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic
			Other
			Matrix
	-	6 %	-
			91 %

Client Sample ID: 23212.002-0011	Sample ID: S3	Date Analyzed: 04/05/2021	
Client Sample Description:		Analyst: Tim Cammann	
Asbestos Mineral Fibers	Layer Percent:	Chrysotile	Amosite
			Crocidolite
			Percent Asbestos:
Homogeneous			
compact powdery material, gray/off-white	100 %	Trace	-
			< 1 %
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool
			Synthetic
			Other
			Matrix
	-	4 %	-
			96 %

Asbestos and Environmental Analysis

Client: PBS Engineering and Environmental
4412 S Corbett Avenue
Portland, OR 97239

Report Number: 211100R01
Report Date: 04/05/2021

Job Number: 211100

P.O. No: n/a

Project Name:

Project Number: 23212.002 Phase 0001

Project Notes:

Client Sample ID: 23212.002-0012	Sample ID: S4	Date Analyzed: 04/05/2021	
Client Sample Description:		Analyst: Tim Cammann	
Asbestos Mineral Fibers	Layer Percent: Chrysotile Amosite Crocidolite		Percent Asbestos:
Homogeneous			
compact powdery material, gray/white/off-white	100 % - - -		NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other		Matrix
	- Trace - - -		100 %

Client Sample ID: 23212.002-0013	Sample ID: S5	Date Analyzed: 04/05/2021	
Client Sample Description:		Analyst: Tim Cammann	
Asbestos Mineral Fibers	Layer Percent: Chrysotile Amosite Crocidolite		Percent Asbestos:
Layer 01			
tar, black, with coating, silver	25 % 4 % - -		4 %
Layer 02			
fibrous tar, black	25 % - - -		NAD
Layer 03			
tar, black	25 % 4 % - -		4 %
Layer 04			
fibrous tar, black, with tar, black	25 % 8 % - -		8 %
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other		Matrix
Layer 01	- Trace - - -		96 %
Layer 02	10 % Trace - - -		90 %
Layer 03	- - - - -		96 %
Layer 04	- - - - -		92 %

Client Sample ID: 23212.002-0014	Sample ID: S6	Date Analyzed: 04/05/2021	
Client Sample Description:		Analyst: Tim Cammann	
Asbestos Mineral Fibers	Layer Percent: Chrysotile Amosite Crocidolite		Percent Asbestos:
Homogeneous			
loose granular material, gray/red	100 % - - -		NAD
Other Fibers	Fibrous Glass Cellulose Mineral Wool Synthetic Other		Matrix
	- - - - -		100 %



Asbestos and Environmental Analysis

Client: PBS Engineering and Environmental
4412 S Corbett Avenue
Portland, OR 97239

Report Number: 211100R01

Report Date: 04/05/2021

Job Number: 211100

P.O. No: n/a

Project Name:


Project Number: 23212.002 Phase 0001

Project Notes:

This laboratory participates in the National Voluntary Laboratory Accreditation Program (NVLAP). Testing method is per EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials and EPA - 40CFR App. E to Subpart E of Part 763, PLM. This report and the data contained therein cannot be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

- "NAD" is No Asbestos Detected.
- Asbestos consists of the following minerals: chrysotile, amosite, crocidolite, tremolite, actinolite, anthophyllite.
- Material binders, such as those found in vinyl floor tiles, may prevent the detection of small diameter asbestos fibers. A gravimetric preparation and point-count is recommended for such samples.
- Quantitative analysis by PLM point count or TEM may be recommended for samples testing at < or = to 1% asbestos.
- The following estimate of error for this method by visual estimation of asbestos percent are as follows:
1% asbestos: >0-3% error, 5% asbestos: 1-9% error, 10% asbestos: 5-15% error, 20% asbestos: 10-30% error.
- This report pertains only to the samples listed on the report. Report considered valid only when signed by analyst.

Reviewed by:


 X **Tim Cammann**
 Senior Analyst



TRANSMITTAL AND CHAIN OF CUSTODY FOR ASBESTOS BULK SAMPLES

Project No.: 23212.002 Phase 0001

Individuals signing this form warrant that the information provided is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: March 30, 2021

PBS Engineering and Environmental Inc.
4412 S Corbett Avenue
Portland, OR 97239
503.248.1939, Fax: 866.727.0140

Alex Johnson
Name: Alex Johnson
Date: 2021.03.30
15:25:57 -07'00'
Authorized Signature: [Signature]

RECEIVER

Date Received: 3/31/21

Company: Lab Cor
Address: 4321 S Corbett Ave Ste A
Portland, OR 97239
503-224-5055

Katie Schultz
Name: Katie Schultz
Authorized Signature: [Signature]
Date: 3/31/21
Time: 1:05PM

Table with 3 columns: Sender's ID No., Brief Description, Receiver's ID No. Rows contain sample IDs 23212.002-0009 through 23212.002-0014.

Please analyze the enclosed 6 sample(s) for asbestos content using PLM with dispersion staining. PBS requests prior notification if samples will be disposed.

Request verbal results by: _____ AM/PM _____ Date.

Please fax and mail the results to the above address.

TURNAROUND DESIRED: 72 Hour

SPECIAL INSTRUCTIONS: TLo

LABORATORY REPORT

 PBS Environmental - Portland, OR
 4412 Southwest Corbett Ave.
 Portland, OR 97239

 Attn: Harmony Kilby
 Phone: 503-248-1939
 Fax: 866-727-0140
 Email: harmony.kilby@pbsenv.com

 RJ Lee Group Job No.: PA220720140009
 Samples Received: July 22, 2014
 Report Date: July 24, 2014
 Client Project: 23212.002 phase 0001
 Purchase Order No.: N/A
 Matrix: Solid
 Prep/Analysis: EPA 3050B / EPA 7420

Client Sample ID	RJ Lee Group ID	Sampling Date	Analyte	Sample Concentration		Minimum Reporting Limit		Analysis Date	Q
				Weight Percent (%)	Parts per Million (PPM) - mg/kg	Weight Percent (%)	Parts per Million (PPM) - mg/kg		
LB23212.002-1001	PA220720140009-001	NP	Lead	2.96	29600	0.00957	95.7	07/23/2014	—
LB23212.002-1002	PA220720140009-002	NP	Lead	0.801	8010	0.00940	94.0	07/23/2014	—
LB23212.002-1003	PA220720140009-003	NP	Lead	0.582	5820	0.00953	95.3	07/23/2014	—
LB23212.002-1004	PA220720140009-004	NP	Lead	0.257	2570	0.00995	99.5	07/23/2014	—

Comments:
Report Qualifiers (Q):

P : PA-DEP Accredited (PA DEP Lab ID 02-00396, NELAP)
N : NY ELAP Accredited (NY ELAP Lab Code 10884)
C : CA ELAP Accredited (CA ELAP Certificate 1970)

— : Test (analyte-matrix-preparation-analysis) is performed under RJLG's General Quality System requirements and is not part of any of the above scopes of accreditations

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, RJ Lee Group will store the samples for a period of thirty (30) days before discarding. A shipping and handling fee will be assessed for the return of any samples.

This laboratory operates in accord with ISO 17025:2005 guidelines, and holds a limited scope of accreditations under different accrediting agencies; refer to <http://www.rjlg.com/about-us/accreditations/> for more information and current status. This report may not be used to claim product endorsement by any laboratory accrediting agency. The results contained in this report relate only to the items tested or to the sample(s) as received by the laboratory. Any reproduction of this document must be in full for the report to be valid.

Unless otherwise noted (either in the comments section of the report and/or with the appropriate qualifiers under the report qualifiers (Q) column) the following apply: (a) Samples were received in good condition, (b) All QC samples are within acceptable established limits, (c) All samples designated as NELAP meet the requirements of the NELAC standard; if not applicable qualifiers will be used to designate the non-compliance and (d) Results have not been blank corrected. Quality Control data is available upon request.

E = Value above highest calibration standard

J = Value below lowest calibration standard but above MDL (Method Detection Limit)

L = LCS (Laboratory Control Standard)/SRM (Standard Reference Material) recovery outside accepted recovery limits

H = Holding times for preparation or analysis exceeded

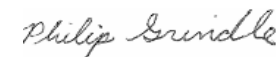
B = Analyte detected in the associated Method Blank

S = Spike Recovery outside accepted limits

R = RPD (relative percent difference) outside accepted limits

D = RL (reporting limit verification) outside accepted limits

NP = Not Provided



 Philip Grindle
 Laboratory Supervisor



Engineering + Environmental

TRANSMITTAL AND CHAIN OF CUSTODY FOR LEAD BULK SAMPLES

Project No.: 23212.002 Phase 0001

Individuals signing this form warrant that the information provided is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: July 21, 2014

PBS Engineering + Environmental
4412 SW Corbett Avenue
Portland, OR 97239
503.248.1939, Fax: 866.727.0140

RECEIVER

Date Received: 07/22/14

Company: R.J. Lee Group
Address: 350 Hochberg Road
Monroeville, PA 15146
724-325-1776

Handwritten signature: Harmony Kelly
Name: Harmony Kelly
Authorized Signature: [Signature]
Date: 7/22/14

Handwritten signature: [Signature]
Name: [Signature]
Authorized Signature: [Signature]
Date: [Signature]

Table with 3 columns: Sender's ID No., Brief Description, Receiver's ID No.
Rows: LB23212.002-1001, LB23212.002-1002, LB23212.002-1003, LB23212.002-1004

ANALYSIS REQUESTED:
LEAD:
 Paint
 Wipe
 Soil/Misc.
 Air
 TCLP

Please analyze the enclosed 4 sample(s) for LEAD content using Atomic Absorption Method. PBS requests prior notification if samples will be disposed.

Please fax and mail the results to the above address.

TURNAROUND DESIRED:
48 Hour

SPECIAL INSTRUCTIONS:
[Handwritten initials JD]

LABORATORY REPORT

 PBS Engineering & Environmental
 4412 Southwest Corbett Ave
 Portland, OR 97239

 Attn: Alex Johnson
 Phone: 503-248-1939

Email: alex.johnson@pbsusa.com

 RJ Lee Group Job No.: PA010420210009
 Samples Received: April 1, 2021
 Report Date: April 6, 2021
 Client Project: 23212.002 Phase 0001
 Purchase Order No.: N/A
 Matrix: Solid
 Prep/Analysis: EPA 3050B / EPA 6010C-Paint

Client Sample ID	RJ Lee Group ID	Sampling Date	Analyte	Sample Concentration		Minimum Reporting Limit		Analysis Date	Q
				Weight Percent (%)	Parts per Million (PPM) - mg/kg	Weight Percent (%)	Parts per Million (PPM) - mg/kg		
LB23212.002-1005	PA010420210009-001	NP	Lead	1.76	17600	0.0242	242	4/2/2021	A

Comments:
Report Qualifiers (Q):

P : PA-DEP Accredited (PA DEP Lab ID 02-00396, NELAP)
N : NY ELAP Accredited (NY ELAP Lab Code 10884)

A : AIHA-LAP, LLC Accredited (Lab ID 100364)

— : Test (analyte-matrix-preparation-analysis) is performed under RJLG's General Quality System requirements and is not part to any of the above scopes of accreditations

E = Value above highest calibration standard

j = Value below lowest calibration standard but above MDL (Method Detection Limit)

L = LCS (Laboratory Control Standard)/SRM (Standard Reference Material) recovery outside accepted recovery limits

H = Holding times for preparation or analysis exceeded

B = Analyte detected in the associated Method Blank

S = Spike Recovery outside accepted limits

R = RPD (relative percent difference) outside accepted limits

D = RL (reporting limit verification) outside accepted limits

NP = Not Provided

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, RJ Lee Group will store the samples for a period of thirty (30) days before discarding. A shipping and handling fee will be assessed for the return of any samples.

This laboratory operates in accord with ISO 17025:2017 guidelines, and holds a limited scope of accreditations under different accrediting agencies; refer to <http://www.rjlg.com/about-us/accreditations/> for more information and current status. Unless it is specifically stated otherwise (under the Q column using the appropriate accrediting agency qualifier(s)) the work contained in this report is performed under RJLG's General Quality System requirements and is not part of any scope of accreditations. This report may not be used to claim product endorsement by any laboratory accrediting agency. The results contained in this report relate only to the items tested or to the sample(s) as received by the laboratory. Any reproduction of this document must be in full for the report to be valid.

Unless otherwise noted (either in the comments section of the report and/or with the appropriate qualifiers under the report qualifiers (Q) column) the following apply: (a) Samples were received in good condition, (b) All QC samples are within acceptable established limits, (c) All samples designated as NELAP meet the requirements of the NELAC standard; if not applicable qualifiers will be used to designate the non-compliance and (d) Results have not been blank corrected. Quality Control data is available upon request.



 Philip Grindle
 Laboratory Supervisor



TRANSMITTAL AND CHAIN OF CUSTODY FOR LEAD BULK SAMPLES

Project No.: 23212.002 Phase 0001

Individuals signing this form warrant that the information provided is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: March 30, 2021

PBS Engineering and Environmental Inc.
4412 S Corbett Avenue
Portland, OR 97239
503.248.1939, Fax: 866.727.0140

Joe Lucas
Name

Authorized Signature Date 3/30/21

RECEIVER

Date Received: 04/01/21 OSB

Company: R.J. Lee Group
Address: 350 Hochberg Road
Monroeville, PA 15146
724-325-1776

M. Scully
Name

Authorized Signature Date 04/01/21

Sender's ID No.

Brief Description

Receiver's ID No.

LB23212.002-1005

ANALYSIS REQUESTED:

- LEAD: [x] Paint, [] Wipe, [] Soil/Misc., [] Air, [] TCLP

Please analyze the enclosed 1 sample(s) for LEAD content using Atomic Absorption Method. PBS requests prior notification if samples will be disposed.

Please fax and mail the results to the above address.

TURNAROUND DESIRED:

72 Hour

SPECIAL INSTRUCTIONS:

Joe.Lucas@pbsusa.com

THIS IS TO CERTIFY THAT
JOE LUCAS
HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE
for
ONLINE AHERA ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 01/18/2021

Course Location: Portland, OR

Certificate: IRO-21-3527B



4-Hour Online AHERA Inspector Refresher Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 01/18/2022

For verification of the authenticity of this certificate contact:

PBS Engineering and Environmental Inc.
4412 S Corbett Avenue
Portland, Oregon 97239
503.248.1939

A handwritten signature in black ink that reads "Andy Fridley".

Andy Fridley, Instructor

THIS IS TO CERTIFY THAT

DAVID TOY

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 09/24/2020

Course Location: Portland, OR

Certificate: IR-20-5627B



CCB #SRA0615 4-Hr Training

4-Hour AHERA Inspector Refresher Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 09/24/2021

For verification of the authenticity of this certificate contact:
PBS Environmental
4412 SW Corbett Avenue
Portland, OR 97239
(503) 248-1939

A handwritten signature in black ink that reads "Andy Fridley".

Andy Fridley, Instructor

THIS IS TO CERTIFY THAT
TRAVIS LONG
HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE
for
ONLINE AHERA ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 10/13/2020

Course Location: Portland, OR

Certificate: IRO-20-7022B



4-Hour Online AHERA Inspector Refresher Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 10/13/2021

For verification of the authenticity of this certificate contact:
PBS Environmental
4412 SW Corbett Avenue
Portland, OR 97239
(503) 248-1939

A handwritten signature in black ink, which appears to read "Andy Fridley", is written over a horizontal line.

Andy Fridley, Instructor

THIS IS TO CERTIFY THAT

JAY J DOANE

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 01/10/2014

Course Location: Portland, OR

Certificate: IR-14-6367A



**Engineering +
Environmental**

Expiration Date 01/10/2015

AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

For verification of the authenticity of this certificate contact:
PBS Environmental
4412 SW Corbett Avenue
Portland, OR 97239
(503) 248-1939



David Stover, Director of Training