HAZARDOUS BUILDING MATERIALS SURVEY

Demolition

Commercial Structure
3502 Lincoln Avenue
Tacoma, Washington

Submitted to:

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Seattle, Washington 98104

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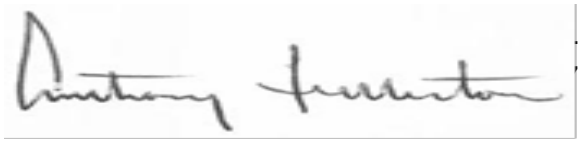

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July 2019

Table of Contents

Acronyms iv

Survey Summary 1

- Building Information 1
- Asbestos Survey 2
  - Thermal System Insulation 3
  - Surfacing Materials 4
  - Miscellaneous Materials 4
- Lead-Based Paint Summary 9
  - Lead in Painted Surfaces 10
  - Waste Designation Survey 10
- Other Hazardous Building Materials 11
  - Chlorofluorocarbons 11
  - PCB Light Ballasts and Fluorescent Light Tubes 11
  - PCB in Caulking and Paint 12
  - Mercury Containing Switches 12

Laboratory Analytical Methods 13

- Asbestos-Containing Materials 13
- Lead-Based Paint 13
- PCBs 13

Comments and Recommendations 14

- Asbestos-Containing Materials 14
- Lead-Based Paint 15
- PCB 15
- Other Hazardous Building Materials 15

Limitations 16

Appendix A AHERA Building Inspector and WDOC Lead Inspector/Risk Assessor Certificates ..... A

Appendix B Building and Building System Photographic Documentation ..... B

Appendix C Summary of Materials Sampled for Asbestos C

Appendix D SAT National Voluntary Laboratory Accreditation Program Certificate ..... D

Appendix E Analytical Reports- Asbestos ..... E

Appendix F Analytical Reports- Lead ..... F

Appendix G EMSL Analytical, Inc. Laboratory Certifications ..... G

Appendix H Analytical Report- PCB ..... H

Appendix I On-Site Environmental, Inc. Laboratory Certification I

Appendix J Sample Location Drawings ..... J

Tables

Table 1. Summary of Asbestos-Containing Materials 7
Table 2. Summary of Suspect Materials Determined Non-Asbestos Containing..... 7
Table 3. Summary of Suspect Materials Determined <1% Asbestos 9
Table 4. Summary of Bulk Paint Chip Sample Results 10
Table 5. Summary of TCLP Sample Results..... 11
Table 6. Summary of Fluorescent Lights and Smoke Detectors 12
Table 7. Summary of PCB Sample Results 12

Acronyms

AAS	atomic absorption spectroscopy
ACM	asbestos-containing materials
AHERA	Asbestos Hazard Emergency Response Act
ASHARA	Asbestos Schools Hazard Abatement Reauthorization Act
ASTM	American Society of Testing and Materials
CAB	cement asbestos board
CFC	chlorofluorocarbons
CFR	Code of Federal Regulation
EA	each
ECD	electron capture detectors
EPA	U.S. Environmental Protection Agency
GC	gas chromatography
GWB	gypsum wallboard
HBM	hazardous building materials
HM	homogeneous material
HVAC	heating, ventilation and air-conditioning
LBP	lead-based paint
mg/cm^2	milligrams per square centimeter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MTNW	Med-Tox Northwest
ND	none detected
NVLAP	National Voluntary Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PLM	polarized light microscopy
ppm	parts per million
PSCAA	Puget Sound Clean Air Agency
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
SAT	Seattle Asbestos Test, LLC
SF	square feet
SVF	sheet vinyl flooring
TCLP	toxicity characteristic leaching procedure
TSI	thermal system insulation
VFT	vinyl floor tile
WAC	Washington Administration Code
WDOC	Washington Department of Commerce
WISHA	Washington Industrial Safety and Health Act

WRD	WISHA Regional Directive
XRF	x-ray fluorescence
% wt.	percent in weight

Survey Summary

On June 25, 2019, Kim Riche and Anthony Fullerton of Med-Tox Northwest (MTNW) conducted a hazardous building materials (HBM) survey of the property located at 3502 Lincoln Avenue, Tacoma, Washington. This work was conducted on behalf of the Port of Tacoma under subcontract to WSP. The commercial building was vacant the time of the survey.

This report identifies building materials that contain asbestos, estimates the quantity of asbestos-containing material (ACM) present and documents building materials that potentially contain lead-based paint (LBP), polychlorinated biphenyls (PCBs), and other hazardous materials that require removal or management as part of demolition activities. Washington Administrative Code (WAC) 296-155-775 requires identification of asbestos and hazardous materials and their hazards eliminated before demolition is started.

As required by WAC 296-62-077 and Puget Sound Clean Air Agency (PSCAA), a building inspector certified under the Asbestos Hazard Emergency Response Act (AHERA) and employed by MTNW conducted the asbestos portion of the survey. Copies of the inspector's AHERA Building Inspector certificates and Washington State Department of Commerce (WDOC) Lead Inspector/Risk Assessor certificates are included in **Appendix A**.

No previous HBM surveys or as-built construction documents were available as part of the survey.

Building Information

Photographic documentation of the structure and the major systems described herein are provided in **Appendix B**.

General and Structural: The commercial one-story office building was constructed in 1919 and is approximately 10,224 square feet (SF) in size. It appears that this building may have had multiple build-outs and has undergone a full renovation since original construction. The building is wood-framed with a pitched roof that sits on wood posts and pier blocks. The roof is finished with three-tab composition roofing and vapor barrier over wood sheeting. Exterior siding for the building consists of wood lap siding with cement asbestos board (CAB) skirting around the base of the exterior wall creating a crawlspace under the building. Additional CAB siding was observed in the courtyard as well. Exterior windows are aluminum-framed and the doors are solid core wood. Attic access is located throughout the interior of the building. The attic spaces were insulated with fiberglass batt insulation and in some areas with blown-in insulation.

Heating and Mechanical Systems: Heating and cooling for the building is provided by heating ventilation and cooling (HVAC) units located in the attic. There are multiple attic accesses located throughout the hallways in the building. According to Pierce County records, at one point in time, the building was heated by a boiler. This heating system and remnants from it were not observed at the time of this survey. At one point, older pipes with ACM insulation must have run through the attic space, as there were placards identifying asbestos hazards in place at each attic entry. The attic spaces were investigated throughout and no asbestos-containing insulation or remnant debris was observed. All insulation observed on the ductwork and was newer fiberglass with foil wrap (square ducts) and plastic wrapped flex duct (round ducts).

There were pipes observed in the crawlspace of the building that are insulated with fiberglass lagging and polyvinyl chlorinate (PCV) fittings over fiberglass. Visible pipes inside the building were un-insulated.

Walls/Ceiling: The walls throughout the building consist of gypsum wallboard (GWB) that is nailed to the wood framing. Most of the exposed GWB is finished with orange peel texturing. There are some areas where the GWB is un-textured. The offices located on the west side of the building were also observed to have wood paneling and tongue and groove wood affixed to the GWB. The wood paneling was observed to be glued-down in several areas. The tongue and groove boards are nailed in place. Additional wall finishes include several colors and sizes of cove base and mastic and wall laminate.

Ceilings throughout most of the building have the same orange peel textured GWB finish as the walls. Additional ceiling finishes were located Room 36, which has fiberglass ceiling tiles glued to the GWB substrate and 12-inch splined and stapled ceiling tiles were observed in several rooms located in the southwest corner of the building.

Floor Systems: There were multiple floor finishes observed in the building. Most of the office spaces have stretched carpeting that is held in place with tack strips over wood sub-floor. Additional floor finishes include: self-stick floor tile, 12-inch vinyl floor tile (VFT), sheet vinyl flooring (SVF) and ceramic floor tile with grout.

Asbestos Survey

The AHERA regulation, 40 Code of Federal Regulation (CFR) 763, is the primary governing regulation when performing asbestos surveys. This regulation was originally enacted for school buildings but has since been applied to public and commercial buildings by the Asbestos School Hazard Abatement Reauthorization Act (ASHARA) in 1994 and by the Occupational Safety and Health Administration's (OSHA) worker protection regulations in 1995, specifically 29 CFR 1926.1101(k).

PSCAA also requires compliance with AHERA's survey and sampling requirements. This applies to any renovation or demolition activities where suspect ACM may be disturbed. PSCAA is a local agency that receives statutory authority from the U.S. Environmental Protection Agency (EPA) to enforce environmental regulations.

AHERA divides suspect ACM into three categories; "surfacing materials" (i.e., sprayed fireproofing, popcorn ceiling texture, etc.), "thermal system insulation" (TSI) (i.e., pipe or building insulation, etc.), and "miscellaneous materials" (i.e., flooring material, roofing, construction mastics, etc.). The following sections summarize the potential ACMs identified for each of these three categories. For a complete listing of suspect materials sampled, see **Appendix C**. See **Appendix J** for drawings with asbestos, lead and PCB sample locations.

The following sections summarize the potential ACMs identified by homogeneous material (HM) description as they relate to each of the AHERA categories and clarify location along with the number of samples collected for regulatory compliance.

Thermal System Insulation

There were eight TSI materials observed in the building.

- Pink batt insulation foil paper with black mastic (HM-08). This material was observed in the attic. Three samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Yellow batt insulation foil paper mastic (HM-09). This material was observed inside the interior walls. Three samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Insulation board foil tape and mastic (HM-10). This material was observed in the attic on the square ducts. Three samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Yellow batt insulation tan paper mastic (HM-11). This material was observed in the crawlspace. Three samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- **Light heat shield (HM-13).** This material was observed inside several light fixtures in the south side of the building (rooms 5 and 6). Three samples from each HM were collected and analyzed for asbestos content; **this material contain 3% to 65% Chrysotile asbestos.**
- Blown in attic insulation (HM-32). This material was observed in the southwest corner of the building in the attic.. Three samples were

collected and analyzed for asbestos content; this material was determined to be negative for asbestos.

- Fiberglass pipe insulation. This material was observed in the crawlspace. This material was visually observed to be non-asbestos containing.
- Fiberglass duct insulation (round ducts). This material was observed on round ducts in the attic. This material was visually observed to be non-asbestos containing.

Surfacing Materials

There was one surfacing material observed in the building.

- Orange peel textured GWB system (HM-12). This material was observed throughout most of the building on the walls and ceilings. Nine samples were collected and analyzed for asbestos content; this material was determined to contain 2% Chrysotile asbestos in three samples by polarize light microscopy (PLM) analysis. The samples were re-analyzed by the more stringent 400 Point Count method to contain 0.25% to 0.50% Chrysotile or less than 1% asbestos.

Miscellaneous Materials

- **Cement board skirting (HM-01).** CAB was observed around the exterior of the building and in the courtyard. Two samples were collected and analyzed for asbestos content; **this material was determined to contain 13% to 15% Chrysotile asbestos.**
- Exterior vapor barrier (HM-02). This material was observed under the wood siding. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Siding caulk- white (HM-03). This material was observed on the seams of the wood siding. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Non-skid texture (HM-04). This material was observed on the exterior east and west entries to the building. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Roof vapor barrier (HM-05). This material was observed on the roof. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- 3-tab composition roofing (HM-06). This material was observed on the roof. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.

- GWB backer board under rubber membrane (HM-07). This material was observed on the roof over the south side middle hallway adjacent to the courtyard. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Un-textured GWB system (HM-14). The walls in room 7 were observed to be finished with un-textured GWB system. Two samples of un-textured GWB were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- 4-inch white cove base and mastic (HM-15). This material was identified on the walls in room 7. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- 4-inch gray cove base and mastic (HM-16). This material was identified on the walls in room 29. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- 2-inch brown cove base and mastic with residual orange peel texturing (HM-17/HM-12). HM-17 was observed in multiple places in the building. Three samples were collected and analyzed for asbestos content; the cove base and mastic were determined to be negative for asbestos. There was, however, an additional layer of orange peel texture from the GWB system (HM-12) included with two of the samples. This residual layer was determined to contain 2% Chrysotile asbestos by PLM analysis. The two layers were re-analyzed by the more stringent 400 Point Count method to contain 0.50% to 0.75% Chrysotile or less than 1% asbestos.
- 4-inch brown cove base and mastic (HM-18). This material was identified on the walls in room 35. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- White wall laminate mastic (HM-19). This material was identified on the walls in room 2. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Wood paneling mastic with residual orange peel texturing (HM-20/HM-12). This material (HM-20) was observed in several rooms in the building. Three samples were collected and analyzed for asbestos content; the paneling mastic was determined to be negative for asbestos. There was however an additional layer of orange peel texture from the GWB system (HM-12) included with two of the samples. This residual layer was determined to contain 2% Chrysotile asbestos by PLM analysis. The two layers were re-analyzed by the more stringent 400 Point Count method to contain 0.25% to 0.50% Chrysotile or less than 1% asbestos.

- 12-inch gray self-stick floor tile- top layer (HM-21). This material was identified as the top layer of flooring in room 36. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- 12-inch beige mottled VFT and mastic- bottom layer (HM-22). This material was identified as the bottom layer of flooring in room 36. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- **Brown terrazzo pattern SVF (HM-23).** This material was identified in the restrooms (rooms 5, 6, 16, 17, 19, 20, 24 and 25). Two samples were collected and analyzed for asbestos content; **this material was determined to contain 50% to 53% Chrysotile asbestos.**
- **Brown terrazzo pattern SVF over beige floor tile and black mastic (HM-23 and HM-24).** These two flooring materials were identified in two of the restrooms (rooms 5 and 6). Two core samples that include two additional samples of HM-23 and the bottom layer of floor tile and mastic. These cores were analyzed for asbestos content; **the layers of HM-23 were determined to contain 50% Chrysotile asbestos and the beige floor tile (HM-24) was determined to contain 2% Chrysotile asbestos.** The black mastic is negative for asbestos.
- 12-inch gray with black streaks and black mastic VFT (HM-25). This material was observed in room 42 and in the closet in between rooms 5 and 6. Two samples were collected and analyzed for asbestos content; the floor tile was determined to contain 2% Chrysotile asbestos in both samples by PLM analysis. The layers were re-analyzed by the more stringent 400 Point Count method to contain 0.25% Chrysotile or less than 1% asbestos. The mastic is negative for asbestos.
- 12-inch gray mottled VFT and mastic (HM-26). This material was observed in room 7. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- 6-inch ceramic tile grout and thin set (HM-27). This material was observed in several hallways in the building. Three samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Fiberglass ceiling tile mastic (HM-28). This material was observed on the ceiling in room 36. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- 12-inch ACT splined and stapled (HM-29). This material was observed on several ceilings in the building. Two samples were collected and analyzed

for asbestos content; this material was determined to be negative for asbestos.

- Black sink undercoat (HM's 30 and 31). This material was observed on sinks in the building. One sink was in room 7 (HM-30) and the other in the northwest corner of the building (HM-31). Two samples were collected and analyzed for asbestos content; these materials were determined to be negative for asbestos.
- CAB siding vapor barrier (HM-32). This material was observed under the CAB panels in the courtyard. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.

Table 1 summarizes ACM identified in the structure surveyed by MTNW.

Table 1. Summary of Asbestos-Containing Materials

Material	Location	Friable	Quantity
CAB skirting and wall panels (HM-01)	Exterior and courtyard	No	1,800 SF
Brown terrazzo sheet vinyl flooring (HM-23)	Rooms 5, 6, 16, 17, 19, 20, 24 and 25	Yes	650 SF
Beige floor tile (HM-24) –bottom layer	Restrooms (rooms 5 and 6)	No	Included with HM23
Light fixture heat shield (HM-13)	Restrooms (rooms 5 and 6)	Yes	3 EA

EA= each, SF= square feet. Note: This table is not to be used without the complete survey document including appendices for additional information.

Table 2 lists all suspect materials sampled that have been determined to be non-asbestos containing.

Table 2. Summary of Suspect Materials Determined Non-Asbestos Containing

Material Location	Material Description
Exterior	Exterior vapor barrier
Exterior	Siding caulk- white
Exterior	Non-skid texture
Roof	Vapor barrier
Roof	3-tab composition roofing
Roof	GWB backer board under rubber membrane
Attic	Pink batt insulation foil paper black mastic

Material Location	Material Description
Interior walls	Yellow batt insulation foil paper mastic
Attic	Insulation board foil tape and mastic
Crawl space	Yellow batt insulation tan paper mastic
Room 7	Un-textured GWB system
Room 7	4-inch white cove base and mastic
Room 29	4-inch gray cove base and mastic
Room 35	4-inch brown cove base and mastic
Room 2	White wall laminate mastic
Room 36	12-inch gray self-stick floor tile- top layer
Room 36	12-inch beige mottled VFT and mastic-bottom layer
Room 7	12-inch gray mottled VFT and mastic
Interior	6-inch ceramic floor tile grout and thin set
Room 36	Fiberglass ceiling tile mastic
Interior	12-inch ACT splined and stapled
Interior	Black sink undercoat (two HM's)
Interior	Wood paneling mastic
Attic	Blown-in attic insulation
Courtyard	CAB siding vapor

Note: This table is not to be used without the complete survey document including appendices for additional information.

Table 3 lists all suspect materials sampled that have been determined to be <1% asbestos-containing.

Table 3. Summary of Suspect Materials Determined <1% Asbestos

Material	Location
Orange peel textured GWB system (HM-12) (this material is under wood paneling, cove base and wall laminate in many places)	Interior walls and ceiling
12-inch gray with black streaks floor tile and black mastic (HM-25)	Room 42 and closet between rooms 5 and 6

Note: This table is not to be used without the complete survey document including appendices for additional information.

The materials identified in **Table 3** were found to contain less than 1% Chrysotile asbestos. Materials with asbestos content less than 1% will require special handling during removal and/or demolition as detailed in Washington Industrial Safety and Health Act (WISHA) Regional Directive (WRD) 23.10, *Occupational Exposure to Asbestos*.

Lead-Based Paint Summary

Lead was commonly used in most paint products until 1978, when it was banned from residential paints at concentrations greater than 600 parts per million (ppm); however, commercial applications with lead are still utilized and available. Lead is poisonous to the human body and presents a potential health hazard during any kind of disturbance (such as maintenance, including grinding, welding, and cutting) and if improperly disposed, where lead can enter drinking water supplies.

EPA defines LBP as a concentration of 1.0 milligrams per centimeter squared (mg/cm^2) or greater by x-ray fluorescence (XRF) or 0.5 percent by weight (% wt.) or greater by total lead analysis; equivalent to 5,000 milligrams per kilogram (mg/kg). This EPA action level triggers requirements for protection of the environment, maintenance workers, and building occupants in child occupied facilities as defined by 40 CFR 745. Additionally, building components exceeding EPA lead levels may cause demolition waste streams to fail waste designation sampling performed for compliance with WAC 173-303 Dangerous Waste Regulations.

The Washington Industrial Safety and Health Act (WISHA) worker protection regulations have not defined a minimum concentration for regulating lead and has clarified that lead at any detectable concentration shall be considered regulated by WAC 296-155-176, Lead. Paint sample results can be expressed in mg/kg (same as ppm), % wt. or mg/cm^2 by area depending on the type of analytical methods used. Any positive result, regardless of the reporting method by the laboratory, will require compliance with WAC 296-155-176.

Lead in Painted Surfaces

Interior and exterior painted surfaces were tested for LBP using bulk sample collection and chemical analysis. A total of four paint chip samples were collected. Analytical results are provided in **Table 4**.

Table 4. Summary of Bulk Paint Chip Sample Results

Sample Number	Location	Component	Substrate	Color	Result (ppm*)
8842.1-3502-01Pb	West side exterior	Siding	Wood	White	<87
8842.1-3502-02Pb	West side exterior	Fascia	Wood	Off-white	**4,700**
8842.1-3502-03Pb	Room 10	Wall	GWB	White	<87
8842.1-3502-04Pb	Room 22	Wal	GWB	White	<83

% wt. = percent in weight. GWB = gypsum wallboard. **Bolded values** – bulk paint chip samples with lead detected above the laboratory reporting limit have been bolded. The WISHA worker protection regulations have stated that lead at any detectable concentration shall be considered regulated WAC 296-155-176, Lead. Do not use this table without the complete survey document.

Waste Designation Survey

Waste designation sampling has been performed for the building demolition, including Toxicity Characterization Leaching Procedure (TCLP) analytical sampling of affected building components. The TCLP procedure is used to simulate the transfer of lead from lead-containing waste into the ground water system upon co-disposal of the lead-containing waste and municipal solid waste in unlined solid waste landfills. The TCLP attempts to simulate rain or ground water leaching, or both, of lead from the buried waste. In order for the procedure to yield an accurate predictor of the subsurface (in-ground) leaching process, a representative sample of the volume of the waste must be selected and submitted for leaching and analysis. The result of the sampling, leaching, and analysis process is used to determine the waste handling and disposal protocols to be followed and to document compliance with applicable laws, regulations, and requirements. WAC 173-303 Dangerous Waste Regulations defines hazardous waste as it relates to lead by toxicity as 5.0 milligrams per Liter (mg/L) by TCLP.

A visual inspection of the survey area was conducted to separate the major components of the structures to be demolished into the following categories:

- **Recyclables**. It is anticipated that many of the metal items (i.e., metal piping, tanks, door frames, doors, handrails, flashing, aluminum window frames, etc.) and un-painted clean concrete materials in the survey area will be recycled or reused. These items were not tested for waste pre-

designation. Additionally, glass is recyclable and not included in the waste designation survey.

- **Potential Wastes**. Items that are not likely to be recycled were sampled and tested for waste pre-designation. Samples of other building finish materials likely to be landfill disposed were collected, composited and submitted for TCLP testing.

- **Assumed hazardous waste**. None.

One composited sample was collected from the site and tested by TCLP analysis for Resource Conservation and Recovery Act (RCRA) metal – lead. The result for the sample is presented in **Table 5**:

Table 5. Summary of TCLP Sample Results

Sample	Location and Composition	Result (mg/L)
8842.1-3502-01TCLP	Painted and unpainted building components	<0.40

mg/L = milligrams per liter. Note: Do not use this table without the complete survey document.

The TCLP sample collected from the building was determined to have leachable lead less than the regulated level of 5.0 mg/L. Demolition waste from this structure can be disposed of as general construction debris.

Other Hazardous Building Materials

Chlorofluorocarbons

MTNW inspected the building for cooling systems with potential chlorofluorocarbons (CFCs). There were four units observed.

PCB Light Ballasts and Fluorescent Light Tubes

Older fluorescent light ballasts have small capacitors that may contain high concentrations of PCBs. Nearly all ballasts manufactured before 1979 contain PCBs. All ballasts manufactured after July 1, 1978 that do not contain PCBs are required to be clearly marked "No PCBs". Unmarked ballasts or ballasts without a date code should be assumed to be PCB ballasts. PCBs are toxic chemicals according to the EPA. While there is only a small amount, about one ounce, of PCBs in each light ballast capacitor, there are a large number of ballasts in the United States. A "No PCB" label means there are less than 50 ppm PCBs however, in the state of Washington PCB in oils are regulated at 2 ppm (WAC 173-303-9904).

There were fluorescent light fixtures observed in the residence. In addition, smoke detectors may be regulated as universal or hazardous waste and will require

dismantling and special handling. **Table 6** provides a summary of these items in the building:

Table 6. Summary of Fluorescent Lights and Smoke Detectors

Location/floor	4-foot, 2-bulb	4-foot, 4-bulb	4-foot, 2-bulb U-shape	Smoke detectors
Throughout	25	111	14	18
Total	**25**	**111**	**14**	**18**

Do not use this table without the complete survey document.

Typically, there is one ballast for every two-light tubes in a fluorescent light fixture; accordingly, there are 262 ballasts in the light fixture requiring recycling or PCB hazardous waste disposal. There are also 524, 4-foot light tubes that will need to be recycled during demolition.

PCB in Caulking and Paint

PCBs were used in paint and caulk formulations as drying oils (resins) and plasticizers or softening agents (liquids). Wood, concrete, gypsum wallboard and metal may have painted surfaces containing PCBs.

PCBs were tested in representative paints and caulking on the interior and exterior of the building. **Table 7** below provides a summary of PCB sample results.

Table 7. Summary of PCB Sample Results

Sample Number	Location	Material	Result (mg/kg*)
8842.1-3502-01PCB	Exterior	Siding caulk	ND
8842.1-3502-02PCB	Exterior	White paint on wood siding	ND
8842.1-3502-03PCB	Interior	White paint on GWB wall	ND

mg/kg= milligrams per kilogram, ND= none detected.

Mercury Containing Switches

Heating system thermostats were investigated for mercury containing systems. There were six thermostats observed.

Laboratory Analytical Methods

Asbestos-Containing Materials

Bulk samples were analyzed by PLM dispersion staining EPA Method 600/R-93/116 by Seattle Asbestos Test, LLC (SAT). SAT is accredited through the National Voluntary Laboratory Accreditation Program (NVLAP) of the U. S. Department of Commerce. This accreditation does not constitute endorsement, but rather a finding of laboratory competence. The NVLAP participant number for SAT is 200768-0 (certification copies are located in **Appendix D**). Analytical results are in **Appendix E**.

Lead-Based Paint

Bulk paint chip samples were submitted to EMSL Analytical, Inc. for analysis using atomic absorption spectroscopy (AAS) to determine the presence and percentage of lead. Procedures for analyzing metals are found in the American Society of Testing and Materials (ASTM) D-3335-78 and EPA Method Manual SW-846, Method 6010. EMSL used SW 846-7000B, an equivalent analytical method.

One TCLP sample was also collected and submitted to EMSL Analytical, Inc. for analysis using AAS. The extraction of the TCLP sample was performed using SW846-1311/7000B/SM 3111B.

Analytical results for paint chip results are provided in **Appendix F**. EMSL Analytical, Inc., laboratory certification is attached in **Appendix G**.

PCBs

Bulk PCB samples were submitted to On-Site Environmental, Inc., for analysis using gas chromatography (GC) equipped with electron capture detectors (ECD). Samples were analyzed using EPA Method SW-846 8082A. Analytical results are provided in **Appendix H**. On-Site Environmental, Inc. laboratory certification is attached in **Appendix I**.

Sample location drawings are provided in **Appendix J**.

Comments and Recommendations

Asbestos-Containing Materials

MTNW recommends, and state law requires, that all asbestos materials identified in **Table 1** be removed prior to demolition.

MTNW recommends that this survey report be placed on-site during renovation and/or demolition and copies provided to the contractor(s) bidding and performing work. WISHA, OSHA and PSCAA require that the report be on-site and available for review during the entire project duration.

Limited destructive investigation was conducted during the survey; however, additional destructive investigation will be required prior to demolition.

1. All interior pipes observed were bare of insulation, so it is not anticipated that hidden pipes will be insulated. During the course of demolition, if pipe or pipe fitting insulation suspected of containing ACM is made visible, the material must be sampled by an AHERA building inspector prior to being disturbed.
2. Electrical systems were not sampled due to power being live. Sample and verify that asbestos is not present prior to building demolition.
3. The doors to the structure did not appear to be fire doors with suspect asbestos content. Prior to any activity that will impact the doors, drill into the doors and door frames to determine if suspect fire protection is located inside.

The materials identified in **Table 3** were found to contain less than 1% Chrysotile asbestos. Materials in this report with asbestos content less than 1% will require special handling during removal and/or demolition as detailed in WRD 23.10, *Occupational Exposure to Asbestos*. A copy of this directive is available at:

http://www.lni.wa.gov/safety/rules/policies/pdfs/wrd2310.pdf

29 CFR 1926.1101/WAC 296-65 requires ACM be removed by trained and licensed contractors using certified asbestos abatement workers and supervisors (except for deregulated roofing sealants, mastics, and coatings). A 10-day prior notification is also required before abatement can begin. In addition, PSCAA requires notification and fees prior to beginning removal of friable ACM.

MTNW recommends third party oversight of asbestos abatement and renovation activities by an AHERA accredited building inspector to ensure regulatory compliance and completion of the additional destructive methods recommended herein.

Lead-Based Paint

For lead, any percentage of lead in the material should be an assumed risk to human health. All painted surfaces should be assumed to contain at least trace levels of lead in paint, therefore requiring compliance with WAC 296-155-176 during any disturbance of painted surfaces. The WISHA criteria are used to determine if materials are hazardous during a demolition.

Disposal options under WAC 173-303 are also determined by whether the material contains lead. The TCLP sample collected was determined to be less than the regulated level of 5.0 mg/l. Demolition waste from site can be disposed of as general construction debris.

PCB

There were no PCBs found in the caulk and paint tested.

During demolition, the asbestos abatement contractor should be tasked with dismantling light fixtures, collecting all lighting ballasts for proper disposal, and recycling the light tubes. Ballasts without “No-PCB” labels are considered PCB-containing and must be disposed as a hazardous waste. “No-PCB” ballasts may designate as Washington Dangerous Waste and should be sent to an EPA licensed facility for proper disposal.

Other Hazardous Building Materials

Fluorescent light tubes and thermostats contain mercury and can be recycled as a universal waste for minimal cost. Smoke detectors also should be collected/recycled as a universal waste. Cooling units with suspect CFC’s should be drained and fluid recycled prior to demolition.

Limitations

A good faith effort has been made to identify ACM, LBP and other HBM in preparation for building demolition. This survey was performed for complete demolition of the building. Additional destructive investigation and sampling will be required depending on inaccessible building systems including mechanical spaces and/or mechanical/electrical system routing.

Sampling was performed consistent with the level of care and skill ordinarily exercised by professionals currently practicing under similar conditions in the area. No other warranty, expressed or implied, is made.

This report has been prepared for the exclusive use of WSP and Port of Tacoma and its' designates for this project only. The analyses, conclusions, and recommendations presented in this report are based on conditions encountered at the time of our survey and our experience and judgment. MTNW cannot be held responsible for interpretation by others of the data contained in this report; any use of this report shall include the entire document. This survey is not intended for use as abatement plans and/or specifications which MTNW recommends for regulatory compliance.

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Appendix A
AHERA Building Inspector and WDOC Lead Inspector/Risk Assessor Certificates

Certificate of Completion

This is to certify that

Anthony L. Fullerton

has satisfactorily completed
4 hours of refresher training as an

AHERA Building Inspector

to comply with the training requirements of
TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

169219
Certificate Number

Instructor

ARGUS PACIFIC
TRAINING • CONSULTING
A Terracon COMPANY

Aug 29, 2018 — Expires in 1 year.
Date(s) of Training

Exam Score: N/A
If appropriate:

ARGUS PACIFIC, INC / 1900 WEST NICKERSON ST, SUITE 315 / SEATTLE, WASHINGTON 98119 / 206.285.3373 / ARGUSPACIFIC.COM

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Abatement Program

Anthony L Fullerton

Has fulfilled the certification requirements of
WAC 365-230
and has been certified to conduct lead-based paint activities as a
Risk Assessor

Certification #	Issuance Date	Expiration Date
0242	05/25/2017	04/03/2020

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Abatement Program

Kimberly D Riche

Has fulfilled the certification requirements of WAC 365-230 and has been certified to conduct lead-based paint activities as a

Risk Assessor

Certification #	Issuance Date	Expiration Date
6702	07/09/2019	07/09/2022

Certificate of Completion

This is to certify that

Kimberly D. Riche

has satisfactorily completed
4 hours of refresher training as an

AHERA Building Inspector

to comply with the training requirements of
TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

173932
Certificate Number

ARGUS PACIFIC
TRAINING • CONSULTING
A Terracon COMPANY

Jul 9, 2019 — Expires in 1 year.
Date(s) of Training

Exam Score: N/A
(if applicable)

Instructor

ARGUS PACIFIC, INC / 21905 64th AVE W, SUITE 100 / MOUNTLAKE TERRACE, WASHINGTON 98043 / 206.285.3373 / ARGUSPACIFIC.COM

Appendix B
Building and Building System Photographic Documentation

Hazardous Building Materials Survey
Port of Tacoma
5302 Lincoln Avenue, Tacoma, WA
July 2019

Photo 1: West side of the building facing northeast.

Photo 2: East side of the building facing southwest.

Photo 3: North side of the building facing southeast. The skirting around the perimeter is CAB.

Photo 4: South side of the building facing northeast.

Photo 5: Attic space over the west side of the office. There were no ACM's identified in the attic spaces.

Photo 6: Typical finishes observed in the attic spaces.

Photo 7: Pipes observed in the crawlspace. Some were insulated with fiberglass lagging.

Photo 8: Typical finishes observed in crawlspace.

Photo 9: Typical finishes observed in the hallway.

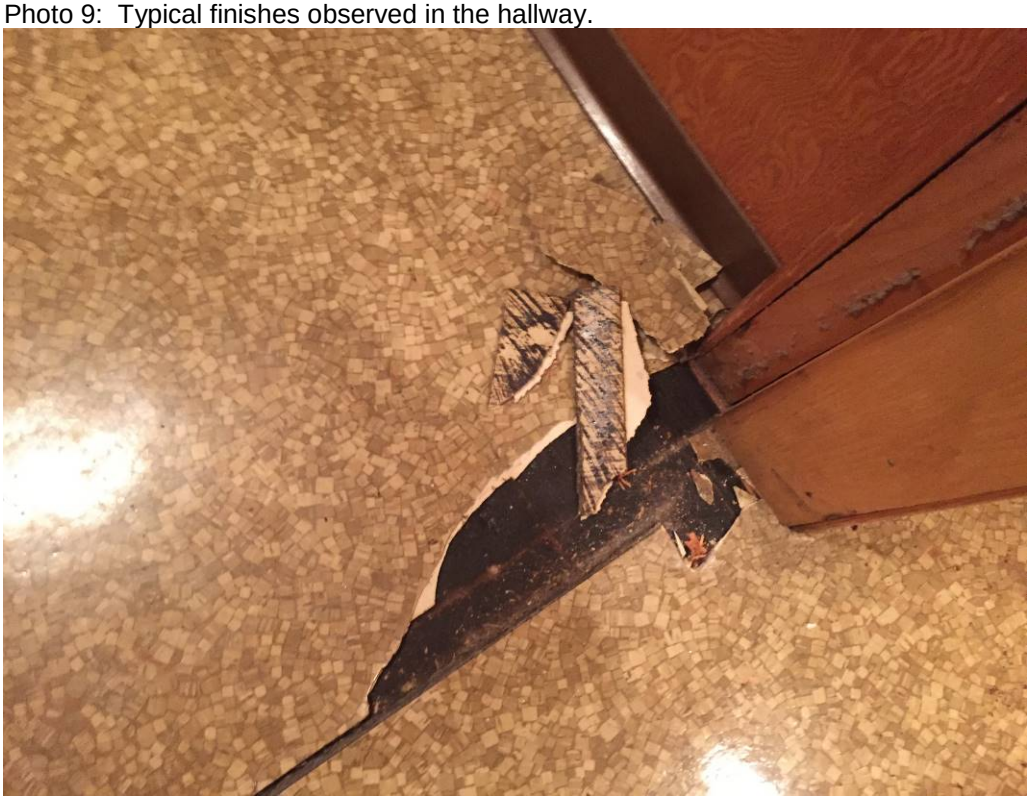

Photo 10: ACM AVF flooring and floor tile in the restrooms and closet. Rooms 16, 17, 19, 20, 24 and 25 only have ACM SVF.

Photo 11: ACM light heat shields in restroom 5 and 6.

Photo 12: CAB panels in the courtyard.

Photo 13: Typical finishes observed in the office spaces. The orange peel textured GWB system was determined to contain <1% asbestos. This material is located throughout the building.

Appendix C
Summary of Materials Sampled for Asbestos

Table 1. Summary of Materials Sampled for Asbestos

Sample	Material	Location	AHERA Type	HM	Result
3502 Lincoln Ave					
Exterior					
8842.1-3502-01	**Cement board skirting**	**West side**	**Misc.**	**01**	**15% CHR**
8842.1-3502-02	**Cement board skirting**	**North side**	**Misc.**	**01**	**13% CHR**
8842.1-3502-03	Exterior vapor barrier	North side	Misc.	02	ND
8842.1-3502-04	Exterior vapor barrier	East side	Misc.	02	ND
8842.1-3502-05	Siding caulk- white	East side	Misc.	03	ND
8842.1-3502-06	Siding caulk- white	West side	Misc.	03	ND
8842.1-3502-07	Non-skid texture	East side, north entrance	Misc.	04	ND
8842.1-3502-08	Non-skid texture	East side, south entrance	Misc.	04	ND
8842.1-3502-09	Roof vapor barrier	East side	Misc.	05	ND
8842.1-3502-10	Roof vapor barrier	West side	Misc.	05	ND
8842.1-3502-11	3-tab composition roofing	East side	Misc.	06	ND
8842.1-3502-12	3-tab composition roofing	West side	Misc.	06	ND
8842.1-3502-13	GWB backer board under rubber membrane	South side middle hallway roof	Misc.	07	ND
8842.1-3502-14	GWB backer board under rubber membrane	South side middle hallway roof	Misc.	07	ND
8842.1-3502-15	Pink Batt insulation foil paper black mastic-	Attic	TSI	08	ND
8842.1-3502-16	Pink Batt insulation foil paper black mastic-	Attic	TSI	08	ND
8842.1-3502-17	Pink Batt insulation foil paper black mastic-	Attic	TSI	08	ND
8842.1-3502-18	Yellow batt insulation foil paper mastic	Interior walls	TSI	09	ND
8842.1-3502-19	Yellow batt insulation foil paper mastic	Interior walls	TSI	09	ND
8842.1-3502-20	Yellow batt insulation foil paper mastic	Interior walls	TSI	09	ND
8842.1-3502-21	Insulation board foil tape and mastic	Attic square ducts	TSI	10	ND

Sample	Material	Location	AHERA Type	HM	Result
8842.1-3502-22	Insulation board foil tape and mastic	Attic square ducts	TSI	10	ND
8842.1-3502-23	Insulation board foil tape and mastic	Attic square ducts	TSI	10	ND
8842.1-3502-24	Yellow batt insulation tan paper mastic	Crawl space	TSI	11	ND
8842.1-3502-25	Yellow batt insulation tan paper mastic	Crawl space	TSI	11	ND
8842.1-3502-26	Yellow batt insulation tan paper mastic	Crawl space	TSI	11	ND
8842.1-3502-27	Orange peel textured GWB system	Room 1	Surfacing	12	ND
8842.1-3502-28	Orange peel textured GWB system	Room 10	Surfacing	12	Layer 1: 2% CHR Re-analyzed by 400 PC to contain 0.50% CHR or less than 1% asbestos Layer 2: ND
8842.1-3502-29	Orange peel textured GWB system	Room 21	Surfacing	12	Layer 1: 2% CHR Re-analyzed by 400 PC to contain 0.25% CHR or less than 1% asbestos Layer 2: ND
8842.1-3502-30	Orange peel textured GWB system	Room 25	Surfacing	12	ND
8842.1-3502-31	Orange peel textured GWB system	Room 29	Surfacing	12	ND
8842.1-3502-32	Orange peel textured GWB system	Outside of room 31	Surfacing	12	ND
8842.1-3502-33	Orange peel textured GWB system	Room 38	Surfacing	12	Layer 1: 2% CHR Re-analyzed by 400 PC to contain 0.50% CHR or less than 1% asbestos Layer 2: ND
8842.1-3502-34	Orange peel textured GWB system	Outside of room 40	Surfacing	12	ND
8842.1-3502-35	Orange peel textured GWB system	Room 41	Surfacing	12	ND
8842.1-3502-36	**Light heat shield**	**Room 5**	**TSI**	**13**	**Layer 1: 3% CHR Layer 2: 61%CHR**
8842.1-3502-37	**Light heat shield**	**Room 5**	**TSI**	**13**	**Layer 1: 3% CHR Layer 2: 65%CHR**
8842.1-3502-38	**Light heat shield**	**Room 6**	**TSI**	**13**	**Layer 1: 3% CHR Layer 2: 32%CHR**
8842.1-3502-39	Un-textured GWB system	Room 7	Misc.	14	ND

Sample	Material	Location	AHERA Type	HM	Result
8842.1-3502-40	Un-textured GWB system	Room 7	Misc.	14	ND
8842.1-3502-41	4-inch white cove base and mastic	Room 7	Misc.	15	ND
8842.1-3502-42	4-inch white cove base and mastic	Room 7	Misc.	15	ND
8842.1-3502-43	4-inch gray cove base and mastic	Room 29	Misc.	16	ND
8842.1-3502-44	4-inch gray cove base and mastic	Room 29	Misc.	16	ND
8842.1-3502-45	2-inch brown cove base and mastic	Room 5	Misc.	17	Layer 1: ND Layer 2: 2% CHR Re-analyzed by 400 PC to contain 0.75% CHR or less than 1% asbestos
8842.1-3502-46	2-inch brown cove base and mastic	Room 6	Misc.	17	Layer 1: ND Layer 2: 2% CHR Re-analyzed by 400 PC to contain 0.50% CHR or less than 1% asbestos
8842.1-3502-47	2-inch brown cove base and mastic	Outside of room 22	Misc.	17	ND
8842.1-3502-48	4-inch brown cove base and mastic	Room 35	Misc.	18	ND
8842.1-3502-49	4-inch brown cove base and mastic	Room 35	Misc.	18	ND
8842.1-3502-50	White wall laminate mastic	Room 2	Misc.	19	ND
8842.1-3502-51	White wall laminate mastic	Room 2	Misc.	19	ND
8842.1-3502-52	Wood paneling mastic	Room 8	Misc.	20	Layer 1: ND Layer 2: 2% CHR Re-analyzed by 400 PC to contain 0.25% CHR or less than 1% asbestos
8842.1-3502-53	Wood paneling mastic	Room38	Misc.	20	ND
8842.1-3502-54	Wood paneling mastic	Room 42	Misc.	20	Layer 1: ND Layer 2: 2% CHR Re-analyzed by 400 PC to contain 0.50% CHR or less than 1% asbestos
8842.1-3502-55	12-inch gray self-stick floor tile- top layer	Room 36	Misc.	21	ND
8842.1-3502-56	12-inch gray self-stick floor tile- top layer	Room 36	Misc.	21	ND

Sample	Material	Location	AHERA Type	HM	Result
8842.1-3502-57	12-inch beige mottled VFT and mastic-bottom layer	Room 36	Misc.	22	ND
8842.1-3502-58	12-inch beige mottled VFT and mastic-bottom layer	Room 36	Misc.	22	ND
8842.1-3502-59	**Brown terrazzo pattern SVF**	**Room 16**	**Misc.**	**23**	**Layer 1: ND Layer 2: 50% CHR**
8842.1-3502-60	**Brown terrazzo pattern SVF**	**Room 17**	**Misc.**	**23**	**Layer 1: ND Layer 2: 53% CHR**
8842.1-3502-61	**Brown terrazzo pattern SVF over beige floor tile and black mastic**	**Room 5**	**Misc.**	**23/ 24**	**Layer 1: ND Layer 2: 50% CHR Layer 3: 2% CHR Layer 4: ND**
8842.1-3502-62	**Brown terrazzo pattern SVF over beige floor tile and black mastic**	**Room 6**	**Misc.**	**23/ 24**	**Layer 1: ND Layer 2: 50% CHR Layer 3: 2% CHR Layer 4: ND**
8842.1-3502-63	12-inch gray with black streaks and black mastic VFT	Room 42	Misc.	25	Layer 1: 2% CHR Re-analyzed by 400 PC to contain 0.25% CHR or less than 1% asbestos Layer 2: ND
8842.1-3502-64	12-inch gray with black streaks and black mastic VFT	Closet between rooms 5 and 6	Misc.	25	Layer 1: 2% CHR Re-analyzed by 400 PC to contain 0.25% CHR or less than 1% asbestos Layer 2: ND
8842.1-3502-65	12-inch gray mottled VFT and mastic	Room 7	Misc.	26	ND
8842.1-3502-66	12-inch gray mottled VFT and mastic	Room 7	Misc.	26	ND
8842.1-3502-67	6-inch ceramic floor tile grout and thin set	Reception	Misc.	27	ND
8842.1-3502-68	6-inch ceramic floor tile grout and thin set	Hall 11	Misc.	27	ND
8842.1-3502-69	6-inch ceramic floor tile grout and thin set	Room 28 north hallway	Misc.	27	ND
8842.1-3502-70	Fiberglass ceiling tile mastic	Room 36	Misc.	28	ND
8842.1-3502-71	Fiberglass ceiling tile mastic	Room 36	Misc.	28	ND
8842.1-3502-72	12-inch ACT splined and stapled	Room 8	Misc.	29	ND

Sample	Material	Location	AHERA Type	HM	Result
8842.1-3502-73	12-inch ACT splined and stapled	Room 12	Misc.	29	ND
8842.1-3502-74	Black sink undercoat patch	Room 7	Misc.	30	ND
8842.1-3502-75	Black sink undercoat	Room	Misc.	31	ND
8842.1-3502-76	Blown attic insulation	SW corner	TSI	32	ND
8842.1-3502-77	Blown attic insulation	SW corner	TSI	32	ND
8842.1-3502-78	Blown attic insulation	SW corner	TSI	32	ND
8842.1-3502-79	CAB siding vapor	Courtyard	Misc.	33	ND
8842.1-3502-80	CAB siding vapor	Courtyard	Misc.	33	ND

ACT = acoustical ceiling tile, CAB = cement asbestos board, GWB = gypsum wallboard, HM = homogeneous material, Misc. = miscellaneous, ND = none detected, PC = 400 Point Count, SVF = sheet vinyl flooring, TSI = thermal system insulation, VFT = vinyl floor tile.

Appendix D
SAT National Voluntary Laboratory Accreditation Program Certificate

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200768-0

Seattle Asbestos Test, LLC

Lynnwood, WA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2018-10-01 through 2019-09-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

Appendix E
Analytical Reports- Asbestos

SEATTLE ASBESTOS TEST, LLC

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

www.seattleasbestostest.com, admin@seattleasbestostest.com

Project Manager:	Anthony Fullerton
Client:	Med-Tox, Northwest
Address:	PO Box 1446, Auburn, WA 98071-1446
Tel:	253.351.0677

Date Analyzed:	7/3/2019
Client Job#:	8842.1
Project Location:	3502 Lincoln Ave, Tacoma, WA
Laboratory batch#:	201911094
Samples Received:	80

Enclosed please find the test results for the bulk samples submitted to our laboratory for asbestos analysis. Analysis was performed using polarized light microscopy (PLM) in accordance with Test Method US EPA/600/R-93/116.

Percentages for this report are done by visual estimate and relate to the suggested acceptable error ranges by the method. Since variation in data increases as the quantity of asbestos decreases toward the limit of detection, the EPA recommends point counting for samples containing between <1% and 10% asbestos (NESHAP, 40 CFR Part 61). Statistically, point counting is a more accurate method. If you feel a point count might be beneficial, please feel free to call and request one.

The test results refer only to the samples or items submitted and tested. The accuracy with which these samples represent the actual materials is totally dependent on the acuity of the person who took the samples. This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government. The test report or calibration certificate shall not be reproduced except in full, without written approval of the laboratory.

This report is highly confidential and will not be released without your consent. Samples are archived for 30 days after the analysis, and disposed of as hazardous waste thereafter.

Thank you for using our service and let us know if we can further assist you.

Sincerely

SZhang

Steve (Fanyao) Zhang
President

20911094

SEATTLE ASBESTOS TEST, LLC

Analyzing Quality

Lynnwood Lab: 19711 Scriber Lake Road, Suite D, WA 98036, Tel:425.673.9850, Fax:425.673.9810
Bellevue Lab: 12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Email: admin@seattleasbestostest.com, Website: www.seattleasbestostest.com

CHAIN OF CUSTODY

☑ Bulk Asbestos ☐ Point Count 400 ☐ Point Count 1000 ☐ Point Count Gravimetric ☐ Other (Specify)

☐ 1 Hour ☐ 2 Hours ☐ Same day (4 to 6 Hrs.) ☐ 1 Day ☒ 5 Days

Med-Tox, Northwest

PO Box 1446, Auburn, WA 98071-1446 Tel: 253.351.0677 Fax: 253.351.0688

Number of Samples 80 PO# 8842.1 Project Location 3502 Lincoln Ave, Tacoma, WA

Project Manager (Check one or more):

☒	Anthony Fullerton 206.356.8927	fullertona@medtoxnw.com	☐		evansc@medtoxnw.com
☐	Ginnie Kindler	kindlerg@medtoxnw.com	☐	Jon Havelock	havelockj@medtoxnw.com
☐	Judy Lurvey	lurveyj@medtoxnw.com	☐	Teresa Choate	choatet@medtoxnw.com

SEQ#	CLIENT SAMPLE #	SAMPLE DESCRIPTION	LOCATION	NOTES
1	8842.1-3502-01	See Attached table		
2	↓			
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20	8842.1-3502-80			

	Print Name	Signature	Company	Date	Time
Sampled:	Anthony Fullerton	[signature]	Med-Tox, Northwest	6/25/19	
Relinquished:	Anthony Fullerton	[signature]	Med-Tox, Northwest	6/27/19	
Delivered:			Med-Tox, Northwest		
Received:	Yajun Gao	[signature]	Seattle Asbestos Test	6/27/19	11:23am
Analyzed:	Yui Yang	[signature]	Seattle Asbestos Test	7/3/19	1300
Reported:			Seattle Asbestos Test		

Results reporting method: ☐ Phone ☐ Fax ☐ Email ☐ Pick-up

☐ Composite all wallboard samples ☐ Text result to phone ☐ Point count .... % or less asbestos

Page ( ) of ( )

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Anthony Fullerton | Client: Med-Tox, Northwest | Address: PO Box 1446, Auburn, WA 98071-1446

Job#: 8842.1 | Batch#: 201911094 | Date Received: 6/27/2019

Samples Rec'd: 80 | Date Analyzed: 7/3/2019 | Samples Analyzed: 80

Project Loc.: 3502 Lincoln Ave, Tacoma, WA

Analyzed by: Yui Yang | Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
1	8842.1-3502-01	1	Gray cementitious material	15	Chrysotile	Cement/binder	5	Cellulose
2	8842.1-3502-02	1	Gray cementitious material	13	Chrysotile	Cement/binder	4	Cellulose
3	8842.1-3502-03	1	Black asphaltic fibrous material		None detected	Filler, Asphalt, Binder	72	Cellulose
4	8842.1-3502-04	1	Black asphaltic fibrous material		None detected	Filler, Asphalt, Binder	70	Cellulose
5	8842.1-3502-05	1	White soft material with paint		None detected	Filler, Binder, Paint	4	Cellulose
6	8842.1-3502-06	1	White soft material with paint		None detected	Filler, Binder, Paint	3	Cellulose
7	8842.1-3502-07	1	Green soft material with sand and black paint		None detected	Filler, Binder, Sand, Paint	3	Cellulose
8	8842.1-3502-08	1	Green soft material with sand and black paint		None detected	Filler, Binder, Sand, Paint	4	Cellulose
9	8842.1-3502-09	1	Black asphaltic material with fibrous material		None detected	Filler, Asphalt, Binder	25	Glass fibers
10	8842.1-3502-10	1	Black asphaltic material with fibrous material		None detected	Filler, Asphalt, Binder	27	Glass fibers
11	8842.1-3502-11	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	21	Glass fibers
12	8842.1-3502-12	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	20	Glass fibers
13	8842.1-3502-13	1	White woven fibrous material		None detected	Filler, Binder	70	Glass fibers
		2	White chalky material		None detected	Gypsum/binder	15	Cellulose
14	8842.1-3502-14	1	White woven fibrous material with blue paint		None detected	Filler, Binder, Paint	73	Glass fibers
		2	White chalky material		None detected	Gypsum/binder	18	Cellulose
15	8842.1-3502-15	1	Silver foil		None detected	Foil/binder		None detected
		2	Tan paper with black mastic and red paint		None detected	Filler, Asphalt/binder, Paint	70	Cellulose
		3	Pink fibrous material		None detected	Filler	90	Glass fibers
16	8842.1-3502-16	1	Silver foil		None detected	Foil/binder		None detected
		2	Tan paper with black mastic and red paint		None detected	Filler, Asphalt/binder, Paint	73	Cellulose

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.:	Anthony Fullerton	**Client:**	Med-Tox, Northwest	**Address:**	PO Box 1446, Auburn, WA 98071-1446
Job#:	8842.1	**Batch#:**	201911094	**Date Received:**	6/27/2019
Samples Rec'd:	80	**Date Analyzed:**	7/3/2019	**Samples Analyzed:**	80
Project Loc.:	3502 Lincoln Ave, Tacoma, WA				

Analyzed by: Yui Yang

Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
16	8842.1-3502-16	3	Pink fibrous material		**None detected**	Filler	95	Glass fibers
17	8842.1-3502-17	1	Silver foil		**None detected**	Foil/binder		None detected
		2	Tan paper with black mastic		**None detected**	Filler, Asphalt/binder	73	Cellulose
		3	Pink fibrous material		**None detected**	Filler	95	Glass fibers
18	8842.1-3502-18	1	Silver foil		**None detected**	Foil/binder		None detected
		2	Tan paper with black mastic		**None detected**	Filler, Asphalt/binder	70	Cellulose
		3	Yellow fibrous material		**None detected**	Filler	91	Glass fibers
19	8842.1-3502-19	1	Silver foil		**None detected**	Foil/binder		None detected
		2	Tan paper with black mastic		**None detected**	Filler, Asphalt/binder	73	Cellulose
		3	Yellow fibrous material		**None detected**	Filler	90	Glass fibers
20	8842.1-3502-20	1	Silver foil		**None detected**	Foil/binder		None detected
		2	Tan paper with mastic and woven fibrous material		**None detected**	Filler, Mastic/binder	68	Cellulose, Glass fibers
		3	Yellow fibrous material		**None detected**	Filler	90	Glass fibers
21	8842.1-3502-21	1	Silver foil		**None detected**	Foil/binder		None detected
		2	Tan paper with mastic and woven fibrous material		**None detected**	Filler, Mastic/binder	70	Cellulose, Glass fibers
		3	Yellow fibrous material		**None detected**	Filler	92	Glass fibers
22	8842.1-3502-22	1	Silver foil		**None detected**	Foil/binder		None detected
		2	Tan paper with mastic and woven fibrous material		**None detected**	Filler, Mastic/binder	71	Cellulose, Glass fibers
		3	Yellow fibrous material		**None detected**	Filler	94	Glass fibers
23	8842.1-3502-23	1	Silver foil		**None detected**	Foil/binder		None detected
		2	Tan paper with black mastic		**None detected**	Filler, Asphalt/binder	70	Cellulose
		3	Yellow fibrous material		**None detected**	Filler	96	Glass fibers
24	8842.1-3502-24	1	Tan paper with black mastic		**None detected**	Filler, Asphalt/binder	75	Cellulose