

Pre-Renovation Hazardous Building Materials Inspection Report

Residential Building
911 Beech Street
Saint Paul, Minnesota

Prepared for

Ramsey County



Project B1602097
May 3, 2016

Braun Intertec Corporation

May 6, 2016

Project B1602097

Mr. Paul Scharf
Ramsey County
90 West Plato Boulevard
Saint Paul, MN 55107

Re: Pre-Renovation Hazardous Building Material Inspection Report
Residential Building
911 Beech Street
Saint Paul, Minnesota

Dear Mr. Scharf:

The enclosed report provides the results of the pre-renovation hazardous building materials inspection conducted on April 12, 2016, at the residential building located at 911 Beech Street in Saint Paul, Minnesota (Site). Braun Intertec Corporation was authorized to conduct this inspection in accordance with our Proposal QTB035378 dated March 15, 2016 and the Braun Intertec General Conditions.


The following outline provides the structure of the report.

- Scope of Services
- Site Description
- Results
- Discussion
- Limitations

If you have any questions or need further assistance, please call Justin Michael at 952.995.2617 or Stephen Luth at 952.995.2662.

Sincerely,

BRAUN INTERTEC CORPORATION



Justin P. Michael, GIT
Environmental Technician



Stephen A. Luth
Project Scientist

Attachments:

Pre-Renovation Hazardous Building Materials Inspection Report

AA/EOE

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- A: Table I. Asbestos Building Inspection Results
- B: Table II. Bulk Asbestos Analytical Results
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- E: Sample Location Sketch
- F: Asbestos Inspector Certificate

A. Scope of Services

The scope of our services was limited to:

- Visually examine accessible areas and identify locations of suspect asbestos-containing material (ACM), lead, poly-chlorinated biphenyls (PCB), mercury, and other miscellaneous hazardous material.
- Collect and analyze representative bulk samples of materials suspected of containing asbestos.
- Conduct limited lead-based paint (LBP) testing of potential re-useable components with painted surfaces suspected of containing lead (where applicable). Testing will be accomplished using a Niton X-ray fluorescence (XRF) spectrum analyzer.
- Assign a hazard rating based on asbestos content with respect to the materials condition, friability, accessibility, and hazard potential.
- Document the various materials' current conditions and ACM quantities.
- Generate a final report documenting the sample locations, analysis results, conditions, ACM quantities and recommendations.

B. Site Description

The subject of the inspection is the residential building located at 911 Beech Street in Saint Paul, Minnesota. The dwelling is a three level wood structure with a basement. It was constructed in 1900 and has a footprint that encompasses approximately 1,000 square feet. The dwelling is constructed of wood, concrete and concrete block foundation walls. The typical interior finishes included plaster, sheetrock/joint compound, floor tile, wall texture, ceiling texture, carpet, and vinyl sheet flooring. The exterior of the dwelling has vinyl and transite siding with an asphalt roof shingle roof system. The building was vacant and unoccupied at the time of the inspection.

C. Results

C.1. Asbestos

Twenty-nine (29) bulk samples were collected on April 12, 2016 and submitted to Pace Analytical, Inc. for analysis.

C.1.a. Asbestos-Containing Materials

The following is a summary of building materials found or assumed to contain greater than one percent asbestos (asbestos-containing materials by regulatory definition).

- TSI pipe wrap (tan) in the basement contains 50 percent chrysotile.
- TSI fittings (tan) in the basement contains 12 percent chrysotile.
- Chimney patch in the basement contains 60 percent chrysotile.
- Transite siding on the exterior of the building contains 10 percent chrysotile.
- Caulking below the exterior windowsill contains 4 percent chrysotile.
- Flashing caulk (tan) from the exterior of the building contains 50 percent chrysotile.

C.1.b. Non-Asbestos-Containing Materials

The following is a summary of building materials found to contain no asbestos or materials that contain one percent or less asbestos (non-asbestos-containing materials by regulatory definition).

- Plaster, Gray
- Ceiling Texture
- Speckled Sheet Flooring and Black Mastic
- Ceramic Floor Tile
- Drywall
- White Sheet Flooring
- Old Tan Sheet Flooring with Black Mastic
- Brown Floor Mastic
- Brick and Mortar Chimney
- Concrete Wall Covering
- Window Glaze
- Black Felt below Siding
- Shingle

Refer to Table I in Appendix A, which lists individual functional spaces of the building, the suspect materials identified in that functional space, whether the suspect material was identified by analysis to be an asbestos-containing material, an estimated amount of each suspect material for the functional space, and includes condition, assessment categories and hazard ratings based on subjective observations made by our representatives.

Refer to Table II in Appendix B, which lists the homogenous material sample numbers, sample locations, suspect material descriptions, and the analysis results for each sample. This table summarizes the results from the Bulk Asbestos Laboratory Report, which is attached in Appendix D.

Bulk asbestos analysis was conducted in accordance with the Environmental Protection Agency's (EPA) Method 40 CFR, Chapter 1, Part 763, Subpart F, and Appendix A (7/1/87 Edition).

C.2. Lead-Based Paint

Testing of limited building components for lead-based paint was accomplished utilizing a Niton XL X-Ray Fluorescence (XRF) field portable analyzer,

Model No. XLP303A - Serial No. 22287, equipped with a 40-milocurie CD-109 source - Serial No. TR3277, installed on March 17, 2015.

Analysis decision-making protocols were based on compliance with the United States (US) EPA and Minnesota Department of Health (MDH), which consider any x-ray fluorescence (XRF) result of 1.0 milligram per square centimeter (mg/cm²) or greater to be "lead-based paint." The following is a list of lead-based paints that were found on the limited building components tested.

- All interior wood window sash, jambs and troughs
- All exterior wood window sashes, sills, troughs, jambs and cases (behind metal cladding).
- All 2nd floor plaster walls, baseboards, blue
- All 2nd floor painted floors, brown
- All 2nd floor doors and door cases/ jambs
- 1st through 3rd Stairwells wood stair treads, risers and trim.
- Basement stairwell wood stair treads and risers.
- Basement stairwell plaster walls and ceilings.
- Basement interior wood columns and doors.
- Basement window sash and case.
- Basement metal pipes
- Exterior front porch beams beams and window components
- Garage door jamb/ case, white

Note: The painted components were observed to be in poor to good condition at the time of the inspection.

Refer to Table III in Appendix C, which lists the sample numbers, sample locations, component descriptions, XRF field results, and the paint condition for each sample.

C.3. Miscellaneous Regulated Waste

A visual inspection for miscellaneous regulated waste materials that require separate handling and disposal prior to disturbance during building demolition was also performed as part of this assessment. The following is a list of items documented at the site:

C.3.a. Poly-Chlorinated Biphenyls (PCBs)

- None identified

C.3.b. Mercury

- Batteries – smoke detectors
- Heating – boiler controls, unit heater controls, thermostats
- Electrical Systems – electrical panels, load meters, supply relays, control switches.

C.3.c. Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFCs)

- None identified

C.3.d. Hazardous Waste

- None identified

C.3.e. Miscellaneous

- Water heaters
- Bathroom fans
- Tank

D. Discussion

D.1. Asbestos-Containing Materials

D.1.a. Friable ACM

The following asbestos-containing materials are classified as friable materials according to EPA 40 CFR Part 61 National Emission Standard for Hazardous Air Pollutants (NESHAPs):

- TSI pipe wrap (tan)
- TSI pipe fittings (tan)
- Chimney patch

The above friable ACM was observed to be in poor condition at the time of our assessment. Caution should be exercised to prevent unnecessary damage to the above materials, and therefore risk potential exposure to asbestos. Friable ACMs are to be removed prior to disturbance by demolition and/or renovation in accordance with applicable state and federal regulations.

D.1.b. Category I Non-Friable ACM

The following asbestos-containing materials are classified as Category I non-friable materials according to EPA 40 CFR Part 61 National Emission Standard for Hazardous Air Pollutants (NESHAPs):

- Flashing caulk (tan)

The above Category I non-friable ACM was observed to be in poor condition at the time of our assessment. Category I non-friable ACMs are not considered a hazard unless cut, drilled, sanded, or otherwise abraded. However, any Category I material that may become friable during demolition or renovation activities must be removed prior to that activity by a certified asbestos abatement contractor. Category I materials in good condition may be left in place for demolition. However, if left in place, the crushing or recycling of demolition debris is strictly prohibited. In addition, all demolition debris containing Category I materials must be disposed of at a landfill specifically permitted to accept this type of waste.

D.1.c. Category II Non-Friable ACM

The following asbestos-containing materials are classified as Category II non-friable materials according to EPA NESHAPs:

- Caulking below windowsill
- Transite siding

The above Category II non-friable ACMs were observed to be in poor condition at the time of our assessment. Category II non-friable ACMs are not considered a hazard unless cut, drilled, sanded, or

otherwise abraded. However, Category II non-friable ACMs that may become friable during demolition must be removed prior to that activity. In accordance with applicable state and federal regulations.

D.2. Lead-Based Paint

Building components with lead-based paint should be maintained in good condition. If lead-based paint is to be disturbed during renovation, contractors should follow “Lead Safe Work Practices” and the OSHA Lead in Construction Standard. If the building were to be demolished in its entirety, building components with lead paint are not required to be removed or disposed of as lead or hazardous waste. Any lead-based paint-containing demolition waste and/or debris generated during building renovation or demolition should be subject to proper handling and disposal, consistent with applicable regulations and requirements.

The U.S. OSHA Lead in Construction Standard 29 Code of Federal Regulations (CFR) 1926.62 applies to all situations where employees are engaged in the disturbance of lead-containing coatings, regardless of the quantity of lead involved. Therefore, any XRF result above 0.0 mg/cm² is considered “lead-containing coatings” in order to be in compliance with the OSHA standard. Demolition of the building may involve disturbing lead-containing coatings. Contractors should be informed of the presence of lead coatings and that they will be required to comply with the OSHA lead standard.

D.3. Miscellaneous Regulated Waste

In the case of building renovation/demolition, any of the miscellaneous regulated waste items listed in Section C.3 that will be disturbed, must be removed prior to disturbance and must be recycled or disposed of in accordance with state and federal guidelines.

E. Limitations

This inspection was limited to areas available for observation via non-destructive means. In any building, the potential exists for hazardous building materials to be located inside walls, above ceilings, under floors, and other inaccessible areas. Braun Intertec cannot be held responsible for the presence of any such hidden materials. In the case of building renovation/demolition, contractors involved in the project should be made aware of this potential. If previously unidentified suspect hazardous building materials are exposed during their activities they should be sampled and analyzed for content prior to any disturbance.

Note: A destructive ACM investigation is required by the MPCA prior to building renovation/demolition. It is recommended that the destructive ACM investigation is performed once the building is vacant.

Note: Various electrical systems were identified during the survey. These systems were believed to be currently “charged” and active. Suspect materials are located within these electrical boxes, control panels (breaker bars, insulation, and electrical wire insulation). For the purpose of this report, all electrical systems associated in these areas assessed are to be assumed to contain asbestos until proven otherwise by sampling and analysis.

Note: It is assumed that pipe insulation may be present in currently inaccessible chases, wall cavities, and above hard ceilings.

In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

F. Asbestos Inspector Certification

I, the undersigned, do hereby certify that I am an accredited Asbestos Inspector in the State of Minnesota. A photocopy of my current asbestos inspector certificate is attached in Appendix F.

Signature: Justin P. Michael Date: May 6th, 2016
Justin P. Michael
Environmental Technician II
Minnesota Department of Health Asbestos Inspector No: AI12434

Signature: Stephen A. Luth Date: 5/6/2016
Stephen A. Luth
Project Scientist
Minnesota Department of Health Asbestos Inspector No: AI10702

Appendix A

Table I. Asbestos Building Inspection Results

Table I. Asbestos Building Inspection Results

Client: Ramsey County Department of Development

Location: 911 Beech Street

Date of Inspection: April 12, 2016

Project: B1602097

| Functional Space | Homogeneous Material Description | Contains Asbestos (Yes/No) | Ref. Client Sample No. (See Table II) | Estimated Quantity Units | Material Condition ¹ | Hazard Category ² |
|--------------------|--|----------------------------|---------------------------------------|--------------------------|---------------------------------|------------------------------|
| Living/Dining Room | Plaster, Gray | No | 1A - 1G | 4,000 square feet | D | 0 |
| Living/Dining Room | Ceiling Texture | No | 2A - 2E | 1,000 square feet | D | 0 |
| Living/Dining Room | Speckled Sheet Flooring and Black Mastic | No | 3 | 9 square feet | D | 0 |
| Living/Dining Room | Drywall | No | 5 | 300 square feet | D | 0 |
| Kitchen | Ceramic Floor Tile | No | 4 | 400 square feet | ND | 0 |
| Kitchen | Drywall | No | 5 | 300 square feet | D | 0 |
| Kitchen | Plaster, Gray | No | 1A - 1G | 300 square feet | D | 0 |
| Kitchen | Ceiling Texture | No | 2A - 2E | 600 square feet | D | 0 |
| Entryway | Plaster, Gray | No | 1A - 1G | 400 square feet | D | 0 |
| Entryway | Ceiling Texture | No | 2A - 2E | 100 square feet | D | 0 |
| Entryway | Ceramic Floor Tile | No | 4 | 100 square feet | ND | 0 |
| 2nd Floor Bath | Plaster, Gray | No | 1A - 1G | 90 square feet | D | 0 |
| 2nd Floor Bath | Drywall | No | 5 | 60 square feet | D | 0 |
| 2nd Floor Bath | White Sheet Flooring | No | 6 | 60 square feet | ND | 0 |
| 2nd Floor | Plaster, Gray | No | 1A - 1G | 2000 square feet | D | 0 |
| 2nd Floor | Ceiling Texture | No | 2A - 2E | 700 square feet | D | 0 |
| 2nd Floor | Drywall | No | 5 | 800 square feet | ND | 0 |
| 2nd Floor | Old Tan Sheet Flooring with Black Mastic | No | 7 | 800 square feet | D | 0 |
| 2nd Floor | Brown Floor Mastic | No | 8 | 220 square feet | D | 0 |
| 3rd Floor | Drywall | No | 5 | 400 square feet | ND | 0 |
| Basement | TSI Lines | Yes | 9 | 150 linear feet | SD | 4 |
| Basement | TSI Fittings | Yes | 10 | 52 each | SD | 4 |
| Basement | Brick and Mortar Chimney | No | 11 | 140 square feet | D | 0 |

Table I. Asbestos Building Inspection Results

911 Beech Street, St. Paul, Minnesota

B1602097

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| Functional Space | Homogeneous Material Description | Contains Asbestos (Yes/No) | Ref. Client Sample No. (See Table II) | Estimated Quantity Units | Material Condition ¹ | Hazard Category ² |
|------------------|----------------------------------|----------------------------|---------------------------------------|--------------------------|---------------------------------|------------------------------|
| Basement | Chimney Patch | Yes | 12 | 2 square feet | D | 4 |
| Basement | Concrete Wall Covering | No | 13 | 1380 square feet | D | 0 |
| Exterior | Transite Siding | Yes | 14 | 4,000 square feet | D | 3 |
| Exterior | Window Glaze | No | 15 | 40 square feet | D | 0 |
| Exterior | Black Felt below Siding | No | 16 | 4000 square feet | D | 0 |
| Exterior | Shingle | No | 17 | 1500 square feet | D | 0 |
| Exterior | Caulking below Windowsill | Yes | 18 | 14 at 6 feet | D | 3 |
| Exterior | Tan Flashing Caulk | Yes | 19 | 14 at 6 feet | D | 3 |
| Garage | Shingle | No | 17 | 1000 square feet | D | 0 |

1. Condition of ACM:

ND = Not Damaged

D = Damaged

SD = Significantly Damaged

2. Hazard Category:

0 = No hazard - material does not contain asbestos

1 = ACM with potential for damage

2 = ACM with potential for significant damage

3 = Damaged or significantly damaged asbestos-containing miscellaneous material

4 = Damaged or significantly damaged friable asbestos-containing thermal system insulation

5 = Damaged or significantly damaged friable asbestos-containing surfacing material

Appendix B

Table II. Bulk Asbestos Analytical Results

Table II. Bulk Asbestos Analytical Results

Client: Ramsey County Economic Development
Location: 911 Beech Street
Date of Inspection: April 12, 2016
Project: B1602097

| Sample No. | Sample Location | | | Material | Asbestos Content (%) ¹ |
|------------|------------------------|----------|--|--|-----------------------------------|
| 1A - 1G | Throughout | | | Plaster, Gray | Not Detected |
| 2A - 2E | Throughout | | | Ceiling Texture | Not Detected |
| 3 | Living and Dining Room | | | Speckled Sheet Flooring and Black Mastic | Not Detected |
| 4 | Kitchen | Entryway | | Ceramic Floor Tile | Not Detected |
| 5 | Throughout | | | Drywall | Not Detected |
| 6 | 2nd Floor Bath | | | White Sheet Flooring | Not Detected |
| 7 | 2nd Floor Bath | | | Old Tan Sheet Flooring with Black Mastic | Not Detected |
| 8 | 2nd Floor Bath | | | Brown Floor Mastic | Not Detected |
| 9 | Living and Dining Room | | | TSI Lines | Chrysotile 50 |
| 10 | Throughout | | | TSI Fittings | Chrysotile 12 |
| 11 | Basement | | | Brick and Mortar Chimney | Not Detected |
| 12 | Basement | | | Chimney Patch | Chrysotile 60 |
| 13 | Basement | | | Concrete Wall Covering | Not Detected |
| 14 | Exterior | | | Transite Siding | Chrysotile 10 |
| 15 | Exterior | | | Window Glaze | Not Detected |
| 16 | Exterior | | | Black Felt below Siding | Not Detected |
| 17 | Garage | | | Shingle | Not Detected |
| 18 | Exterior | | | Caulking below Windowsill | Chrysotile 4 |
| 19 | Exterior | | | Tan Flashing Caulk | Chrysotile 50 |

* Materials containing 1 percent of asbestos or less are not considered to be asbestos-containing materials by the U.S.EPA.

1. Asbestos content is indicated as an approximate percent by area.

Appendix C

Table III. Lead-Based Paint Testing Results

Client: Ramsey County
Location: 911 Beech Street, St. Paul, Minnesota
Date of Ins 12-Apr-16
Project #: B1602097

| Reading No | Component | Substrate | Side | Condition | Color | Site | Floor | Room | Results | PbC | PbC Error | PbL | PbL Error | PbK | PbK Error |
|------------|---------------|-----------|------|-----------|-------|-----------|-------|-------------|----------|-------|------------|------|-------------|-----|-----------|
| 2 | caL | | | | | 911 BEECH | FIRST | LIVING ROOM | Positive | 1.3 | 0.3 | 1.3 | 0.3 < LOD | | 1.65 |
| 3 | caL | | | | | 911 BEECH | FIRST | LIVING ROOM | Positive | 1.1 | 0.1 | 1.1 | 0.1 < LOD | | 0.6 |
| 4 | caL | | | | | 911 BEECH | FIRST | LIVING ROOM | Positive | 1.2 | 0.1 | 1.2 | 0.1 < LOD | | 0.75 |
| 5 | caL | | | | | 911 BEECH | FIRST | LIVING ROOM | Positive | 1.1 | 0.1 | 1.1 | 0.1 < LOD | | 0.63 |
| 6 | WALL | PLASTER | A | INTACT | BEIGE | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 2.35 |
| 7 | WALL | PLASTER | B | INTACT | BEIGE | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.06 < LOD | | 0.06 < LOD | | 2.53 |
| 8 | WALL | PLASTER | C | INTACT | BEIGE | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.05 |
| 9 | WALL | PLASTER | C | INTACT | BEIGE | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.87 |
| 10 | WALL | PLASTER | D | INTACT | BEIGE | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.94 |
| 11 | CEILING | PLASTER | D | INTACT | BEIGE | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.8 |
| 12 | WINDOW CASE | WOOD | D | INTACT | STAIN | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.19 < LOD | | 0.19 < LOD | | 2.25 |
| 13 | WINDOW CASE | WOOD | D | INTACT | STAIN | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.25 < LOD | | 0.25 < LOD | | 2.1 |
| 14 | WINDOW sash | WOOD | D | INTACT | STAIN | 911 BEECH | FIRST | LIVING ROOM | Positive | 2.2 | 1 | 2.2 | 1 < LOD | | 3.45 |
| 15 | WINDOW JAMB | WOOD | D | CRACKED | WHITE | 911 BEECH | FIRST | LIVING ROOM | Positive | < LOD | 48.9 < LOD | | 32.55 < LOD | | 48.9 |
| 16 | WINDOW Trough | WOOD | D | CRACKED | WHITE | 911 BEECH | FIRST | LIVING ROOM | Positive | 1.9 | 0.8 | 1.9 | 0.8 < LOD | | 4.2 |
| 17 | WINDOW SASH | WOOD | D | INTACT | STAIN | 911 BEECH | FIRST | LIVING ROOM | Positive | 1.9 | 0.6 | 1.9 | 0.6 < LOD | | 2.7 |
| 18 | FLOOR | WOOD | D | INTACT | STAIN | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 2.21 |
| 19 | RADIATOR | METAL | D | INTACT | GOLD | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.07 < LOD | | 0.07 < LOD | | 3.56 |
| 20 | RADIATOR | METAL | D | INTACT | GOLD | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.61 < LOD | | 0.61 < LOD | | 3.62 |
| 21 | WINDOW CASE | WOOD | D | INTACT | WHITE | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.4 | 0.24 | 0.14 < LOD | | 0.4 |
| 22 | WINDOW SASH | WOOD | D | INTACT | WHITE | 911 BEECH | FIRST | LIVING ROOM | Positive | < LOD | 53 < LOD | | 18.9 < LOD | | 52.95 |
| 23 | WALL | PLASTER | A | INTACT | BROWN | 911 BEECH | FIRST | KITCHEN | Negative | < LOD | 0.18 < LOD | | 0.18 < LOD | | 1.2 |
| 24 | WALL | PLASTER | B | INTACT | BROWN | 911 BEECH | FIRST | KITCHEN | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 2.11 |
| 25 | WALL | PLASTER | C | INTACT | BROWN | 911 BEECH | FIRST | KITCHEN | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.66 |
| 26 | WALL | PLASTER | D | INTACT | BROWN | 911 BEECH | FIRST | KITCHEN | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.65 |
| 27 | WALL | PLASTER | D | INTACT | WHITE | 911 BEECH | FIRST | KITCHEN | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.74 |
| 28 | CEILING | PLASTER | D | INTACT | WHITE | 911 BEECH | FIRST | KITCHEN | Negative | < LOD | 0.03 < LOD | | 0.03 | 1.3 | 0.4 |

<LOD = Below the limit of detection

SIDE A= south, B=west, C= north, D=east

Client: Ramsey County
Location: 911 Beech Street, St. Paul, Minnesota
Date of Ins 12-Apr-16
Project #: B1602097

| Reading No | Component | Substrate | Side | Condition | Color | Site | Floor | Room | Results | PbC | PbC Error | PbL | PbL Error | PbK | PbK Error |
|------------|------------------|----------------|----------|---------------|--------------|------------------|---------------|----------------|-----------------|-----------------|----------------------|------------|-----------------------|------------|--------------|
| 29 | FLOOR | CERAMIC | D | INTACT | WHITE | 911 BEECH | FIRST | KITCHEN | Negative | 0.6 | 0.1 | 0.6 | 0.1 < LOD | | 1.05 |
| 30 | FLOOR | CERAMIC | D | INTACT | BROWN | 911 BEECH | FIRST | BATHROOM | Negative | < LOD | 0.05 < LOD | | 0.05 < LOD | | 2.03 |
| 31 | WALL | DRYWALL | A | INTACT | BROWN | 911 BEECH | FIRST | BATHROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.78 |
| 32 | WALL | DRYWALL | B | INTACT | BROWN | 911 BEECH | FIRST | BATHROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 2.17 |
| 33 | WALL | DRYWALL | C | INTACT | BROWN | 911 BEECH | FIRST | BATHROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.94 |
| 34 | WALL | DRYWALL | D | INTACT | BROWN | 911 BEECH | FIRST | BATHROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.63 |
| 35 | CEILING | DRYWALL | D | INTACT | WHITE | 911 BEECH | FIRST | BATHROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 0.75 |
| 36 | CEILING | PLASTER | A | INTACT | WHITE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.95 |
| 37 | WALL | PLASTER | A | INTACT | GRAY | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.93 |
| 38 | WALL | PLASTER | B | INTACT | GRAY | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.8 |
| 39 | WALL | PLASTER | B | INTACT | GRAY | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.65 |
| 40 | WALL | PLASTER | C | INTACT | GRAY | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.85 |
| 41 | WALL | PLASTER | C | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 2.34 |
| 42 | WALL | PLASTER | D | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Positive | 1.9 | 0.9 < LOD | | 0.36 | 1.9 | 0.9 |
| 43 | WALL | PLASTER | D | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.99 |
| 44 | WALL | PLASTER | D | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Null | < LOD | 1.15 < LOD | | 1.15 < LOD | | 2.7 |
| 45 | WALL | PLASTER | D | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Positive | 2.4 | 1.3 < LOD | | 0.57 | 2.4 | 1.3 |
| 46 | CEILING | PLASTER | D | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Positive | < LOD | 17.3 < LOD | | 3.15 < LOD | | 17.25 |
| 47 | WALL | PLASTER | A | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.51 |
| 48 | WALL | PLASTER | A | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.17 < LOD | | 0.17 < LOD | | 1.93 |
| 49 | WALL | PLASTER | B | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Positive | < LOD | 15.9 < LOD | | 3.9 < LOD | | 15.9 |
| 50 | BASEBOARD | WOOD | B | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.92 |
| 51 | BASEBOARD | WOOD | D | INTACT | BLUE | 911 BEECH | SECOND | BEDROOM | Positive | < LOD | 9.45 < LOD | | 7.95 < LOD | | 9.45 |
| 52 | FLOOR | WOOD | D | INTACT | BROWN | 911 BEECH | SECOND | BEDROOM | Positive | 2.3 | 1.2 | 2.3 | 1.2 < LOD | | 4.8 |
| 53 | DOOR | WOOD | A | INTACT | WHITE | 911 BEECH | SECOND | BEDROOM | Positive | < LOD | 13.7 < LOD | | 27.15 < LOD | | 13.65 |
| 54 | DOOR | WOOD | A | INTACT | WHITE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 < LOD | | 0.03 < LOD | | 1.56 |
| 55 | DOOR | WOOD | B | INTACT | WHITE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.69 < LOD | | 0.69 < LOD | | 2.25 |

<LOD = Below the limit of detection

SIDE A= south, B=west, C= north, D=east

Client: Ramsey County
Location: 911 Beech Street, St. Paul, Minnesota
Date of Ins 12-Apr-16
Project #: B1602097

| Reading No | Component | Substrate | Side | Condition | Color | Site | Floor | Room | Results | PbC | PbC Error | PbL | PbL Error | PbK | PbK Error |
|------------|-----------|-----------|------|-----------|-------|-----------|--------|----------|----------|-------|-----------|-------|-----------|-------|-----------|
| 56 | DOOR | WOOD | B | INTACT | WHITE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.16 | < LOD | 0.16 | < LOD | 1.95 |
| 57 | DOOR | WOOD | B | INTACT | WHITE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.07 | < LOD | 0.07 | < LOD | 1.56 |
| 58 | DOOR | WOOD | B | INTACT | WHITE | 911 BEECH | SECOND | BEDROOM | Positive | < LOD | 8.25 | < LOD | 8.25 | < LOD | 10.2 |
| 59 | DOOR | WOOD | B | INTACT | WHITE | 911 BEECH | SECOND | BEDROOM | Positive | 7.2 | 3.6 | < LOD | 4.65 | 7.2 | 3.6 |
| 60 | WALL | PLASTER | A | INTACT | WHITE | 911 BEECH | SECOND | BATHROOM | Positive | < LOD | 19.4 | < LOD | 104.6 | < LOD | 19.35 |
| 61 | WALL | PLASTER | C | INTACT | WHITE | 911 BEECH | SECOND | BATHROOM | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.79 |
| 62 | WALL | PLASTER | C | INTACT | WHITE | 911 BEECH | SECOND | BATHROOM | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.8 |
| 63 | WALL | PLASTER | D | POOR | WHITE | 911 BEECH | SECOND | BATHROOM | Positive | < LOD | 19.7 | < LOD | 21.45 | < LOD | 19.65 |
| 64 | CEILING | PLASTER | D | POOR | WHITE | 911 BEECH | SECOND | BATHROOM | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.95 |
| 65 | RADIATOR | METAL | D | POOR | WHITE | 911 BEECH | SECOND | BATHROOM | Negative | < LOD | 0.08 | < LOD | 0.08 | < LOD | 3.5 |
| 66 | BASEBOARD | WOOD | D | POOR | WHITE | 911 BEECH | SECOND | BATHROOM | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.65 |
| 67 | FLOOR | WOOD | D | POOR | BROWN | 911 BEECH | SECOND | BATHROOM | Positive | 4.3 | 2.6 | 4.3 | 2.6 | < LOD | 7.65 |
| 68 | FLOOR | WOOD | D | POOR | BROWN | 911 BEECH | SECOND | HALL | Positive | < LOD | 6.3 | < LOD | 6.3 | < LOD | 8.1 |
| 69 | WALL | WOOD | D | POOR | BROWN | 911 BEECH | SECOND | HALL | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.05 |
| 70 | WALL | WOOD | A | POOR | BROWN | 911 BEECH | SECOND | HALL | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.93 |
| 71 | WALL | WOOD | A | POOR | BROWN | 911 BEECH | SECOND | HALL | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 2.02 |
| 72 | WALL | PLASTER | B | POOR | BROWN | 911 BEECH | SECOND | HALL | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 2.04 |
| 73 | CEILING | PLASTER | B | POOR | BROWN | 911 BEECH | SECOND | HALL | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.05 |
| 74 | WALL | PLASTER | D | POOR | BEIGE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.8 |
| 75 | WALL | PLASTER | D | POOR | BEIGE | 911 BEECH | SECOND | BEDROOM | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.99 |
| 76 | FLOOR | WOOD | D | POOR | BROWN | 911 BEECH | SECOND | BEDROOM | Positive | 1.6 | 0.6 | 1.6 | 0.6 | < LOD | 2.25 |
| 77 | TREAD | WOOD | D | POOR | BROWN | 911 BEECH | SECOND | STAIR | Negative | < LOD | 0.17 | < LOD | 0.17 | < LOD | 2.03 |
| 78 | RISER | WOOD | D | POOR | BROWN | 911 BEECH | SECOND | STAIR | Negative | < LOD | 0.08 | < LOD | 0.08 | < LOD | 1.65 |
| 79 | RAIL | WOOD | D | POOR | BROWN | 911 BEECH | SECOND | STAIR | Negative | < LOD | 0.04 | < LOD | 0.04 | < LOD | 1.95 |
| 80 | RAIL | WOOD | D | POOR | BROWN | 911 BEECH | SECOND | STAIR | Negative | < LOD | 0.11 | < LOD | 0.11 | < LOD | 1.8 |
| 81 | TREAD | WOOD | D | POOR | BROWN | 911 BEECH | SECOND | STAIR | Positive | < LOD | 9.15 | 10.1 | 6.3 | < LOD | 9.15 |
| 82 | RISER | WOOD | D | POOR | BROWN | 911 BEECH | SECOND | STAIR | Positive | < LOD | 6.6 | < LOD | 6.6 | < LOD | 14.55 |

<LOD = Below the limit of detection

SIDE A= south, B=west, C= north, D=east

Client: Ramsey County
Location: 911 Beech Street, St. Paul, Minnesota
Date of Ins 12-Apr-16
Project #: B1602097

| Reading No | Component | Substrate | Side | Condition | Color | Site | Floor | Room | Results | PbC | PbC Error | PbL | PbL Error | PbK | PbK Error |
|------------|-----------|-----------|------|-----------|--------|-----------|----------|-------------|----------|-------|-----------|-------|-----------|-------|-----------|
| 83 | RISER | WOOD | D | POOR | BROWN | 911 BEECH | THIRD | STAIR | Positive | < LOD | 5.55 | < LOD | 5.55 | < LOD | 12.9 |
| 84 | WALL | WOOD | C | POOR | BROWN | 911 BEECH | THIRD | STAIR | Negative | < LOD | 0.9 | < LOD | 0.47 | < LOD | 0.9 |
| 85 | WALL | WOOD | B | POOR | BROWN | 911 BEECH | THIRD | STAIR | Negative | < LOD | 0.38 | < LOD | 0.38 | < LOD | 1.36 |
| 86 | TRIM | WOOD | C | POOR | BROWN | 911 BEECH | THIRD | STAIR | Positive | 1.2 | 0.2 | 1.2 | 0.2 | 1.3 | 0.5 |
| 87 | CEILING | WOOD | B | POOR | BROWN | 911 BEECH | THIRD | BEDROOM | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.72 |
| 88 | BASEBOARD | WOOD | B | INTACT | BROWN | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.09 | < LOD | 0.09 | < LOD | 1.97 |
| 89 | BASEBOARD | WOOD | D | INTACT | BROWN | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.11 | < LOD | 0.11 | < LOD | 1.84 |
| 90 | TRIM | WOOD | D | INTACT | BROWN | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.27 | < LOD | 0.27 | < LOD | 1.99 |
| 91 | DOOR | WOOD | D | INTACT | BROWN | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.25 | < LOD | 0.25 | < LOD | 1.84 |
| 92 | DOOR | WOOD | D | INTACT | BROWN | 911 BEECH | FIRST | LIVING ROOM | Negative | < LOD | 0.13 | < LOD | 0.13 | < LOD | 1.8 |
| 93 | CABINET | WOOD | A | INTACT | BROWN | 911 BEECH | FIRST | KITCHEN | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.91 |
| 94 | CABINET | WOOD | A | INTACT | BROWN | 911 BEECH | FIRST | KITCHEN | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 2.1 |
| 95 | WALL | PLASTER | A | POOR | WHITE | 911 BEECH | BASEMEN | STAIR | Positive | 7.4 | 4 | < LOD | 6 | 7.4 | 4 |
| 96 | WALL | PLASTER | B | POOR | WHITE | 911 BEECH | BASEMEN | STAIR | Positive | < LOD | 10.1 | < LOD | 9.3 | < LOD | 10.05 |
| 97 | WALL | PLASTER | C | POOR | WHITE | 911 BEECH | BASEMEN | STAIR | Positive | < LOD | 9.15 | < LOD | 10.65 | < LOD | 9.15 |
| 98 | WALL | PLASTER | D | POOR | WHITE | 911 BEECH | BASEMEN | STAIR | Positive | < LOD | 5.1 | < LOD | 5.1 | 6.6 | 3.6 |
| 99 | CEILING | PLASTER | D | POOR | WHITE | 911 BEECH | BASEMEN | STAIR | Positive | 7 | 3.7 | 5 | 3.3 | 7 | 3.7 |
| 100 | PIPE | METAL | A | POOR | WHITE | 911 BEECH | BASEMEN | STAIR | Positive | < LOD | 15 | < LOD | 4.35 | < LOD | 15 |
| 101 | FLOOR | WOOD | A | POOR | WHITE | 911 BEECH | BASEMEN | STAIR | Positive | 27.8 | 16.3 | < LOD | 42.45 | 27.8 | 16.3 |
| 102 | TREAD | WOOD | A | POOR | GREEN | 911 BEECH | BASEMEN | STAIR | Positive | < LOD | 8.4 | < LOD | 8.4 | < LOD | 12.15 |
| 103 | RISER | WOOD | A | POOR | GREEN | 911 BEECH | BASEMEN | STAIR | Positive | < LOD | 14 | < LOD | 7.8 | < LOD | 13.95 |
| 104 | COLUMN | WOOD | A | POOR | GREEN | 911 BEECH | BASEMENT | | Positive | 1.2 | 0.2 | 1.2 | 0.2 | 1.2 | 0.5 |
| 105 | COLUMN | WOOD | D | POOR | GREEN | 911 BEECH | BASEMENT | | Negative | 0.9 | 0.1 | 0.9 | 0.1 | 1 | 0.3 |
| 106 | BEAM | WOOD | D | INTACT | BROWN | 911 BEECH | BASEMENT | | Negative | < LOD | 0.04 | < LOD | 0.04 | < LOD | 1.2 |
| 107 | CEILING | WOOD | D | INTACT | BROWN | 911 BEECH | BASEMENT | | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.5 |
| 108 | WALL | CONCRETE | D | INTACT | YELLOW | 911 BEECH | BASEMENT | | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.05 |
| 109 | WALL | CONCRETE | A | INTACT | YELLOW | 911 BEECH | BASEMENT | | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.8 |

<LOD = Below the limit of detection

SIDE A= south, B=west, C= north, D=east

Client: Ramsey County
Location: 911 Beech Street, St. Paul, Minnesota
Date of Ins 12-Apr-16
Project #: B1602097

| Reading No | Component | Substrate | Side | Condition | Color | Site | Floor | Room | Results | PbC | PbC Error | PbL | PbL Error | PbK | PbK Error |
|------------|---------------|-------------|----------|---------------|--------------|------------------|-----------------|---------------|-----------------|-----------------|-------------|-----------------|--------------|-----------------|--------------|
| 110 | WALL | CONCRETE | A | INTACT | YELLOW | 911 BEECH | BASEMENT | | Negative | < LOD | 0.06 | < LOD | 0.06 | < LOD | 1.65 |
| 111 | DOOR | WOOD | A | INTACT | BEIGE | 911 BEECH | BASEMENT | | Positive | 1.3 | 0.3 | 1.3 | 0.3 | < LOD | 1 |
| 112 | DOOR | WOOD | A | INTACT | BEIGE | 911 BEECH | BASEMENT | | Negative | < LOD | 0.13 | < LOD | 0.13 | < LOD | 1.92 |
| 113 | DOOR | WOOD | A | INTACT | BEIGE | 911 BEECH | BASEMENT | | Positive | 1.9 | 0.9 | 1.9 | 0.9 | < LOD | 2.85 |
| 114 | TANK | METAL | A | INTACT | BEIGE | 911 BEECH | BASEMENT | | Negative | < LOD | 0.17 | < LOD | 0.17 | < LOD | 3.4 |
| 115 | WINDOW | WOOD | D | POOR | BEIGE | 911 BEECH | BASEMENT | | Negative | < LOD | 0.24 | < LOD | 0.24 | < LOD | 2.1 |
| 116 | WALL | VINYL | A | INTACT | BEIGE | 911 BEECH | BASEMENT | | Negative | < LOD | 0.04 | < LOD | 0.04 | < LOD | 1.25 |
| 117 | WALL | WOOD | B | INTACT | BEIGE | 911 BEECH | BASEMENT | | Positive | < LOD | 11.9 | < LOD | 0.23 | < LOD | 11.85 |
| 118 | WALL | WOOD | C | INTACT | BEIGE | 911 BEECH | BASEMENT | | Negative | < LOD | 0.12 | < LOD | 0.12 | < LOD | 2.18 |
| 119 | WALL | WOOD | C | INTACT | BEIGE | 911 BEECH | BASEMENT | | Positive | < LOD | 3.4 | < LOD | 0.17 | < LOD | 3.4 |
| 120 | WALL | WOOD | D | INTACT | BEIGE | 911 BEECH | BASEMENT | | Positive | < LOD | 9.45 | < LOD | 0.39 | < LOD | 9.45 |
| 121 | WINDOW | WOOD | D | POOR | WHITE | 911 BEECH | BASEMENT | | Positive | < LOD | 54 | < LOD | 33.6 | < LOD | 54 |
| 122 | WINDOW | WOOD | D | POOR | GREEN | 911 BEECH | BASEMENT | | Positive | < LOD | 7.05 | < LOD | 7.05 | < LOD | 10.95 |
| 123 | WINDOW | WOOD | D | POOR | BEIGE | 911 BEECH | BASEMENT | | Positive | < LOD | 53.6 | < LOD | 35.25 | < LOD | 53.55 |
| 124 | WINDOW | WOOD | D | POOR | BLACK | 911 BEECH | BASEMENT | | Positive | 2 | 1 | 2 | 1 | < LOD | 4.65 |
| 125 | POST | CONCRETE | A | POOR | WHITE | 911 BEECH | FIRST | PORCH | Negative | < LOD | 0.09 | < LOD | 0.09 | < LOD | 1.05 |
| 126 | TRIM | CONCRETE | A | POOR | WHITE | 911 BEECH | FIRST | PORCH | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 1.65 |
| 127 | BEAM | WOOD | A | POOR | WHITE | 911 BEECH | FIRST | PORCH | Positive | < LOD | 44.3 | < LOD | 74.25 | < LOD | 44.25 |
| 128 | COLUMN | WOOD | A | POOR | WHITE | 911 BEECH | FIRST | PORCH | Positive | < LOD | 47.1 | < LOD | 35.85 | < LOD | 47.1 |
| 129 | WINDOW | WOOD | A | POOR | WHITE | 911 BEECH | FIRST | PORCH | Positive | 36.5 | 20.5 | < LOD | 893.1 | 36.5 | 20.5 |
| 130 | WINDOW | WOOD | A | POOR | grey | 911 BEECH | FIRST | PORCH | Positive | < LOD | 5.1 | < LOD | 5.1 | < LOD | 14.4 |
| 131 | CEILING | WOOD | A | INTACT | stain | 911 BEECH | FIRST | PORCH | Negative | < LOD | 0.11 | < LOD | 0.11 | < LOD | 1.4 |
| 132 | DOOR | METAL | A | INTACT | WHITE | 911 BEECH | FIRST | PORCH | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 2.57 |
| 133 | GARAGE DOOR | WOOD | D | INTACT | BEIGE | 911 BEECH | FIRST | GARAGE | Negative | < LOD | 0.04 | < LOD | 0.04 | < LOD | 1.5 |
| 134 | JAMB | WOOD | C | INTACT | WHITE | 911 BEECH | FIRST | GARAGE | Positive | 5.4 | 3 | 1.3 | 0.7 | 5.4 | 3 |

<LOD = Below the limit of detection

SIDE A= south, B=west, C= north, D=east

Client: Ramsey County
Location: 911 Beech Street, St. Paul, Minnesota
Date of Ins 12-Apr-16
Project #: B1602097

| Reading No | Component | Substrate | Side | Condition | Color | Site | Floor | Room | Results | PbC | PbC Error | PbL | PbL Error | PbK | PbK Error |
|--------------------|-----------|-----------|------|-----------|-------|-----------|-------|--------|----------|-------|--------------|-------|--------------|-------|--------------|
| GARAGE DOOR | | | | | | | | | | | | | | | |
| 135 | JAMB | WOOD | C | INTACT | WHITE | 911 BEECH | FIRST | GARAGE | Positive | 4.7 | 3 | 1.2 | 0.6 | 4.7 | 3 |
| 136 | DOOR | METAL | C | INTACT | WHITE | 911 BEECH | FIRST | GARAGE | Negative | < LOD | 0.03 | < LOD | 0.03 | < LOD | 2.36 |
| 137 | cal | | | INTACT | WHITE | 911 BEECH | FIRST | GARAGE | Positive | 1.2 | 0.1 | 1.2 | 0.1 | < LOD | 0.9 |
| 138 | cal | | | INTACT | WHITE | 911 BEECH | FIRST | GARAGE | Positive | 1.1 | 0.1 | 1.1 | 0.1 | 0.7 | 0.4 |
| 139 | cal | | | INTACT | WHITE | 911 BEECH | FIRST | GARAGE | Positive | 1.2 | 0.1 | 1.2 | 0.1 | < LOD | 0.75 |

<LOD = Below the limit of detection

SIDE A= south, B=west, C= north, D=east

Appendix D

Bulk Asbestos Analysis Reports



Mr. Steve Luth
Braun Intertec-Bloomington
11001 Hampshire Ave. South
Bloomington, MN 55438

April 20, 2016

Work Order #: 1600949

RE: B1602097-911 Beech Street
B1602097

Page 1 of 9

Dear Steve Luth:

Bulk Asbestos Analysis Report

The microscopy department of Pace Analytical Services, Inc. received your analytical request on April 15, 2016. The sample(s) were analyzed in the Pace Industrial Hygiene laboratory unless otherwise noted. The objective of this analysis was to determine the presence of asbestos using polarized light microscopy (PLM) and to determine the percent of asbestos and non-asbestos fibrous components by calibrated visual area estimation. Analytical results are summarized on the following laboratory report.

Methodology

Bulk asbestos analysis is conducted in accordance with the Environmental Protection Agency's (EPA) methods 40 CFR, Part 763, Ch. 1, Subpart F, Appendix A (7-1-87 Edition) and EPA/600/R-93/116. All analyses are in compliance with the quality control procedures specified by the methods. All samples are examined for homogeneity. If a sample contains more than one layer, each layer is analyzed individually. Total fibrous content is calculated for joint compound/wallboard systems by combining layer results according to their percentages of the total sample. All routine quality assurance procedures were followed, unless otherwise noted.

Remarks

This test report relates only to the items submitted for analysis.

Samples are retained at our laboratory for a period of 30 days and will be disposed of unless otherwise instructed by the client.

This report can not be copied, except in its entirety, without prior written permission from Pace Analytical Services, Inc.

We appreciate your decision to use Pace Analytical Services, Inc. for this project. We are committed to being your vendor of choice to meet your analytical needs.

If you have any questions please contact me at 612-607-6457.

Sincerely,

A handwritten signature in black ink, appearing to read "Michelle Pivec".

Michelle Pivec For Steven D. Felton
Project Manager

A handwritten signature in black ink, appearing to read "Steven D. Felton".

Steven D. Felton
Microscopist

| Client ID: 1A | | Sample No: 1600949-01 | | | | |
|----------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Gray granular cementitious | 1 | 100 | 1,3 | Cellulose <1 Hair <1 | None Detected | 04/18/16 |

| Client ID: 1B | | Sample No: 1600949-02 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| White granular | 1 | 100 | 1,3 | Cellulose <1 Hair <1 | None Detected | 04/18/16 |

| Client ID: 1C | | Sample No: 1600949-03 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| White granular powdery | 1 | 100 | 1,3 | Cellulose <1 Hair <1 | None Detected | 04/18/16 |

| Client ID: 1D | | Sample No: 1600949-04 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| White granular powdery | 1 | 100 | 1,3,11 | Cellulose <1 | None Detected | 04/18/16 |

| Client ID: 1E | | Sample No: 1600949-05 | | | | |
|----------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Gray granular cementitious | 1 | 100 | 1,3 | Cellulose <1 Hair <1 | None Detected | 04/18/16 |

| Client ID: 1F | | Sample No: 1600949-06 | | | | |
|----------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Gray granular cementitious | 1 | 100 | 1,3 | Cellulose <1 Hair <1 | None Detected | 04/18/16 |

| Client ID: 1G | | Sample No: 1600949-07 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| White fibrous powdery | 1 | 100 | 1,3,11 | Cellulose <1 Hair <1 | None Detected | 04/18/16 |

| Client ID: 2A | | Sample No: 1600949-08 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| White powdery texture | 1 | 100 | 1,3 | None Detected | None Detected | 04/18/16 |

| Client ID: 2B | | Sample No: 1600949-09 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| White granular texture | 1 | 100 | 1,3,10,11 | None Detected | None Detected | 04/19/16 |

| Client ID: 2C | | Sample No: 1600949-10 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| White micaceous texture | 1 | 100 | 1,2,3 | None Detected | None Detected | 04/19/16 |

| Client ID: 2D | | Sample No: 1600949-11 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| White granular texture | 1 | 100 | 1,3,10 | None Detected | None Detected | 04/19/16 |

| Client ID: 2E | | Sample No: 1600949-12 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| White granular texture | 1 | 100 | 1,3,10 | None Detected | None Detected | 04/19/16 |

| | | | | | |
|-------------------|-----------------------------------|--------------|---|--------------------|-----------|
| Client: | Braun Intertec-Bloomington | Laboratory: | Pace Analytical Services, Inc. (IH Laboratory) | Date Reported: | 4/20/2016 |
| Log-In: | 04/15/16 | Lab Contact: | Michelle Pivec For Steven D. Felton | Page 4 of 9 | |
| Client Reference: | B1602097-911 Beech Street | PO Number: | B1602097 | | |

| | | | |
|------------|---|------------|------------|
| Client ID: | 3 | Sample No: | 1600949-13 |
|------------|---|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Linoleum | 2 | 100 | - | - | - | 04/19/16 |
| Tan vinyl | (A) | 5 | 1,3,9 | None Detected | None Detected | |
| Black tar paper | (B) | 95 | 8 | Cellulose 60 Synthetic Fibers 5 | None Detected | |

| | | | |
|------------|---|------------|------------|
| Client ID: | 4 | Sample No: | 1600949-14 |
|------------|---|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|----------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Tile and grout | 2 | 100 | - | - | - | 04/19/16 |
| Brown cementitious tile | (A) | 97 | 1,3 | None Detected | None Detected | |
| Gray granular cementitious | (B) | 3 | 1,3 | None Detected | None Detected | |

| | | | |
|------------|---|------------|------------|
| Client ID: | 5 | Sample No: | 1600949-15 |
|------------|---|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Sheetrock | 2 | 100 | 1,3 | Cellulose 5 | None Detected | 04/19/16 |
| Brown paper | (A) | 3 | 3 | Cellulose 95 | None Detected | |
| White chalky | (B) | 97 | 1,3 | Cellulose 2 | None Detected | |

| | | | |
|------------|---|------------|------------|
| Client ID: | 6 | Sample No: | 1600949-16 |
|------------|---|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|------------------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Linoleum | 2 | 100 | - | - | - | 04/19/16 |
| Gray vinyl | (A) | 65 | 1,3,9 | None Detected | None Detected | |
| Gray fibrous backing with adhesive | (B) | 35 | 1,3,7 | Cellulose 50 Glass Fibers <1 | None Detected | |

| Client ID: 7 | | Sample No: 1600949-17 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Flooring | 5 | 100 | - | - | - | 04/19/16 |
| Dark brown vinyl | (A) | 5 | 1,3,9 | None Detected | None Detected | |
| Black tar paper | (B) | 35 | 8 | Cellulose 60 Synthetic Fibers 5 | None Detected | |
| Tan vinyl | (C) | 35 | 1,3,9 | Cellulose 50 | None Detected | |
| Black tar paper | (D) | 24 | 8 | Cellulose 65 | None Detected | |
| Brown adhesive | (E) | 1 | 1,7 | None Detected | None Detected | |

| Client ID: 8 | | Sample No: 1600949-18 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Brown adhesive | 1 | 100 | 1,7 | Cellulose 20 | None Detected | 04/19/16 |

| Client ID: 9A | | Sample No: 1600949-19 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Insulation | 2 | 100 | - | - | - | 04/19/16 |
| White fibrous | (A) | 2 | 3,4 | Cellulose 10 | Chrysotile 50 | |
| Gray fibrous | (B) | 98 | 3 | Cellulose 90 Synthetic Fibers 5 | None Detected | |

| Client ID: 9B | | Sample No: 1600949-20 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |

NO ANALYSIS PERFORMED ON THIS SAMPLE

| Client ID: 9C | | Sample No: 1600949-21 | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |

NO ANALYSIS PERFORMED ON THIS SAMPLE

| | | | | | |
|-------------------|-----------------------------------|--------------|---|--------------------|-----------|
| Client: | Braun Intertec-Bloomington | Laboratory: | Pace Analytical Services, Inc. (IH Laboratory) | Date Reported: | 4/20/2016 |
| Log-In: | 04/15/16 | Lab Contact: | Michelle Pivec For Steven D. Felton | Page 6 of 9 | |
| Client Reference: | B1602097-911 Beech Street | PO Number: | B1602097 | | |

| | | | |
|------------|-----|------------|------------|
| Client ID: | 10A | Sample No: | 1600949-22 |
|------------|-----|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|------------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| White fibrous powdery | 1 | 100 | 1,3 | Cellulose 15 | Chrysotile 12 | 04/19/16 |

| | | | |
|------------|-----|------------|------------|
| Client ID: | 10B | Sample No: | 1600949-23 |
|------------|-----|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| | | | | | | |

NO ANALYSIS PERFORMED ON THIS SAMPLE

| | | | |
|------------|-----|------------|------------|
| Client ID: | 10C | Sample No: | 1600949-24 |
|------------|-----|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| | | | | | | |

NO ANALYSIS PERFORMED ON THIS SAMPLE

| | | | |
|------------|----|------------|------------|
| Client ID: | 11 | Sample No: | 1600949-25 |
|------------|----|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|----------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Brick and mortar | 2 | 100 | - | - | - | 04/19/16 |
| Brown cementitious brick | (A) | 30 | 1,3 | None Detected | None Detected | |
| Gray granular cementitious | (B) | 70 | 1,3,4 | None Detected | None Detected | |

| | | | |
|------------|----|------------|------------|
| Client ID: | 12 | Sample No: | 1600949-26 |
|------------|----|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Gray fibrous | 1 | 100 | 1,3 | Glass Fibers 10 | Chrysotile 60 | 04/19/16 |

| | | | |
|------------|----|------------|------------|
| Client ID: | 13 | Sample No: | 1600949-27 |
|------------|----|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|-----------------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Gray granular cementitious | 1 | 100 | 1,3 | None Detected | None Detected | 04/19/16 |

| | | | |
|------------|----|------------|------------|
| Client ID: | 14 | Sample No: | 1600949-28 |
|------------|----|------------|------------|

| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
|----------------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Gray fibrous cementitious | 1 | 100 | 1,3 | None Detected | Chrysotile 10 | 04/19/16 |

| | | | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Client ID: | 15 | Sample No: | 1600949-29 | | | |
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Gray granular | 1 | 100 | 1,3 | None Detected | None Detected | 04/19/16 |

| | | | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Client ID: | 16 | Sample No: | 1600949-30 | | | |
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Black fibrous tarry | 1 | 100 | 4,8 | Cellulose 40 Synthetic Fibers 5 | None Detected | 04/19/16 |

| | | | | | | |
|---------------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Client ID: | 17 | Sample No: | 1600949-31 | | | |
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Black fibrous tarry with stones | 1 | 100 | 1,8 | Glass Fibers 10 | None Detected | 04/19/16 |

| | | | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Client ID: | 18 | Sample No: | 1600949-32 | | | |
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Gray fibrous tacky | 1 | 100 | 1,3 | None Detected | Chrysotile 4 | 04/19/16 |

| | | | | | | |
|-------------------------|------------------------------------|-------------------------|-------------------------|---|-----------------------------------|-----------------|
| Client ID: | 19 | Sample No: | 1600949-33 | | | |
| Macroscopic Description | No. of Layers and Layer Designator | Percent of Total Sample | Non-Fibrous Components* | Other Fibrous Non-Asbestos Content Total or Layer % | Asbestos Content Total or Layer % | Analytical Date |
| Caulk | 3 | 100 | - | - | - | 04/19/16 |
| Tan granular | (A) | 90 | 1,3 | None Detected | None Detected | |
| Black granular tarry | (B) | >9 | 1,8 | None Detected | None Detected | |
| Gray fibrous | (C) | <1 | 3,4 | None Detected | Chrysotile 50 | |

Footnotes and Definitions

| | | | | | |
|---|--------------|---------------------------------|---------------------|------------------|--------------------|
| < | Less Than | * Key to Non-Fibrous Components | | | |
| > | Greater Than | | | | |
| | | 1 = Rock/Mineral fragments | 5 = Diatoms | 9 = Vinyl | 13 = Spores/Pollen |
| | | 2 = Mica/Vermiculite | 6 = Perlite | 10 = Foam/Rubber | 14 = Foil |
| | | 3 = Binders | 7 = Adhesive/Mastic | 11 = Paint | |
| | | 4 = Opaques | 8 = Tar | 12 = Other | |



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: **Braun Intertec**
 Address: **911 Beech Street**
 Email To: **Justin@braunintertec.com**
 Phone: **312.209.7001** Fax: **312.209.7002**
 Requested Due Date/TAT: **See Address**

Section B

Required Project Information:

Report To: **Steve Luth**
 Copy To: **See Address**
 Purchase Order No.: **B1602097-00-01-02**
 Project Name: **See Address**
 Project Number: **See Address**

Section C

Invoice Information:

Attention: **See Address**
 Company Name: **See Address**
 Address: **See Address**
 Pace Quote Reference: **See Address**
 Pace Project Manager: **See Address**
 Pace Profile #: **See Address**

Page: **1** of **1**
1988330
 REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER
 Site Location
 STATE: **MN**

| Section D Required Client Information | | Matrix Codes MATRIX / CODE | | COLLECTED | | | | PRESERVATIVES | | Requested Analysis Filtered (Y/N) | | Residual Chlorine (Y/N) | Pace Project No./ Lab I.D. | | | | | |
|--|--|--|--------------------------------|-----------|------|---------|------|---------------|--------------------------------|-----------------------------------|-----|-------------------------|----------------------------|------|---|----------|-------|-----------------|
| ITEM # | SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | DATE | TIME | DATE | TIME | Unpreserved | H ₂ SO ₄ | HNO ₃ | HCl | | | NaOH | Na ₂ S ₂ O ₃ | Methanol | Other | Analysis Test 1 |
| 1 | B1602097-See Attach Table II | | | | | 4.12.16 | | | | | | | | | | | | |
| 2 | B1602097-00-See Attach Table II | | | | | 4.12.16 | | | | | | | | | | | | |
| 3 | B1602097-01- " | | | | | 4.13.16 | | | | | | | | | | | | |
| 4 | B1602097-02- " | | | | | 4.13.16 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---------------------|-------------------------------|------|------|---------------------------|----------------|-------------|-------------------|
| | JPM/Braun | | | Kekey Boigertahn | 4/15/16 | 1125 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

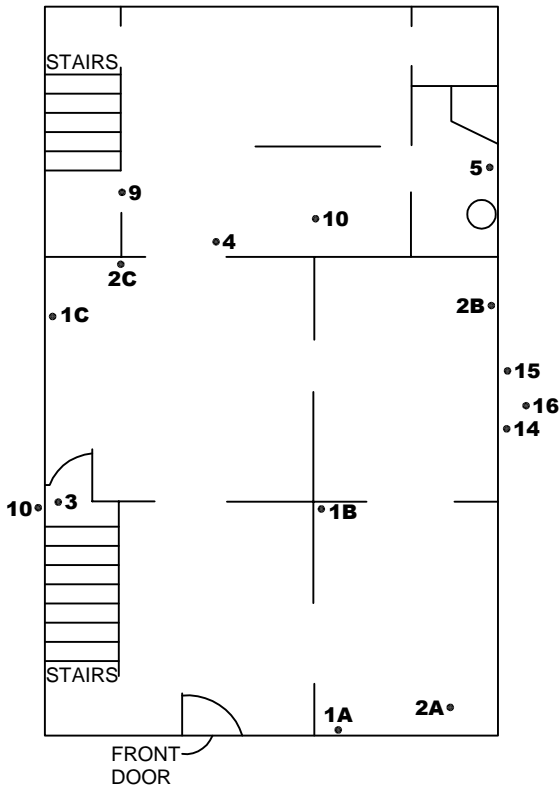
| SAMPLER NAME AND SIGNATURE | | Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|----------------------------|-----------------------|-------------------------|-----------------------|-----------------------------|----------------------|
| PRINT Name of SAMPLER: | Justin Michael | | | | |
| SIGNATURE of SAMPLER: | Justin Michael | DATE Signed (MM/DD/YY): | 4/14/16 | | |

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Appendix E

Sample Location Sketch



• **SAMPLE LOCATION**

NOTE: SAMPLES 10,11,12, AND 13 WERE COLLECTED FROM THE BASEMENT ADJACENT TO THE CHIMNEY
SAMPLE 17 COLLECTED FROM THE ROOF OF THE MAIN STRUCTURE

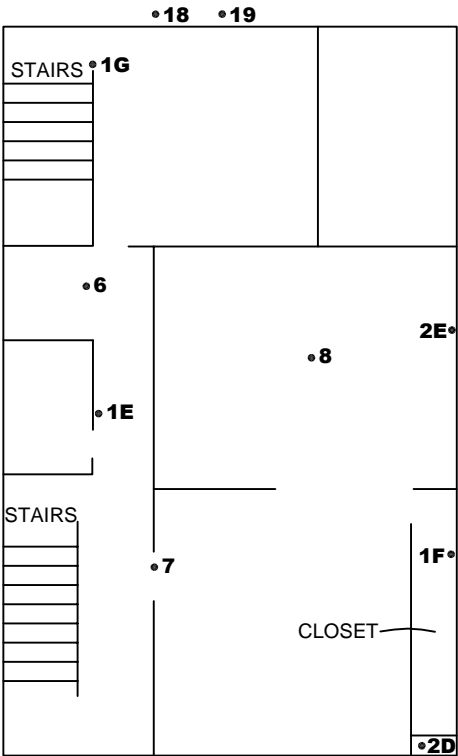


| | | |
|-------------|----------------|----------|
| Sheet of | Project No: | B1602097 |
| | Drawing No: | B1602097 |
| Fig: | Scale: | NONE |
| | Drawn By: | REJ |
| | Date Drawn: | 4/19/16 |
| | Checked By: | JPM |
| | Last Modified: | 5/5/16 |

SAMPLE LOCATION SKETCH - MAIN FLOOR
PRE-DEMO HAZMAT
THREE LEVEL SINGLE FAMILY DWELLING
911 BEACH STREET
ST. PAUL, MINNESOTA

BRAUN
INTERTEC
The Science You Build On.

11001 Hampshire Avenue S
Minneapolis, MN 55438
PH. (952) 995-2000
FAX (952) 995-2020



• **SAMPLE LOCATION**

NOTE: NO SAMPLES COLLECTED FROM THE THIRD FLOOR



| | | |
|-------------|----------------|----------|
| Sheet of | Project No: | B1602097 |
| | Drawing No: | B1602097 |
| Fig: | Scale: | NONE |
| | Drawn By: | REJ |
| | Date Drawn: | 4/19/16 |
| | Checked By: | JPM |
| | Last Modified: | 5/5/16 |

SAMPLE LOCATION SKETCH - 2ND FLOOR
PRE-DEMO HAZMAT
THREE LEVEL SINGLE FAMILY DWELLING
911 BEACH STREET
ST. PAUL, MINNESOTA

BRAUN
INTERTEC
The Science You Build On.

11001 Hampshire Avenue S
Minneapolis, MN 55438
PH. (952) 995-2000
FAX (952) 995-2020

Appendix F

Asbestos Inspector Certificate

Certificate No: 5LM080515061R

Expiration Date: August 5, 2016

This is to certify that
Justin Michael

has attended and successfully completed an

ASBESTOS INSPECTOR

REFRESHER TRAINING COURSE

permitted by

the State of Minnesota under Minnesota Rules 4620.3702 to 4620.3722

and meets the requirements of

Section 206 of Title II of the Toxic Substances Control Act (TSCA)

conducted by

Lake States Environmental, Ltd.

White Bear Lake, MN on August 5, 2015

Examination Date: August 5, 2015

Lake States Environmental, Ltd
P. O. Box 645, Rice Lake, WI 54868
(800) 254-9811


Training Inspector



MDH ASBESTOS
INSPECTOR

Certified by:
State of Minnesota
Department of Health
Expires: 08/05/2016

Justin P. Michael
3150 Excelsior Blvd Unit #214
Minneapolis, MN 55416

Director, Env. Health Div.

No. A112434 Issued: 09/11/2015



ASBESTOS
INSPECTOR

Certified by
State of Minnesota
Department of Health

Expires: 01/28/2017

Stephen A Luth
6598 154th St W
Apple Valley, MN 55124

Stephen A. Luth
Director, Env. Health Div.

No. A110702

Issued: 02/12/2016