Pre-Renovation Hazardous Building Materials Inspection Report

Residential Building
4173 Clover Avenue
Vadnais Heights, Minnesota

Prepared for

Ramsey County

BRAUN INTERTEC
The Science You Build On.

Project B1801954
April 9, 2018

Braun Intertec Corporation

BRAUN INTERTEC
The Science You Build On.

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

April 9, 2018

Project B1801954

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

Re: Pre-Renovation Hazardous Building Materials Inspection Report
Residential Building
4173 Clover Avenue
Vadnais Heights, Minnesota

Dear Mr. Scharf:

The enclosed report provides the results of the pre-renovation hazardous building materials inspection conducted on March 6, 2018, at the residential building located at 4173 Clover Avenue in Vadnais Heights, Minnesota (Site). Braun Intertec Corporation was authorized to conduct this inspection in accordance with our Proposal QTB074064 dated March 1, 2018 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 Gaia Ewing at 612.751.4018 or Stephen Luth at 952.995.2668.

Sincerely,

BRAUN INTERTEC CORPORATION

FOR: Gaia I. Ewing
Environmental Technician

Stephen A. Luth
Project Scientist

Attachments:
Pre-Renovation Hazardous Building Materials Inspection Report

AA/EOE

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Appendices

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 testing (LBP) of various building components that may be impacted by the future renovation project. The various painted surfaces suspected of containing lead will be tested using a Niton X-ray fluorescence (XRF) spectrum analyzer. The Niton is a portable, non-destructive, in-situ test and measurement instrument. The scope of the limited lead-based testing is intended to be used to aid the Contractor in developing the project budget and worker safety requirements for OSHA and US EPA Renovation, Repair and Painting Program Rule (RRP) compliance.

  Note: *The limited lead-based paint testing is not intended to represent a comprehensive lead-based paint inspection, lead risk assessment or fulfill the testing protocols required by the Department of Housing and Urban Development (HUD) Lead Safe Housing Rule, 24 CFR 35, subparts B through R, et al., June 21, 2004. Additional LBP testing may be required.*

- 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.

B. Site Description

The subject of the inspection is the residential building located at 4173 Clover Avenue in Vadnais Heights, Minnesota. The house is a single level wood structure with a basement. It was constructed in 1939 and encompasses approximately 1,250 square feet. The house is constructed of wood, concrete and concrete block foundation walls. The typical interior finishes included sheetrock/joint compound, ceiling texture and vinyl sheet flooring. The exterior of the house has vinyl 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

Fourteen (14) bulk samples were collected on March 6, 2018 and submitted to EMSL Analytical, Inc. a microscopy laboratory that is fully accredited for bulk 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).

- 12-inch by 12-inch floor tile (gray stone look) contains 10 percent (%) chrysotile (asbestos).

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).

- Chimney breaching (gray)
- Vinyl sheet flooring (off-white, square & diamond pattern) w/ backing
- Vinyl sheet flooring (off-white, 4"x4" double square pattern) w/ backing
- Sink undercoating (gray)
- Vinyl sheet flooring (4"x4" square pattern) w/ backing
- Sheetrock/joint compound
- Ceiling texture (popcorn)
- Vinyl sheet flooring (off-white floral design) w/ adhesive (tan)
- Blown-in insulation (brown)
- Shingles with tarpaper

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. A sample location map is included as Appendix E.

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/cm^2) 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.

- **No "lead-based paint" was detected in the surfaces tested 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)

- Light ballasts

C.3.b. Mercury

- Electrical Systems – electrical panels.
- Heating – thermostats.
- Lighting – fluorescent lamps.

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

- Refrigerants

C.3.d. Miscellaneous

- Water heater
- Dryer
- Stove/oven
- Dehumidifier

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):

- **No friable-ACM**

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):

- 12-inch by 12-inch floor tile (gray stone look)

The above Category I non-friable ACMs were observed to be in good condition at the time of our inspection. These materials should be maintained in good condition to prevent potential exposure to asbestos. 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 must be removed prior to that activity. Secondly, 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:

- **No Cat II Non-Friable ACM**

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/cm^2 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.

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.

- **Note:** The limited lead-based paint testing is not intended to represent a comprehensive lead-based paint inspection, lead risk assessment or fulfill the testing protocols required by the Department of Housing and Urban Development (HUD) 24 CFR part 35, et al., "Requirements for Notification, Evaluation and Reduction of Lead-Based Paint hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance, Final Rule," June 21, 2004. Additional LBP testing may be required.

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: _____ Date: 4/9/2018

FOR: Gaia I. Ewing
Environmental Technician
Minnesota of Health Asbestos Inspector No: AI13299

Appendix A

Table I. Asbestos Building Inspection Results

BRAUN INTERTEC
The Science You Build On.

Table I. Asbestos Building Inspection Results

Client: Ramsey County
Location: 4173 Clover Avenue; Vadnais Heights, MN
Date of Inspection: March 6, 2018
Project: B1801954

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]
6-Mar-18						
Basement	Chimney breaching (gray)	No	1	2 ft.²	ND	0
Basement	**12-inch by 12-inch floor tile (gray stone look)**	**Yes**	**2**	**12 ft.²**	**ND**	**1**
Main Floor	Vinyl sheet flooring (off-white, square & diamond pattern) w/ backing	No	3	68 ft.²	ND	0
Main Floor	Vinyl sheet flooring (off-white, 4"x4" double square pattern) w/ backing	No	4	140 ft.²	ND	0
Main Floor	Sink undercoating (gray)	No	5	1 sink	ND	0
Main Floor	Vinyl sheet flooring (4"x4" square pattern) w/ backing	No	6	85 ft.²	ND	0
Main Floor	Sheetrock/joint compound	No	7	3,000 ft.²	ND	0
Main Floor	Ceiling texture (popcorn)	No	8A-C	800 ft.²	ND	0
Main Floor	Vinyl sheet flooring (off-white floral design) w/ adhesive (tan)	No	9	127 ft.²	ND	0
Attic	Blown-in insulation (brown)	No	10	1,250 ft.²	ND	0

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]
Exterior	Tarpaper (black)	No	11	1,500 ft.²	ND	0
Roof	Shingles w/ tarpaper	No	12	1,875 ft.²	ND	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

BRAUN INTERTEC
The Science You Build On.

Table II. Bulk Asbestos Analytical Results

Client: Ramsey County
Location: 4173 Clover Avenue; Vadnais Heights, MN
Date of Inspection: March 6, 2018
Project: B1801954

Sample No.	Sample Location			Material	Asbestos Content (%)[1]
1	Basement	Chimney	East Face	Chimney breaching (gray)	N.D.[2]
2	**Basement**	**Steps**	**Top Stair**	**12-inch by 12-inch floor tile (gray stone look)**	**Chrysotile 10**
3	Main Floor	Hall	Near Stairs	Vinyl sheet flooring (off-white, square & diamond pattern) w/ backing	N.D.
4	Main Floor	Kitchen	East Edge	Vinyl sheet flooring (off-white, 4"x4" double square pattern) w/ backing	N.D.
5	Main Floor	Kitchen	South Counter	Sink undercoating (gray)	N.D.
6	Main Floor	West Bathroom	Doorway	Vinyl sheet flooring (4"x4" square pattern) w/ backing	N.D.
7	Main Floor	Kitchen	West Wall	Sheetrock/joint compound	N.D.
8A	Main Floor	Living Room	Ceiling	Ceiling texture (popcorn)	N.D.
8B	Main Floor	West Bedroom	Ceiling	Ceiling texture (popcorn)	N.D.
8C	Main Floor	East Bedroom	Ceiling	Ceiling texture (popcorn)	N.D.
9	Main Floor	East Bedroom	West Wall	Vinyl sheet flooring (off-white floral design) w/ adhesive (tan)	N.D.
10	Attic	Hall	Hatch	Blown-in insulation (brown)	N.D.
11	Exterior	North Face	Beneath Siding	Tarpaper (black)	N.D.
12	Exterior	Roof	-	Shingles w/ tarpaper	N.D.

* 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.
2. N.D. = None Detected

Appendix C

Table III. Lead-Based Paint Testing Results

BRAUN INTERTEC
The Science You Build On.

Table III. Lead-Based Paint Testing

Client: Ramsey County
Location: 4173 Clover Avenue; Vadnais Heights, MN
Date of Inspection: March 6, 2018
Project: B1801954

Sample I.D. No.	Room/Area		Component Description			Results	Paint Condition G = Good P = Peeling
1	Calibration		Surface			1.3	---
2	Calibration		Buried			1.2	---
3	Calibration		Surface			1.1	---
4	Basement	-	Floor	Concrete	Gray	0.00	G
5	Basement	-	Wall	Block	Gray	0.00	G
6	Main Floor	Hall	Wall	Sheetrock	White	0.00	G
7	Main Floor	West Bathroom	Wall	Sheetrock	Green	0.00	G
8	Main Floor	Hall	Door	Wood	Tan	0.00	G
9	Main Floor	Hall	Door Frame	Wood	Tan	0.00	G
10	Main Floor	Kitchen	Window	Wood	Tan	0.00	G
11	Main Floor	Kitchen	Window Frame	Wood	Tan	0.00	G
12	Main Floor	Hall	Door	Metal	White	0.00	G
13	Main Floor	Hall	Door Frame	Metal	White	0.00	G
14	Exterior	-	Siding	Vinyl	Blue	0.00	G
15	Post Calibration		Surface			1.1	---
16	Post Calibration		Buried			1.1	---
17	Post Calibration		Surface			1.0	---

mg/cm^2 = milligrams of lead per square centimeter of paint

Appendix D

Bulk Asbestos Analysis Reports

BRAUN INTERTEC

EMSL Analytical, Inc.

1830 Elm St. S.E. Minneapolis, MN 55414

Tel/Fax: (612) 607-6457 / (952) 852-7131

http://www.EMSL.com / minneapolislabih@EMSL.com

EMSL Order:	101800518
Customer ID:	BRAU50
Customer PO:	
Project ID:	

Attention:	Rob Nordby	**Phone:**	(952) 995-2000
	Braun Intertec	**Fax:**	(952) 995-2020
	11001 Hampshire Avenue South	**Received Date:**	03/06/2018 2:30 PM
	Bloomington, MN 55438	**Analysis Date:**	03/07/2018 - 03/08/2018
		Collected Date:	03/06/2018
Project:	B1801954/4173 Clover		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1 *101800518-0001*	BASEMENT @ CHIM. E. FACE, CHIMNEY BREACHING (GRAY)	Gray Non-Fibrous Homogeneous	5% Cellulose 15% Glass	80% Non-fibrous (Other)	None Detected
2 *101800518-0002*	BASEMENT @ STAIRS TOP STEP, 12x12" FT. (GRAY, STONE LOOK)	Tan Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
3-Linoleum *101800518-0003*	MAIN FL. HALL BY STAIRS, VINYL SHEET FLOORING (OFF-WHITE, SQUARE W/ DIAMOND ACCENT) W/ BACKING	Tan/White Non-Fibrous Homogeneous	15% Cellulose 10% Glass	75% Non-fibrous (Other)	None Detected
3-Adhesive *101800518-0003A*	MAIN FL. HALL BY STAIRS, VINYL SHEET FLOORING (OFF-WHITE, SQUARE W/ DIAMOND ACCENT) W/ BACKING	Tan/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-Linoleum *101800518-0004*	MAIN FL. KITCH. E. EDGE, VINYL SHEET FLOORING (OFF-WHITE) 4x4" SQUARE PATTERN) W/ BACKING	Tan Non-Fibrous Homogeneous	15% Cellulose 5% Synthetic 5% Glass	75% Non-fibrous (Other)	None Detected
4-Adhesive *101800518-0004A*	MAIN FL. KITCH. E. EDGE, VINYL SHEET FLOORING (OFF-WHITE) 4x4" SQUARE PATTERN) W/ BACKING	Tan/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5 *101800518-0005*	MAIN FL. KITCH. S. COUNTER, SINK UNDERCOATING (GRAY)	White Non-Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
6-Linoleum *101800518-0006*	MAIN FL. W. BATH.@ DOORWAY, VINYL SHEET FLOORING (OFF-WHITE, 4x4" SQUARE PATTERN) W/ BACKING	Gray/White Fibrous Heterogeneous	5% Cellulose 8% Synthetic <1% Glass	87% Non-fibrous (Other)	None Detected

Initial report from: 03/09/2018 18:23:25

EMSL Analytical, Inc.

1830 Elm St. S.E. Minneapolis, MN 55414

Tel/Fax: (612) 607-6457 / (952) 852-7131

http://www.EMSL.com / minneapolislabih@EMSL.com

EMSL Order:	101800518
Customer ID:	BRAU50
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
6-Adhesive *101800518-0006A*	MAIN FL. W. BATH.@ DOORWAY, VINYL SHEET FLOORING (OFF-WHITE, 4x4" SQUARE PATTERN) W/ BACKING	Yellow Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
7-Joint Compound *101800518-0007*	MAIN FL. KITCH. W. WALL, SR/JC	White Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
7-Sheetrock *101800518-0007A*	MAIN FL. KITCH. W. WALL, SR/JC	Brown/White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
8A *101800518-0008*	MAIN FL. LVG RM CEIL., CEILING TEXTURE (POPCORN)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8B *101800518-0009*	MAIN FL. W. BED. CEIL., CEILING TEXTURE (POPCORN)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8C *101800518-0010*	MAIN FL. E. BED. CEIL., CEILING TEXTURE (POPCORN)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9-Linoleum *101800518-0011*	MAIN FL. E. BATH. W. WALL, VINYL SHEET FLOORING (OFF-WHITE, FLORAL DESIGN) W/ ADH. (TAN)	Gray/Tan Fibrous Heterogeneous	25% Cellulose <1% Glass	75% Non-fibrous (Other)	None Detected
9-Adhesive *101800518-0011A*	MAIN FL. E. BATH. W. WALL, VINYL SHEET FLOORING (OFF-WHITE, FLORAL DESIGN) W/ ADH. (TAN)	Yellow Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
10 *101800518-0012*	ATTIC HALL @ HATCH, BLOWN-IN INSULATION (BROWN)	Gray Fibrous Homogeneous	99% Cellulose	1% Non-fibrous (Other)	None Detected
11 *101800518-0013*	EXT. N. FACE UND. SIDING, TARPAPER (BLACK)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
12-Shingle *101800518-0014*	EXT. ROOF @ EDGE, SHINGLES W/ TARPAPER	Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
12-Tar Paper *101800518-0014A*	EXT. ROOF @ EDGE, SHINGLES W/ TARPAPER	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

Initial report from: 03/09/2018 18:23:25

EMSL Analytical, Inc.

1830 Elm St. S.E. Minneapolis, MN 55414

Tel/Fax: (612) 607-6457 / (952) 852-7131

http://www.EMSL.com / minneapolislabih@EMSL.com

EMSL Order:	101800518
Customer ID:	BRAU50
Customer PO:	
Project ID:	

Analyst(s)

Mariah Dorner (6)

Steve Felton (14)

Mark Erickson, Laboratory Manager
or Other Approved Signatory

Initial report from: 03/09/2018 18:23:25

OrderID: 101800518

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (*Lab Use Only*): 101800518

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

Company : Braun Intertec Corp.	**EMSL-Bill to:** ☐ Same ☒ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 11001 Hampshire Avenue South	
City: Minneapolis **State/Province:** MN	**Zip/Postal Code:** 55438 **Country:** USA
Report To (Name): Robert Nordby/ Gaia Ewing	**Telephone #:** 952.995.2000
Email Address: mordby@braunintertec.com gewing@braunintertec.com	**Fax #:** 953.995.2020 **Purchase Order:**
Project Name/Number: B1801954 4173 Clover	**Please Provide Results:** ☐ Fax ☒ Email
U.S. State Samples Taken: Minnesota	**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☒ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PLM - Bulk (reporting limit)	TEM – Bulk
☒ PLM EPA 600/R-93/116 (<1%)	☐ TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
☐ PLM EPA NOB (<1%)	☐ NY ELAP Method 198.4 (TEM)
Point Count ☐ 400 (<0.25%) ☐ 1000 (<0.1%)	☐ Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric ☐ 400 (<0.25%) ☐ 1000 (<0.1%)	☐ TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
☐ NIOSH 9002 (<1%)	☐ TEM Qualitative via Filtration Prep Technique
☐ NY ELAP Method 198.1 (friable in NY)	☐ TEM Qualitative via Drop Mount Prep Technique
☐ NY ELAP Method 198.6 NOB (non-friable-NY)	**Other**
☐ OSHA ID-191 Modified	☒ Point Count (400-non/grav.) if results are <1%, do not Point Count if N.D.
☐ Standard Addition Method	

☒ **Check For Positive Stop – Clearly Identify Homogenous Group** **Date Sampled:** 3/6/18

Samplers Name: Gaia Ewing (MDH #AI 132994 **Samplers Signature:**

Sample #	HA #	Sample Location	Material Description

Client Sample # (s): See above or see attached table 1 - 12 **Total # of Samples:** 14

Relinquished (Client): Gaia Ewing (MDH #AI 132994 **Date:** 3/6/18 **Time:** 2:30

Received (Lab): [signature] **Date:** 3/6/18 **Time:** 14:30

Comments/Special Instructions:
OK to send to other EMSL locations.
Point Count (400-non/grav.) up to 5 samples, if >5 samples call for approval.
Invoice sent to: Jen Croft (jcroft@braunintertec.com) - same address.

OrderID: 101800518

C: RAMSEY COUNTY

101800518

V: 4173 CLEVER AVE. ST. PAUL, MN

D: 3/6/18

#:

Table II. Bulk Asbestos Analytical Results

Address

Project #

~~Page 9~~

1 of 1

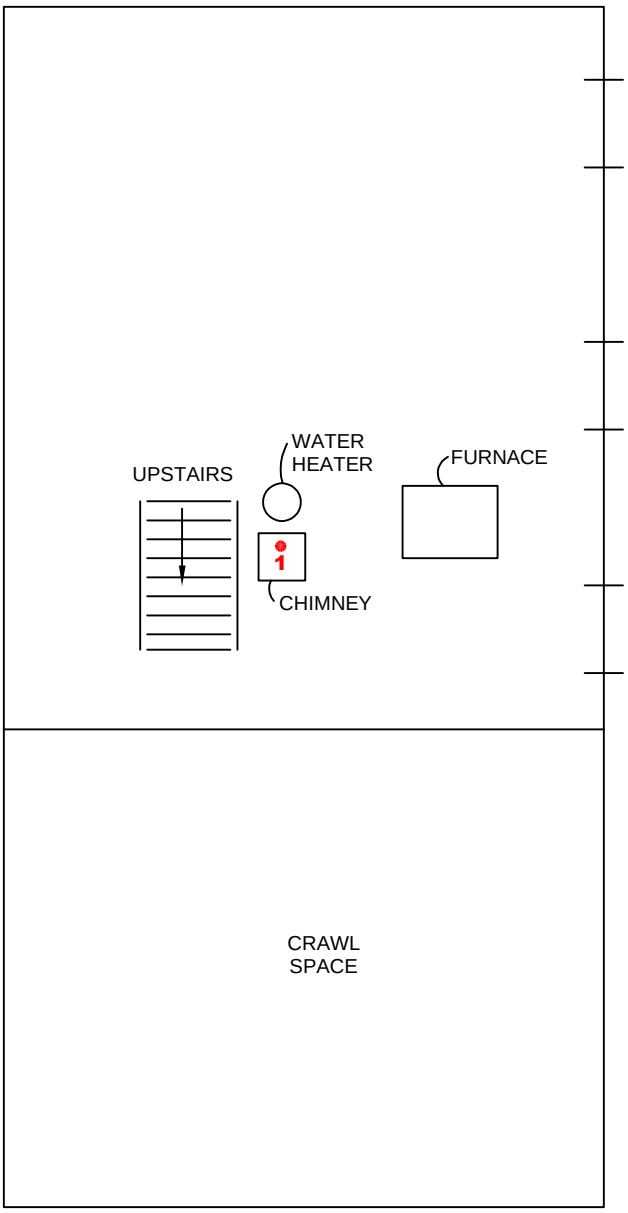
Sample No.	Sample Location			Material	Asbestos Content (%)[1]
1	BASEMENT	@ CHIM.	E. FACE	CHIMNEY BREACHING (GRAY)	
2	↓	@ STAIRS	TOP STEP	12x12" FT. (GRAY, STONE LOOK)	
3	MAIN FL.	HALL	BY STAIRS	VINYL SHEET FLOORING (OFF-WHITE, SQUARE w/ DIAMOND PATTERN) w/ BACKING	
4	↓	KITCH.	E. EDGE	VINYL SHEET FLOORING (OFF-WHITE, 4x4" SQUARE PATTERN) w/ BACKING	
5		↓	S. COUNTER	DOUBLE SINK UNDERCOATING (GRAY)	
6		W. BATH.	DOORWAY @	VINYL SHEET FLOORING (OFF-WHITE, 4x4" SQUARE PATTERN) w/ BACKING	
7		KITCH	W. WALL	SP/JC	
8A		LVG RM	CEIL.	CEILING TEXTURE (POPCORN)	
8B		W. BED.	↓	↓	
8C		E. BED	↓	↓	
9	↓	E. BATH.	W. WALL	VINYL SHEET FLOORING (OFF-WHITE, FLORAL DESIGN) w/ ADH. (TAN)	
10	ATTIC	HATCH	@ HATCH	BLOWN-IN INSULATION (BROWN)	
11	EXT.	N. FACE	UNDER SIDING	TARPAPER (BLACK)	
12	↓	ROOF	@ EDGE	SHINGLES w/ TARPAPER	

BRAUN INTERTEC

Appendix E

Sample Location Sketch

BRAUN INTERTEC



BASEMENT

● **ASBESTOS SAMPLE LOCATION**

BRAUN INTERTEC
The Science You Build On.
11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Project No:	B1801954
Drawing No:	B1801954
Drawn By:	LAO
Date Drawn:	3/8/18
Checked By:	EB
Last Modified:	3/9/18

Pre-Renovation Hazardous Building Material Inspections

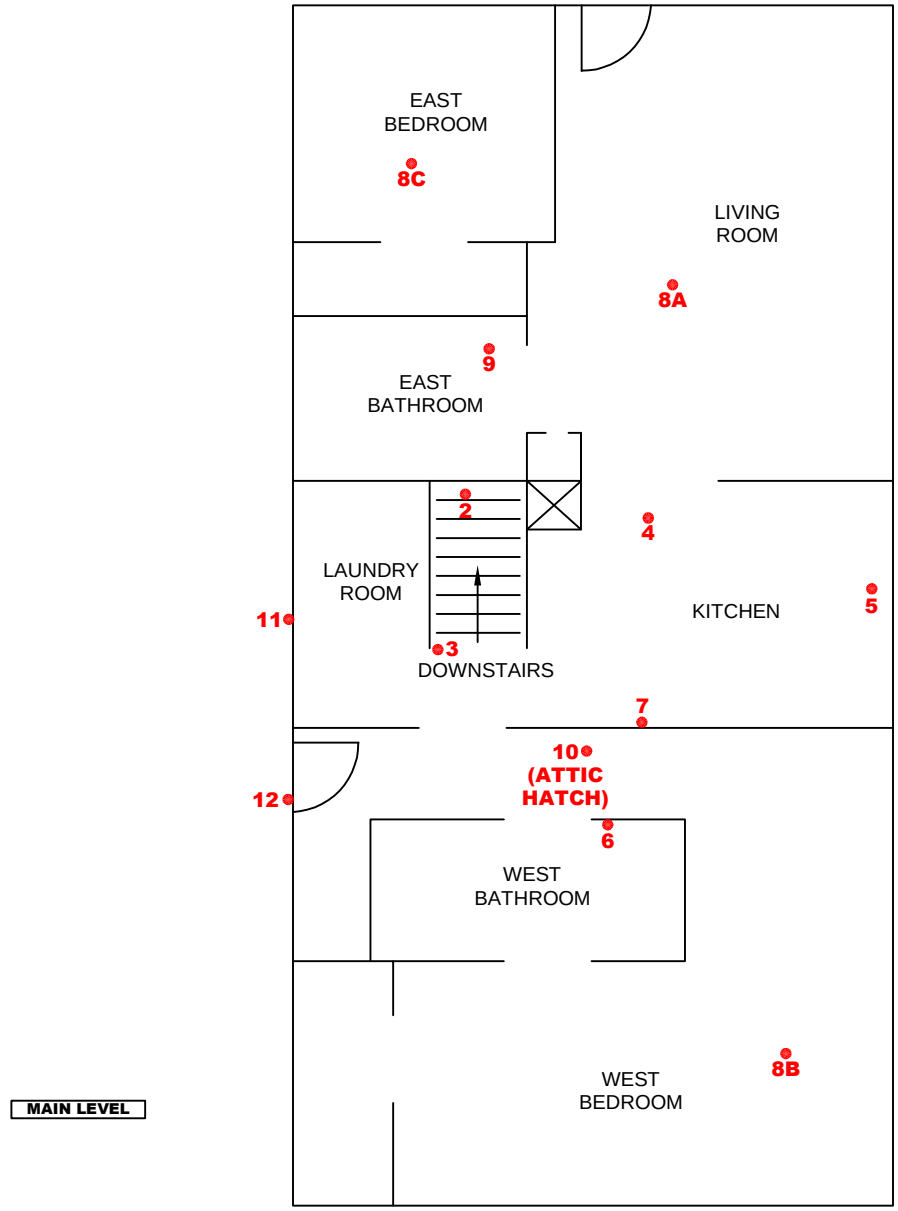
Ramsey County

4173 Clover Avenue

St. Paul, Minnesota

Sample Location Sketch

Basement



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Checked By:	EB
Last Modified:	3/9/18

Pre-Renovation Hazardous Building Material Inspections

Ramsey County

4173 Clover Avenue

St. Paul, Minnesota

Sample Location Sketch

Main Level

Appendix F

Asbestos Inspector Certificate

BRAUN INTERTEC

Certificate No: 5LM06121702IR

Expiration Date: June 12, 2018

This is to certify that

Gaia Ewing

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.

in

Hudson, WI on June 12, 2017

Examination Date: June 12, 2017

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

Training Instructor