May 11th, 2018

CM3 File No. TLW-1928

Ms. Marilyn Steinburg
Property Owner – 22 Hawthorne Avenue
1425 Doctor Penfield Avenue
Montreal, Quebec H3G 2V1

Mr. David Cutler
Victor Ages Vallance LLP
112 Lisgar Street
Ottawa, Ontario K1Y 0N1

Pre Demolition Designated Substance Survey
24 Hawthorne Avenue
Ottawa, Ontario

Summary

CM3 Environmental (CM3) was commissioned by David Cutler of Victor Ages Vallance LLP on behalf of Marilyn Steinburg to conduct a Pre-Demolition Designated Substance Survey (DSS) of the residence located at 24 Hawthorne Avenue in Ottawa, Ontario (Site). Specifically, CM3 obtained bulk building material samples of suspected asbestos-containing materials (ACMs) throughout the house. The work was completed to satisfy the requirements of Section 30 Ontario Occupational Health and Safety Act (OSHA) and Ontario Regulation 278/05 "Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations" (O.Reg. 278/05) prior to the planned demolition. The report must be referenced in its entirety when extracting data or results of the assessment.

Joel Marcellus of CM3 completed the site investigation and sampling on April 30th, 2018. Based on the findings of the visual inspection, suspect materials were documented, collected and subsequently submitted for analysis at a 3rd party analytical laboratory.

Scope of Work

The scope of this project was to determine the location, condition, quantity and type of hazardous materials present in the work area. The surveyors include building structural components, finishes, mechanical and electrical systems. For the purposes of this project, the following designated substances are included in the assessment:

- Asbestos
- Lead
- Mercury
- Silica

The remaining designated substances are not typically found in the construction of buildings of this type, and are usually exclusive to industrial processes, and are therefore not included as part of this report (Ethylene Oxide, Vinyl Chloride, Benzene, Arsenic, Coke Oven Emissions, Acrylonitrile, Isocyanates).

A summary of the other designated substances and hazardous materials is provided in **Appendix A**.

In addition, the following Hazardous Building Materials are not Designated Substances regulated by 490/09, but could pose a significant risk to health and safety of workers, occupants, and the environment are included as part of this report. The Ministry of Labour (MOL) recognizes them as workplace hazards and enforces worker protection under the General Duty Clause 25(2)(h) of the OHSA. Clause 25(2)(h) states that the employers are required to "take every precaution reasonable in the circumstances for the protection of a worker". In such cases the MOL will refer to industry standards and guidelines for the safe handling and management of such materials.

- Polychlorinated Biphenyls (PCBs); and,
- Ozone Depleting Substances (ODSs).

The scope did not include personal items or equipment (owner or occupant), buried or underground services or areas requiring significant demolition to assess. Wall and ceiling cavities were accessed wherever possible.

Asbestos

The presence of asbestos was primarily assessed by visual inspection. Based on the visual assessment suspect materials were selected for laboratory analysis in accordance with O.Reg. 278/05.

CM3 collected forty-seven (47) representative samples from thirteen (13) distinct types of materials that were suspected to contain asbestos. Potential ACMs sampled during the designated substance survey included wall and ceiling plaster, ceiling texture coat, drywall joint compound, two (2) styles of ceiling stipple, interior caulking, exterior caulking, brick, brick mortar, cinder block, cinder block mortar, foundation parging cement and asphalt shingles. The samples were submitted to EMSL Canada Inc. of Ottawa, ON, for asbestos analysis via polarized light microscopy (PLM) on a regular turnaround basis.

The analytical results are presented in ***Appendix B*** and are summarized in the following table:

Table 1: Summary of Laboratory Analytical Results - Asbestos Containing Materials

Sample ID	Material	Location	Friability	Asbestos Concentration
PLA-01A-E	Plaster Finishes	Throughout	Non-Friable	None Detected
TEX-01A-E	Ceiling Texture Coat	Throughout	Non-Friable	None Detected
DJC-01A-E	Drywall Joint Compound	Throughout	Non-Friable	None Detected
ST-01A-C	Ceiling Stipple	Master Bedroom	Non-Friable	None Detected

Sample ID	Material	Location	Friability	Asbestos Concentration
ST-02A-C	Ceiling Stipple	Basement	Non-Friable	None Detected
CLK-01A-C	Caulking (White)	Interior	Non-Friable	None Detected
CLK-02A-C	Caulking (White)	Exterior	Non-Friable	None Detected
BR-01A-C	Brick	Exterior	Non-Friable	None Detected
BRM-01A-C	Brick Mortar	Exterior	Non-Friable	None Detected
CB-01A-C	Cinder Block	Exterior	Non-Friable	None Detected
CBM-01A-C	Cinder Block Mortar	Exterior	Non-Friable	None Detected
FP-01A-C	Foundation Parging	Exterior	Non-Friable	None Detected
AS-01A-C	Asphalt Shingle	Exterior	Non-Friable	None Detected

The analytical report indicated that asbestos was not detected in any of the samples collected from the residence and submitted for analysis. Therefore the materials are not subject to the procedures outlined in O.Reg 278/05.

Analytical results are provided in **Appendix B**.

Lead

Lead is a naturally occurring metal element and is the most common metal found in the environment. Pure metallic lead was primarily used to make products such as electric storage batteries, ammunition, solder, radiation shields, pipes and sheaths for electric cables. The most common organic lead compounds are tetraethyl (TEL) and tetra methyl (TML) lead that were used as anti-knock agents in gasoline. Inorganic lead compounds such as lead oxides, chromates, carbonates and nitrates are commonly found in insecticides, pigments, paints, frits, glasses, plastics and rubber compounds.

The Canadian Federal Government has been limiting the amount of lead in paint to 0.5 percent (5,000 ppm) since 1976. Paint used in buildings before 1960 probably contained elevated levels of lead. If the building was built after 1980, it is unlikely that interior paint contains elevated concentrations of lead; if it was built after 1992, exterior paint probably does not contain lead. The Surface Coating Materials Regulation (SOR/2010-224 dated March, 2011), pursuant to the 2005 Hazardous Products Act, limits the allowed concentration of lead in a paint applied to manufactured products to 0.009 percent (90 ppm) of lead. Any paint containing lead at a concentration of 0.5% by weight (i.e. 5,000ug/g, or 5,000ppm) or greater is considered to be a lead-based paint (LBP). These paints represent the greatest potential exposure if disturbed. Paints confirmed to contain lead at a concentration of at least 0.009% by weight (i.e. 90ug/g, or 90ppm) but less than 0.5% by weight are considered to be lead-containing paints (LCP). These paints may present an exposure hazard depending on the type of work activities (i.e. degree of disturbance) and length of exposure. Paint

with lead concentrations below 0.009% by weight are not considered to be lead-containing and represent little to no lead exposure hazard.

Paint chip samples were collected from painted surfaces within the building. All paint chip samples were collected by scraping down to the base material substrate to ensure collected of all layers of paint. Care was taken to avoid collection of the underlying substrate to reduce analytical substrate matrix interference.

Paint chip samples were submitted to a third party laboratory (EMSL) for the determination of lead content. Analysis was conducted by the laboratory following EPA 6020 – Digestion, ICP-MS. Results were reported by the laboratory as micrograms per grams (ug/g).

A variety of paints were observed throughout the building. The paint samples submitted for analysis represent the overall majority of the paint that exists within the project area. Paints that exist on a single door, a cabinet, a small area, etc., may be considered lead based paint.

A total of eight (8) samples of paints were collected throughout the building and submitted for analysis.

- LS-01 – Beige Wall Paint – Living Room - 90ppm;
- LS-02 – White Trim Paint – Dining Room – 190ppm;
- LS-03 – White Ceiling Paint – Kitchen – 16,000ppm;
- LS-04 – Light Beige Paint – Hallway – 610ppm;
- LS-05 – White Door Frame Paint – Exterior – 2,500ppm;
- LS-06 – White Wall Paint – Bedroom – 870ppm;
- LS-07 – Grey Wall Paint – Master Bedroom – 340ppm; and
- LS-08 – Brown Deck Paint – Exterior – 120ppm.

Based on the analytical results the white ceiling paint collected from the kitchen was found to contain a lead concentration of greater than 5,000ppm and is therefore considered to be lead based paint.

All other paints sampled were found to contain lead concentrations greater than 90ppm and are therefore all considered to be lead containing.

Lead may be present in solder joints, glazing on ceramic finishes, and on all copper piping throughout the subject building.

Analytical results are presented in **Appendix B.**

Mercury
Mercury containing fluorescent light tubes are present throughout the residence. In addition, mercury may also be used as a preservative in paint applications.

Mould
There is a significant amount of visible mould located in the basement. During the assessment it was noted that the basement had flooded and there was approximately eight inches of water throughout the basement.

Silica
Crystalline silica is assumed to be present in the plaster, drywall, drywall joint compound, ceiling texture, ceiling stipple, brick, brick mortar, cinder block, cinder block, foundation parging, caulking, and any other cementitious materials present in the project area.

PCBs
No PCB-containing equipment was observed at the subject site.

ODSs
ODS's can be found in applications such as refrigerants in heat pumps, refrigerators, freezers and air conditioners (A/C). ODS containing equipment was not observed at the subject site.

Recommendations
Based on the above findings CM3 provides the following recommendations for review.

Lead
- Engineering controls such as wetting the painted surfaces prior to and during demolition must be implemented to control dust generation. All work should be completed following the Ministry of Labour "Guideline –Lead on Construction Projects".

Mould
- Due to the extensive visible mould contamination throughout the basement. Persons entering the premises should wear a half-face piece air purifying respirator fitted with replaceable filters (N95 minimum), suitable eye protection and disposable coveralls and dust impermeable gloves as well as disposable boot covers prior to entering the residence.
- During demolition activities dust suppression measures must be taken to reduce the release spores and other mould derived particulate matter.

Mercury
- Best management practices dictate that the fluorescent light tubes be carefully removed, containerized and picked up and disposed of by a licensed hazardous materials contractor in accordance with Ontario Regulation 347/09 (as amended) prior to demolition.

Silica
- Control the dust during demolition. Ensure that wash stations are present for worker protection and that the maximum allowable airborne concentration for all silica forms is not exceeded. All work should be completed following the Ministry of Labour "Guideline – Silica on Construction Projects"

Limitations
This report has been prepared and the work referred to in this report has been undertaken by CM3 Environmental Inc. for **Marilyn Steinburg.** It is intended for the sole and exclusive use of **Ottawa Marilyn Steinburg and their authorized agents** for the purpose(s) set out in this report. Any use of, reliance on or decision made based on this report by any person other than **Marilyn Steinburg** for any purpose, or by **Marilyn Steinburg** for a purpose other than the purpose(s) set out in this report, is the sole responsibility of such other person or **Marilyn Steinburg** and CM3 Environmental Inc. make no representation or warranty to any other person with regard to this report and the work referred to in this report and they accept no duty of care to any other person or any liability or responsibility whatsoever for any losses, expenses, damages, fines, penalties or other harm that

may be suffered or incurred by any other person as a result of the use of, reliance on, any decision made or any action taken based on this report or the work referred to in this report.

Any conclusions or recommendations made in this report reflect CM3 Environmental Inc.'s judgment based on the following limited investigations: visual site inspection(s) on the date(s) set out in this report; examination of public records; and interviews with individuals having information about the site. While efforts have been made to substantiate information provided by third parties, CM3 Environmental Inc. makes no representation or warranty as to its completeness or accuracy.

This report has been prepared for specific application to this site. Unless otherwise stated, the findings cannot be extended to previous or future site conditions; portions of the site which were unavailable for direct investigation; subsurface locations which were not investigated directly; or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation described in this report may exist within the site; and substances addressed by the investigation may exist in areas of the site not investigated or in quantities not ascertained.

Nothing in this report is intended to constitute or provide a legal opinion. CM3 Environmental Inc. makes no representation as to the requirements of or compliance with environmental laws, rules, regulations or policies established by federal, provincial or local government bodies. Revisions to the regulatory standards referred to in this report may be expected over time. As a result, modifications to the findings, conclusions and recommendations in this report may be necessary.

Other than by **Marilyn Steinburg and their authorized agents** and as set out herein, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted without the express written permission of CM3 Environmental Inc.

Respectfully submitted,

CM3 Environmental Inc.

Reviewed by:

Joel Marcellus
Project Coordinator

Trent Windsor, C.E.T.
Principal, Project Manager

Appendix A
Other Designated Substances

The following are not typically found in most buildings and are usually exclusive to specific industrial process:

Acrylonitrile
Acrylonitrile is used to produce polymers such as acrylonitrile-butadiene-styrene (ABS) resins. These polymers are used in the manufacturing of a wide range of commercial products (i.e., automotive parts, clothing, carpets, etc.). The Time-Weighted Average Exposure Limits (TWAEL) of a worker exposed to airborne acrylonitrile is to be maintained at the lowest practical level and not exceed an eight hour average concentration of 4.3 mg/m³ of air (2 ppmv).
In its hardened polymer form, acrylonitrile is not expected to release emissions that would exceed the allowable limits. Pure acrylonitrile was not identified within the project area.

Arsenic
Arsenic can be found in paint on roofing flashings, floors, walls and on the underside of the concrete ground floor structures in old buildings. The Time-Weighted Average Exposure Limits (TWAEL) of a worker exposed to airborne arsenic is to be maintained at the lowest practical level and not exceed an eight hour average concentration of 10 □g/m³ of air.
Considering the age of the building, arsenic could be present in the above listed materials. However, there is a low probability of finding arsenic-based coatings and minor amounts of this metal did not justify that the sampling be performed in the present assessment.

Benzene
Benzene is typically found in petroleum based products such as gasoline and diesel fuels, asphalt and other hydrocarbon based products. The Time-Weighted Average Exposure Limits (TWAEL) of a worker exposed to airborne benzene is to be maintained at the lowest practical level with a view to achieving an ambient air concentration lower than 3.2 mg/m³ of air (1 ppmv) and not exceed an eight hour average concentration of 16 mg/m³ of air (5 ppmv).
Direct sources of benzene emissions were not identified within the project area.

Coke Oven Emissions
Coke Oven Emissions result from burning of coke. The Time-Weighted Average Exposure Limits (TWAEL) of a worker exposed to coke oven emissions are to be maintained at the lowest practical level and not to exceed an eight hour average concentration of 0.15 mg/m³ of air.
Direct sources of coke oven emissions were not identified within the project area.

Ethylene Oxide
Ethylene Oxide is a common by-product of fumigation or sterilization procedures. The Time-Weighted Average Exposure Limits (TWAEL) of a worker exposed to airborne ethylene oxide is to be maintained at the lowest practical level and not exceed an eight hour average concentration of 1.8 mg/m³ of air (1 ppmv).
Materials or processes that may release ethylene oxide to ambient air were not identified within the project area.

Isocyanates

Isocyanates are mainly used in the manufacture of plastics, foams and coatings. The Time-Weighted Average Exposure Limits (TWAEL) of a worker exposed is isocyanate dust is to be maintained at the lowest practical level and not exceed an eight hour average concentration of 0.2 µmoles/m³ of air (0.005 ppmv).

Manufactured products under normal conditions do not typically pose a health risk. However, sawing or scraping uncured polyurethane that still contains some unreacted-NCO groups will release isocyanate dust. Uncured polyurethanes were not identified within the project area.

Vinyl Chloride

Vinyl Chloride is found in many applications such as PVC pipes and fittings. The Time-Weighted Average Exposure Limits (TWAEL) of a worker exposed to vinyl chloride emission is to be maintained at the lowest practical level and not exceed and eight hour average concentration of 5.2 mg/m³ of air (1 ppmv).

Vinyl chloride in the PVC compound is bound in a solid matrix that is unlikely to become airborne. Vinyl chloride emissions are not likely to exceed the prescribed limits within the project area.

Appendix B
Analytical Results

EMSL Canada Inc.

22 Antares Drive Suite 102 Ottawa, ON K2E 7Z6
Phone/Fax: (343) 882-6076 / (343) 882-6077
http://www.EMSL.com / ottawalab@EMSL.com

EMSL Canada Order 671800849
Customer ID: 55CMTE42
Customer PO:
Project ID:

Attn: Joel Marcellus
CM3 Environmental Inc.
5710 Akins Rd
Stittsville, ON K2S 1B8

Phone: (613) 820-4343
Fax:
Collected: 4/30/2018
Received: 5/01/2018
Analyzed: 5/08/2018

Proj: TLW1928 - 24 Hawthorne Ave

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: PLA-01A-Skim Coat **Lab Sample ID:** 671800849-0001
Sample Description: Dining Rm/Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: PLA-01A-Base Coat **Lab Sample ID:** 671800849-0001A
Sample Description: Dining Rm/Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Gray	0%	100%	None Detected	

Client Sample ID: PLA-01B-Skim Coat **Lab Sample ID:** 671800849-0002
Sample Description: Living Rm/Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: PLA-01B-Base Coat **Lab Sample ID:** 671800849-0002A
Sample Description: Living Rm/Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Gray	0%	100%	None Detected	

Client Sample ID: PLA-01C-Skim Coat **Lab Sample ID:** 671800849-0003
Sample Description: Hallway/Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: PLA-01C-Base Coat **Lab Sample ID:** 671800849-0003A
Sample Description: Hallway/Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Gray	0%	100%	None Detected	

Client Sample ID: PLA-01D-Skim Coat **Lab Sample ID:** 671800849-0004
Sample Description: 2nd Bedroom/Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	White	0%	100%	None Detected	

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Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: PLA-01D-Base Coat ***Lab Sample ID:*** **671800849-0004A**
Sample Description: 2nd Bedroom/Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Gray	0%	100%	None Detected	

Client Sample ID: PLA-01E-Skim Coat ***Lab Sample ID:*** **671800849-0005**
Sample Description: 2nd Fl. Hallway/Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	White	0%	100%	None Detected	

Client Sample ID: PLA-01E-Base Coat ***Lab Sample ID:*** **671800849-0005A**
Sample Description: 2nd Fl. Hallway/Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Gray	0%	100%	None Detected	

Client Sample ID: TEX-01A-Top Coat ***Lab Sample ID:*** **671800849-0006**
Sample Description: Living Rm/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Tan/White	0%	100%	None Detected	

Client Sample ID: TEX-01A-Skim Coat ***Lab Sample ID:*** **671800849-0006A**
Sample Description: Living Rm/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: TEX-01A-Base Coat ***Lab Sample ID:*** **671800849-0006B**
Sample Description: Living Rm/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Gray	0%	100%	None Detected	

Client Sample ID: TEX-01B-Top coat ***Lab Sample ID:*** **671800849-0007**
Sample Description: Living Rm/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Tan/White	0%	100%	None Detected	

Client Sample ID: TEX-01B-Skim Coat ***Lab Sample ID:*** **671800849-0007A**
Sample Description: Living Rm/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

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Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: TEX-01B-Base Coat ***Lab Sample ID:*** **671800849-0007B**
Sample Description: Living Rm/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Gray	0%	100%	None Detected	

Client Sample ID: TEX-01C-Top coat ***Lab Sample ID:*** **671800849-0008**
Sample Description: Dining Rm/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Tan/White	0%	100%	None Detected	

Client Sample ID: TEX-01C-Skim Coat ***Lab Sample ID:*** **671800849-0008A**
Sample Description: Dining Rm/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: TEX-01C-Base Coat ***Lab Sample ID:*** **671800849-0008B**
Sample Description: Dining Rm/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Gray	0%	100%	None Detected	

Client Sample ID: TEX-01D-Top Coat ***Lab Sample ID:*** **671800849-0009**
Sample Description: 2nd Fl. Hallway/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Tan/White	0%	100%	None Detected	

Client Sample ID: TEX-01D-Skim Coat ***Lab Sample ID:*** **671800849-0009A**
Sample Description: 2nd Fl. Hallway/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	White	15%	85%	None Detected	

Client Sample ID: TEX-01D-Base Coat ***Lab Sample ID:*** **671800849-0009B**
Sample Description: 2nd Fl. Hallway/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Brown	1%	99%	None Detected	

Client Sample ID: TEX-01E-Top Coat ***Lab Sample ID:*** **671800849-0010**
Sample Description: 2nd Fl. Hallway/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Tan/White	0%	100%	None Detected	

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Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: TEX-01E-Skim Coat ***Lab Sample ID:*** **671800849-0010A**
Sample Description: 2nd Fl. Hallway/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	White	10%	90%	None Detected	

Client Sample ID: TEX-01E-Base Coat ***Lab Sample ID:*** **671800849-0010B**
Sample Description: 2nd Fl. Hallway/Ceiling Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Brown	0%	100%	None Detected	

Client Sample ID: DJC-01A ***Lab Sample ID:*** **671800849-0011**
Sample Description: Basement/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: DJC-01B ***Lab Sample ID:*** **671800849-0012**
Sample Description: Basement/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: DJC-01C ***Lab Sample ID:*** **671800849-0013**
Sample Description: Basement/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: DJC-01D ***Lab Sample ID:*** **671800849-0014**
Sample Description: Kitchen/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	White	0%	100%	None Detected	

Client Sample ID: DJC-01E ***Lab Sample ID:*** **671800849-0015**
Sample Description: Hallway/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	White	0%	100%	None Detected	

Client Sample ID: ST-01A ***Lab Sample ID:*** **671800849-0016**
Sample Description: Master B/R/Ceiling Stipple

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

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Client Sample ID: ST-01B **Lab Sample ID:** **671800849-0017**
Sample Description: Master B/R/Ceiling Stipple

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: ST-01C **Lab Sample ID:** **671800849-0018**
Sample Description: Master B/R/Ceiling Stipple

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	White	0%	100%	None Detected	

Client Sample ID: ST-02A **Lab Sample ID:** **671800849-0019**
Sample Description: Basement/Ceiling Stipple (2)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: ST-02B **Lab Sample ID:** **671800849-0020**
Sample Description: Basement/Ceiling Stipple (2)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: ST-02C **Lab Sample ID:** **671800849-0021**
Sample Description: Basement/Ceiling Stipple (2)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	White	0%	100%	None Detected	

Client Sample ID: CLK-01A **Lab Sample ID:** **671800849-0022**
Sample Description: Interior/Caulking (white)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: CLK-01B **Lab Sample ID:** **671800849-0023**
Sample Description: Interior/Caulking (white)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: CLK-01C **Lab Sample ID:** **671800849-0024**
Sample Description: Interior/Caulking (white)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	White	0%	100%	None Detected	

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

EMSL Canada Order 671800849
Customer ID: 55CMTE42
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: CLK-02A **Lab Sample ID:** **671800849-0025**
Sample Description: Exterior/Caulking (white)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: CLK-02B **Lab Sample ID:** **671800849-0026**
Sample Description: Exterior/Caulking (white)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	White	0%	100%	None Detected	

Client Sample ID: CLK-02C **Lab Sample ID:** **671800849-0027**
Sample Description: Exterior/Caulking (white)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	White	0%	100%	None Detected	

Client Sample ID: BR-01A **Lab Sample ID:** **671800849-0028**
Sample Description: Exterior/Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Red	0%	100%	None Detected	

Client Sample ID: BR-01B **Lab Sample ID:** **671800849-0029**
Sample Description: Exterior/Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/04/2018	Red	0%	100%	None Detected	

Client Sample ID: BR-01C **Lab Sample ID:** **671800849-0030**
Sample Description: Exterior/Brick

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Red	0%	100%	None Detected	

Client Sample ID: BRM-01A **Lab Sample ID:** **671800849-0031**
Sample Description: Exterior/Brick Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Gray	0%	100%	None Detected	

Client Sample ID: BRM-01B **Lab Sample ID:** **671800849-0032**
Sample Description: Exterior/Brick Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Gray	0%	100%	None Detected	

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Client Sample ID: BRM-01C **Lab Sample ID:** **671800849-0033**
Sample Description: Exterior/Brick Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/08/2018	Gray	0%	100%	None Detected	

Client Sample ID: CB-01A **Lab Sample ID:** **671800849-0034**
Sample Description: Exterior/Cinder Block

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Gray	0%	100%	None Detected	

Client Sample ID: CB-01B **Lab Sample ID:** **671800849-0035**
Sample Description: Exterior/Cinder Block

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Gray	0%	100%	None Detected	

Client Sample ID: CB-01C **Lab Sample ID:** **671800849-0036**
Sample Description: Exterior/Cinder Block

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/08/2018	Gray	0%	100%	None Detected	

Client Sample ID: CBM-01A **Lab Sample ID:** **671800849-0037**
Sample Description: Exterior/Cinder Block Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/08/2018	Gray	0%	100%	None Detected	

Client Sample ID: CBM-01B **Lab Sample ID:** **671800849-0038**
Sample Description: Exterior/Cinder Block Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/08/2018	Gray	0%	100%	None Detected	

Client Sample ID: CBM-01C **Lab Sample ID:** **671800849-0039**
Sample Description: Exterior/Cinder Block Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/08/2018	Gray	0%	100%	None Detected	

Client Sample ID: FP-01A **Lab Sample ID:** **671800849-0040**
Sample Description: Exterior/Foundation Parging

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Gray	0%	100%	None Detected	

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Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: FP-01B **Lab Sample ID:** **671800849-0041**
Sample Description: Exterior/Foundation Parging

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Gray	0%	100%	None Detected	

Client Sample ID: FP-01C **Lab Sample ID:** **671800849-0042**
Sample Description: Exterior/Foundation Parging

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Gray	0%	100%	None Detected	

Client Sample ID: FP-01D **Lab Sample ID:** **671800849-0043**
Sample Description: Exterior/Foundation Parging

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/08/2018	Gray	0%	100%	None Detected	

Client Sample ID: FP-01E **Lab Sample ID:** **671800849-0044**
Sample Description: Exterior/Foundation Parging

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/08/2018	Gray	0%	100%	None Detected	

Client Sample ID: AS-01A **Lab Sample ID:** **671800849-0045**
Sample Description: Exterior/Asphalt Shingle

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Brown/Black	60%	40%	None Detected	

Client Sample ID: AS-01B **Lab Sample ID:** **671800849-0046**
Sample Description: Exterior/Asphalt Shingle

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/08/2018	Brown/Black	60%	40%	None Detected	

Client Sample ID: AS-01C **Lab Sample ID:** **671800849-0047**
Sample Description: Exterior/Asphalt Shingle

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	5/07/2018	Brown/Black	60%	40%	None Detected	

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Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Analyst(s):

Ewa Krupinska	PLM (31)
Hilary Belleville	PLM (22)
Simon Parent	PLM (9)

Reviewed and approved by:

Simon Parent, Laboratory Manager
or Other Approved Signatory

Samples analyzed by EMSL Canada Inc. Ottawa, ON

Initial report from: 05/08/201811:38:49

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EMSL Canada Or	551805059
CustomerID:	55CMTE42
CustomerPO:	TLW1928
ProjectID:	

Attn: **Joel Marcellus**
CM3 Environmental Inc.
5710 Akins Rd
Stittsville, ON K2S 1B8

Phone: (613) 820-4343
Fax:
Received: 05/02/18 11:01 AM
Collected: 4/30/2018

Project: **TLW1928 - 24 Hawthorne**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client Sample Description	*Lab ID*	*Collected*	*Analyzed*	*Weight*	*Lead Concentration*
L5-01	*551805059-0001*	4/30/2018	5/4/2018	0.2368 g	90 ppm
	Site: Beige Wall Paint - Living Room				
L5-02	*551805059-0002*	4/30/2018	5/4/2018	0.2339 g	190 ppm
	Site: White Trim - Dining Room				
L5-03	*551805059-0003*	4/30/2018	5/4/2018	0.2418 g	16000 ppm
	Site: White Ceiling - Kitchen				
L5-04	*551805059-0004*	4/30/2018	5/4/2018	0.2371 g	610 ppm
	Site: Light Beige - Hallway				
L5-05	*551805059-0005*	4/30/2018	5/4/2018	0.2333 g	2500 ppm
	Site: White Door Frame - Exerior				
L5-06	*551805059-0006*	4/30/2018	5/4/2018	0.2343 g	870 ppm
	Site: White Wall Paint - Bedroom 2				
L5-07	*551805059-0007*	4/30/2018	5/4/2018	0.2476 g	340 ppm
	Site: Grey Wall Paint - Master Bedroom				
L5-08	*551805059-0008*	4/30/2018	5/4/2018	0.2295 g	120 ppm
	Site: Brown Deck Paint - Exterior				

Rowena Fanto, Lead Supervisor
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 05/09/2018 08:40:56

Appendix C
Photo Log

Photograph 1: 24 Hawthorne Avenue – Exterior

Photograph 2: Mould impacted drywall located in the basement.

Photograph 3: Mercury containing fluorescent light tubes located throughout residence.