Greenfield Environmental

# REPORT OF THE NESHAP PRE-DEMOLITION SURVEY, SAMPLING AND EVALUATION OF ASBESTOS-CONTAINING MATERIALS

**at the**

**COMMERCIAL STRUCTURE**
**618-620 DREW STREET**
**CLEARWATER, FLORIDA**

**February 22, 2023**
**GE Project Number 1071-6024**

**Submitted to:**

**Stantec**
**Ms. Shawn Lasseter**
**Senior Project Manager**
**380 Park Place Boulevard, Suite 300**
**Clearwater, Florida 33759**

**Prepared by:**

**Greenfield Environmental, Inc.**
**432 3rd Street North**
**St. Petersburg, Florida 33701**

## EXECUTIVE SUMMARY

The pre-demolition asbestos survey and laboratory analysis conducted at the commercial structure located at 618-620 Drew Street in Clearwater, Florida indicated that seven (7) of the materials sampled were found to contain asbestos in amounts greater than one percent (1%). These materials are five (5) types of friable (Regulated) vinyl floor sheetings and two (2) types of Category I non-friable vinyl floor tile.

These asbestos containing materials must be properly removed by a Florida Licensed Asbestos Abatement Contractor prior to future demolition activities. Proper notification must be provided to the Pinellas County Air Quality Division prior to any asbestos removal or demolition activities.

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## 1.0 INTRODUCTION

The pre-demolition survey for asbestos-containing materials (ACMs) was conducted by Greenfield Environmental, Inc. (GE) at the commercial structure located at 618-620 Drew Street in Clearwater, Florida. The survey was performed on February 10 and 21, 2023 by Max Adamski and Sage Wilkerson, Accredited EPA Inspectors for GE. GE is a Florida Licensed Asbestos Consulting Firm with a corresponding license number of ZA-0000268. We were notified the potential exists that the structure may be renovated.

Our survey was conducted in order to identify any asbestos-containing materials which may exist prior to potential demolition activities in accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP) Regulation. More specifically, our scope of services for this project consisted of the five (5) following steps:

- Site Walk-Through and Observations,
- Bulk Sampling of Suspect ACMs,
- Polarized Light Microscopy (PLM) Analysis of Bulk Samples,
- Hazard Assessment and Evaluation, and
- Final Report Development.

The findings of this report represent GE's best professional judgement and no other warranty is expressed or implied. This report is intended only for the use of **STANTEC** and its agents. The contents should not be relied upon by any other parties without the expressed written consent of GE.

## 2.0 FACILITY DESCRIPTION

The two-story commercial structure was constructed out of concrete, wood, and metal on a concrete slab foundation. The interior finishes consist of a drywall system, vinyl floor tile, vinyl cove baseboards, carpeted areas, ceramic floor tile, ceramic wall tile, terrazzo, cork flooring, ceiling texture, wall coverings, and ceiling tile. The HVAC system consists of split systems with flex duct, metal duct and duct board. The doors were either metal and glass, solid wood, or hollow wood. The roof areas consist of flat roof systems and roofing mastics. The carport roof consists of a metal roof system. The building exterior areas consist of stucco, brick and mortar, glazing, concrete, asphalt and poured concrete.

## 3.0 SURVEY METHODS AND LABORATORY ANALYSIS

The sampling conducted in this asbestos survey was performed in accordance with Title 40, Code of Federal Regulations (CFR), Part 763 for suspect ACMs. The EPA regulations require that sample locations be randomly selected. All suspect asbestos-containing materials and PACM (materials presumed to contain asbestos under the OSHA Asbestos Rule, 29 CFR 1910) were identified and samples of each different material were obtained.

The bulk sampling procedure utilized for collection of suspect samples required the establishment of homogeneous sampling areas. A homogeneous sampling area is defined as an area of friable or non-friable material of similar type that appeared to be applied or installed during the same general period of time. All sample locations were identified with numbers corresponding to those listed in Section 5.0 " Description of Materials" of this report.

Samples which were collected from these pre-determined homogeneous sampling areas were labeled and transported to Air Quality Environmental, Inc. (NVLAP No. 200957-0) for analysis. All samples were analyzed using EPA approved Polarized Light Microscopy (PLM) coupled with dispersion staining. Properties such as refractive indices, birefringence, sign of elongation and extinction angle are unique to crystalline asbestos forms and are used to identify the type of asbestos mineral as chrysotile, amosite, crocidolite, anthophyllite, tremolite or actinolite. Percentages of the identified types of asbestos are determined by visual estimation. Attempts are made to mix the sample thoroughly to provide a more accurate percentage. Any material containing greater than one percent (1%) by weight of any type of asbestos is considered by the EPA to be an ACM and if disturbed must be handled according to specific regulations.

## 4.0 SUSPECTED ASBESTOS-CONTAINING MATERIALS

The following is a summary of the materials sampled and tested during the survey and evaluation at the commercial structure:

- Drywall System
- Stucco
- Concrete
- Caulk
- Carpet Mastic
- Ceramic Tile and Grout/Thinset
- Ceiling Tile
- Vinyl Cove Baseboard
- Duct Board Insulation
- Flex Duct Insulation
- Vinyl Floor Tile with Mastic
- Terrazzo
- Vinyl Floor Sheeting with Mastic
- Roofing System
- Roofing Mastic
- Upper Ceiling Insulation
- Foam
- Asphalt
- Fiberglass Insulations
- Sink Mastic

## 5.0 DESCRIPTION OF MATERIALS

The following is a description of the materials sampled at the commercial structure:

| Homo. Area | Sample Number | Description/ Location | Asbestos Content | Friability | Condition | Approx. Quantity |
|---|---|---|---|---|---|---|
| 01 | 01<br>02<br>03<br>04<br>05<br>06<br>07 | Grey High Pile Stucco Located at Building Exterior | No Asbestos Detected | Friable | Good | ----- |
| 02 | 08<br>09<br>10<br>11<br>12 | Grey Smooth Stucco Located at Building Exterior | No Asbestos Detected | Friable | Good | ----- |
| 03 | 13<br>14 | Caulk Located at Exterior Trim and Seams | No Asbestos Detected | Non – Friable | Good | ----- |
| 04 | 15<br>16<br>17 | Poured Concrete Located at Stairs and Loading Dock | No Asbestos Detected | Non – Friable | Good | ----- |
| 05 | 18<br>19 | Brick and Mortar Located at Loading Dock Area | No Asbestos Detected | Non-Friable | Good | ----- |
| 06 | 20<br>21<br>22 | Window Glazing at Original Window Exterior Areas | No Asbestos Detected | Friable | Good | ----- |
| 07 | 23<br>24<br>25 | Cement Board Siding Located at Select Exterior Wall Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 08 | 26<br>27<br>28 | Red Brick and Mortar Located at Select Exterior Walls | No Asbestos Detected | Non-Friable | Good | ----- |
| 09 | 29<br>30<br>31 | Asphalt Located at Parking Lot Surface | No Asbestos Detected | Non-Friable | Good | ----- |

| Homo. Area | Sample Number | Description/ Location | Asbestos Content | Friability | Condition | Approx. Quantity |
|---|---|---|---|---|---|---|
| 10 | 32<br>33<br>34 | Green Insulation Located at Overhang and Select Upper Ceiling Areas | No Asbestos Detected | Friable | Good | ----- |
| 11 | 35<br>36<br>37 | Foam with Yellow Mastic Located Under Carport Metal Roof System | No Asbestos Detected | Friable | Good | ----- |
| 12 | 38<br>39 | Black Asphalt Flat Roof System with Black Mastic Located at Northern Lower Flat Roof System | No Asbestos Detected | Non-Friable | Good | ----- |
| 13 | 40<br>41 | Black Shingles with Black Mastic Located at Air Handler Unit Roof Penetrations | No Asbestos Detected | Non-Friable | Good | ----- |
| 14 | 42<br>43 | White Mastic Located at Select Roof Penetrations | No Asbestos Detected | Non-Friable | Good | ----- |
| 15 | 44<br>45 | Black Asphalt Flat Roof System with Black Mastic Located at Upper Roof Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 16 | 46<br>47 | Black Mastic Located at Upper Roof Perimeter Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 17 | 48<br>49 | Grey Caulk Located at Lower Roof Flashing Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 18 | 50<br>51 | Silver and Black Mastic Located Air Handler Units | No Asbestos Detected | Non-Friable | Good | ----- |
| 19 | 52<br>53 | Black Mastic Located at Crawl Space Wall Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 20 | 54<br>55<br>56 | Fibrous Material Located at Select Crawlspace Wall Areas | No Asbestos Detected | Friable | Good | ----- |
| 21 | 57<br>58<br>59 | Terrazzo Located at 1st Floor Foundation Areas | No Asbestos Detected | Non-Friable | Good | ----- |

| Homo. Area | Sample Number | Description/ Location | Asbestos Content | Friability | Condition | Approx. Quantity |
|---|---|---|---|---|---|---|
| **22** | **60<br>61<br>62** | **Brown Vinyl Floor Sheeting with Yellow Mastic Located at 1st Floor Southeast Office Under Carpeted Floor Areas** | **15% Chrysotile Asbestos** | **Friable** | **Good** | **150 Square Feet** |
| **23** | **63<br>64<br>65** | **Pebble Pattern Brown Vinyl Floor Sheeting with Yellow Mastic Located at West Entrance and Paint Room Floor Areas** | **20% Chrysotile Asbestos** | **Friable** | **Good** | **400 Square Feet** |
| **24** | **66<br>67<br>68** | **Brown Vinyl Floor Sheeting with Yellow Mastic Located Behind Reception Desk Under Carpeted Floor Areas** | **20% Chrysotile Asbestos** | **Friable** | **Good** | **75 Square Feet** |
| **25** | **69<br>70** | **Tan 12" x 12" Vinyl Floor Tile with Yellow Mastic Located at Southwest Office Under Carpeted Floor Areas** | **Tile - 2% Chrysotile Asbestos** | **Non-Friable** | **Good** | **125 Square Feet** |
| 26 | 71<br>72 | Tan 12" x 12" Ceramic Floor Tile with Grout and Thinset Located at 1st Floor Main Lobby Floor Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 27 | 73<br>74 | Grey Sink Mastic Located at Select Sink Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 28 | 75<br>76 | Tan Multi-Colored 6" x 36" Ceramic Floor Tile with Grout and Thinset Located at 1st Floor Kitchen Floor Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 29 | 77<br>78<br>79<br>80<br>81<br>82<br>83 | Wall Covering with Yellow Mastic Located at Select 1st and 2nd Floor Wall Areas | No Asbestos Detected | Friable | Good | ----- |

| Homo. Area | Sample Number | Description/ Location | Asbestos Content | Friability | Condition | Approx. Quantity |
|---|---|---|---|---|---|---|
| 30 | 84<br>85<br>86 | Faux Wood Vinyl Floor Sheeting with Yellow Mastic Located at 1st Floor Select Floor Areas | No Asbestos Detected | Friable | Good | ----- |
| **31** | **87<br>88<br>89** | **Brown Vinyl Floor Sheeting with Yellow Mastic Located Below HA# 30 at Select Floor Areas** | **15% Chrysotile Asbestos** | **Friable** | **Good** | **1,000 Square Feet** |
| 32 | 90<br>91 | Carpet Mastic Located at Select 1st and 2nd Floor Carpeted Floor Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 33 | 92<br>93 | Grey Vinyl Cove Baseboard with Yellow Mastic Located at Select 1st and 2nd Floor Wall Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| **34** | **94<br>95<br>96** | **Brown Vinyl Floor Sheeting with Yellow Mastic Located at Drafting Room Below Carpeted Floor Areas** | **15% Chrysotile Asbestos** | **Friable** | **Good** | **150 Square Feet** |
| 35 | 97<br>98 | White Vinyl Cove Baseboard with Yellow Mastic Located at Select 1st and 2nd Floor Wall Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 36 | 99<br>100<br>101 | Wall Covering with Yellow Mastic Located at Select 1st and 2nd Floor Wall Areas | No Asbestos Detected | Friable | Good | ----- |
| 37 | 102<br>103<br>104 | Yellow Insulation with Foil Wrap Duct Board Located at Upper Ceiling and Mechanical Room Areas | No Asbestos Detected | Friable | Good | ----- |
| 38 | 105<br>106<br>107 | Yellow Insulation with Foil Wrap on Flex Duct Located at Upper Ceiling and Mechanical Room Areas | No Asbestos Detected | Friable | Good | ----- |

| Homo. Area | Sample Number | Description/ Location | Asbestos Content | Friability | Condition | Approx. Quantity |
|---|---|---|---|---|---|---|
| 39 | 108<br>109 | White 4" x 4" Ceramic Floor Tile with Grout and Thinset Located at Select Bathroom Floor Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 40 | 110<br>111 | White 2" x 2" Ceramic Tile with Grout and Mastic Located at Select Bathroom Wall Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 41 | 112<br>113<br>114 | White 2' x 2' Pinhole Ceiling Tile Located at Select Ceiling Areas | No Asbestos Detected | Friable | Good | ----- |
| 42 | 115<br>116<br>117 | White 2' x 2' Textured Ceiling Tile Located at 1st Floor Entrance Ceiling Area | No Asbestos Detected | Friable | Good | ----- |
| 43 | 118<br>119<br>120 | Tan 9"x 9" Ceiling Tile Located above HA# 42 | No Asbestos Detected | Friable | Good | ----- |
| 44 | 121<br>122<br>123 | Yellow Insulation with Foil Wrap on Flex Duct Located at Select Upper Ceiling Areas | No Asbestos Detected | Friable | Good | ----- |
| 45 | 124<br>125<br>126 | White 2' x 2' Smooth Ceiling Tile Located at Select 1st Floor Ceiling Areas | No Asbestos Detected | Friable | Good | ----- |
| 46 | 127<br>128<br>129 | White 2' x 4' Pin Hole Ceiling Tile Located at Select 1st Floor Office Ceiling Areas | No Asbestos Detected | Friable | Good | ----- |
| 47 | 130<br>131<br>132<br>133<br>134<br>135<br>136 | Drywall, Tape and Joint Compound Located at Wall and Select Ceiling Areas | No Asbestos Detected | Friable | Good | ----- |

| Homo. Area | Sample Number | Description/ Location | Asbestos Content | Friability | Condition | Approx. Quantity |
|---|---|---|---|---|---|---|
| 48 | 137<br>138<br>139<br>140<br>141 | Yellow Insulation with Brown Backing and Black Mastic Located at Select Upper Ceiling Areas | No Asbestos Detected | Friable | Good | ----- |
| 49 | 142<br>143 | Grey Vinyl Cove Baseboard with Yellow Mastic Located at 2nd Floor Storage Room Wall Area | No Asbestos Detected | Non-Friable | Good | ----- |
| 50 | 144<br>145<br>146 | Cork Flooring Located at 2nd Floor Storage Room Floor Areas | No Asbestos Detected | Friable | Good | ----- |
| 51 | 147<br>148 | Black Vinyl Cove Baseboard with Yellow Mastic Located at Select 2nd Floor Wall Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 52 | 149<br>150<br>151 | White 2' x 4' Fiberglass Ceiling Tile Located at Select 2nd Floor Ceiling Areas | No Asbestos Detected | Friable | Good | ----- |
| 53 | 152<br>153<br>154 | Orange Peel Texture Located at Select Second Floor Ceiling Areas | No Asbestos Detected | Friable | Good | ----- |
| **54** | **155<br>156** | **Tan 12" x 12" Vinyl Floor Tile with Yellow Mastic Located at Stairwell and Select Corridor Floor Areas** | **Tile – 2% Chrysotile Asbestos** | **Non-Friable** | **Good** | **250 Square Feet** |
| 55 | 157<br>158 | Concrete Located at Foundation | No Asbestos Detected | Non-Friable | Good | ----- |
| 56 | 159<br>160 | Brick and Mortar Located at Select Wall Areas | No Asbestos Detected | Non-Friable | Good | ----- |
| 57 | 161<br>162 | Cement Board Located at Mechanical Room Wall Areas | No Asbestos Detected | Non-Friable | Good | ----- |

| Homo. Area | Sample Number | Description/ Location | Asbestos Content | Friability | Condition | Approx. Quantity |
|---|---|---|---|---|---|---|
| 58 | 163<br>164<br>165 | Tan Vinyl Floor Sheeting with Yellow Mastic Located at 2nd Floor Storage Room Floor Areas | No Asbestos Detected | Friable | Good | ----- |
| 59 | 166<br>167 | Brown Carpet Mastic Located at 2nd Floor Carpeted Floor Areas | No Asbestos Detected | Non-Friable | Good | ----- |

**Note - Quantities are provided for convenience and should not be used for future asbestos contractor bidding purposes.**

## 6.0 CONCLUSION

The pre-demolition asbestos survey and laboratory analysis conducted at the commercial structure located at 618-620 Drew Street in Clearwater, Florida indicated that of the one hundred and sixty-seven (167) samples collected, seven (7) of the materials sampled were found to contain asbestos in amounts greater than one percent (1%).

Category I non-friable asbestos-containing materials were discovered during our survey in the form of two (2) types of vinyl floor tile. Category I non-friable ACMs are materials which contain 1% asbestos or greater and cannot be crumbled, pulverized or reduced to powder by hand pressure. Category I non-friable ACMs are those in which the asbestos fibers are bound with other materials in such a way that the release of those fibers into the air from casual contact or normal wear is unlikely.

Friable (Regulated) materials were discovered during our survey in the form of five (5) types of vinyl floor sheetings. Friable ACMs are materials that which contain 1% asbestos or greater and when dry may be crumbled or reduced to powder by hand pressure. Friable ACMs pose the greatest threat to human health because of the tendency to release harmful asbestos fibers into the air when disturbed. Friable (Regulated) materials should not be removed or impacted in any way as these actions may result in a significant fiber release episode.

These asbestos containing materials must be properly removed by a Florida Licensed Asbestos Abatement Contractor prior to demolition activities. Proper notification must be provided to the Pinellas County Air Quality Division prior to any future asbestos removal or demolition activities.

## PROFESSIONAL CERTIFICATIONS

The discussions and conclusions contained in this asbestos survey have been prepared and reviewed by the following certified professionals.

Max Adamski
Project Manager
AHERA Inspector #03292204AM

Michael W. Rothenburg, PE
Florida Licensed Asbestos Consultant
#EA0000041

# APPENDIX A

# PLM LABORATORY ANALYTICAL RESULTS

Air Quality Environmental, Inc.
Laboratory Services
9325 Seminole Boulevard, Seminole, Florida 33772 (727) 398-0900 FAX (727) 398-0996

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL

Date Analyzed: February 14, 2023

Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590339 | 1 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590340 | 2 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590341 | 3 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590342 | 4 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590343 | 5 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590344 | 6 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590345 | 7 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590346 | 8 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590347 | 9 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590348 | 10 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590349 | 11 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590350 | 12 | Stucco | grey | NAD | | 100% Quartz and Binders |
| 590351 | 13 | Caulk | white | NAD | | 100% Carbonates and Binders |
| 590352 | 14 | Caulk | white | NAD | | 100% Carbonates and Binders |
| 590353 | 15 | Building Material | grey | NAD | | 100% Quartz and Binders |
| 590354 | 16 | Building Material | grey | NAD | | 100% Quartz and Binders |
| 590355 | 17 | Building Material | grey | NAD | | 100% Quartz and Binders |
| 590356 | 18 | Brick | tan | NAD | | 100% Quartz and Binders |
| 590357 | 19 | Brick | tan | NAD | | 100% Quartz and Binders |

†These samples were analyzed by layers. Specific layer or component asbestos content is indicated when relevant. The EPA considers a material to be asbestos containing only if it contains more than 1% asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also indicate that Regulated Asbestos Containing Materials which are friable or may become friable, be further analyzed by point counting when the results indicate less than 10% asbestos by CVAE. Air Quality Environmental utilizes CVAE on a routine basis and does not include point counting unless specifically requested. Additionally, these results may not be reproduced except in full. This report data is to be interpreted only by the person (s) whom have collected the samples. Furthermore, this report may not be used as a claim to product certification, approval or endorsement by NVLAP, NIST or any other agency of the Federal Government.
†Floor Tile and other resinously bound materials, when analyzed by EPA method, may yield false negative results because of limitations in separating closely bound fibers and in detecting fibers of small length and diameter. When a definitive result is required, AQE recommends utilizing alternative methods of identification, including Transmission Electron Microscopy.

Analyzed by:

Giancarlo Arambulo
Microscopist

**Lab File Number: 65599**

**NVLAP Lab Code 200759-0**

| | | | |
|---|---|---|---|
| Client Name: | Greenfield Environmental<br>432 3rd Street North<br>St. Petersburg, Florida 33701 | Project Name:<br><br>Date Analyzed: | Stantec<br>618 Drew St, Clearwater, FL<br>February 14, 2023 |

Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590358 | 20 | Building Material | grey | NAD | | 100% Carbonates and Binders |
| 590359 | 21 | Building Material | grey | NAD | | 100% Carbonates and Binders |
| 590360 | 22 | Building Material | grey | NAD | | 100% Carbonates and Binders |
| 590361 | 23 | Fiberboard | grey | NAD | 20% Cellulose | 80% Quartz and Binders |
| 590362 | 24 | Fiberboard | grey | NAD | 20% Cellulose | 80% Quartz and Binders |
| 590363 | 25 | Fiberboard | grey | NAD | 20% Cellulose | 80% Quartz and Binders |
| 590364 | 26 | Brick and Mortar | red brick | NAD | | 100% Quartz and Binders |
| | | | grey mortar | NAD | | 100% Quartz and Binders |
| 590365 | 27 | Brick and Mortar | red brick | NAD | | 100% Quartz and Binders |
| | | | grey mortar | NAD | | 100% Quartz and Binders |
| 590366 | 28 | Brick and Mortar | red brick | NAD | | 100% Quartz and Binders |
| | | | grey mortar | NAD | | 100% Quartz and Binders |
| 590367 | 29 | Roofing Material | black mastic | NAD | | 100% Bitumen, Quartz, Binders |
| 590368 | 30 | Roofing Material | black mastic | NAD | | 100% Bitumen, Quartz, Binders |
| 590369 | 31 | Roofing Material | black mastic | NAD | | 100% Bitumen, Quartz, Binders |
| 590370 | 32 | Building Material | green | NAD | 100% Mineral Wool | |
| 590371 | 33 | Building Material | green | NAD | 100% Mineral Wool | |
| 590372 | 34 | Building Material | green | NAD | 100% Mineral Wool | |
| 590373 | 35 | Insulation | white insulate | NAD | | 100% Synthetics and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590374 | 36 | Insulation | white insulate | NAD | | 100% Synthetics and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590375 | 37 | Insulation | white insulate | NAD | | 100% Synthetics and Binders |
| | | | yellow mastic | NAD | | 100% Binders |

†These samples were analyzed by layers. Specific layer or component asbestos content is indicated when relevant. The EPA considers a material to be asbestos containing only if it contains more than 1% asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also indicate that Regulated Asbestos Containing Materials which are friable or may become friable, be further analyzed by point counting when the results indicate less than 10% asbestos by CVAE. Air Quality Environmental utilizes CVAE on a routine basis and does not include point counting unless specifically requested. Additionally, these results may not be reproduced except in full. This report data is to be interpreted only by the person (s) whom have collected the samples. Furthermore, this report may not be used as a claim to product certification, approval or endorsement by NVLAP, NIST or any other agency of the Federal Government.

†Floor Tile and other resinously bound materials, when analyzed by EPA method, may yield false negative results because of limitations in separating closely bound fibers and in detecting fibers of small length and diameter. When a definitive result is required, AQE recommends utilizing alternative methods of identification, including Transmission Electron Microscopy.

Analyzed by:



Giancarlo Arambulo
Microscopist

**Lab File Number: 65599**

**NVLAP Lab Code 200759-0**

| | | | |
|---|---|---|---|
| Client Name: | Greenfield Environmental<br>432 3rd Street North<br>St. Petersburg, Florida 33701 | Project Name: | Stantec<br>618 Drew St, Clearwater, FL |
| | | Date Analyzed: | February 14, 2023 |

Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590376 | 38 | Roofing Material | white wrap | NAD | | 100% Foil and Binders |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| | | | black shingle | NAD | 20% Glass Fibers | 80% Bitumen and Binders |
| 590377 | 39 | Roofing Material | white wrap | NAD | | 100% Foil and Binders |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| | | | black shingle | NAD | 20% Glass Fibers | 80% Bitumen and Binders |
| 590378 | 40 | Roofing Material | black mastic | NAD | | 100% Bitumen and Binders |
| 590379 | 41 | Roofing Material | black mastic | NAD | | 100% Bitumen and Binders |
| 590380 | 42 | Caulk | grey caulk | NAD | 4% Cellulose | 96% Carbonates and Binders |
| | | | silver mastic | NAD | | 100% Bitumen and Binders |
| 590381 | 43 | Caulk | grey caulk | NAD | 4% Cellulose | 96% Carbonates and Binders |
| | | | silver mastic | NAD | | 100% Bitumen and Binders |
| 590382 | 44 | Roofing Material | black shingle | NAD | 30% Glass Fibers | 70% Bitumen and Binders |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| 590383 | 45 | Roofing Material | black shingle | NAD | 30% Glass Fibers | 70% Bitumen and Binders |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| 590384 | 46 | Roofing Material | black mastic | NAD | 5% Cellulose | 95% Bitumen and Binders |
| 590385 | 47 | Roofing Material | black mastic | NAD | 5% Cellulose | 95% Bitumen and Binders |
| 590386 | 48 | Caulk | grey | NAD | 5% Cellulose | 95% Carbonates and Binders |
| 590387 | 49 | Caulk | grey | NAD | 5% Cellulose | 95% Carbonates and Binders |
| 590388 | 50 | Roofing Material | silver mastic | NAD | | 100% Carbonates and Binders |
| | | | black mastic | NAD | 4% Cellulose | 96% Bitumen and Binders |
| | | | silver mastic | NAD | | 100% Bitumen and Binders |
| 590389 | 51 | Roofing Material | silver mastic | NAD | | 100% Carbonates and Binders |
| | | | black mastic | NAD | 4% Cellulose | 96% Bitumen and Binders |
| | | | silver mastic | NAD | | 100% Bitumen and Binders |
| 590390 | 52 | Mastic | black | NAD | | 100% Bitumen and Binders |
| 590391 | 53 | Mastic | black | NAD | | 100% Bitumen and Binders |

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Analyzed by



Giancarlo Arambulo
Microscopist

**Lab File Number: 65599**

**NVLAP Lab Code 200759-0**

| | | | |
|---|---|---|---|
| Client Name: | Greenfield Environmental<br>432 3rd Street North<br>St. Petersburg, Florida 33701 | Project Name: | Stantec<br>618 Drew St, Clearwater, FL |
| | | Date Analyzed: | February 14, 2023 |

Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590392 | 54 | Vapor Barrier | black barrier | NAD | 40% Cellulose | 60% Bitumen and Binders |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| 590393 | 55 | Vapor Barrier | black barrier | NAD | 40% Cellulose | 60% Bitumen and Binders |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| 590394 | 56 | Vapor Barrier | black barrier | NAD | 40% Cellulose | 60% Bitumen and Binders |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| 590395 | 57 | Building Material | tan | NAD | | 100% Quartz and Binders |
| 590396 | 58 | Building Material | tan | NAD | | 100% Quartz and Binders |
| 590397 | 59 | Building Material | tan | NAD | | 100% Quartz and Binders |
| 590398 | 60 | Sheet Vinyl | brown vinyl | **15% Chrysotile** | 5% Cellulose | 80% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590399 | 61 | Sheet Vinyl | Not Analyzed, Stop At First Positive | | | |
| 590400 | 62 | Sheet Vinyl | Not Analyzed, Stop At First Positive | | | |
| 590401 | 63 | Sheet Vinyl | yellow mastic | NAD | | 100% Binders |
| | | | brown vinyl | **20% Chrysotile** | 2% Cellulose | 78% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590402 | 64 | Sheet Vinyl | Not Analyzed, Stop At First Positive | | | |
| 590403 | 65 | Sheet Vinyl | Not Analyzed, Stop At First Positive | | | |
| 590404 | 66 | Sheet Vinyl | yellow mastic | NAD | | 100% Binders |
| | | | brown vinyl | **20% Chrysotile** | 2% Cellulose | 78% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590405 | 67 | Sheet Vinyl | Not Analyzed, Stop At First Positive | | | |
| 590406 | 68 | Vinyl Tile | Not Analyzed, Stop At First Positive | | | |
| 590407 | 69 | Vinyl Tile | green vinyl | NAD | | 100% Binders |
| | | | tan vinyl | **2% Chrysotile** | | 98% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590408 | 70 | Vinyl Tile | Not Analyzed, Stop At First Positive | | | |

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Microscopist

**Lab File Number: 65599**

**NVLAP Lab Code 200759-0**

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|---|---|---|---|
| Client Name: | Greenfield Environmental<br>432 3rd Street North<br>St. Petersburg, Florida 33701 | Project Name: | Stantec<br>618 Drew St, Clearwater, FL |
| | | Date Analyzed: | February 14, 2023 |

Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590409 | 71 | Ceramic Tile | tan tile | NAD | | 100% Quartz and Binders |
| | | | grey thinset | NAD | | 100% Quartz and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| | | | grey grout | NAD | | 100% Quartz and Binders |
| 590410 | 72 | Ceramic Tile | tan tile | NAD | | 100% Quartz and Binders |
| | | | grey thinset | NAD | | 100% Quartz and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| | | | grey grout | NAD | | 100% Quartz and Binders |
| 590411 | 73 | Sink Undercoat | grey | NAD | | 100% Wollastonite and Binders |
| 590412 | 74 | Sink Undercoat | grey | NAD | | 100% Wollastonite and Binders |
| 590413 | 75 | Ceramic Tile | tan tile | NAD | | 100% Quartz and Binders |
| | | | grey thinset | NAD | | 100% Quartz and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| | | | purple grout | NAD | | 100% Quartz and Binders |
| 590414 | 76 | Ceramic Tile | tan tile | NAD | | 100% Quartz and Binders |
| | | | grey thinset | NAD | | 100% Quartz and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| | | | purple grout | NAD | | 100% Quartz and Binders |
| 590415 | 77 | Wallpaper | tan paper | NAD | 40% Cellulose | 60% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590416 | 78 | Wallpaper | tan paper | NAD | 40% Cellulose | 60% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590417 | 79 | Wallpaper | tan paper | NAD | 40% Cellulose | 60% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590418 | 80 | Wallpaper | tan paper | NAD | 40% Cellulose | 60% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590419 | 81 | Wallpaper | tan paper | NAD | 40% Cellulose | 60% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590420 | 82 | Wallpaper | tan paper | NAD | 40% Cellulose | 60% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |

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|---|---|---|---|
| Client Name: | Greenfield Environmental<br>432 3rd Street North<br>St. Petersburg, Florida 33701 | Project Name: | Stantec<br>618 Drew St, Clearwater, FL |
| | | Date Analyzed: | February 14, 2023 |

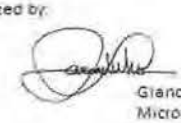
Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590421 | 83 | Wallpaper | tan paper | NAD | 40% Cellulose | 60% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590422 | 84 | Flooring | wood vinyl | NAD | | 100% Carbonates and Binders |
| 590423 | 85 | Flooring | wood vinyl | NAD | | 100% Carbonates and Binders |
| 590424 | 86 | Flooring | wood vinyl | NAD | | 100% Carbonates and Binders |
| 590425 | 87 | Sheet Vinyl | yellow mastic | NAD | | 100% Binders |
| | | | brown vinyl | **15% Chrysotile** | 5% Cellulose | 80% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590426 | 88 | Sheet Vinyl | Not Analyzed, Stop At First Positive | | | |
| 590427 | 89 | Sheet Vinyl | Not Analyzed, Stop At First Positive | | | |
| 590428 | 90 | Mastic | yellow | NAD | | 100% Binders |
| 590429 | 91 | Mastic | yellow | NAD | | 100% Binders |
| 590430 | 92 | Vinyl Covebase | tan vinyl | NAD | | 100% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590431 | 93 | Vinyl Covebase | tan vinyl | NAD | | 100% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590432 | 94 | Sheet Vinyl | yellow mastic | NAD | | 100% Binders |
| | | | brown vinyl | **15% Chrysotile** | 5% Cellulose | 80% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590433 | 95 | Sheet Vinyl | Not Analyzed, Stop At First Positive | | | |
| 590434 | 96 | Sheet Vinyl | Not Analyzed, Stop At First Positive | | | |
| 590435 | 97 | Vinyl Covebase | white vinyl | NAD | | 100% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590436 | 98 | Vinyl Covebase | white vinyl | NAD | | 100% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |

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Microscopist

**Lab File Number: 65599**

**NVLAP Lab Code 200759-0**

| | | | |
|---|---|---|---|
| Client Name: | Greenfield Environmental<br>432 3rd Street North<br>St. Petersburg, Florida 33701 | Project Name:<br><br>Date Analyzed: | Stantec<br>618 Drew St, Clearwater, FL<br>February 14, 2023 |

Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590437 | 99 | Building Material | brown | NAD | 100% Cellulose | |
| 590438 | 100 | Building Material | brown | NAD | 100% Cellulose | |
| 590439 | 101 | Building Material | brown | NAD | 100% Cellulose | |
| 590440 | 102 | Insulation | foil wrap | NAD | 20% Cellulose<br>5% Glass Fibers | 75% Foil and Binders |
| | | | yellow insulate | NAD | 100% Mineral Wool | |
| 590441 | 103 | Insulation | foil wrap | NAD | 20% Cellulose<br>5% Glass Fibers | 75% Foil and Binders |
| | | | yellow insulate | NAD | 100% Mineral Wool | |
| 590442 | 104 | Insulation | foil wrap | NAD | 20% Cellulose<br>5% Glass Fibers | 75% Foil and Binders |
| | | | yellow insulate | NAD | 100% Mineral Wool | |
| 590443 | 105 | Insulation | foil wrap | NAD | 5% Glass Fibers | 95% Foil and Binders |
| | | | yellow insulate | NAD | 100% Mineral Wool | |
| 590444 | 106 | Insulation | foil wrap | NAD | 5% Glass Fibers | 95% Foil and Binders |
| | | | yellow insulate | NAD | 100% Mineral Wool | |
| 590445 | 107 | Insulation | foil wrap | NAD | 5% Glass Fibers | 95% Foil and Binders |
| | | | yellow insulate | NAD | 100% Mineral Wool | |
| 590446 | 108 | Ceramic Tile | white tile | NAD | | 100% Quartz and Binders |
| | | | grey thinset | NAD | | 100% Quartz and Binders |
| | | | grey grout | NAD | | 100% Quartz and Binders |
| 590447 | 109 | Ceramic Tile | white tile | NAD | | 100% Quartz and Binders |
| | | | grey thinset | NAD | | 100% Quartz and Binders |
| | | | grey grout | NAD | | 100% Quartz and Binders |
| 590448 | 110 | Ceramic Tile | white tile | NAD | | 100% Quartz and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| | | | white grout | NAD | | 100% Quartz and Binders |

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Analyzed by:



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Microscopist

**Lab File Number: 65599**

**NVLAP Lab Code 200759-0**

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|---|---|---|---|
| Client Name: | Greenfield Environmental<br>432 3rd Street North<br>St. Petersburg, Florida 33701 | Project Name:<br><br>Date Analyzed: | Stantec<br>618 Drew St, Clearwater, FL<br>February 14, 2023 |

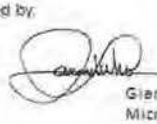
Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590449 | 111 | Ceramic Tile | white tile | NAD | | 100% Quartz and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| | | | white grout | NAD | | 100% Quartz and Binders |
| 590450 | 112 | Ceiling Tile | white | NAD | 50% Cellulose<br>20% Mineral Wool | 30% Perlite and Binders |
| 590451 | 113 | Ceiling Tile | white | NAD | 50% Cellulose<br>20% Mineral Wool | 30% Perlite and Binders |
| 590452 | 114 | Ceiling Tile | white | NAD | 50% Cellulose<br>20% Mineral Wool | 30% Perlite and Binders |
| 590453 | 115 | Ceiling Tile | white | NAD | 70% Mineral Wool | 30% Binders |
| 590454 | 116 | Ceiling Tile | white | NAD | 70% Mineral Wool | 30% Binders |
| 590455 | 117 | Ceiling Tile | white | NAD | 70% Mineral Wool | 30% Binders |
| 590456 | 118 | Ceiling Tile | white | NAD | 80% Cellulose | 20% Binders |
| 590457 | 119 | Ceiling Tile | white | NAD | 80% Cellulose | 20% Binders |
| 590458 | 120 | Ceiling Tile | white | NAD | 80% Cellulose | 20% Binders |
| 590459 | 121 | Insulation | foil wrap | NAD | 5% Glass Fibers | 95% Foil and Binders |
| | | | yellow insulate | NAD | 100% Mineral Wool | |
| 590460 | 122 | Insulation | foil wrap | NAD | 5% Glass Fibers | 95% Foil and Binders |
| | | | yellow insulate | NAD | 100% Mineral Wool | |
| 590461 | 123 | Insulation | foil wrap | NAD | 5% Glass Fibers | 95% Foil and Binders |
| | | | yellow insulate | NAD | 100% Mineral Wool | |
| 590462 | 124 | Ceiling Tile | white | NAD | 35% Cellulose<br>35% Mineral Wool | 30% Perlite and Binders |
| 590463 | 125 | Ceiling Tile | white | NAD | 35% Cellulose<br>35% Mineral Wool | 30% Perlite and Binders |
| 590464 | 126 | Ceiling Tile | white | NAD | 35% Cellulose<br>35% Mineral Wool | 30% Perlite and Binders |

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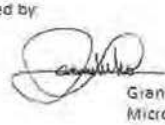
Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590465 | 127 | Ceiling Tile | white | NAD | 50% Cellulose<br>20% Mineral Wool | 30% Perlite and Binders |
| 590466 | 128 | Ceiling Tile | white | NAD | 50% Cellulose<br>20% Mineral Wool | 30% Perlite and Binders |
| 590467 | 129 | Ceiling Tile | white | NAD | 50% Cellulose<br>20% Mineral Wool | 30% Perlite and Binders |
| 590468 | 130 | Drywall System | drywall mat | NAD | 100% Cellulose | |
| | | | drywall powder | NAD | 5% Cellulose | 95% Gypsum and Binders |
| 590469 | 131 | Drywall System | joint compound | NAD | | 100% Carbonates and Binders |
| | | | drywall mat | NAD | 100% Cellulose | |
| | | | drywall powder | NAD | 5% Cellulose | 95% Gypsum and Binders |
| 590470 | 132 | Drywall System | joint compound | NAD | | 100% Carbonates and Binders |
| | | | drywall mat | NAD | 100% Cellulose | |
| | | | drywall powder | NAD | 5% Cellulose | 95% Gypsum and Binders |
| 590471 | 133 | Drywall System | joint compound | NAD | | 100% Carbonates and Binders |
| | | | drywall mat | NAD | 100% Cellulose | |
| | | | drywall powder | NAD | 5% Cellulose | 95% Gypsum and Binders |
| 590472 | 134 | Drywall System | joint compound | NAD | | 100% Carbonates and Binders |
| | | | drywall mat | NAD | 100% Cellulose | |
| | | | drywall powder | NAD | 5% Cellulose | 95% Gypsum and Binders |
| 590473 | 135 | Drywall System | joint compound | NAD | | 100% Carbonates and Binders |
| | | | drywall mat | NAD | 100% Cellulose | |
| | | | drywall powder | NAD | 5% Cellulose | 95% Gypsum and Binders |
| 590474 | 136 | Drywall System | drywall mat | NAD | 100% Cellulose | |
| | | | drywall powder | NAD | 5% Cellulose | 95% Gypsum and Binders |
| 590475 | 137 | Insulation | yellow insulate | NAD | 100% Mineral Wool | |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| | | | brown backing | NAD | 100% Cellulose | |
| 590476 | 138 | Insulation | yellow insulate | NAD | 100% Mineral Wool | |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| | | | brown backing | NAD | 100% Cellulose | |

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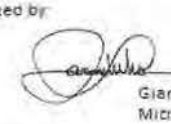
Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590477 | 139 | Insulation | yellow insulate | NAD | 100% Mineral Wool | |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| | | | brown backing | NAD | 100% Cellulose | |
| 590478 | 140 | Insulation | yellow insulate | NAD | 100% Mineral Wool | |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| | | | brown backing | NAD | 100% Cellulose | |
| 590479 | 141 | Insulation | yellow insulate | NAD | 100% Mineral Wool | |
| | | | black mastic | NAD | | 100% Bitumen and Binders |
| | | | brown backing | NAD | 100% Cellulose | |
| 590480 | 142 | Vinyl Covebase | tan vinyl | NAD | | 100% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590481 | 143 | Vinyl Covebase | tan vinyl | NAD | | 100% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590482 | 144 | Cork | tan | NAD | | 100% Cork |
| 590483 | 145 | Cork | tan | NAD | | 100% Cork |
| 590484 | 146 | Cork | tan | NAD | | 100% Cork |
| 590485 | 147 | Vinyl Covebase | tan vinyl | NAD | | 100% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590486 | 148 | Vinyl Covebase | tan vinyl | NAD | | 100% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590487 | 149 | Ceiling Tile | white | NAD | 80% Mineral Wool | 20% Binders |
| 590488 | 150 | Ceiling Tile | white | NAD | 80% Mineral Wool | 20% Binders |
| 590489 | 151 | Ceiling Tile | white | NAD | 80% Mineral Wool | 20% Binders |
| 590490 | 152 | Texture | white | NAD | | 100% Carbonates and Binders |
| 590491 | 153 | Texture | white | NAD | | 100% Carbonates and Binders |
| 590492 | 154 | Texture | white | NAD | | 100% Carbonates and Binders |

†These samples were analyzed by layers. Specific layer or component asbestos content is indicated when relevant. The EPA considers a material to be asbestos containing only if it contains more than 1% asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also indicate that Regulated Asbestos Containing Materials which are friable or may become friable, be further analyzed by point counting when the results indicate less than 10% asbestos by CVAE. Air Quality Environmental utilizes CVAE on a routine basis and does not include point counting unless specifically requested. Additionally, these results may not be reproduced except in full. This report data is to be interpreted only by the person (s) whom have collected the samples. Furthermore, this report may not be used as a claim to product certification, approval or endorsement by NVLAP, NIST or any other agency of the Federal Government.

‡Floor Tile and other resinously bound materials, when analyzed by EPA method, may yield false negative results because of limitations in separating closely bound fibers and in detecting fibers of small length and diameter. When a definitive result is required, AQE recommends utilizing alternative methods of identification, including Transmission Electron Microscopy.

Analyzed by:



Giancarlo Arambulo
Microscopist

**Lab File Number: 65599**

**NVLAP Lab Code 200759-0**

| | | | |
|---|---|---|---|
| Client Name: | Greenfield Environmental<br>432 3rd Street North<br>St. Petersburg, Florida 33701 | Project Name: | Stantec<br>618 Drew St, Clearwater, FL |
| | | Date Analyzed: | February 14, 2023 |

Asbestos, Bulk Sample Analysis — Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

| Lab # | Client # | Sample Type | Description | % Asbestos | % Other Fibers | % Binders |
|---|---|---|---|---|---|---|
| 590493 | 155 | Vinyl Tile | tan vinyl | **2% Chrysotile** | | 98% Carbonates and Binders |
| | | | yellow mastic | NAD | | 100% Binders |
| 590494 | 156 | Vinyl Tile | Not Analyzed, Stop At First Positive | | | |
| 590495 | 157 | Building Material | grey | NAD | | 100% Quartz and Binders |
| 590496 | 158 | Building Material | grey | NAD | | 100% Quartz and Binders |
| 590497 | 159 | Brick and Mortar | grey brick | NAD | | 100% Quartz and Binders |
| | | | grey mortar | NAD | | 100% Quartz and Binders |
| 590498 | 160 | Brick and Mortar | grey brick | NAD | | 100% Quartz and Binders |
| | | | grey mortar | NAD | | 100% Quartz and Binders |
| 590499 | 161 | Building Material | black | NAD | 3% Cellulose | 97% Bitumen and Binders |
| 590500 | 162 | Building Material | black | NAD | 3% Cellulose | 97% Bitumen and Binders |
| 590501 | 163 | Building Material | tan | NAD | | 100% Carbonates and Binders |
| 590502 | 164 | Building Material | tan | NAD | | 100% Carbonates and Binders |
| 590503 | 165 | Building Material | tan | NAD | | 100% Carbonates and Binders |
| 590504 | 166 | Building Material | brown | NAD | 100% Cellulose | |
| 590505 | 167 | Building Material | brown | NAD | 100% Cellulose | |

†These samples were analyzed by layers. Specific layer or component asbestos content is indicated when relevant. The EPA considers a material to be asbestos containing only if it contains more than 1% asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also indicate that Regulated Asbestos Containing Materials which are friable or may become friable, be further analyzed by point counting when the results indicate less than 10% asbestos by CVAE. Air Quality Environmental utilizes CVAE on a routine basis and does not include point counting unless specifically requested. Additionally, these results may not be reproduced except in full. This report data is to be interpreted only by the person (s) whom have collected the samples. Furthermore, this report may not be used as a claim to product certification, approval or endorsement by NVLAP, NIST or any other agency of the Federal Government.

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Analyzed by:



Giancarlo Arambulo
Microscopist

**Lab File Number: 65599**

**NVLAP Lab Code 200759-0**

# APPENDIX B

# CERTIFICATIONS

VRET

**Vern Roberts Environmental Training, Inc.**
13987 94th Avenue N Seminole, FL 33776
727-239-1445

Certifies that

**MAXWELL D. ADAMSKI-CASTON**

Has satisfactorily completed the requisite training for asbestos accreditation under TSCA TITLE II, EPA Model Accreditation Plan (40CFR763 E) for the 4-hour Inspector (Survey & Mechanical) Refresher Course on 3/29/2022, and in testimony whereof, we do confer this certificate at Seminole, Florida on 3/29/2022.

Date of Course: 3/29/2022 Expiration Date 3/29/2023
Certificate # 03292204AM
Course # FL49-0006322 Provider # FL49-0003810

INSTRUCTOR

Ron DeSantis, Governor

Julie I. Brown, Secretary

Florida dbpr

# STATE OF FLORIDA
# DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

## ASBESTOS LICENSING UNIT

THE ASBESTOS BUSINESS ORGANIZATION HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 469, FLORIDA STATUTES

## GREENFIELD ENVIRONMENTAL INC

MICHAEL ROTHENBURG
432 3RD STREET NORTH
ST. PETERSBURG FL 33701

**LICENSE NUMBER: ZA0000268**

**EXPIRATION DATE: NOVEMBER 30, 2023**

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