

# HAZARDOUS MATERIALS SURVEY REPORT

Science South Building



7600 Takoma Avenue  
Takoma Park, Maryland 20912

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# HAZARDOUS MATERIALS SURVEY REPORT

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## 1.0 EXECUTIVE SUMMARY

Applied Environmental, Inc. conducted a hazardous material survey of the Science South Building, located at the Takoma Park campus of Montgomery College. The scope of this hazardous materials survey included the interior and exterior of the structure, but did not include the roof. The hazardous materials assessment included a survey for asbestos-containing material (ACM), lead-containing surface coatings (LCSCs), polychlorinated biphenyl (PCB)-containing equipment, and mercury-containing fixtures. The purpose of the survey was to identify hazardous materials that may be impacted during planned demolition of the structure. This survey was performed by an Environmental Protection Agency (EPA) accredited and State of Maryland licensed asbestos and lead inspector technician from April 17 to 18, 2019.

As a result of the survey, several types of ACM were identified. Details of the survey findings and recommendations are provided in the following sections of this report. All homogeneous materials considered to be potentially asbestos-containing that were identified and sampled during the current survey are delineated in Appendix A, "Homogeneous Material List." The laboratory reports are included in Appendix B, "Asbestos Bulk Sample Analysis Reports." All identified and assumed ACM are reported in Appendix C, "Identified and Assumed Asbestos-Containing Materials Estimated Quantities."

Lead-containing surface coatings were identified on multiple walls, restroom fixtures, and door components. A data table of all surfaces tested and identified as lead-containing is attached as Appendix D, "Lead-Containing Surface Coatings." A complete data table presenting results of the X-Ray Fluorescence (XRF) testing for lead is provided as Appendix E, "XRF Test Data."

Based on our survey of light fixtures within the building, the vast majority of fixtures included non PCB-containing electronic ballasts. Two ballasts, located in Custodial Storage Room 119C1, were observed that were not labeled as "Non-PCB." All other inspected magnetic ballasts contained "Non-PCB" labels. The fluorescent light tubes may contain quantities of mercury that require disposal as universal waste; however,

the tubes should be re-used elsewhere and properly disposed of as universal waste at the end of their life cycle. A suspect mercury-containing thermostat was observed in Electrical Room 123A. No other suspect mercury-containing articles were observed within the building.

## **2.0 BUILDING DESCRIPTION**

The Science South Building was originally constructed circa 1960, and totals approximately 23,800 square feet. Major renovations to the gymnasium area were completed circa 1978. The building comprises three stories plus a partial basement level, and consists of administrative offices, classrooms, laboratories, and mechanical spaces. A free-standing Planetarium wing is located on the southern side of the main structure and was included in this survey.

The building has an unpainted brick exterior with a flat, built-up roof. Interior finishing materials include carpet and floor tile over concrete floors; concrete masonry unit (CMU) and gypsum board (drywall) walls; and suspended ceiling tiles beneath gypsum board or concrete ceilings. Mechanical systems are predominantly insulated with fiberglass insulation wrapped in foil or paper with seam mastic. Mudded joints were observed on mechanical piping.

## **3.0 SURVEY AND EVALUATION PROCEDURES**

### **3.1 Asbestos-Containing Materials Survey**

This hazardous materials survey was conducted in general accordance with AHERA 40 CFR 763 and OSHA Standard 29 CFR 1926.1101 inspection and sampling protocols. Suspect ACM was separated into homogeneous areas. A homogeneous material is defined as a building material that is uniform in color and texture.

A total of 195 representative bulk samples were collected from 92 distinct homogeneous materials suspected to contain asbestos. Attachment 1, "Homogeneous Material List," summarizes each sampled homogeneous material, whether the material is friable, the location of the material, unique sample numbers for collected bulk samples, and if the homogeneous material is asbestos-containing. All collected samples were submitted to AMA Analytical Services, Inc. located in Lanham, Maryland for analysis by Polarized Light Microscopy (PLM) in accordance with the EPA Method for the Determination of Asbestos in Bulk Building Materials (EPA

600/R93/116). The AMA laboratory is accredited by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) for asbestos identification by PLM.

### **3.2 Lead-Containing Surface Coating Screening Survey**

The LCSC screening survey was performed to measure lead concentrations of typical painted surfaces in order to provide information for contractors to take precautions and comply with the OSHA Lead in Construction Standard (29 CFR 1926.62).

The lead paint survey was performed using a Niton XLp 300A Spectrum XRF analyzer. The Niton XLp 300A is a hand-held, portable lead detector, capable of immediately determining lead concentrations of tested surfaces in a non-destructive manner. The detection level of the Niton XLp 300A is 0.1 milligrams of lead per square centimeter (mg/cm<sup>2</sup>) of area tested. Please note that there may be concentrations of lead below this detection limit present throughout the property. The XRF calibration was validated in accordance with the manufacturer's instructions. During the survey, 70 surfaces were tested, including wall systems, door systems, window components, stair components, restroom fixtures, floors, and structural members.

### **3.3 Polychlorinated Biphenyl Verification and Mercury-Containing Articles Survey**

According to the EPA, all ballasts manufactured prior to July 1978 have a greater than 50% chance of containing PCBs at 50 parts per million (ppm), the regulatory threshold. Ballasts manufactured after July 1978 are required to bear a "No PCBs" label indicating that they do not contain PCBs. Fluorescent light fixtures in the building were scanned with a ballast discriminator sensor, which can determine from floor level if a ballast is magnetic or electronic. Electronic ballasts do not have any packing material. The fluorescent light fixtures containing magnetic ballasts identified within the building were visually inspected for suspect PCB-containing light ballasts.

### **3.4 Accessibility Limitations**

Where possible, the presence of plumbing lines or other mechanical systems observed to penetrate into inaccessible locations were noted, and considered to be consistent with adjacent accessible areas. Significant demolition activities were not performed as part of this survey. Locations within wall systems and pipe chases were not accessed as part of our non-destructive sampling. Suspect asbestos-containing piping systems may be present above fixed ceilings or behind enclosed walls where plumbing systems are expected

to be present.

Any previously inaccessible areas or undocumented materials discovered in the future should be evaluated to determine if any material present is considered homogenous with other material samples, or appropriately sampled by an accredited asbestos inspector. Suspect materials not classified in this report are assumed to be asbestos-containing until confirmed otherwise by laboratory analysis.

## 4.0 RESULTS

### 4.1 Asbestos-Containing Materials

All homogeneous materials identified in the building that were considered to be potentially asbestos-containing and/or assumed ACM during the survey are indicated in Appendix A, "Homogeneous Material List." The asbestos laboratory analysis reports are included in Appendix B, "Asbestos Bulk Sample Analysis Reports." The laboratory report provides results of all samples collected and the percentage quantities of the entire sample composition (including asbestos and non-asbestos components). All identified ACMs are reported in Appendix C, "Identified and Assumed Asbestos-Containing Materials Estimated Quantities." Of the suspect ACM sampled during the current survey, the following materials (listed with their assigned Material Code) were identified as asbestos-containing:

- Brown/green pin mastic (PM1) on pins holding grounding/sensor wire;
- Interior window caulk (CK2) on metal windows;
- Brown mastic (FM1) on 12" x 12" cream floor tile with olive green flecks and streaks (FT1, non-ACM);
- Orange mastic (FM2) on 12" x 12" off-white floor tile with gray and dark gray flecks (FT2, non-ACM);
- Black mastic (FM3) on 12" x 12" green floor tile with textured marble pattern (FT3, non-ACM);
- Gray caulk (CK3) at bridge connection;
- Black seam mastic (SM5) on foil fiberglass insulated duct;
- 12" x 12" tan floor tile with gray streaks (FT4) and associated black mastic (FM4);
- Light brown mastic (FM5) on 12" x 12" tan floor tiles with small black dots (FT5, non-ACM);
- White 1" exterior glazing compound (WG3) on metal windows;
- Brown carpet mastic (CM2);
- 9" x 9" dark green floor tiles (FT6) and associated black mastic (FM6);

- Black mastic (FM7) on 12" x 12" beige floor tile with tan and gray flakes (FT7, non-ACM);
- Gray/brown caulk (CK4) at window wall in Stair 2;
- Black ceramic cove base grout (GT1);
- 12" x 12" tan floor tile with cream mottle and brick red streaks (FT8) and associated black mastic (FM8);
- Gray caulk (CK6) in greenhouse windows;
- White glazing compound (WG2) on operable metal windows;
- 12" x 12" light gray floor tile with faint maroon streaks (FT10) and associated black mastic (FM10);
- Dark brown pin mastic (PM3) on fiberglass batt insulation adjoining Stair 2;
- Black mastic (FM11) on 12" x 12" gray floor tile with dark gray and white flecks (FT11, non-ACM)
- Exterior window caulk (CK7);
- Brown corrugated cementitious wall panel (WP1) at junction of bridge and Science North Building;
- Gray carpet mastic (CM3) in Planetarium;
- 12" x 12" tan floor tile (FT16) and associated black mastic (FM16);
- Cream seam mastic (SM7) on white paper foil wrapped fiberglass pipe insulation;
- Cream seam mastic (SM8) on black paper wrapped fiberglass pipe insulation; and
- Cream seam mastic (SM9) on tan paper wrapped fiberglass pipe insulation.

All of the remaining materials sampled during this survey were reported by the laboratory as "No Asbestos Detected." In addition to those materials sampled and determined by laboratory analysis to be ACM, several materials were identified during the survey that were not sampled but are assumed ACM:

- Adhesive behind whiteboard (AD4) throughout classrooms, previously sampled by client;
- Pipe gaskets in Mechanical Rooms 122 and 131 (GK1, inaccessible); and
- Fire doors (FD1, not sampled to retain fire rating).

Fire doors and frames, where present, are assumed to be asbestos-containing and were not sampled by Applied Environmental to maintain the integrity and function of these materials. These fire doors are identified by Underwriters Laboratories (UL) fire rating plates located on the door or doorjamb. All rated fire doors throughout the building should be treated as asbestos-containing until sampling determines otherwise.

## 4.2 Lead-Containing Surface Coatings

XRF analysis detected lead readings in excess of the unit detection limit on the following building components:

- Urinals in restrooms throughout the building;
- Black ceramic tile cove base in restrooms throughout the building;
- Gray metal stalls in restrooms throughout the building;
- Yellow concrete walls in Electrical Room 123A;
- Brown metal door in Custodial Supply Room 119C;
- Gray metal door frames to Office 222 and Office 323;
- White concrete walls on the 2<sup>nd</sup> floor level of the bridge to the Science North Building;
- Beige concrete wall in Recycled Paper Room 006;
- Brown metal wall cap on the 3<sup>rd</sup> floor level of the bridge to the Science North Building; and
- White concrete walls in Office 323 and Corridor 2C1.

Additional information regarding these components is provided in Appendix D, "Lead-Containing Surface Coatings." XRF testing did not detect lead above the detection limit on any other surfaces tested. Refer to Appendix E, "XRF Test Data" for a complete listing of all readings performed by the XRF analyzer. The "Floor" and "Room" columns further define the location of the tested surface. Individual building components tested are listed under "Component." The substrate on which the paint film is applied is noted under "Substrate." The condition of the tested component is noted under "Condition." The color of the topcoat layer of paint or glazed surface is noted under "Color," to assist in determining the location of the building components tested. The actual concentration of lead is recorded in the "PbC" column in mg/cm<sup>2</sup>.

## 4.3 Polychlorinated Biphenyls and Mercury Light Tubes

The vast majority of light fixtures were determined to contain non-PCB electronic ballasts utilizing a ballast discriminator. All of the fluorescent light fixtures containing magnetic ballasts within the survey area were visually inspected for suspect PCB-containing light ballasts. Two ballasts were observed in Custodial Storage Room 119C1 that did not have "No PCBs" labels. All other visually inspected magnetic ballasts contained "No PCBs" labels.



The fluorescent light tubes may contain quantities of mercury that require disposal as universal waste; however, the tubes should be re-used elsewhere and properly disposed of as universal waste at the end of their life cycle. A suspect mercury thermostat was observed in Electrical Room 123. No other suspect mercury thermostats were observed within the building.

## 5.0 RECOMMENDATIONS

### 5.1 Asbestos-Containing Materials

Prior to demolition or renovation activities that may impact them, all identified and assumed ACM must be removed prior to demolition activities by a qualified State of Maryland licensed asbestos abatement contractor, in accordance with applicable EPA, OSHA, and State of Maryland regulations. In accordance with AHERA, an asbestos abatement project specification will have to be created by an EPA accredited and State of Maryland licensed asbestos project designer.

A friable ACM is defined as any material that contains more than one percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. The following identified and assumed ACMs are friable materials as defined by NESHAP:

- White 1" exterior glazing compound (WG3) on metal windows;
- White glazing compound (WG2) on operable metal windows;

A non-friable ACM is defined as any material that contains more than one percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. The following identified and assumed ACMs are non-friable materials as defined by NESHAP:

- Brown/green pin mastic (PM1) on pins holding grounding/sensor wire;
- Interior window caulk (CK2) on metal windows;
- Brown mastic (FM1) on 12" x 12" cream floor tile with olive green flecks and streaks (FT1, non-ACM);
- Orange mastic (FM2) on 12" x 12" off-white floor tile with gray and dark gray flecks (FT2, non-ACM);
- Black mastic (FM3) on 12" x 12" green floor tile with textured marble pattern (FT3, non-ACM);
- Gray caulk (CK3) at bridge connection;

- Black seam mastic (SM5) on foil fiberglass insulated duct;
- 12" x 12" tan floor tile with gray streaks (FT4) and associated black mastic (FM4);
- Light brown mastic (FM5) on 12" x 12" tan floor tiles with small black dots (FT5, non-ACM);
- Brown carpet mastic (CM2);
- 9" x 9" dark green floor tiles (FT6) and associated black mastic (FM6);
- Black mastic (FM7) on 12" x 12" beige floor tile with tan and gray flakes (FT7, non-ACM);
- Gray/brown caulk (CK4) at window wall in Stair 2;
- Black ceramic cove base grout (GT1);
- 12" x 12" tan floor tile with cream mottle and brick red streaks (FT8) and associated black mastic (FM8);
- Gray caulk (CK6) in Greenhouse windows;
- 12" x 12" light gray floor tile with faint maroon streaks (FT10) and associated black mastic (FM10);
- Dark brown pin mastic (PM3) on fiberglass batt insulation adjoining Stair 2;
- Black mastic (FM11) on 12" x 12" gray floor tile with dark gray and white flecks (FT11, non-ACM)
- Exterior window caulk (CK7);
- Brown corrugated cementitious wall panel (WP1) at junction of bridge and Science North Building;
- Gray carpet mastic (CM3) in Planetarium;
- 12" x 12" tan floor tile (FT16) and associated black mastic (FM16);
- Cream seam mastic (SM7) on white paper foil wrapped fiberglass pipe insulation;
- Cream seam mastic (SM8) on black paper wrapped fiberglass pipe insulation;
- Cream seam mastic (SM9) on tan paper wrapped fiberglass pipe insulation; and
- Adhesive behind whiteboard.

The non-friable ACM observed in the building was generally in good condition. It is expected that these non-friable materials would likely be rendered friable during renovation or demolition; therefore, these materials should be removed prior to any activity that may disturb them.

The OSHA Asbestos in Construction Standard, 29 CFR 1926.1101 requires that any contractor performing work impacting materials that contain asbestos be notified of the testing results, and take appropriate actions to comply with the requirements of the OSHA Standard. Notification should be made in writing and receipted.

## 5.2 Lead-Containing Surface Coatings

As this was a screening survey, Applied Environmental recommends that components in the building that are similar to those components identified with LCSCs should also be assumed to have LCSCs and be handled in accordance with OSHA's lead standard until additional XRF testing or paint chip analysis proves otherwise.

All construction activities that involve lead are regulated by the OSHA "Lead in Construction Standard" (29 CFR 1926.62). The standard does not define a specific concentration of lead, which must be present within paint for it to be considered "lead-containing." Therefore, painted and glazed surfaces that have detectable concentrations of lead must be handled in accordance with the OSHA Lead in Construction Standard. Any contractor performing work that could impact paint films that have detectable concentrations of lead should be informed of the testing results, and must take appropriate actions to comply with OSHA standards. These appropriate actions include performing air monitoring to measure worker exposure and assuring that the workers are provided with adequate respiratory protection and the appropriate training.

The disposal of lead paint waste generated during demolition operations is regulated by EPA Standard 40 CFR 261, Subpart C. This regulation requires that a Toxicity Characteristic Leaching Procedure (TCLP) test be utilized to determine if the lead paint waste is considered hazardous. A material is considered hazardous if it is ignitable, reactive, corrosive, or toxic. TCLP testing was not included in the scope of work.

## 5.3 Polychlorinated Biphenyls and Mercury Light Tubes

During any project requiring the removal of light ballasts, each should be individually inspected for the "No PCBs" ballast labeling that is required to be on ballasts that do not contain PCBs. If "No PCBs" is not labeled on the ballast, the ballast must be assumed to contain PCBs, and properly disposed of as hazardous waste.

All fluorescent light tubes contain some mercury. We recommend that light tubes be used to their full life span, and then disposed of as universal waste at the end of their life cycle.

APPENDIX A  
HOMOGENEOUS MATERIAL LIST



Homogeneous Material List

Montgomery College – Takoma Park  
 Science South Building  
 7600 Takoma Avenue  
 Takoma Park, Maryland

April 17 and 18, 2019

Material Code	Material Description	Friable (Yes/No)	Material Location	Sample Numbers	ACM (Yes/No)	Approx. Quantity*
SM1	Cream seam mastic on white paper-wrapped fiberglass insulated pipe	No	Mechanical Room 122	01, 02	NAD	---
CK1	Light tan caulk	No	All metal door casings at CMU/brick walls	11, 12, 91	NAD	---
SM2	Seam mastic on orange painted (newer) paper-wrapped fiberglass insulated pipe	No	Mechanical Room 122	05, 06	NAD	---
MJ1	Light gray mudded joints on paper-wrapped fiberglass insulated pipe	Yes	Mechanical Room 122	03, 04, 73	NAD	---
SM3	Seam mastic on paper-wrapped fiberglass insulated pipe	No	Mechanical Room 122	07, 08	NAD	---
PM1	Brown/green pin mastic holding grounding wire	No	Mechanical Room 122; Corridor 2C1	09, 10	30% Chrysotile	10 sf
CK2	Interior window caulk	No	Metal windows throughout	13, 144	2% Chrysotile	90 Windows
FT1	12" x 12" cream floor tile with olive green flecks and streaks	No	Corridor 1C1; Janitor's Closet 120C; Office 125	96, 98	NAD	---
FM1	Brown mastic on FT1	No	Corridor 1C1; Janitor's Closet 120C; Office 125	97, 99	4% Chrysotile	1,205 sf
FT2	12" x 12" off-white floor tile with gray and dark gray flecks	No	Corridor 2C1 and 3C1; Classroom 227	20, 75	NAD	---
FM2	Orange mastic on FT2	No	Corridor 2C1 and 3C1; Classroom 227	21, 76	3% Chrysotile	2,812 sf
CT1	2' x 4' white ceiling tile with pinholes, dots, and small gouges	Yes	Predominant ceiling tile throughout	14, 143	NAD	---
FT3	12" x 12" green floor tile with textured, marbled pattern	No	Classrooms 320, 321	17, 50	NAD	---
FM3	Black mastic on FT3	No	Classrooms 320, 321	18, 51	2% Chrysotile	1,282 sf
CBM1	Light tan cove base mastic	No	Predominant cove base mastics throughout	15, 35	NAD	---
CBM2	Tan/brown residual cove base mastic	No	Predominant cove base mastics throughout	16, 36	NAD	---
DJ1	Drywall and joint compound	No	Office 120A/B; Classroom 227; Classrooms 320, 327	19, 61	NAD	---



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Material Code	Material Description	Friable (Yes/No)	Material Location	Sample Numbers	ACM (Yes/No)	Approx. Quantity*
WG1	Interior window glazing compound	Yes	Metal windows throughout	22, 87	NAD	---
LC1	White leveling compound	No	Corridor 3C1	23, 191	NAD	---
CK3	Gray caulk at bridge connecting to Science North Building	No	Classroom 320; Office 329	24, 192	2% Chrysotile	30 lf
PM2	Red pin mastic on duct	No	Corridor 3C1	25, 26	NAD	---
SM4	Gray seam mastic on foil fiberglass insulated duct	No	Corridor 3C1; Offices 322 to 324	27, 58	NAD	---
SM5	Black seam mastic on foil fiberglass insulated duct	No	Corridor 3C1; Offices 322 to 324	28, 59	5% Chrysotile	123 lf
FT4	12" x 12" tan floor tile with gray streaks	No	Office 325	29, 189	2% Chrysotile	295 sf
FM4	Black mastic on FT4	No	Office 325	30, 190	2% to 4% Chrysotile	295 sf
CM1	Tan carpet mastic	No	Classroom 120; Offices 120A/B, 123, 125 to 127; Classrooms 226, 227; Offices 221 to 223; Office 325, 328, 329	31, 188	NAD	---
FT5	12" x 12" tan floor tiles with small black dots	No	Kitchen 325A	32, 45	NAD	---
FM5	Light brown mastic on FT5	No	Kitchen 325A	33, 46	5% Chrysotile	140 sf
LC2	Tan/gray leveling compound	No	Kitchen 325A, Office 326	34, 48	NAD	---
CT2	2' x 2' white ceiling tile with pinholes, dots, and irregular gouges	Yes	Office 325	37, 41	NAD	---
CT3	2' x 2' white ceiling tile with pinholes, dots, and small gouges	No	Office 325	38, 42	NAD	---
DJ2	Drywall with tan paper and white joint compound	Yes	Office 325 and Kitchen 325A dividing wall	39, 40	NAD	---
CBM3	Light brown mastic on 4" cove base	No	Corridor 3C1	43, 44	NAD	---



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Material Code	Material Description	Friable (Yes/No)	Material Location	Sample Numbers	ACM (Yes/No)	Approx. Quantity*
CT4	2' x 4' white ceiling tile with dots and holes in swirl pattern	Yes	Classroom 120; Offices 121, 123; Classrooms 220, 226, 227; Classroom 326 and 327	49, 60	NAD	---
WG3	White, 1" exterior glazing compound	Yes	Metal windows throughout	52, 80	2% Chrysotile	90 Windows
CM2	Brown carpet mastic	No	Office 120A/B; Classroom 326; Offices 322 to 324	47, 57	5% Chrysotile	1,501 sf
FT6	9" x 9" dark green floor tile with tan/white streaks	No	Janitor's Closet 324A, 005	53, 55	4% Chrysotile	28 sf
FM6	Black mastic on FT6	No	Janitor's Closet 324A, 005	54, 56	5% Chrysotile	28 sf
FT7	12" x 12" beige floor tile with tan and gray short flakes	No	Stair 2, Stair 2	83, 85	NAD	---
FM7	Black mastic on FT7	No	Stair 1, Stair 2	84, 86	4% Chrysotile	385 sf
CK4	Gray/brown caulk between window/door and brick wall	No	Stair 2, 1C2 Entry Door	62, 77	3% Chrysotile	100 lf
CK5	Thin gray caulk on metal window wall	No	Stair 2	63, 120	NAD	---
GT1	Black ceramic cove base grout	No	Restrooms (except basement)	64, 130	2% Chrysotile	285 lf
GT2	Gray ceramic floor tile grout	No	Restrooms (except basement)	65, 129	NAD	---
AD1	Light tan adhesive/thin set	No	Restrooms (except Basement)	66, 145	NAD	---
FT8	12" x 12" tan floor tile with cream mottle and brick red streaks	No	Corridor and Offices 119A/B; Classroom 124; Classroom 220; Offices 221 to 223; Telecom 225A; Headhouse 224	67, 69	2% Chrysotile	3,317 sf
FM8	Black mastic on FT8	No	Corridor and Offices 119A/B; Classroom 124; Classroom 220; Offices 221 to 223; Telecom 225A; Headhouse 224	68, 70	5% Chrysotile	3,317 sf
LT1	Black laboratory tables	No	Classroom 220	71, 195	NAD	---



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Material Code	Material Description	Friable (Yes/No)	Material Location	Sample Numbers	ACM (Yes/No)	Approx. Quantity*
LS1	Black laboratory sinks	No	Classroom 220	72, 196	NAD	---
MJ2	Mudded joints on 6" fabric-wrapped fiberglass insulated pipe	Yes	Perimeter of 1 <sup>st</sup> and 2 <sup>nd</sup> floor	78, 79, 82	NAD	---
CT5	2' x 4' ceiling tile with sparse pinholes and fat fissures	Yes	Supply 119C; Headhouse 224, Telecom 225A	81, 88	NAD	---
SM6	Tan mastic patch on pipe insulation	No	Headhouse 224	89, 90	NAD	---
CK6	Gray caulk	No	Greenhouse windows	92, 93	3% Chrysotile	1,800 lf
AD2	Black flashing adhesive	No	Greenhouse floor	94, 95	NAD	---
WG2	White glazing compound	No	Operable lower metal windows	114, 115	2% Chrysotile	90 Windows
FT9	12" x 12" light brown, brown, and khaki mottle floor tile	No	Classroom 124	148, 149	NAD	---
FM9	Yellow mastic on FT9	No	Classroom 124	150, 151	NAD	---
FT10	12" x 12" light gray floor tile with faint maroon streaks	No	Office 120A/B, 123, 126, 127; Classroom 120	100, 102	3% Chrysotile	1,584 sf
FM10	Black mastic on FT10	No	Office 120A/B, 123, 126, 127; Classroom 120	101, 103	2% Chrysotile	1,584 sf
PM3	Dark brown pin mastic on fiberglass batt insulation	No	Corridor 1C1 and 2C1 at Stair 2	104, 105	20% Chrysotile	200 sf
FT11	12" x 12" gray floor tile with dark gray and white flecks	No	Supply Room 121	106, 108	NAD	---
FM11	Black mastic on FT11	No	Supply Room 121	107, 109	2% Chrysotile	83 sf
DJ3	Drywall and joint compound	Yes	Supply Room 121 and 119C dividing wall; Recycled Paper 006	110, 111, 177	NAD	---
CT6	2' x 4' white ceiling tile with dots, holes, and fat fissures	Yes	Supply Room 119C and 121	112, 113	NAD	---
CK7	Exterior window caulk	No	Metal window walls	116, 117	3% Chrysotile	90 Windows





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Material Code	Material Description	Friable (Yes/No)	Material Location	Sample Numbers	ACM (Yes/No)	Approx. Quantity*
WP1	Brown corrugated cementitious wall panel	No	Exterior of Science North Building at bridge	118, 119	10% Chrysotile	100 sf
FT12	12" x 12" royal blue mottle floor tile	No	Planetarium Lobby 135	121, 123	NAD	---
FM12	Tan mastic on FT12 and FT13	No	Planetarium Lobby 135	122, 124	NAD	---
FT13	12" x 12" dark gray mottle floor tile	No	Planetarium 130	125, 126	NAD	---
DJ4	Drywall and joint compound	Yes	Planetarium	127, 128	NAD	---
PG1	Gray parging on CMU block dome	No	Planetarium outer dome	131, 132, 133	NAD	---
PL1	Plaster dome	No	Planetarium outer dome	134, 135, 136, 137, 138	NAD	---
CM3	Gray (old) carpet mastic	No	Control Room 132 Planetarium 130	139, 140	2% Chrysotile	560 sf
CBM4	Beige cove base mastic	No	Planetarium	141, 142	NAD	---
PL2	Plaster ceilings	No	Restrooms	146, 147, 160	NAD	---
WC1	Wall coating	No	Corridors 1C1, 2C1, and 3C1; Stair 1	193, 194	NAD	---
FT14	12" x 12" white floor tile with light tan and light gray faint flecks	No	2 <sup>nd</sup> Floor bridge	153, 154	NAD	---
FM14	Mastic on FT14	No	2 <sup>nd</sup> Floor bridge	155, 156	NAD	---
PL3	Plaster ceiling	No	2 <sup>nd</sup> Floor bridge	157, 158, 159	NAD	---
FT15	12" x 12" gray floor tile with dark and light gray mottle and white flecks	No	Facilities Lounge 003	161, 162	NAD	---
FM15	Yellow mastic on FT15	No	Facilities Lounge 003	163, 164	NAD	---
FT16	12" x 12" tan floor tile, bottom layer	No	Facilities Lounge 003 (bottom layer)	165, 166	2% Chrysotile	442 sf



Homogeneous Material List

Montgomery College – Takoma Park  
 Science South Building  
 7600 Takoma Avenue  
 Takoma Park, Maryland

April 17 and 18, 2019

Material Code	Material Description	Friable (Yes/No)	Material Location	Sample Numbers	ACM (Yes/No)	Approx. Quantity*
FM16	Black mastic on FT16	No	Facilities Lounge 003 (bottom layer)	167, 168	2% Chrysotile	442 sf
FT17	12" x 12" black floor tile	No	Stair 1 basement landing (OSA)	169, 170	NAD	---
FM17	Black mastic on FT17	No	Stair 1 basement landing (OSA)	171, 172	NAD	---
FT18	12" x 12" off-white floor tile with tan and gray mottle	No	Stair 1 basement landing (OSA)	173, 174	NAD	---
FM18	Black mastic on FT18	No	Stair 1 basement landing (OSA)	175, 176	NAD	---
AD3	Tan adhesive	No	Wall signs	178, 187	NAD	---
AD4	Tan adhesive on beige ceramic tile	No	Basement restrooms	179, 180	NAD	---
AD5	Brown adhesive on beige tile	No	Basement restrooms	181, 182	NAD	---
GT3	Gray grout on beige ceramic tile	No	Basement restrooms	183, 184	NAD	---
FS1	Red fire stop	No	Wall penetrations	185, 186	NAD	---
SM7	Cream seam mastic on white, black, and tan paper foil wrapped pipes	No	Throughout (except Mechanical Room 122)	(white 74, 198, 201, 205)	2% to 5% Chrysotile	1,690 lf
				(black 197, 199, 207)		
				(tan 200, 204, 206)		
FC1	Floor covering beneath black rubber	No	Greenhouse	202, 203	NAD	---
DM1	Gray mastic on metal duct seams	No	Planetarium Mechanical Room 131	208, 209	NAD	---
GK1	Pipe gaskets	No	Mechanical Rooms 122 and 131	Not Accessible	Assumed ACM	50 ea
FD1	Fire doors	No	All UL Listed Doors	Not Sampled	Assumed ACM	All UL Listed Doors



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AD4	Adhesive behind whiteboard	No	Throughout classrooms	Sampled by client	Yes	ND
ACM = Asbestos-Containing Material sf = square feet lf = linear feet ea = each ND = not determined <b>Bold</b> = Identified as ACM. * Note: The quantity estimates provided are for information purposes only.						

**APPENDIX B**

**ASBESTOS BULK SAMPLE ANALYSIS REPORT**



# CERTIFICATE OF ANALYSIS

**Chain of Custody:** 614318  
**Client:** Applied Environmental, Inc.  
**Address:** 200 Fairbrook Drive  
Suite 201  
Herndon, VA 20170  
**Attention:** Bradley Pearson

**Job Name:** Science South  
**Job Location:** Montgomery College - Takoma Park  
**Job Number:** 46-19-0095  
**P.O. Number:** Not Provided

**Date Submitted:** 04/22/2019  
**Date Analyzed:** 04/26/2019  
**Report Date:** 04/26/2019  
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**Person Submitting:** Barrett McMullan

## Summary of Polarized Light Microscopy

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614318-1	BP090417-1	NAD	--	--	--	--	--	TR	TR	--	TR	100	SSL	Cream	Homogeneous	SW	
614318-2	BP090417-2	NAD	--	--	--	--	--	TR	TR	--	TR	100	SSL	Cream	Homogeneous	SW	
614318-3	BP090417-3	NAD	--	--	--	--	40	--	--	--	--	60	Mud	Gray	Homogeneous	SW	
614318-4	BP090417-4	NAD	--	--	--	--	40	--	--	--	--	60	Mud	Gray	Homogeneous	SW	
614318-5	BP090417-5	NAD	--	--	--	--	--	--	--	--	5	95	SLT	Orange	Homogeneous	SW	
614318-6	BP090417-6	NAD	--	--	--	--	--	--	--	--	5	95	SLT	Orange	Homogeneous	SW	
614318-7	BP090417-7	NAD	--	--	--	--	--	TR	--	--	5	95	SLT	Green	Homogeneous	SW	
614318-8	BP090417-8	NAD	--	--	--	--	--	TR	--	--	5	95	SLT	Green	Homogeneous	SW	
614318-9	BP090417-9	30	30	--	--	--	--	--	--	--	--	70	MS	Brown	Homogeneous	SW	
614318-10	BP090417-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-11	BP090417-11	NAD	--	--	--	--	--	--	--	--	--	100	CK	Tan	Homogeneous	SW	
614318-12	BP090417-12	NAD	--	--	--	--	--	--	--	--	--	100	CK	Tan	Homogeneous	SW	
614318-13	BP090417-13	2	2	--	--	--	--	--	--	--	--	98	CK	Gray	Homogeneous	SW	
614318-14	BP090417-14	NAD	--	--	--	--	30	--	30	--	--	40	CT	Multi	Layered	SW	
614318-15	BP090417-15	NAD	--	--	--	--	--	--	--	--	--	100	MS	Tan	Homogeneous	SW	
614318-16	BP090417-16	NAD	--	--	--	--	--	--	--	--	--	100	MS	Brown	Homogeneous	SW	
614318-17	BP090417-17	NAD	--	--	--	--	--	--	--	--	--	100	FT	Green	Homogeneous	SW	
614318-18	BP090417-18	2	2	--	--	--	--	--	--	--	--	98	MS	Black	Homogeneous	SW	
614318-19	BP090417-19	NAD	--	--	--	--	--	TR	10	--	--	90	DW	Multi	Layered	SW	
614318-20	BP090417-20	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogeneous	SW	



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614318-21	BP090417-21	NAD	--	--	--	--	--	--	TR	--	--	100	MS	Multi	Homogeneous	SW	
614318-22	BP090417-22	NAD	--	--	--	--	--	--	--	TR	--	100	GZ	Gray	Homogeneous	SW	
614318-23	BP090417-23	NAD	--	--	--	--	--	--	--	--	--	100	LC	White	Homogeneous	SW	
614318-24	BP090417-24	2	2	--	--	--	--	--	--	--	--	98	CK	Gray	Homogeneous	SW	
614318-25	BP090417-25	NAD	--	--	--	--	TR	--	--	--	--	100	MS	Red	Homogeneous	SW	
614318-26	BP090417-26	NAD	--	--	--	--	TR	--	--	--	--	100	MS	Red	Homogeneous	SW	
614318-27	BP090417-27	NAD	--	--	--	--	TR	--	--	--	--	100	MS	Gray	Homogeneous	SW	
614318-28	BP090417-28	5	5	--	--	--	--	--	--	--	--	95	SLT	Black	Homogeneous	SW	
614318-29	BP090417-29	2	2	--	--	--	--	--	--	--	--	98	FT	Tan	Homogeneous	SW	
614318-30	BP090417-30	4	4	--	--	--	TR	--	--	--	--	96	MS	Black	Homogeneous	SW	
614318-31	BP090417-31	NAD	--	--	--	--	--	--	--	TR	--	100	CM	Tan	Homogeneous	SW	
614318-32	BP090417-32	NAD	--	--	--	--	--	--	--	--	--	100	FT	Tan	Homogeneous	SW	
614318-33	BP090417-33	5	5	--	--	--	--	--	TR	--	--	95	MS	Brown	Homogeneous	SW	
614318-34	BP090417-34	NAD	--	--	--	--	--	--	TR	--	--	100	LC	Multi	Homogeneous	SW	
614318-35	BP090417-35	NAD	--	--	--	--	--	--	--	--	--	100	MS	Tan	Homogeneous	SW	
614318-36	BP090417-36	NAD	--	--	--	--	--	--	--	TR	--	100	MS	Brown	Homogeneous	SW	
614318-37	BP090417-37	NAD	--	--	--	--	30	--	30	--	--	40	CT	Multi	Layered	SW	
614318-38	BP090417-38	NAD	--	--	--	--	30	--	30	--	--	40	CT	Multi	Layered	SW	
614318-39	BP090417-39	NAD	--	--	--	--	--	--	10	--	--	90	DW	Multi	Layered	SW	
614318-40	BP090417-40	NAD	--	--	--	--	--	--	10	--	--	90	DW	Multi	Layered	SW	
614318-41	BP090417-41	NAD	--	--	--	--	30	--	30	--	--	40	CT	Multi	Layered	SW	
614318-42	BP090417-42	NAD	--	--	--	--	30	--	30	--	--	40	CT	Multi	Layered	SW	



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614318-43	BP090417-43	NAD	--	--	--	--	--	--	--	--	--	100	MS	Brown	Homogeneous	SW	
614318-44	BP090417-44	NAD	--	--	--	--	--	--	--	--	--	100	MS	Brown	Homogeneous	SW	
614318-45	BP090417-45	NAD	--	--	--	--	--	--	--	--	--	100	FT	Tan	Homogeneous	SW	
614318-46	BP090417-46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-47	BP090417-47	5	5	--	--	--	--	--	--	--	--	95	CM	Brown	Homogeneous	SW	
614318-48	BP090417-48	NAD	--	--	--	--	--	--	--	--	--	100	LC	Multi	Homogeneous	SW	
614318-49	BP090417-49	NAD	--	--	--	--	30	--	30	--	--	40	CT	Multi	Layered	SW	
614318-50	BP090417-50	NAD	--	--	--	--	--	--	--	--	--	100	FT	Green	Homogeneous	SW	
614318-51	BP090417-51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-52	BP090417-52	2	2	--	--	--	--	--	--	--	--	98	WG	White	Homogeneous	SW	
614318-53	BP090417-53	4	4	--	--	--	--	--	--	--	--	96	FT	Multi	Homogeneous	SW	
614318-54	BP090417-54	5	5	--	--	--	--	--	--	--	--	95	MS	Black	Homogeneous	SW	
614318-55	BP090417-55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-56	BP090417-56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-57	BP090417-57	5	5	--	--	--	TR	--	TR	TR	--	95	CM	Multi	Homogeneous	SW	



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614318-58	BP090417-58	NAD	--	--	--	--	TR	--	--	--	--	100	SLT	Gray	Homogeneous	SW	
614318-59	BP090417-59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-60	BP090417-60	NAD	--	--	--	--	30	--	30	--	--	40	CT	Multi	Layered	SW	
614318-61	BP090417-61	NAD	--	--	--	--	--	--	--	--	--	100	JC	White	Homogeneous	SW	
614318-62	BP090417-62	3	3	--	--	--	--	--	--	--	--	97	CK	Multi	Homogeneous	SW	
614318-63	BP090417-63	NAD	--	--	--	--	--	--	--	--	5	95	CK	Gray	Homogeneous	SW	
614318-64	BP090417-64	NAD	--	--	--	--	--	--	--	--	--	100	Grout	Multi	Homogeneous	SW	
614318-65	BP090417-65	NAD	--	--	--	--	--	--	--	--	--	100	Grout	Gray	Homogeneous	SW	
614318-66	BP090417-66	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Tan	Homogeneous	SW	
614318-67	BP090417-67	2	2	--	--	--	--	--	--	--	--	98	FT	Multi	Homogeneous	SW	
614318-68	BP090417-68	5	5	--	--	--	--	--	--	--	--	95	MS	Black	Homogeneous	SW	
614318-69	BP090417-69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-70	BP090417-70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-71	BP090417-71	NAD	--	--	--	--	--	--	60	--	--	40	LCT	Brown	Homogeneous	SW	
614318-72	BP090417-72	NAD	--	--	--	--	--	--	--	--	--	100	SC	Black	Homogeneous	SW	
614318-73	BP090417-73	NAD	--	--	--	--	40	--	--	--	--	60	Mud	Gray	Homogeneous	SW	
614318-74	BP090417-74	5	5	--	--	--	--	--	TR	--	--	95	SLT	Tan	Homogeneous	SW	





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614318-75	BP090417-75	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogeneous	SW	
614318-76	BP090417-76	3	3	--	--	--	--	--	--	--	--	97	MS	Black	Homogeneous	SW	
614318-77	BP090417-77	3	3	--	--	--	--	--	--	--	--	97	CK	Multi	Homogeneous	SW	
614318-78	BP090417-78	NAD	--	--	--	--	40	--	--	--	--	60	Mud	Gray	Homogeneous	SW	
614318-79	BP090417-79	NAD	--	--	--	--	40	--	--	--	--	60	Mud	Gray	Homogeneous	SW	
614318-80	BP090417-80	NAD	--	--	--	--	--	--	--	--	--	100	WG	Gray	Homogeneous	SW	
614318-81	BP090417-81	NAD	--	--	--	--	20	--	40	--	--	40	CT	Multi	Layered	SW	
614318-82	BP090417-82	NAD	--	--	--	--	40	--	--	--	--	60	Mud	Gray	Homogeneous	SW	
614318-83	BP090417-83	NAD	--	--	--	--	--	--	--	--	--	100	FT	Beige	Homogeneous	SW	
614318-84	BP090417-84	4	4	--	--	--	--	--	TR	--	--	96	MS	Black	Homogeneous	SW	
614318-85	BP090417-85	NAD	--	--	--	--	--	--	--	--	--	100	FT	Beige	Homogeneous	SW	
614318-86	BP090417-86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-87	BP090417-87	NAD	--	--	--	--	--	--	--	--	--	100	WG	Gray	Homogeneous	SW	
614318-88	BP090417-88	NAD	--	--	--	--	20	--	40	--	--	40	CT	Multi	Layered	SW	
614318-89	BP090417-89	NAD	--	--	--	--	--	--	10	--	--	90	MS	Tan	Homogeneous	SW	
614318-90	BP090417-90	NAD	--	--	--	--	--	--	10	--	--	90	MS	Tan	Homogeneous	SW	
614318-91	BP090417-91	NAD	--	--	--	--	--	--	--	--	--	100	CK	White	Homogeneous	SW	
614318-92	BP090417-92	3	3	--	--	--	--	--	--	--	--	97	CK	Gray	Homogeneous	SW	



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614318-93	BP090417-93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-94	BP090417-94	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Yellow	Homogeneous	SW	
614318-95	BP090417-95	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Yellow	Homogeneous	SW	
614318-96	BP090417-96	NAD	--	--	--	--	--	--	--	--	--	100	FT	Cream	Homogeneous	SW	
614318-97	BP090417-97	4	4	--	--	--	--	TR	--	--	--	96	MS	Black	Homogeneous	SW	
614318-98	BP090417-98	NAD	--	--	--	--	--	--	--	--	--	100	FT	Cream	Homogeneous	SW	
614318-99	BP090417-99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SW	Sample not analyzed. Positive stop.
614318-100	BP090417-100	3	3	--	--	--	--	--	--	--	--	97	FT	Gray	Homogeneous	SC	
614318-101	BP090417-101	2	2	--	--	--	--	--	--	--	--	98	MS	Black	Homogeneous	SC	
614318-102	BP090417-102	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SC	Sample not analyzed. Positive Stop
614318-103	BP090417-103	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SC	Sample not analyzed. Positive Stop
614318-104	BP090417-104	20	20	--	--	--	--	--	--	--	--	80	MS	Brown	Homogeneous	SC	
614318-105	BP090417-105	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SC	Sample not analyzed. Positive Stop



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614318-106	BP090417-106	NAD	--	--	--	--	--	--	--	--	--	100	FT	Gray	Homogeneous	SC	
614318-107	BP090417-107	NAD	--	--	--	--	--	--	--	--	--	100	MS	Tan	Homogeneous	SC	
614318-108	BP090417-108	NAD	--	--	--	--	--	--	--	--	--	100	FT	Gray	Homogeneous	SC	
614318-109	BP090417-109	2	2	--	--	--	--	--	--	--	--	98	MS	Black	Homogeneous	SC	
614318-110	BP090417-110	NAD	--	--	--	--	--	--	15	--	--	85	DW	Multi	Layered	SC	
614318-110A	BP090417-110	NAD	--	--	--	--	--	--	--	--	--	100	JC	White	Homogeneous	SC	
614318-111	BP090417-111	NAD	--	--	--	--	--	--	15	--	--	85	DW	Multi	Layered	SC	
614318-111A	BP090417-111	NAD	--	--	--	--	--	--	--	--	--	100	JC	White	Homogeneous	SC	
614318-112	BP090417-112	NAD	--	--	--	--	30	--	30	--	--	40	CT	Multi	Layered	SC	
614318-113	BP090417-113	NAD	--	--	--	--	30	--	30	--	--	40	CT	Multi	Layered	SC	
614318-114	BP090417-114	2	2	--	--	--	--	--	--	--	--	98	WG	White	Homogeneous	SC	
614318-115	BP090417-115	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SC	Sample not analyzed. Positive Stop
614318-116	BP090417-116	3	3	--	--	--	--	--	--	--	--	97	CK	Gray	Homogeneous	SC	
614318-117	BP090417-117	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SC	Sample not analyzed. Positive Stop
614318-118	BP090417-118	10	10	--	--	--	--	--	--	--	--	90	WP	Brown	Homogeneous	SC	



# CERTIFICATE OF ANALYSIS

**Chain of Custody:** 614318  
**Client:** Applied Environmental, Inc.  
**Address:** 200 Fairbrook Drive  
Suite 201  
Herndon, VA 20170  
**Attention:** Bradley Pearson

**Job Name:** Science South  
**Job Location:** Montgomery College - Takoma Park  
**Job Number:** 46-19-0095  
**P.O. Number:** Not Provided

**Date Submitted:** 04/22/2019  
**Date Analyzed:** 04/26/2019  
**Report Date:** 04/26/2019  
**Date Sampled:** 04/17/2019 - 04/18/2019  
**Person Submitting:** Barrett McMullan

## Summary of Polarized Light Microscopy

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614318-119	BP090417-119	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SC	Sample not analyzed. Positive Stop
614318-120	BP090417-120	NAD	--	--	--	--	--	--	--	--	5	95	CK	Gray	Homogeneous	SC	
614318-121	BP090417-121	NAD	--	--	--	--	--	--	--	--	--	100	FT	Blue	Homogeneous	PC	
614318-122	BP090417-122	NAD	--	--	--	--	--	--	2	--	--	98	MS	Tan	Homogeneous	PC	
614318-123	BP090417-123	NAD	--	--	--	--	--	--	--	--	--	100	FT	Blue	Homogeneous	PC	
614318-124	BP090417-124	NAD	--	--	--	--	--	TR	--	--	--	100	MS	Tan	Homogeneous	PC	
614318-125	BP090417-125	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogeneous	PC	
614318-140	BP090417-126	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogeneous	PC	
614318-141	BP090417-127	NAD	--	--	--	--	--	--	10	--	--	90	DW	Multi	Layered	PC	
614318-141A	BP090417-127	NAD	--	--	--	--	--	--	--	--	--	100	JC	White	Homogeneous	PC	
614318-142	BP090417-128	NAD	--	--	--	--	--	10	--	--	--	90	DW	Multi	Layered	PC	
614318-142A	BP090417-128	NAD	--	--	--	--	--	--	--	--	--	100	JC	White	Homogeneous	PC	
614318-143	BP090417-129	NAD	--	--	--	--	--	--	--	--	--	100	Grout	Gray	Homogeneous	PC	
614318-144	BP090417-130	2	2	--	--	--	--	--	--	--	--	98	Grout	Brown	Homogeneous	PC	
614318-145	BP090417-131	NAD	--	--	--	--	--	--	--	--	--	100	Cement	Gray	Homogeneous	PC	
614318-146	BP090417-132	NAD	--	--	--	--	--	--	--	--	--	100	Cement	Gray	Homogeneous	PC	
614318-147	BP090417-133	NAD	--	--	--	--	--	--	--	--	--	100	Cement	Gray	Homogeneous	PC	
614318-148	BP090417-134	NAD	--	--	--	--	--	--	--	--	--	100	PL	Gray	Homogeneous	PC	
614318-149	BP090417-135	NAD	--	--	--	--	--	--	--	--	--	100	PL	Gray	Homogeneous	PC	



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614318-150	BP090417-136	NAD	--	--	--	--	--	--	--	--	--	100	PL	Gray	Homogeneous	PC	
614318-151	BP090417-137	NAD	--	--	--	--	--	--	--	--	--	100	PL	Gray	Homogeneous	PC	
614318-152	BP090417-138	NAD	--	--	--	--	--	--	--	--	--	100	PL	Gray	Homogeneous	PC	
614318-153	BP090417-139	NAD	--	--	--	--	--	--	3	--	--	97	CM	Gray	Homogeneous	PC	
614318-154	BP090417-140	2	2	--	--	--	--	--	2	--	--	96	CM	Multi	Homogeneous	PC	
614318-155	BP090417-141	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Beige	Homogeneous	PC	
614318-156	BP090417-142	NAD	--	--	--	--	--	--	TR	--	--	100	Ads	Beige	Homogeneous	PC	
614318-157	BP090417-143	NAD	--	--	--	--	30	--	30	--	--	40	CT	Multi	Layered	PC	
614318-158	BP090417-144	2	2	--	--	--	--	--	--	--	--	98	CK	Gray	Homogeneous	PC	
614318-159	BP090417-145	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Tan	Homogeneous	PC	
614318-160	BP090417-146	NAD	--	--	--	--	--	--	--	--	--	100	PL	White	Homogeneous	PC	
614318-160A	BP090417-146	NAD	--	--	--	--	--	--	--	--	--	100	BC	Brown	Homogeneous	PC	
614318-161	BP090417-147	NAD	--	--	--	--	--	--	--	--	--	100	PL	White	Homogeneous	PC	
614318-161A	BP090417-147	NAD	--	--	--	--	--	--	--	--	--	100	BC	Brown	Homogeneous	PC	
614318-162	BP090417-148	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogeneous	PC	
614318-163	BP090417-149	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogeneous	PC	
614318-164	BP090417-150	NAD	--	--	--	--	--	--	TR	--	--	100	MS	Yellow	Homogeneous	PC	
614318-165	BP090417-151	NAD	--	--	--	--	--	--	TR	--	--	100	MS	Yellow	Homogeneous	PC	
614318-167	BP090417-153	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogeneous	PC	
614318-168	BP090417-154	NAD	--	--	--	--	--	--	--	--	--	100	FT	Multi	Homogeneous	PC	
614318-169	BP090417-155	NAD	--	--	--	--	--	--	TR	--	--	100	MS	Tan	Homogeneous	PC	



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## Summary of Polarized Light Microscopy

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614318-170	BP090417-156	NAD	--	--	--	--	--	--	TR	--	--	100	MS	Tan	Homogeneous	PC	
614318-171	BP090417-157	NAD	--	--	--	--	--	--	--	--	--	100	PL	Beige	Homogeneous	PC	
614318-172	BP090417-158	NAD	--	--	--	--	--	--	--	--	--	100	PL	Beige	Homogeneous	PC	
614318-173	BP090417-159	NAD	--	--	--	--	--	--	--	--	--	100	PL	Beige	Homogeneous	PC	
614318-174	BP090417-160	NAD	--	--	--	--	--	--	--	--	--	100	PL	White	Homogeneous	PC	
614318-174A	BP090417-160	NAD	--	--	--	--	--	--	TR	--	--	100	BC	Gray	Homogeneous	PC	
614318-175	BP090417-161	NAD	--	--	--	--	--	--	--	--	--	100	FT	Gray	Homogeneous	LBP	
614318-176	BP090417-162	NAD	--	--	--	--	--	--	--	--	--	100	FT	Gray	Homogeneous	LBP	
614318-177	BP090417-163	NAD	--	--	--	--	--	--	--	--	--	100	MS	Yellow	Homogeneous	LBP	
614318-178	BP090417-164	NAD	--	--	--	--	--	--	--	--	--	100	MS	Yellow	Homogeneous	LBP	
614318-179	BP090417-165	2	2	--	--	--	--	--	--	--	--	98	FT	Tan	Homogeneous	LBP	
614318-180	BP090417-166	--	--	--	--	--	--	--	--	--	--	--	--	--	--	LBP	Sample not analyzed. Positive Stop.
614318-181	BP090417-167	2	2	--	--	--	--	--	--	--	--	98	MS	Black	Homogeneous	LBP	
614318-182	BP090417-168	--	--	--	--	--	--	--	--	--	--	--	--	--	--	LBP	Sample not analyzed. Positive Stop.
614318-183	BP090417-169	NAD	--	--	--	--	--	--	--	--	--	100	FT	Black	Homogeneous	LBP	
614318-184	BP090417-170	NAD	--	--	--	--	--	--	--	--	--	100	FT	Black	Homogeneous	LBP	
614318-185	BP090417-171	NAD	--	--	--	--	--	--	--	--	--	100	MS	Black	Homogeneous	LBP	
614318-186	BP090417-172	NAD	--	--	--	--	--	--	--	--	--	100	MS	Black	Homogeneous	LBP	



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614318-187	BP090417-173	NAD	--	--	--	--	--	--	--	--	--	100	FT	Off-White	Homogeneous	LBP	
614318-188	BP090417-174	NAD	--	--	--	--	--	--	--	--	--	100	FT	Off-White	Homogeneous	LBP	
614318-189	BP090417-175	NAD	--	--	--	--	--	--	--	--	--	100	MS	Black	Homogeneous	LBP	
614318-190	BP090417-176	NAD	--	--	--	--	--	--	--	--	--	100	MS	Black	Homogeneous	LBP	
614318-191	BP090417-177	NAD	--	--	--	--	--	10	--	--	--	90	DW	Multi	Layered	LBP	
614318-191A	BP090417-177	NAD	--	--	--	--	--	--	--	--	--	100	JC	White	Homogeneous	LBP	
614318-192	BP090417-178	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Tan	Homogeneous	LBP	
614318-193	BP090417-179	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Tan	Homogeneous	LBP	
614318-194	BP090417-180	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Tan	Homogeneous	LBP	
614318-195	BP090417-181	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Brown	Homogeneous	LBP	
614318-196	BP090417-182	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Brown	Homogeneous	LBP	
614318-197	BP090417-183	NAD	--	--	--	--	--	--	--	--	--	100	Grout	Gray	Homogeneous	LBP	
614318-198	BP090417-184	NAD	--	--	--	--	--	--	--	--	--	100	Grout	Gray	Homogeneous	LBP	
614318-199	BP090417-185	NAD	--	--	--	--	--	--	--	--	--	100	FS	Red	Homogeneous	LBP	
614318-200	BP090417-186	NAD	--	--	--	--	--	--	--	--	--	100	FS	Red	Homogeneous	LBP	
614318-201	BP090417-187	NAD	--	--	--	--	--	--	--	--	--	100	Ads	Tan	Homogeneous	LBP	
614318-202	BP090417-188	NAD	--	--	--	--	--	--	--	--	--	100	CM	Tan	Homogeneous	LBP	
614318-203	BP090417-189	2	2	--	--	--	--	--	--	--	--	98	FT	Gray	Homogeneous	LBP	
614318-204	BP090417-190	2	2	--	--	--	--	--	--	--	--	98	MS	Black	Homogeneous	LBP	
614318-205	BP090417-191	NAD	--	--	--	--	--	--	--	--	--	100	LC	Gray	Homogeneous	LBP	

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614318-206	BP090417-192	NAD	--	--	--	--	--	--	--	--	--	100	CK	Gray	Homogeneous	LBP	
614318-207	BP090417-193	NAD	--	--	--	--	--	--	--	--	--	100	WPL	White	Homogeneous	LBP	
614318-208	BP090417-194	NAD	--	--	--	--	--	--	--	--	--	100	WPL	White	Homogeneous	LBP	
614318-209	BP090417-195	NAD	--	--	--	--	--	--	60	--	--	40	Counter T.	Black	Homogeneous	LBP	
614318-210	BP090417-196	NAD	--	--	--	--	--	--	--	--	--	100	Counter T.	Black	Homogeneous	LBP	

The following footnotes only apply to those samples which the total asbestos result is flagged with a note number.

<sup>1</sup> TEM RECOMMENDATION - Please note, due to resolution limitations with optical microscopy and/or interference from matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos. It is recommended that the additional analytical technique of TEM be used to check for asbestos fibers below the resolution limits of optical microscopy.

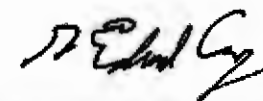
<sup>2</sup> MATRIX REDUCTION RECOMMENDATION - Please note, due to interference from the matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos which is obscured from view. It is recommended that the additional preparation technique of gravimetric reduction be performed on this sample to minimize the obscuring effects of matrix components, followed by reanalysis by PLM and/or TEM.

Analysis Method - EPA/600/R-93/116 dated July 1993

NAD = "No Asbestos Detected" TR = "Trace equals less than 1% of this component"

Uncertainty: For samples containing asbestos in range of 1-10% the CV is 0.43, 11-35% CV=0.55, >35 CV=0.23. All results are to be considered preliminary and subject to change unless signed by the Technical Director or Deputy.

**Analyst(s):** Surat Watson, Peerawut Chaikeneee, Suphin Chinnapad, Lom Butruk



**Technical Director** G. Edward Carney

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these Laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from us. Sample types, locations, and collection protocols are based upon the information provided by the persons submitting them and, unless collected by personnel of these Laboratories, we expressly disclaim any knowledge and liability for the accuracy and completeness of this information. Residual sample material will be discarded in accordance with the appropriate regulatory guidelines, unless otherwise requested by the client. NVLAP accreditation applies only to polarized light microscopy of bulk samples and transmission electron microscopy of AHERA air samples. This report must not be used to claim, and does not imply product certification, approval, or endorsement by NVLAP or any agency of the Federal Government. All rights reserved. AMA Analytical Services, Inc.





**AMA Analytical Services, Inc.**  
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 (301) 459-2640 • (800) 346-0961 • Fax (301) 459-2643

# CHAIN OF CUSTODY

(Please Refer To This Number For Inquires) **604318**

### Mailing/Billing Information:

1. Client Name: Applied Environmental, Inc.
2. Address 1: 200 Fairbrook Drive
3. Address 2: Suite 201
4. Address 3: Herndon, Virginia 20170
5. Phone #: 703-648-0822 Fax #: 703-648-0575

### Submittal Information:

1. Job Name: Science South
2. Job Location: Montgomery College - Takoma Park
3. Job #: 46-19-0095 P.O. #:
4. Contact Person: Bradley Pearson @ phone # 703-648-0822
5. Submitted by: Barrett M/Mullan Signature: [Signature]

### Reporting Information (Results will be provided as soon as technically feasible):

AFTER HOURS (must be pre-scheduled)	NORMAL BUSINESS HOURS	REPORT TO:
<input type="checkbox"/> Immediate Date Due: _____ <input type="checkbox"/> 24 Hours Time Due: _____ Comments: _____	<input type="checkbox"/> Immediate <input checked="" type="checkbox"/> 3 Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day <u>4/25/19</u> <input type="checkbox"/> 2 Day Date Due: _____	<input type="checkbox"/> Include COC/Field Data Sheets with Report <input checked="" type="checkbox"/> Email: <u>bpearson@appenn.com / osharif@appenn.com</u> <input type="checkbox"/> Fax: _____ <input type="checkbox"/> Verbals: _____

### Asbestos Analysis

- PCM Air** - Please Indicate Filter Type:  
 NIOSH 7400 (QTY)  
 Fiberglass (QTY)
- TEM Air** - Please Indicate Filter Type:  
 AHERA (QTY)  
 NIOSH 7402 (QTY)  
 Other (specify) (QTY)
- PLM Bulk**  
 EPA 600 - Visual Estimate 125 (QTY)  
 EPA Point Count (QTY)  
 NY State Friable 198.1 (QTY)  
 Grav. Reduction ELAP 198.6 (QTY)  
 Other (specify) (QTY)
- MISC**  
 Vermiculite  
 Asbestos Soil PLM (Qual) PLM (Quan) PLM/TEM (Qual) PLM/TEM (Quan)

### TEM Bulk

- ELAP 198.4/Chatfield (QTY)
- NY State PLM/TEM (QTY)
- Residual Ash (QTY)

### TEM Dust

- Qual. (pre/fabs) Vacuum/Dust (QTY)
- Quan. (s/area) Vacuum D5755-95 (QTY)
- Quan. (s/area) Dust D6480-99 (QTY)

### TEM Water

- Qual. (pre/fabs) (QTY)
- ELAP 198.2/EPA 100.2 (QTY)
- EPA 100.1 (QTY)

All samples received in good condition unless otherwise noted.  
 (TEM Water samples \_\_\_\_\_°C)

### Metals Analysis

- Pb Paint Chip (QTY)
- Pb Dust Wipe (wipe type) (QTY)
- Pb Air (QTY)
- Pb Soil/Solid (QTY)
- Pb TCLP (QTY)
- Drinking Water  Pb (QTY)  Cu (QTY)  As (QTY)
- Waste Water  Pb (QTY)  Cu (QTY)  As (QTY)
- Pb Furnace (Media) (QTY)

### Fungal Analysis

- Collection Apparatus for Spore Traps/Air Samples: \_\_\_\_\_
- Collection Media \_\_\_\_\_
- Spore-Trap (QTY)  Surface Vacuum Dust (QTY)
- Surface Swab (QTY)  Culturable ID Genus (Media) (QTY)
- Surface Tape (QTY)  Culturable ID Species (Media) (QTY)
- Other (Specify) (QTY)

### CLIENT CONTACT

CLIENT ID NUMBER	SAMPLE INFORMATION	SAMPLE LOCATION/IDENTIFICATION	DATE	VOLUME (LITERS)	WIPE AREA	ANALYSIS													CLIENT CONTACT							
						TEM	PCB	PAX	LEAD	MOLD	AIR	BULK	DUST	MATRIX	SPORE TRAP	TAPE	SWAB	(LABORATORY STAFF ONLY)								
<u>BPO90417-01 to BPO90417-196</u>		<u>See attached for info</u>	<u>4/17 to 4/18/19</u>	<u>125</u>				<u>X</u>									<u>X</u>							Date/Time:	Contact:	By:
		<u>*Positive Stop*</u>																						Date/Time:	Contact:	By:

**LABORATORY STAFF ONLY: (CUSTODY)**

1. Date/Time RCVD: 4/22/19 @ 1240 Via: Feed By (Print): \_\_\_\_\_ Sign: [Signature]
2. Date/Time Analyzed: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ @ \_\_\_\_\_ By (Print): \_\_\_\_\_ Sign: \_\_\_\_\_
3. Results Reported To: \_\_\_\_\_ Via: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_ Initials: \_\_\_\_\_
4. Comments: \_\_\_\_\_

# CERTIFICATE OF ANALYSIS

**Chain of Custody:** 614698  
**Client:** Applied Environmental, Inc.  
**Address:** 200 Fairbrook Drive  
Suite 201  
Herndon, VA 20170  
**Attention:** Bradley Pearson

**Job Name:** Science South  
**Job Location:** Montgomery College - Takoma Park  
**Job Number:** 046-19-0095  
**P.O. Number:** Not Provided

**Date Submitted:** 05/13/2019  
**Date Analyzed:** 05/14/2019  
**Report Date:** 05/14/2019  
**Date Sampled:** 05/10/2019  
**Person Submitting:** Bradley Pearson

## Summary of Polarized Light Microscopy

AMA Sample Number	Client Sample Number	Total Asbestos	Chrysotile Percent	Amosite Percent	Crocidolite Percent	Other Asbestos Percent	Mineral Wool Percent	Fiberglass Percent	Organic Percent	Synthetic Percent	Other Percent	Particulate Percent	Sample Type	Sample Color	Homogeneity	Analyst ID	Comments
614698-1	BP190510-197	3	3	--	--	--	TR	--	--	--	--	97	SSL	Cream	Homogeneous	SC	
614698-2	BP190510-198	3	3	--	--	--	--	--	TR	--	--	97	SSL	Cream	Homogeneous	SC	
614698-3	BP190510-199	2	2	--	--	--	--	--	TR	--	--	98	SSL	Green	Homogeneous	SC	
614698-4	BP190510-200	2	2	--	--	--	--	--	--	--	--	98	SSL	Cream	Homogeneous	SC	
614698-5	BP190510-201	2	2	--	--	--	--	--	--	--	--	98	SSL	Cream	Homogeneous	SC	
614698-6	BP190510-202	NAD	--	--	--	--	--	--	--	--	--	100	Cement	Gray	Homogeneous	SC	
614698-7	BP190510-203	NAD	--	--	--	--	--	--	--	--	--	100	Cement	Gray	Homogeneous	SC	
614698-8	BP190510-204	4	4	--	--	--	--	--	--	--	2	94	SSL	Cream	Homogeneous	SC	
614698-9	BP190510-205	5	5	--	--	--	--	--	--	--	2	93	SSL	Cream	Homogeneous	SC	
614698-10	BP190510-206	5	5	--	--	--	--	--	--	--	2	93	SSL	Cream	Homogeneous	SC	
614698-11	BP190510-207	5	5	--	--	--	--	--	--	--	3	92	SSL	Cream	Homogeneous	SC	
614698-12	BP190510-208	NAD	--	--	--	--	--	--	--	--	--	100	DM	Gray	Homogeneous	SC	
614698-13	BP190510-209	NAD	--	--	--	--	--	--	--	--	--	100	DM	Gray	Homogeneous	SC	



# CERTIFICATE OF ANALYSIS

**Chain of Custody:** 614698  
**Client:** Applied Environmental, Inc.  
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**P.O. Number:** Not Provided

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**Date Analyzed:** 05/14/2019  
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## Summary of Polarized Light Microscopy

AMA Sample Number	Client Sample Number	Total Asbestos	Chrysotile Percent	Amosite Percent	Crocidolite Percent	Other Asbestos Percent	Mineral Wool Percent	Fiberglass Percent	Organic Percent	Synthetic Percent	Other Percent	Particulate Percent	Sample Type	Sample Color	Homogeneity	Analyst ID	Comments
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The following footnotes only apply to those samples which the total asbestos result is flagged with a note number.

<sup>1</sup> TEM RECOMMENDATION - Please note, due to resolution limitations with optical microscopy and/or interference from matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos. It is recommended that the additional analytical technique of TEM be used to check for asbestos fibers below the resolution limits of optical microscopy.

<sup>2</sup> MATRIX REDUCTION RECOMMENDATION - Please note, due to interference from the matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos which is obscured from view. It is recommended that the additional preparation technique of gravimetric reduction be performed on this sample to minimize the obscuring effects of matrix components, followed by reanalysis by PLM and/or TEM.

Analysis Method - EPA/600/R-93/116 dated July 1993  
 NAD = "No Asbestos Detected" TR = "Trace equals less than 1% of this component"

Uncertainty: For samples containing asbestos in range of 1-10% the CV is 0.43, 11-35% CV=0.55, >35 CV=0.23. All results are to be considered preliminary and subject to change unless signed by the Technical Director or Deputy.

Analyst(s): Suphin Chinnapad

Technical Director Michael Greenberg

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these Laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from us. Sample types, locations, and collection protocols are based upon the information provided by the persons submitting them and, unless collected by personnel of these Laboratories, we expressly disclaim any knowledge and liability for the accuracy and completeness of this information. Residual sample material will be discarded in accordance with the appropriate regulatory guidelines, unless otherwise requested by the client. NVLAP accreditation applies only to polarized light microscopy of bulk samples and transmission electron microscopy of AHERA air samples. This report must not be used to claim, and does not imply product certification, approval, or endorsement by NVLAP or any agency of the Federal Government. All rights reserved. AMA Analytical Services, Inc.



AMA Analytical Services, Inc.
Focused on Results www.amalab.com
AIHA (#100470) NVLAP (#101143-0) NY ELAP (10920)
4475 Forbes Blvd. • Lanham, MD 20706
(301) 459-2640 • (800) 346-0961 • Fax (301) 459-2643

CHAIN OF CUSTODY

(Please Refer To This Number For Inquiries)

Handwritten number 8614698 with a signature over it.

Mailing/Billing Information:

- 1. Client Name: Applied Environmental, Inc.
2. Address 1: 200 Fairbrook Drive
3. Address 2: Suite 201
4. Address 3: Herndon, Virginia 20170
5. Phone #: 703-648-0822 Fax #: 703-648-0575

Submittal Information:

- 1. Job Name: Science South
2. Job Location: Montgomery College - Takoma Park
3. Job #: 046-19-0095 P.O. #:
4. Contact Person: Bradley Pearson @ phone # 703-648-0822
5. Submitted by: Bradley Pearson Signature: [Signature]

Reporting Information (Results will be provided as soon as technically feasible):

Form with sections: AFTER HOURS (must be pre-scheduled), NORMAL BUSINESS HOURS, and REPORT TO. Includes checkboxes for immediate, 3 day, 5 day, etc., and contact info for bpearson@appenv.com.

Asbestos Analysis

- PCM Air - Please Indicate Filter Type:
- NIOSH 7400 (QTY)
- Fiberglass (QTY)
TEM Air - Please Indicate Filter Type:
- AHERA (QTY)
- NIOSH 7402 (QTY)
- Other (specify) (QTY)
PLM Bulk
- EPA 600 - Visual Estimate 13 (QTY)
- EPA Point Count (QTY)
- NY State Friable 198.1 (QTY)
- Grav. Reduction ELAP 198.6 (QTY)
- Other (specify) (QTY)

TEM Bulk

- ELAP 198.4/Chafield (QTY)
- NY State PLM/TEM (QTY)
- Residual Ash (QTY)

TEM Dust

- Qual. (pres/abs) Vacuum/Dust (QTY)
- Quan. (s/area) Vacuum D5755-95 (QTY)
- Quan. (s/area) Dust D6480-99 (QTY)

TEM Water

- Qual. (pres/abs) (QTY)
- ELAP 198.2/EPA 100.2 (QTY)
- EPA 100.1 (QTY)

All samples received in good condition unless otherwise noted. (TEM Water samples °C)

Metals Analysis

- Pb Paint Chip (QTY)
- Pb Dust Wipe (wipe type) (QTY)
- Pb Air (QTY)
- Pb Soil/Solid (QTY)
- Pb TCLP (QTY)
- Drinking Water Pb (QTY) Cu (QTY) As (QTY)
- Waste Water Pb (QTY) Cu (QTY) As (QTY)
- Pb Furnace (Media) (QTY)

Fungal Analysis

- Collection Apparatus for Spore Traps/Air Samples:
- Collection Media
- Spore-Trap (QTY) Surface Vacuum Dust (QTY)
- Surface Swab (QTY) Culturable ID Genus (Media) (QTY)
- Surface Tape (QTY) Culturable ID Species (Media) (QTY)
- Other (Specify) (QTY)

MISC

- Vermiculite
- Asbestos Soil PLM (Qual) PLM (Quan) PLM/TEM (Qual) PLM/TEM (Quan)

Table with columns: CLIENT ID NUMBER, SAMPLE INFORMATION (LOCATION, DATE), VOLUME (LITERS), WIPE AREA, ANALYSIS (TEM, PCM, PLM, LEAD, MOLD, AIR, BULK, DUST, MATRIX), CLIENT CONTACT (LABORATORY STAFF ONLY). Rows contain sample IDs like BP190510-197 to -209 and descriptions like 'cream on black', 'cream on white', 'cream on tan', 'Greenhouse floor', 'cream on tan', 'cream on white', 'cream on tan', 'cream on black', 'Gray Duct/Mastic'.

LABORATORY STAFF ONLY: (CUSTODY)

- 1. Date/Time RCVD: 5/13/19 0930 Via: FedEx By (Print): [Signature] Sign: [Signature]
2. Date/Time Analyzed: / / @ By (Print): Sign:
3. Results Reported To: Via: Date: / / Time: Initials:
4. Comments:

**APPENDIX C**

**IDENTIFIED AND ASSUMED ASBESTOS-CONTAINING MATERIALS  
ESTIMATED QUANTITIES**



**Identified and Assumed Asbestos-Containing Materials  
Estimated Quantities**

**Montgomery College – Takoma Park  
Science South Building  
7600 Takoma Avenue  
Takoma Park, Maryland**

**April 10 and 11, 2019**

<b>Material Code</b>	<b>Material Description</b>	<b>Friable (Yes/No)</b>	<b>Material Location</b>	<b>Sample Numbers</b>	<b>ACM (Yes/No)</b>	<b>Approx. Quantity*</b>
PM1	Brown/green pin mastic holding grounding wire	No	Mechanical Room 122; Corridor 2C1	09, 10	30% Chrysotile	10 sf
CK2	Interior window caulk	No	Metal windows throughout	13, 144	2% Chrysotile	90 Windows
FM1	Brown mastic on FT1	No	Corridor 1C1; Janitor's Closet 120C; Office 125	97, 99	4% Chrysotile	1,205 sf
FM2	Orange mastic on FT2	No	Corridor 2C1 and 3C1; Classroom 227	21, 76	3% Chrysotile	2,812 sf
FM3	Black mastic on FT3	No	Classrooms 320, 321	18, 51	2% Chrysotile	1,282 sf
CK3	Gray caulk at Bridge to Science North Building	No	Classroom 320; Office 329	24, 192	2% Chrysotile	30 lf
SM5	Black seam mastic on foil fiberglass insulated duct	No	Corridor 3C1; Offices 322 to 324	28, 59	5% Chrysotile	123 lf
FT4	12" x 12" tan floor tile with gray streaks	No	Office 325	29, 189	2% Chrysotile	295 sf
FM4	Black mastic on FT4	No	Office 325	30, 190	2% to 4% Chrysotile	295 sf
FM5	Light brown mastic on FT5	No	Kitchen 325A	33, 46	5% Chrysotile	140 sf
WG3	White, 1" exterior glazing compound	Yes	Metal windows throughout	52, 80	2% Chrysotile	90 Windows
CM2	Brown carpet mastic	No	Office 120A/B; Classroom 326; Offices 322 to 324	47, 57	5% Chrysotile	1,501 sf
FT6	9" x 9" dark green floor tile with tan/white streaks	No	Janitor's Closet 324A, 005	53, 55	4% Chrysotile	28 sf
FM6	Black mastic on FT6	No	Janitor's Closet 324A, 005	54, 56	5% Chrysotile	28 sf
FM7	Black mastic on FT7	No	Stair 1, Stair 2	84, 86	4% Chrysotile	385 sf
CK4	Gray/brown caulk between window/door and brick wall	No	Stair 2, 1C2 Entry Door	62, 77	3% Chrysotile	100 lf
GT1	Black ceramic cove base grout	No	Restrooms (except basement)	64, 130	2% Chrysotile	285 lf



**Identified and Assumed Asbestos-Containing Materials  
Estimated Quantities**

**Montgomery College – Takoma Park  
Science South Building  
7600 Takoma Avenue  
Takoma Park, Maryland**

**April 10 and 11, 2019**

<b>Material Code</b>	<b>Material Description</b>	<b>Friable (Yes/No)</b>	<b>Material Location</b>	<b>Sample Numbers</b>	<b>ACM (Yes/No)</b>	<b>Approx. Quantity*</b>
FT8	12" x 12" tan floor tile with cream mottle and brick red streaks	No	Corridor and Offices 119A/B; Classroom 124; Classroom 220; Offices 221 to 223; Telecom 225A; Headhouse 224	67, 69	2% Chrysotile	3,317 sf
FM8	Black mastic on FT8	No	Corridor and Offices 119A/B; Classroom 124; Classroom 220; Offices 221 to 223; Telecom 225A; Headhouse 224	68, 70	5% Chrysotile	3,317 sf
CK6	Gray caulk	No	Greenhouse windows	92, 93	3% Chrysotile	1,800 lf
WG2	White glazing compound	No	Operable lower metal windows	114, 115	2% Chrysotile	90 Windows
FT10	12" x 12" light gray floor tile with faint maroon streaks	No	Office 120A/B, 123, 126, 127; Classroom 120	100, 102	3% Chrysotile	1,584 sf
FM10	Black mastic on FT10	No	Office 120A/B, 123, 126, 127; Classroom 120	101, 103	2% Chrysotile	1,584 sf
PM3	Dark brown pin mastic on fiberglass batt insulation	No	Corridor 1C1 and 2C1 at Stair 2	104, 105	20% Chrysotile	200 sf
FM11	Black mastic on FT11	No	Supply Room 121	107, 109	2% Chrysotile	83 sf
CK7	Exterior window caulk	No	Metal window walls	116, 117	3% Chrysotile	90 Windows
WP1	Brown corrugated cementitious wall panel	No	Exterior of Science North Building at bridge	118, 119	10% Chrysotile	100 sf
CM3	Gray (old) carpet mastic	No	Control Room 132 Planetarium 130	139, 140	2% Chrysotile	560 sf
FT16	12" x 12" tan floor tile, bottom layer	No	Facilities Lounge 003 (bottom layer)	165, 166	2% Chrysotile	442 sf
GK1	Pipe gaskets	No	Mechanical Rooms 122 and 131	Not Accessible	Assumed ACM	50 ea
FD1	Fire doors	No	All UL Listed Doors	Not Sampled	Assumed ACM	All UL Listed Doors



**Identified and Assumed Asbestos-Containing Materials  
Estimated Quantities**

**Montgomery College – Takoma Park  
Science South Building  
7600 Takoma Avenue  
Takoma Park, Maryland**

**April 10 and 11, 2019**

<b>Material Code</b>	<b>Material Description</b>	<b>Friable (Yes/No)</b>	<b>Material Location</b>	<b>Sample Numbers</b>	<b>ACM (Yes/No)</b>	<b>Approx. Quantity*</b>
AD4	Adhesive behind whiteboard	No	Throughout classrooms	Sampled by client	Yes	ND
SM7	Cream seam mastic on white, black, and tan paper foil wrapped pipes	No	Throughout (except Mechanical Room 122)	(white 74, 198, 201, 205)	2% to 5% Chrysotile	1,690 lf
				(black 197, 199, 207)		
				(tan 200, 204, 206)		

ACM = Asbestos-Containing Material

sf = square feet

lf = linear feet

ea = each

ND = not determined

**Bold** = Identified as ACM.

\* Note: The quantity estimates provided are for information purposes only.



**APPENDIX C**

**IDENTIFIED AND ASSUMED ASBESTOS-CONTAINING MATERIALS  
ESTIMATED QUANTITIES**



Identified and Assumed Asbestos-Containing Materials  
Estimated Quantities

Montgomery College – Takoma Park  
Science South Building  
7600 Takoma Avenue  
Takoma Park, Maryland

April 10 and 11, 2019

Material Code	Material Description	Friable (Yes/No)	Material Location	Sample Numbers	ACM (Yes/No)	Approx. Quantity*
PM1	Brown/green pin mastic holding grounding wire	No	Mechanical Room 122; Corridor 2C1	09, 10	30% Chrysotile	10 sf
CK2	Interior window caulk	No	Metal windows throughout	13, 144	2% Chrysotile	90 Windows
FM1	Brown mastic on FT1	No	Corridor 1C1; Janitor's Closet 120C; Office 125	97, 99	4% Chrysotile	1,205 sf
FM2	Orange mastic on FT2	No	Corridor 2C1 and 3C1; Classroom 227	21, 76	3% Chrysotile	2,812 sf
FM3	Black mastic on FT3	No	Classrooms 320, 321	18, 51	2% Chrysotile	1,282 sf
CK3	Gray caulk at Bridge to Science North Building	No	Classroom 320; Office 329	24, 192	2% Chrysotile	30 lf
SM5	Black seam mastic on foil fiberglass insulated duct	No	Corridor 3C1; Offices 322 to 324	28, 59	5% Chrysotile	123 lf
FT4	12" x 12" tan floor tile with gray streaks	No	Office 325	29, 189	2% Chrysotile	295 sf
FM4	Black mastic on FT4	No	Office 325	30, 190	2% to 4% Chrysotile	295 sf
FM5	Light brown mastic on FT5	No	Kitchen 325A	33, 46	5% Chrysotile	140 sf
WG3	White, 1" exterior glazing compound	Yes	Metal windows throughout	52, 80	2% Chrysotile	90 Windows
CM2	Brown carpet mastic	No	Office 120A/B; Classroom 326; Offices 322 to 324	47, 57	5% Chrysotile	1,501 sf
FT6	9" x 9" dark green floor tile with tan/white streaks	No	Janitor's Closet 324A, 005	53, 55	4% Chrysotile	28 sf
FM6	Black mastic on FT6	No	Janitor's Closet 324A, 005	54, 56	5% Chrysotile	28 sf
FM7	Black mastic on FT7	No	Stair 1, Stair 2	84, 86	4% Chrysotile	385 sf
CK4	Gray/brown caulk between window/door and brick wall	No	Stair 2, 1C2 Entry Door	62, 77	3% Chrysotile	100 lf
GT1	Black ceramic cove base grout	No	Restrooms (except basement)	64, 130	2% Chrysotile	285 lf



Identified and Assumed Asbestos-Containing Materials  
Estimated Quantities

Montgomery College – Takoma Park  
Science South Building  
7600 Takoma Avenue  
Takoma Park, Maryland

April 10 and 11, 2019

Material Code	Material Description	Friable (Yes/No)	Material Location	Sample Numbers	ACM (Yes/No)	Approx. Quantity*
FT8	12" x 12" tan floor tile with cream mottle and brick red streaks	No	Corridor and Offices 119A/B; Classroom 124; Classroom 220; Offices 221 to 223; Telecom 225A; Headhouse 224	67, 69	2% Chrysotile	3,317 sf
FM8	Black mastic on FT8	No	Corridor and Offices 119A/B; Classroom 124; Classroom 220; Offices 221 to 223; Telecom 225A; Headhouse 224	68, 70	5% Chrysotile	3,317 sf
CK6	Gray caulk	No	Greenhouse windows	92, 93	3% Chrysotile	1,800 lf
WG2	White glazing compound	No	Operable lower metal windows	114, 115	2% Chrysotile	90 Windows
FT10	12" x 12" light gray floor tile with faint maroon streaks	No	Office 120A/B, 123, 126, 127; Classroom 120	100, 102	3% Chrysotile	1,584 sf
FM10	Black mastic on FT10	No	Office 120A/B, 123, 126, 127; Classroom 120	101, 103	2% Chrysotile	1,584 sf
PM3	Dark brown pin mastic on fiberglass batt insulation	No	Corridor 1C1 and 2C1 at Stair 2	104, 105	20% Chrysotile	200 sf
FM11	Black mastic on FT11	No	Supply Room 121	107, 109	2% Chrysotile	83 sf
CK7	Exterior window caulk	No	Metal window walls	116, 117	3% Chrysotile	90 Windows
WP1	Brown corrugated cementitious wall panel	No	Exterior of Science North Building at bridge	118, 119	10% Chrysotile	100 sf
CM3	Gray (old) carpet mastic	No	Control Room 132 Planetarium 130	139, 140	2% Chrysotile	560 sf
FT16	12" x 12" tan floor tile, bottom layer	No	Facilities Lounge 003 (bottom layer)	165, 166	2% Chrysotile	442 sf
GK1	Pipe gaskets	No	Mechanical Rooms 122 and 131	Not Accessible	Assumed ACM	50 ea
FD1	Fire doors	No	All UL Listed Doors	Not Sampled	Assumed ACM	All UL Listed Doors



Identified and Assumed Asbestos-Containing Materials  
Estimated Quantities

Montgomery College – Takoma Park  
Science South Building  
7600 Takoma Avenue  
Takoma Park, Maryland

April 10 and 11, 2019

Material Code	Material Description	Friable (Yes/No)	Material Location	Sample Numbers	ACM (Yes/No)	Approx. Quantity*
AD4	Adhesive behind whiteboard	No	Throughout classrooms	Sampled by client	Yes	ND
SM7	Cream seam mastic on white, black, and tan paper foil wrapped pipes	No	Throughout (except Mechanical Room 122)	(white 74, 198, 201, 205)	2% to 5% Chrysotile	1,690 lf
				(black 197, 199, 207)		
				(tan 200, 204, 206)		

ACM = Asbestos-Containing Material

sf = square feet

lf = linear feet

ea = each

ND = not determined

**Bold** = Identified as ACM.

\* Note: The quantity estimates provided are for information purposes only.

**APPENDIX D**

**LEAD-CONTAINING SURFACE COATINGS**

Lead-Containing Surface Coatings

Index	Time	Site	Floor	Room	Component	Substrate	Color	Condition	PbC	Units
10	2019-04-18 15:21	SCIENCE SOUTH	FIRST	111	URINAL	PORCELAIN	WHITE	INTACT	3.00 ± 0.20	mg / cm ^2
13	2019-04-18 15:28	SCIENCE SOUTH	FIRST	111	BASEBOARD	CERAMIC	BLACK	INTACT	2.20 ± 0.60	mg / cm ^2
16	2019-04-18 15:34	SCIENCE SOUTH	FIRST	111	STALL	METAL	GRAY	INTACT	0.07 ± 0.03	mg / cm ^2
25	2019-04-18 15:56	SCIENCE SOUTH	FIRST	123A	WALL	CONCRETE	YELLOW	INTACT	0.50 ± 0.30	mg / cm ^2
28	2019-04-18 15:59	SCIENCE SOUTH	FIRST	123A	WALL	CONCRETE	YELLOW	INTACT	0.80 ± 0.30	mg / cm ^2
34	2019-04-18 16:14	SCIENCE SOUTH	FIRST	119C	DOOR	METAL	BROWN	FAIR	0.14 ± 0.03	mg / cm ^2
38	2019-04-18 16:27	SCIENCE SOUTH	SECOND	222	DOOR FRAME	METAL	GRAY	INTACT	0.12 ± 0.02	mg / cm ^2
40	2019-04-18 16:32	SCIENCE SOUTH	SECOND	BRIDGE	WALL	CONCRETE	WHITE	INTACT	1.20 ± 0.50	mg / cm ^2
42	2019-04-18 16:35	SCIENCE SOUTH	SECOND	BRIDGE	WALL	CONCRETE	WHITE	INTACT	0.60 ± 0.30	mg / cm ^2
50	2019-04-18 17:07	SCIENCE SOUTH	BASEMENT	006	WALL	CONCRETE	BEIGE	INTACT	0.60 ± 0.30	mg / cm ^2
59	2019-04-18 17:48	SCIENCE SOUTH	THIRD	330	STALL	METAL	GRAY	INTACT	0.08 ± 0.02	mg / cm ^2
61	2019-04-18 17:50	SCIENCE SOUTH	THIRD	330	URINAL	PORCELAIN	WHITE	INTACT	3.70 ± 0.20	mg / cm ^2
64	2019-04-18 17:54	SCIENCE SOUTH	THIRD	330	BASEBOARD	CERAMIC	BLACK	INTACT	2.40 ± 0.60	mg / cm ^2
66	2019-04-18 18:04	SCIENCE SOUTH	THIRD	BRIDGE	CAP	METAL	BROWN	POOR	7.00 ± 0.80	mg / cm ^2
67	2019-04-18 18:05	SCIENCE SOUTH	THIRD	BRIDGE	CAP	METAL	BROWN	POOR	2.30 ± 0.20	mg / cm ^2
69	2019-04-18 18:13	SCIENCE SOUTH	THIRD	323	DOOR FRAME	METAL	GRAY	INTACT	0.19 ± 0.03	mg / cm ^2
70	2019-04-18 18:14	SCIENCE SOUTH	THIRD	323	WALL	CONCRETE	WHITE	INTACT	0.90 ± 0.30	mg / cm ^2
72	2019-04-18 18:17	SCIENCE SOUTH	SECOND	2C1	WALL	CONCRETE	WHITE	INTACT	0.10 ± 0.03	mg / cm ^2

APPENDIX E  
XRF TEST DATA

XRF Test Data

Index	Time	Site	Floor	Room	Component	Substrate	Color	Condition	PbC	Units
1	2019-04-18 15:07	SCIENCE SOUTH			CALIBRATION				1.00 ± 0.10	mg / cm ^2
2	2019-04-18 15:07	SCIENCE SOUTH			CALIBRATION				1.00 ± 0.10	mg / cm ^2
3	2019-04-18 15:08	SCIENCE SOUTH			CALIBRATION				1.10 ± 0.10	mg / cm ^2
4	2019-04-18 15:13	SCIENCE SOUTH	FIRST	120A	WALL	DRYWALL	CREAM	INTACT	0.00 ± 0.02	mg / cm ^2
5	2019-04-18 15:14	SCIENCE SOUTH	FIRST	120B	WALL	DRYWALL	CREAM	INTACT	0.00 ± 0.02	mg / cm ^2
6	2019-04-18 15:15	SCIENCE SOUTH	FIRST	120B	WALL	DRYWALL	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
7	2019-04-18 15:16	SCIENCE SOUTH	FIRST	120B	DOOR FRAME	METAL	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
8	2019-04-18 15:18	SCIENCE SOUTH	FIRST	1C1 @ 120C	WALL	CONCRETE	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
9	2019-04-18 15:20	SCIENCE SOUTH	FIRST	111	SINK	PORCELAIN	WHITE	INTACT	0.02 ± 0.02	mg / cm ^2
10	2019-04-18 15:21	SCIENCE SOUTH	FIRST	111	URINAL	PORCELAIN	WHITE	INTACT	3.00 ± 0.20	mg / cm ^2
11	2019-04-18 15:24	SCIENCE SOUTH	FIRST	111	FLOOR	CERAMIC	BLUE	INTACT	0.02 ± 0.02	mg / cm ^2
12	2019-04-18 15:26	SCIENCE SOUTH	FIRST	111	FLOOR	CERAMIC	GREEN	INTACT	0.01 ± 0.02	mg / cm ^2
13	2019-04-18 15:28	SCIENCE SOUTH	FIRST	111	BASEBOARD	CERAMIC	BLACK	INTACT	2.20 ± 0.60	mg / cm ^2
14	2019-04-18 15:29	SCIENCE SOUTH	FIRST	111	CEILING	PLASTER	WHITE	INTACT	0.01 ± 0.02	mg / cm ^2
15	2019-04-18 15:31	SCIENCE SOUTH	FIRST	111	CEILING	PLASTER	WHITE	INTACT	0.02 ± 0.02	mg / cm ^2
16	2019-04-18 15:34	SCIENCE SOUTH	FIRST	111	STALL	METAL	GRAY	INTACT	0.07 ± 0.03	mg / cm ^2
17	2019-04-18 15:37	SCIENCE SOUTH	FIRST	1C1	DOOR	METAL	GRAY	INTACT	0.00 ± 0.02	mg / cm ^2
18	2019-04-18 15:39	SCIENCE SOUTH	FIRST	1C1	DOOR FRAME	METAL	GRAY	INTACT	0.00 ± 0.02	mg / cm ^2
19	2019-04-18 15:42	SCIENCE SOUTH	FIRST	STAIR 1	TREAD	CONCRETE	GRAY	FAIR	0.00 ± 0.02	mg / cm ^2
20	2019-04-18 15:44	SCIENCE SOUTH	FIRST	STAIR 1	TREAD	CONCRETE	GRAY	FAIR	0.00 ± 0.02	mg / cm ^2
21	2019-04-18 15:46	SCIENCE SOUTH	FIRST	124	WALL	CONCRETE	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
22	2019-04-18 15:47	SCIENCE SOUTH	FIRST	124	COLUMN	CONCRETE	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
23	2019-04-18 15:48	SCIENCE SOUTH	FIRST	124	PIPE	METAL	WHITE	INTACT	0.06 ± 0.02	mg / cm ^2
24	2019-04-18 15:53	SCIENCE SOUTH	FIRST	124	WALL	WOOD	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
25	2019-04-18 15:56	SCIENCE SOUTH	FIRST	123A	WALL	CONCRETE	YELLOW	INTACT	0.50 ± 0.30	mg / cm ^2
26	2019-04-18 15:58	SCIENCE SOUTH	FIRST	123A	WALL	CONCRETE	YELLOW	INTACT	0.00 ± 0.02	mg / cm ^2
27	2019-04-18 15:58	SCIENCE SOUTH	FIRST	123A	WALL	CONCRETE	YELLOW	INTACT	0.00 ± 0.02	mg / cm ^2
28	2019-04-18 15:59	SCIENCE SOUTH	FIRST	123A	WALL	CONCRETE	YELLOW	INTACT	0.80 ± 0.30	mg / cm ^2
29	2019-04-18 16:02	SCIENCE SOUTH	FIRST	119	WALL	CONCRETE	BEIGE	INTACT	0.01 ± 0.02	mg / cm ^2
30	2019-04-18 16:04	SCIENCE SOUTH	FIRST	119	WALL	WOOD	GRAY	INTACT	0.00 ± 0.02	mg / cm ^2
31	2019-04-18 16:06	SCIENCE SOUTH	FIRST	119	FLOOR	CONCRETE	GRAY	FAIR	0.00 ± 0.02	mg / cm ^2
32	2019-04-18 16:08	SCIENCE SOUTH	FIRST	119	DOOR FRAME	METAL	BROWN	FAIR	0.01 ± 0.02	mg / cm ^2
33	2019-04-18 16:10	SCIENCE SOUTH	FIRST	119A	WALL	CONCRETE	BEIGE	INTACT	0.00 ± 0.02	mg / cm ^2
34	2019-04-18 16:14	SCIENCE SOUTH	FIRST	119C	DOOR	METAL	BROWN	FAIR	0.14 ± 0.03	mg / cm ^2



XRF Test Data

Index	Time	Site	Floor	Room	Component	Substrate	Color	Condition	PbC	Units
35	2019-04-18 16:16	SCIENCE SOUTH	FIRST	119C	DOOR FRAME	METAL	BROWN	FAIR	0.07 ± 0.02	mg / cm ^2
36	2019-04-18 16:17	SCIENCE SOUTH	FIRST	119C	WINDOW	METAL	BROWN	FAIR	0.01 ± 0.02	mg / cm ^2
37	2019-04-18 16:25	SCIENCE SOUTH	SECOND	222	WALL	CONCRETE	WHITE	INTACT	0.01 ± 0.02	mg / cm ^2
38	2019-04-18 16:27	SCIENCE SOUTH	SECOND	222	DOOR FRAME	METAL	GRAY	INTACT	0.12 ± 0.02	mg / cm ^2
39	2019-04-18 16:28	SCIENCE SOUTH	SECOND	220	DOOR FRAME	METAL	GRAY	INTACT	0.03 ± 0.02	mg / cm ^2
40	2019-04-18 16:32	SCIENCE SOUTH	SECOND	BRIDGE	WALL	CONCRETE	WHITE	INTACT	1.20 ± 0.50	mg / cm ^2
41	2019-04-18 16:33	SCIENCE SOUTH	SECOND	BRIDGE	WALL	CONCRETE	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
42	2019-04-18 16:35	SCIENCE SOUTH	SECOND	BRIDGE	WALL	CONCRETE	WHITE	INTACT	0.60 ± 0.30	mg / cm ^2
43	2019-04-18 16:45	SCIENCE SOUTH			VOID				0.60 ± 0.30	mg / cm ^2
44	2019-04-18 16:47	SCIENCE SOUTH	SECOND	220	WALL	CONCRETE	WHITE	INTACT	0.03 ± 0.02	mg / cm ^2
45	2019-04-18 16:56	SCIENCE SOUTH	BASEMENT	005A	WALL	CONCRETE	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
46	2019-04-18 16:58	SCIENCE SOUTH	BASEMENT	005A	FLOOR	CONCRETE	GRAY	INTACT	0.00 ± 0.02	mg / cm ^2
47	2019-04-18 17:00	SCIENCE SOUTH	BASEMENT	006	WALL	DRYWALL	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
48	2019-04-18 17:02	SCIENCE SOUTH	BASEMENT	006	DOOR FRAME	METAL	GRAY	INTACT	0.03 ± 0.02	mg / cm ^2
49	2019-04-18 17:03	SCIENCE SOUTH	BASEMENT	006	DOOR	METAL	GRAY	INTACT	0.04 ± 0.02	mg / cm ^2
50	2019-04-18 17:07	SCIENCE SOUTH	BASEMENT	006	WALL	CONCRETE	BEIGE	INTACT	0.60 ± 0.30	mg / cm ^2
51	2019-04-18 17:12	SCIENCE SOUTH	BASEMENT	003	FLOOR	CERAMIC	BEIGE	INTACT	0.00 ± 0.02	mg / cm ^2
52	2019-04-18 17:13	SCIENCE SOUTH	BASEMENT	001	FLOOR	CERAMIC	BEIGE	INTACT	0.00 ± 0.02	mg / cm ^2
53	2019-04-18 17:16	SCIENCE SOUTH	BASEMENT	003	BEAM	METAL	WHITE	INTACT	0.04 ± 0.02	mg / cm ^2
54	2019-04-18 17:16	SCIENCE SOUTH	BASEMENT	003	BEAM	METAL	WHITE	INTACT	0.02 ± 0.03	mg / cm ^2
55	2019-04-18 17:16	SCIENCE SOUTH	BASEMENT	003	BEAM	METAL	WHITE	INTACT	0.03 ± 0.02	mg / cm ^2
56	2019-04-18 17:33	SCIENCE SOUTH	BASEMENT	001	SINK	PORCELAIN	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
57	2019-04-18 17:34	SCIENCE SOUTH	BASEMENT	001	URINAL	PORCELAIN	WHITE	INTACT	0.01 ± 0.02	mg / cm ^2
58	2019-04-18 17:35	SCIENCE SOUTH	BASEMENT	001	STALL	METAL	GRAY	INTACT	0.00 ± 0.02	mg / cm ^2
59	2019-04-18 17:48	SCIENCE SOUTH	THIRD	330	STALL	METAL	GRAY	INTACT	0.08 ± 0.02	mg / cm ^2
60	2019-04-18 17:49	SCIENCE SOUTH	THIRD	330	SINK	PORCELAIN	WHITE	INTACT	0.02 ± 0.02	mg / cm ^2
61	2019-04-18 17:50	SCIENCE SOUTH	THIRD	330	URINAL	PORCELAIN	WHITE	INTACT	3.70 ± 0.20	mg / cm ^2
62	2019-04-18 17:52	SCIENCE SOUTH	THIRD	330	FLOOR	CERAMIC	BLUE	INTACT	0.02 ± 0.02	mg / cm ^2
63	2019-04-18 17:53	SCIENCE SOUTH	THIRD	330	FLOOR	CERAMIC	GREEN	INTACT	0.01 ± 0.02	mg / cm ^2
64	2019-04-18 17:54	SCIENCE SOUTH	THIRD	330	BASEBOARD	CERAMIC	BLACK	INTACT	2.40 ± 0.60	mg / cm ^2
65	2019-04-18 18:01	SCIENCE SOUTH	THIRD	3C1	WALL	CONCRETE	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
66	2019-04-18 18:04	SCIENCE SOUTH	THIRD	BRIDGE	CAP	METAL	BROWN	POOR	7.00 ± 0.80	mg / cm ^2
67	2019-04-18 18:05	SCIENCE SOUTH	THIRD	BRIDGE	CAP	METAL	BROWN	POOR	2.30 ± 0.20	mg / cm ^2
68	2019-04-18 18:10	SCIENCE SOUTH	THIRD	325A	DOOR FRAME	METAL	GRAY	INTACT	0.07 ± 0.02	mg / cm ^2

XRF Test Data

Index	Time	Site	Floor	Room	Component	Substrate	Color	Condition	PbC	Units
69	2019-04-18 18:13	SCIENCE SOUTH	THIRD	323	DOOR FRAME	METAL	GRAY	INTACT	0.19 ± 0.03	mg / cm ^2
70	2019-04-18 18:14	SCIENCE SOUTH	THIRD	323	WALL	CONCRETE	WHITE	INTACT	0.90 ± 0.30	mg / cm ^2
71	2019-04-18 18:16	SCIENCE SOUTH	SECOND	2C1	WALL	CONCRETE	WHITE	INTACT	0.00 ± 0.02	mg / cm ^2
72	2019-04-18 18:17	SCIENCE SOUTH	SECOND	2C1	WALL	CONCRETE	WHITE	INTACT	0.10 ± 0.03	mg / cm ^2
73	2019-04-18 18:19	SCIENCE SOUTH	SECOND	226	DOOR FRAME	METAL	GRAY	INTACT	0.04 ± 0.02	mg / cm ^2
74	2019-04-18 18:21	SCIENCE SOUTH			CALIBRATION				1.00 ± 0.10	mg / cm ^2
75	2019-04-18 18:22	SCIENCE SOUTH			CALIBRATION				1.10 ± 0.10	mg / cm ^2
76	2019-04-18 18:23	SCIENCE SOUTH			CALIBRATION				1.10 ± 0.10	mg / cm ^2

APPENDIX F

DRAWINGS

ASBESTOS-CONTAINING MATERIALS LEGEND		
MAT. CODE	MATERIAL SYMBOL	MATERIAL DESCRIPTION
FM1		BROWN MASTIC ASSOCIATED WITH 12" X 12" CREAM WITH OLIVE GREEN FLECKS AND STREAKS FLOOR TILE (FT1)
FM2		ORANGE MASTIC ASSOCIATED WITH 12" X 12" OFF-WHITE WITH GARY AND DARK GRAY FLECKS FLOOR TILE (FT2)
FM3		BLACK MASTIC ASSOCIATED WITH 12" X 12" GREEN WITH TEXTURED MARBLE PATTERN FLOOR TILE (FT3)
FT4 FM4		12" X 12" TAN WITH GRAY STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM5		LIGHT BROWN MASTIC ASSOCIATED WITH 12" X 12" TAN WITH SMALL BLACK DOTS FLOOR TILE (FT5)
CM2		BROWN CARPET MASTIC
FT6 FM6		9" X 9" DARK GREEN WITH TAN AND WHITE STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM7		BLACK MASTIC ASSOCIATED WITH 12" X 12" BEIGE WITH TAN AND GRAY SHORT FLECKS FLOOR TILE (FT7)
FT8 FM8		12" X 12" TAN WITH CREAM MOTTLE AND BRICK RED STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FT10 FM10		12" X 12" LIGHT GRAY WITH FAINT MAROON STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM11		BLACK MASTIC ASSOCIATED WITH 12" X 12" GRAY WITH DARK GRAY AND WHITE FLECKS FLOOR TILE (FT11)
CM3		GRAY (OLD) CARPET MASTIC
FT16 FM16		12" X 12" TAN FLOOR TILE AND ASSOCIATED BLACK MASTIC (BOTTOM LAYER)
SM7		CREAM SEAM MASTIC ON WHITE, BLACK, AND TAN PAPER FOIL WRAPPED FIBERGLASS INSULATED PIPES
PM1		BROWN GREEN PIN MASTIC HOLDING GROUNDING WIRE
CK2		INTERIOR WINDOW CAULK
CK3		GRAY CAULK AT BRIDGE CONNECTING TO SCIENCE NORTH BUILDING
SM5		BLACK SEAM MASTIC ON FOIL FIBERGLASS INSULATED DUCT
WG3		WHITE 1" EXTERIOR WINDOW GLAZING
CK4		GRAY BROWN CAULK BETWEEN WINDOW DOOR WALL & BRICK
GT1		BLACK CERAMIC COVE BASE GROUT
CK6		GRAY CAULK ON GREENHOUSE WINDOWS
WG2		INTERIOR WINDOW GLAZING
PM3		DARK BROWN PIN MASTIC ON FIBERGLASS BATT INSULATION
CK7		EXTERIOR WINDOW CAULK
WP1		BROWN CORRUGATED CEMENTITIOUS EXTERIOR WALL PANEL

ASSUMED ASBESTOS-CONTAINING MATERIALS LEGEND		
MAT. CODE	MATERIAL SYMBOL	MATERIAL DESCRIPTION
GK1		OFF-WHITE AND BLACK PIPE GASKETS
AD1		ADHESIVE BEHIND WHITEBOARD
FD1		FIRE DOOR

SAMPLE LEGEND	
	SAMPLE NUMBER (NEGATIVE)
	SAMPLE NUMBER (POSITIVE)
	SAMPLE NOT ANALYZED (POSITIVE STOP)

**NOTES:**

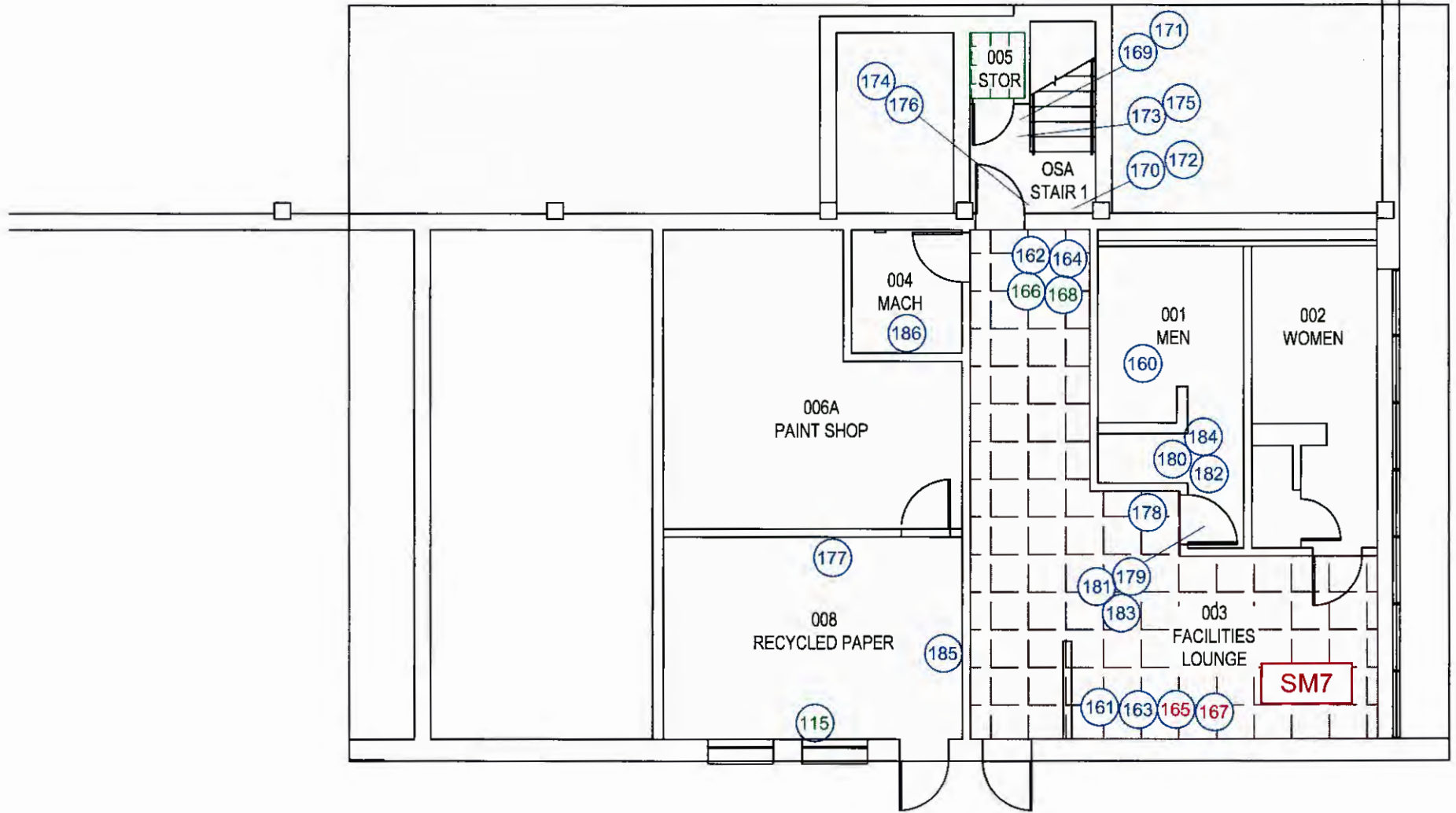
• ALL FIRE DOORS WHERE PRESENT, ARE ASSUMED TO BE ASBESTOS-CONTAINING AND WERE NOT SAMPLED. ALL RATED FIRE DOORS THROUGHOUT THE BUILDING SHOULD BE TREATED AS ASBESTOS-CONTAINING UNTIL SAMPLING DETERMINES OTHERWISE.

THE ASBESTOS-CONTAINING CREAM SEAM MASTIC ON WHITE, BLACK, AND TAN PAPER FOIL WRAPPED FIBERGLASS INSULATED PIPES WERE OBSERVED THROUGHOUT THE BUILDING.

THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW CAULKS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING.

THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW GLAZINGS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING.

ADHESIVE BEHIND WHITEBOARD WAS SAMPLED BY THE CLIENT AND IDENTIFIED AS ASBESTOS-CONTAINING MATERIAL. THIS MATERIAL WAS OBSERVED THROUGHOUT THE CLASSROOMS.



200 FAIRBROOK DRIVE, SUITE 201, HERNDON, VA 20170

FIGURE 1  
ASBESTOS SURVEY



TAKOMA PARK/SILVER SPRING  
CAMPUS

SCIENCE SOUTH  
BASEMENT

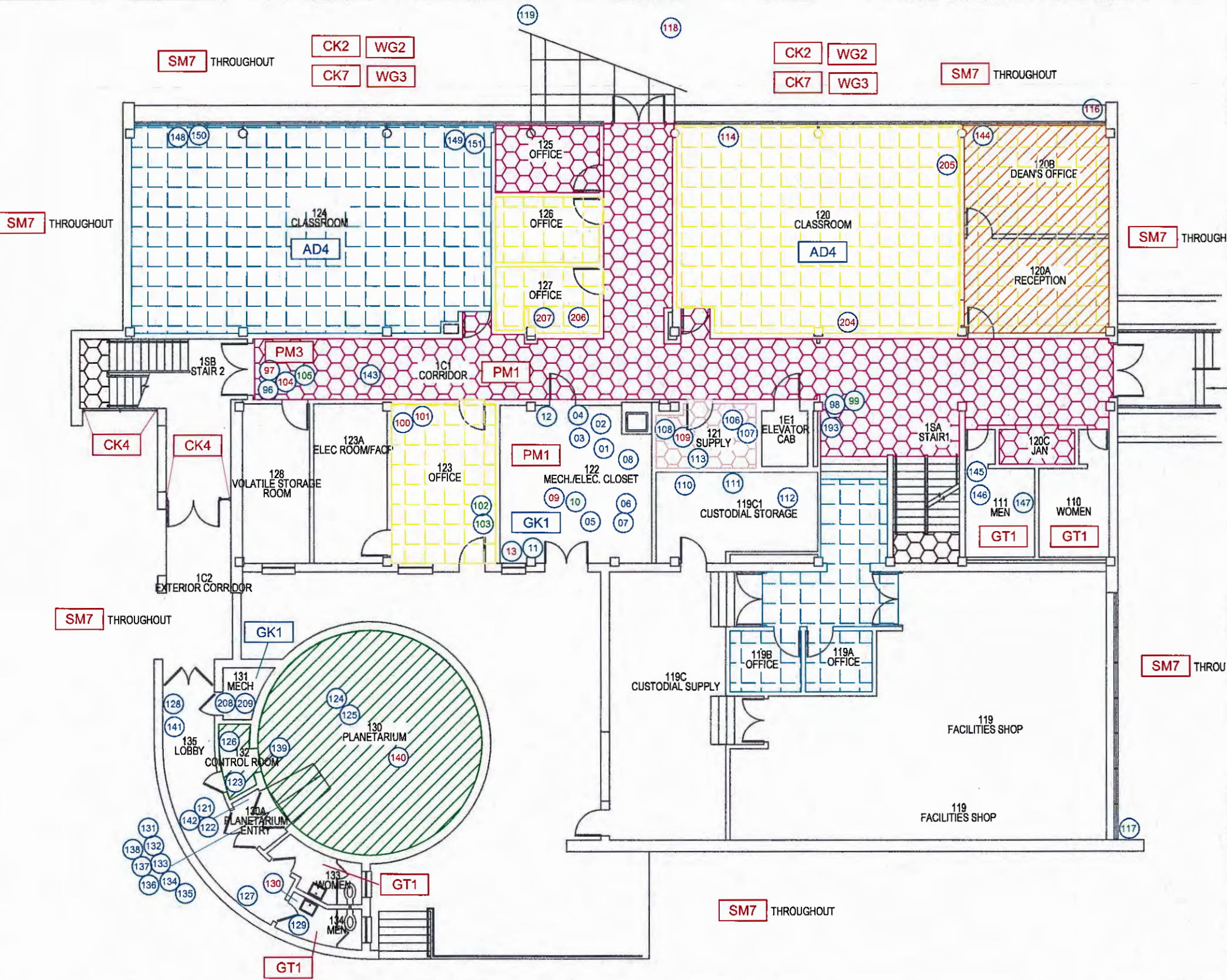
SURVEY DATE APRIL 17 & 18, 2019		PROJECT NO. 046-19-0095	
SHEET 1 OF 4	DRAWN BY OAS	DATE 05-24-2019	

ASBESTOS-CONTAINING MATERIALS LEGEND		
MAT. CODE	MATERIAL SYMBOL	MATERIAL DESCRIPTION
FM1		BROWN MASTIC ASSOCIATED WITH 12" X 12" CREAM WITH OLIVE GREEN FLECKS AND STREAKS FLOOR TILE (FT1)
FM2		ORANGE MASTIC ASSOCIATED WITH 12" X 12" OFF-WHITE WITH GARY AND DARK GRAY FLECKS FLOOR TILE (FT2)
FM3		BLACK MASTIC ASSOCIATED WITH 12" X 12" GREEN WITH TEXTURED MARBLE PATTERN FLOOR TILE (FT3)
FT4/PM4		12" X 12" TAN WITH GRAY STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM5		LIGHT BROWN MASTIC ASSOCIATED WITH 12" X 12" TAN WITH SMALL BLACK DOTS FLOOR TILE (FT5)
CM2		BROWN CARPET MASTIC
FT6/PM6		9" X 9" DARK GREEN WITH TAN AND WHITE STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM7		BLACK MASTIC ASSOCIATED WITH 12" X 12" BEIGE WITH TAN AND GRAY SHORT FLECKS FLOOR TILE (FT7)
FT8/PM8		12" X 12" TAN WITH CREAM MOTTLE AND BRICK RED STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FT10/PM10		12" X 12" LIGHT GRAY WITH FAINT MAROON STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM11		BLACK MASTIC ASSOCIATED WITH 12" X 12" GRAY WITH DARK GRAY AND WHITE FLECKS FLOOR TILE (FT11)
CM3		GRAY (OLD) CARPET MASTIC
FT16/PM16		12" X 12" TAN FLOOR TILE AND ASSOCIATED BLACK MASTIC (BOTTOM LAYER)
SM7		CREAM SEAM MASTIC ON WHITE, BLACK, AND TAN PAPER FOIL WRAPPED FIBERGLASS INSULATED PIPES
PM1		BROWN GREEN PIN MASTIC HOLDING GROUNDING WIRE
CK2		INTERIOR WINDOW CAULK
CK3		GRAY CAULK AT BRIDGE CONNECTING TO SCIENCE NORTH BUILDING
SM5		BLACK SEAM MASTIC ON FOIL FIBERGLASS INSULATED DUCT
WG3		WHITE 1" EXTERIOR WINDOW GLAZING
CK4		GRAY/BROWN CAULK BETWEEN WINDOW/DOOR WALL & BRICK
GT1		BLACK CERAMIC COVE BASE GROUT
CK6		GRAY CAULK ON GREENHOUSE WINDOWS
WG2		INTERIOR WINDOW GLAZING
PM3		DARK BROWN PIN MASTIC ON FIBERGLASS BATT INSULATION
CK7		EXTERIOR WINDOW CAULK
WP1		BROWN CORRUGATED CEMENTITIOUS EXTERIOR WALL PANEL

ASSUMED ASBESTOS-CONTAINING MATERIALS LEGEND		
MAT. CODE	MATERIAL SYMBOL	MATERIAL DESCRIPTION
GK1		OFF-WHITE AND BLACK PIPE GASKETS
AD1		ADHESIVE BEHIND WHITEBOARD
FD1		FIRE DOOR

**NOTES:**

- ALL FIRE DOORS WHERE PRESENT, ARE ASSUMED TO BE ASBESTOS-CONTAINING AND WERE NOT SAMPLED. ALL RATED FIRE DOORS THROUGHOUT THE BUILDING SHOULD BE TREATED AS ASBESTOS-CONTAINING UNTIL SAMPLING DETERMINES OTHERWISE.
- SM7** THE ASBESTOS-CONTAINING CREAM SEAM MASTIC ON WHITE, BLACK, AND TAN PAPER FOIL WRAPPED FIBERGLASS INSULATED PIPES WERE OBSERVED THROUGHOUT THE BUILDING.
- CK2** THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW CAULKS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING.
- CK7** THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW GLAZINGS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING.
- WG2** THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW GLAZINGS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING.
- WG3** THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW GLAZINGS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING.
- AD4** ADHESIVE BEHIND WHITEBOARD WAS SAMPLED BY THE CLIENT AND IDENTIFIED AS ASBESTOS-CONTAINING MATERIAL. THIS MATERIAL WAS OBSERVED THROUGHOUT THE CLASSROOMS.



ASBESTOS-CONTAINING MATERIALS LEGEND		
MAT. CODE	MATERIAL SYMBOL	MATERIAL DESCRIPTION
FM1		BROWN MASTIC ASSOCIATED WITH 12" X 12" CREAM WITH OLIVE GREEN FLECKS AND STREAKS FLOOR TILE (FT1)
FM2		ORANGE MASTIC ASSOCIATED WITH 12" X 12" OFF-WHITE WITH GARY AND DARK GRAY FLECKS FLOOR TILE (FT2)
FM3		BLACK MASTIC ASSOCIATED WITH 12" X 12" GREEN WITH TEXTURED MARBLE PATTERN FLOOR TILE (FT3)
FT4 FM4		12" X 12" TAN WITH GRAY STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM5		LIGHT BROWN MASTIC ASSOCIATED WITH 12" X 12" TAN WITH SMALL BLACK DOTS FLOOR TILE (FT5)
CM2		BROWN CARPET MASTIC
FT6 FM6		9" X 9" DARK GREEN WITH TAN AND WHITE STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM7		BLACK MASTIC ASSOCIATED WITH 12" X 12" BEIGE WITH TAN AND GRAY SHORT FLECKS FLOOR TILE (FT7)
FT8 FM8		12" X 12" TAN WITH CREAM MOTTLE AND BRICK RED STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FT10 FM10		12" X 12" LIGHT GRAY WITH FAINT MAROON STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM11		BLACK MASTIC ASSOCIATED WITH 12" X 12" GRAY WITH DARK GRAY AND WHITE FLECKS FLOOR TILE (FT11)
CM3		GRAY (OLD) CARPET MASTIC
FT16 FM16		12" X 12" TAN FLOOR TILE AND ASSOCIATED BLACK MASTIC (BOTTOM LAYER)
SM7		CREAM SEAM MASTIC ON WHITE, BLACK, AND TAN PAPER FOIL WRAPPED FIBERGLASS INSULATED PIPES
PM1		BROWN GREEN PIN MASTIC HOLDING GROUNDING WIRE
CK2		INTERIOR WINDOW CAULK
CK3		GRAY CAULK AT BRIDGE CONNECTING TO SCIENCE NORTH BUILDING
SM5		BLACK SEAM MASTIC ON FOIL FIBERGLASS INSULATED DUCT
WG3		WHITE 1" EXTERIOR WINDOW GLAZING
CK4		GRAY BROWN CAULK BETWEEN WINDOW DOOR WALL & BRICK
GT1		BLACK CERAMIC COVE BASE GROUT
CK6		GRAY CAULK ON GREENHOUSE WINDOWS
WG2		INTERIOR WINDOW GLAZING
PM3		DARK BROWN PIN MASTIC ON FIBERGLASS BATT INSULATION
CK7		EXTERIOR WINDOW CAULK
WP1		BROWN CORRUGATED CEMENTITIOUS EXTERIOR WALL PANEL

ASSUMED ASBESTOS-CONTAINING MATERIALS LEGEND		
MAT. CODE	MATERIAL SYMBOL	MATERIAL DESCRIPTION
GK1		OFF-WHITE AND BLACK PIPE GASKETS
AD1		ADHESIVE BEHIND WHITEBOARD
FD1		FIRE DOOR

- NOTES:**
- ALL FIRE DOORS WHERE PRESENT, ARE ASSUMED TO BE ASBESTOS-CONTAINING AND WERE NOT SAMPLED. ALL RATED FIRE DOORS THROUGHOUT THE BUILDING SHOULD BE TREATED AS ASBESTOS-CONTAINING UNTIL SAMPLING DETERMINES OTHERWISE.
  - SM7** THE ASBESTOS-CONTAINING CREAM SEAM MASTIC ON WHITE, BLACK, AND TAN PAPER FOIL WRAPPED FIBERGLASS INSULATED PIPES WERE OBSERVED THROUGHOUT THE BUILDING
  - CK2** THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW CAULKS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING
  - CK7** THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW GLAZINGS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING
  - WG2** THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW GLAZINGS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING
  - WG3** THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW GLAZINGS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING
  - AD4** ADHESIVE BEHIND WHITEBOARD WAS SAMPLED BY THE CLIENT AND IDENTIFIED AS ASBESTOS-CONTAINING MATERIAL. THIS MATERIAL WAS OBSERVED THROUGHOUT THE CLASSROOMS

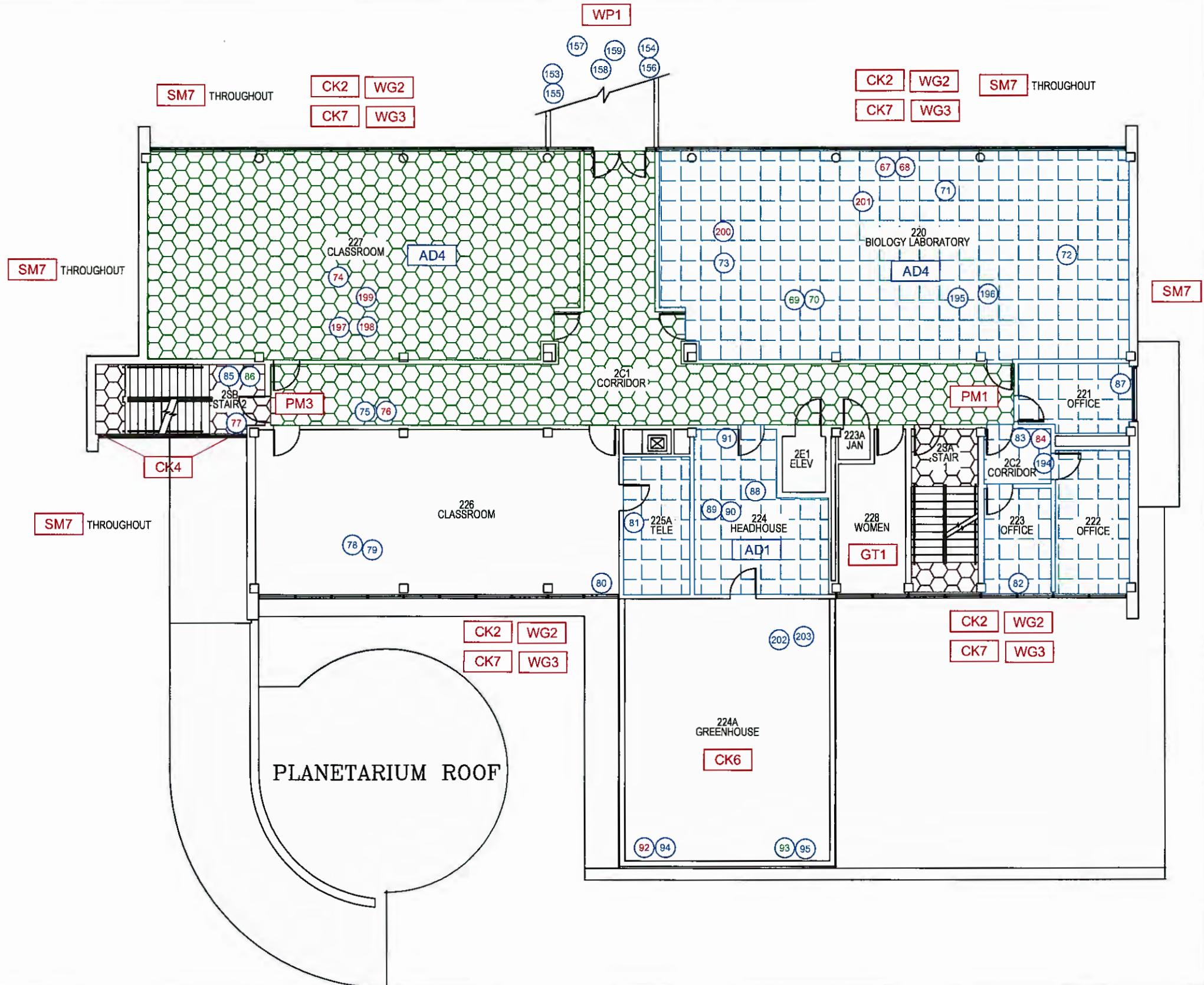


FIGURE 1  
ASBESTOS SURVEY



TAKOMA PARK/SILVER SPRING  
CAMPUS

SCIENCE SOUTH SECOND FLOOR		
SURVEY DATE	APRIL 17 & 18, 2019	PROJECT NO.
		046-19-0095
SHEET	3 OF 4	DRAWN BY
		OAS
		DATE
		05-24-2019

ASBESTOS-CONTAINING MATERIALS LEGEND		
MAT. CODE	MATERIAL SYMBOL	MATERIAL DESCRIPTION
FM1		BROWN MASTIC ASSOCIATED WITH 12" X 12" CREAM WITH OLIVE GREEN FLECKS AND STREAKS FLOOR TILE (FT1)
FM2		ORANGE MASTIC ASSOCIATED WITH 12" X 12" OFF-WHITE WITH GARY AND DARK GRAY FLECKS FLOOR TILE (FT2)
FM3		BLACK MASTIC ASSOCIATED WITH 12" X 12" GREEN WITH TEXTURED MARBLE PATTERN FLOOR TILE (FT3)
FT4/PM4		12" X 12" TAN WITH GRAY STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM5		LIGHT BROWN MASTIC ASSOCIATED WITH 12" X 12" TAN WITH SMALL BLACK DOTS FLOOR TILE (FT5)
CM2		BROWN CARPET MASTIC
FT6/PM6		9" X 9" DARK GREEN WITH TAN AND WHITE STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM7		BLACK MASTIC ASSOCIATED WITH 12" X 12" BEIGE WITH TAN AND GRAY SHORT FLECKS FLOOR TILE (FT7)
FT8/PM8		12" X 12" TAN WITH CREAM MOTTLE AND BRICK RED STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FT10/PM10		12" X 12" LIGHT GRAY WITH FAINT MAROON STREAKS FLOOR TILE AND ASSOCIATED BLACK MASTIC
FM11		BLACK MASTIC ASSOCIATED WITH 12" X 12" GRAY WITH DARK GRAY AND WHITE FLECKS FLOOR TILE (FT11)
CM3		GRAY (OLD) CARPET MASTIC
FT16/PM16		12" X 12" TAN FLOOR TILE AND ASSOCIATED BLACK MASTIC (BOTTOM LAYER)
SM7		CREAM SEAM MASTIC ON WHITE, BLACK, AND TAN PAPER FOIL WRAPPED FIBERGLASS INSULATED PIPES
PM1		BROWN GREEN PIN MASTIC HOLDING GROUNDING WIRE
CK2		INTERIOR WINDOW CAULK
CK3		GRAY CAULK AT BRIDGE CONNECTING TO SCIENCE NORTH BUILDING
SM5		BLACK SEAM MASTIC ON FOIL FIBERGLASS INSULATED DUCT
WG3		WHITE 1" EXTERIOR WINDOW GLAZING
CK4		GRAY/BROWN CAULK BETWEEN WINDOW/DOOR WALL & BRICK
GT1		BLACK CERAMIC COVE BASE GROUT
CK6		GRAY CAULK ON GREENHOUSE WINDOWS
WG2		INTERIOR WINDOW GLAZING
PM3		DARK BROWN PIN MASTIC ON FIBERGLASS BATT INSULATION
CK7		EXTERIOR WINDOW CAULK
WP1		BROWN CORRUGATED CEMENTITIOUS EXTERIOR WALL PANEL

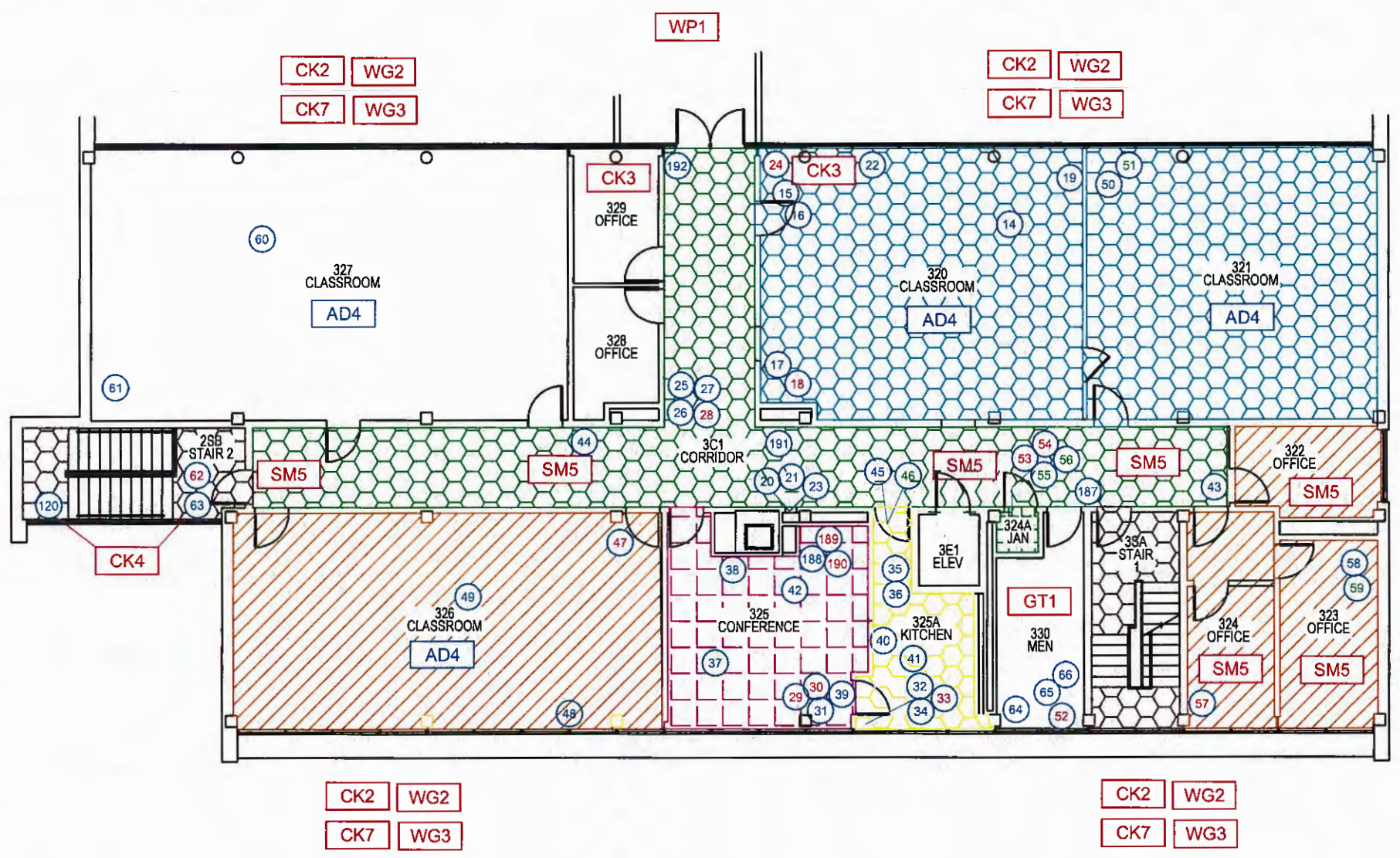
ASSUMED ASBESTOS-CONTAINING MATERIALS LEGEND		
MAT. CODE	MATERIAL SYMBOL	MATERIAL DESCRIPTION
GK1		OFF-WHITE AND BLACK PIPE GASKETS
AD1		ADHESIVE BEHIND WHITEBOARD
FD1		FIRE DOOR

**SAMPLE LEGEND**

- SAMPLE NUMBER (NEGATIVE)
- SAMPLE NUMBER (POSITIVE)
- SAMPLE NOT ANALYZED (POSITIVE STOP)

**NOTES:**

- ALL FIRE DOORS WHERE PRESENT, ARE ASSUMED TO BE ASBESTOS-CONTAINING AND WERE NOT SAMPLED. ALL RATED FIRE DOORS THROUGHOUT THE BUILDING SHOULD BE TREATED AS ASBESTOS-CONTAINING UNTIL SAMPLING DETERMINES OTHERWISE.
- SM7** THE ASBESTOS-CONTAINING CREAM SEAM MASTIC ON WHITE, BLACK, AND TAN PAPER FOIL WRAPPED FIBERGLASS INSULATED PIPES WERE OBSERVED THROUGHOUT THE BUILDING.
- CK2** THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW CAULKS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING.
- CK7**
- WG2** THE ASBESTOS-CONTAINING INTERIOR AND EXTERIOR WINDOW GLAZINGS WERE OBSERVED THROUGHOUT THE WINDOWS OF THE BUILDING.
- WG3**
- AD4** ADHESIVE BEHIND WHITEBOARD WAS SAMPLED BY THE CLIENT AND IDENTIFIED AS ASBESTOS-CONTAINING MATERIAL. THIS MATERIAL WAS OBSERVED THROUGHOUT THE CLASSROOMS.



200 FAIRBROOK DRIVE, SUITE 201, HERNDON, VA 20170

FIGURE 1  
ASBESTOS SURVEY



TAKOMA PARK/SILVER SPRING  
CAMPUS

SCIENCE SOUTH THIRD FLOOR		
SURVEY DATE	APRIL 17 & 18, 2019	PROJECT NO.
		046-19-0095
SHEET	4 OF 4	DRAWN BY
		OAS
		DATE
		05-24-2019