

March 12, 2014

Ms. Sun Kim
Senior Project Manager
ADD Inc.
311 Summer Street
Boston, MA

RE: Covino Project 14.00046
Hazardous Building Materials Inspection Report-Revised
Former Powderhouse School
1060 Broadway
Somerville, Massachusetts

Dear Ms. Kim:

The enclosed report presents the findings of the hazardous building materials inspection performed at the above-referenced location by Covino Environmental Associates, Inc. (Covino). The inspections were performed on January 8 -- 16 and February 11 and 12, 2014.

Should you have any questions or require additional information, please call at your convenience.

Sincerely,
Covino Environmental Associates, Inc.



Kevin Craig
Project Manager

Enc.

Hazardous Building Materials Inspection Report

**Former Powderhouse School
1060 Broadway
Somerville, Massachusetts**

Prepared For:

ADD Inc.
311 Summer Street
Boston, Massachusetts

Prepared By:

Covino Environmental Associates, Inc.
300 Wildwood Avenue
Woburn, Massachusetts

Covino Project 14.00046

March 12, 2014

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EXECUTIVE SUMMARY

Covino Environmental Associates, Inc. (Covino) performed an inspection for asbestos-containing materials (ACM), lead paint, mercury-containing devices, polychlorinated biphenyl (PCB) containing caulking compound, and other building materials that may require special handling and/or disposal prior to the planned demolition activities at the former Powderhouse School, 1060 Broadway, Boston, Massachusetts. The asbestos inspection was performed on January 8 – 16 and February 11 and 12, 2014 by Commonwealth of Massachusetts Department of Labor Standards (MA DLS) certified asbestos inspector Mr. Kenneth Roberts (Certification No. AI-000317). Mr. Roberts also performed the PCB testing. The lead paint testing was performed by Mr. David Pesce on January 17, 2014. Mr. Pesce is factory trained in the use of the x-ray fluorescence (XRF) spectrum analyzer. The hazardous/regulated building materials inventory was performed by Mr. David Majeski.

Asbestos Inspection

Representative bulk samples of suspect ACM were collected from accessible interior and exterior building areas and analyzed to determine asbestos content. Limited exploratory demolition methods were used to explore areas with difficult access including behind floor, wall, and ceiling finishes in a number of building areas. Note that additional suspect ACM may be present behind building finishes, within mechanical or electrical components, buried areas, or other otherwise inaccessible areas. Asbestos-containing materials identified during Covino's inspection include the following:

- 12" x 12" brown floor tile and associated mastic
- Caulk on interior wire mesh window
- Brown duct seam sealant
- 6" pipe insulation
- Radiator caulk
- Interior door caulk
- Coating on underside of cement stairs
- Black and pink sink basin coatings
- Caulk on concrete columns
- Roof parapet copper flashing sealant
- Asphalt roofing material
- Exterior louver vent caulk
- Capstone waterproofing black sealant
- Black damp proofing
- Duct rope – like insulation
- Skim coat on concrete columns

All identified ACM must be removed from the building prior to the start of any planned renovation or demolition activities that may disturb the materials. Note that additional suspect ACM may be present in buried areas or otherwise inaccessible building locations. If additional suspect ACM is encountered during demolition activities, then precautions should be taken to prevent disturbance and the material should be tested to determine asbestos content.

Lead Paint Testing

Lead paint testing was performed using an x-ray fluorescence spectrum analyzer (XRF) to determine the lead content of accessible interior and exterior painted building components. The purpose of the lead paint testing is to provide information for compliance with OSHA and US EPA requirements during renovation or demolition activities where painted surfaces will be disturbed.

The lead content of the surfaces tested range from less than the lower limit of quantification for the XRF instrument of less than 0.05 milligrams per square centimeter of sampled surface area (mg/cm^2) to $2.9 \text{ mg}/\text{cm}^2$. Demolition waste containing lead must be characterized to determine disposal requirements (as construction debris or as hazardous waste). This can be accomplished by performing the toxicity characteristic leaching procedure (TCLP) or using other methods that accurately characterize the lead content of such waste.

Hazardous/Regulated Building Materials

Various potentially hazardous/regulated building materials were observed at the site that may contain mercury, liquid polychlorinated biphenyl (PCB), chlorofluorocarbons (CFCs), volatile organic compounds (VOCs) or other hazardous substances that may require special handling and disposal prior to renovation or building demolition. Covino visually inspected accessible building areas and observed various items including, but not limited to, fluorescent lamps and ballasts, transformers, batteries, oils, lubricants, cleaning supplies, caulking compound and other miscellaneous items.

All potentially hazardous/regulated items must be removed from the building prior structural demolition and either recycled or disposed in accordance with MA DEP hazardous waste regulations, 310 CMR 30.000.

Non-Liquid Polychlorinated Biphenyls

Covino performed limited bulk sampling of caulk from selected areas of the building to determine PCB content in accordance with EPA Method SW846 8081/8082 following extraction by Method 3540C. Analytical results indicate that PCB content ranged from <0.182 to 66,85 parts per million

(ppm). Additional sampling will be required for compliance with the EPA's PCB regulations under the Toxic Substances Control Act (TSCA), 40 CFR 761.

1.0 INSPECTION DESCRIPTION

1.1 Introduction

Covino Environmental Associates, Inc. (Covino) performed an inspection for asbestos-containing materials (ACM), lead paint, mercury-containing devices, liquid polychlorinated biphenyl (PCB) containing electrical equipment, and other building materials/items that may require special handling and/or disposal prior to the planned demolition activities at the former Powderhouse School located at 1060 Broadway, Somerville, Massachusetts. The asbestos inspection was performed on January 8 – 16 and February 11 and 12, 2014 by Commonwealth of Massachusetts Department of Labor Standards (MA DLS) certified asbestos inspector Mr. Kenneth Roberts (Certification No. AI-000317). The lead paint testing was performed by Mr. David Pesce on January 17, 2014. Mr. Pesce is factory trained in the use of the x-ray fluorescence (XRF) spectrum analyzer. The hazardous/regulated building materials inventory was performed by Mr. David Majeski.

1.2 Purpose and Scope of Work

An asbestos inspection was performed to determine the locations and approximate quantities of suspect ACM that are in the building prior to the start of renovation and demolition activities. Covino performed an inspection of accessible suspect materials within the building to determine the location, type, condition and quantity of ACM, presumed ACM, and otherwise suspect ACM. Bulk samples of suspect ACM were collected and submitted to the Covino laboratory for analysis to determine asbestos content. Limited exploratory demolition methods were used to explore areas with difficult access including behind floor, wall, and ceiling finishes in a number of building areas. Note that additional suspect ACM may be present behind building finishes, within mechanical or electrical components, buried areas, or other otherwise inaccessible areas.

Covino performed testing of representative accessible interior and exterior painted building components to determine lead content using an x-ray fluorescence (XRF) spectrum analyzer.

Covino performed a visual inspection of accessible interior and exterior building areas and noted the presence of additional building materials/items that may require special handling and disposal prior to demolition activities.

1.3 Inspection Procedures

The asbestos inspection was performed using guidelines established by the EPA guidance document "Guidance for Controlling Asbestos-Containing Materials in Buildings" (EPA 5605-85/024), 40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP), Paragraph 61.145, Standard for Demolition and Renovation, EPA AHERA 40 CFR 763 and OSHA 1926.1101 regulations.

Visual inspection of readily accessible renovation areas was conducted to identify homogeneous areas of suspect ACM. Surfacing materials such as plaster, skim coat on concrete columns, exterior stucco and coating on the underside of cement stairs, thermal system insulation such as duct, pipe and pipe fitting insulation, and miscellaneous building materials including but not limited to gypsum board and associated joint compound, wall base molding and associated adhesive, floor coverings and associated adhesive, ceiling tiles, sink basin coatings, glazing compound, caulk, ceramic tile grout and associated adhesive and roofing materials were assessed as potential ACM.

Concentrations of lead in paint were measured on site by portable XRF analysis. Lead paint testing was performed to determine the lead content of selected painted building components that may be impacted by demolition activities and may not be used to determine compliance with the Massachusetts Department of Public Health Childhood Lead Poisoning Prevention Program Regulations.

1.4 Analytical Methods

Materials are grouped into homogeneous areas for the purpose of sampling. Homogeneous areas are those that contain suspect ACM that is uniform in texture and color and visually appear identical in every other respect. Materials installed at different times are treated as different homogeneous sampling areas. Bulk samples of suspect ACM were collected and submitted to Covino's in-house laboratory for analysis for asbestos content. The laboratory bulk sample analysis report is included in Appendix A.

Sample analysis was performed by the Covino laboratory located in Woburn, Massachusetts, using Polarized Light Microscopy with Dispersion Staining (PLM/DS) in accordance with the United States Environmental Protection Agency (US EPA) "Method for the Determination of Asbestos in Bulk Building Materials", EPA/600/R-93/116. The Covino laboratory is accredited through the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (No. 101781-0). The Covino laboratory's Massachusetts Analytical Laboratory certification number is AA000006.

The lead content of painted surfaces was determined using a portable XRF spectrum analyzer (NITON XLP 303AW; Serial No. 24687). The XRF spectrum analyzer uses a radioactive source to excite the electrons of lead atoms (if present) in paints. As the lead atom electrons return to their normal state, they emit X-rays, which are counted by the XRF spectrum analyzer. This data is processed and the results are converted to milligrams of lead per square centimeter (mg/cm²) of sampled surface area. Lead paint testing results are included in Appendix B.

For no-liquid PCB analysis, bulk samples were collected using hand tools and placed into labeled glass jars and delivered via courier to Spectrum Analytical, Inc. located in Agawam, Massachusetts. The samples were analyzed by gas chromatography in accordance with United States Environmental Protection Agency (EPA) Method SW846 8082 following preparation by EPA Method SW846-3540C. The Spectrum Analytical, Inc. laboratory report is included in Appendix E.

2.0 ASBESTOS INSPECTION RESULTS

2.1 Summary of Observed Asbestos-Containing Materials

The US EPA defines ACM as any material that contains greater than one percent asbestos. The Massachusetts Department of Environmental Protection (DEP) defines ACM as any material that contains greater than or equal to one percent asbestos. A summary of observed suspect ACM, location, approximate quantity and laboratory analysis results are presented in the following summary tables.

**Summary of Suspect Asbestos-Containing Materials
Former Powderhouse School
1060 Broadway, Somerville, Massachusetts
January 8 – 16 and February 11 and 12, 2014**

<u>Material Description</u>	<u>Approximate Location(s)</u>	<u>Approximate Quantity</u>	<u>Analysis Result</u>
12" x 12" blue floor tile and associated mastic	Various classrooms and hallways	NQ	NAD
Lightweight flooring concrete	S-4 entranceway	NQ	NAD
Exterior metal window insert caulk	N/E entranceway	NQ	NAD
Exterior metal window frame caulk	Various locations	NQ	NAD

**Summary of Suspect Asbestos-Containing Materials
Former Powderhouse School
1060 Broadway, Somerville, Massachusetts
January 8 – 16 and February 11 and 12, 2014**

<u>Material Description</u>	<u>Approximate Location(s)</u>	<u>Approximate Quantity</u>	<u>Analysis Result</u>
12" x 12" brown floor tile and associated mastic	First level: hallways, cafeteria/auditorium, classrooms Second level: hallways and Rooms 201-208 Third level: hallways and Room 329	28,000 sq ft	Positive 10%-12% Chrysotile Asbestos
Exterior overhang stucco	Various exterior locations	NQ	NAD
1' x 1' spline ceiling tile	Hallways throughout building	NQ	NAD
Gray floor leveling compound	Hallways throughout building	28,000 sq ft	NAD¹
Compressed board filler on CMU block wall	Throughout building	NQ	NAD
White wall paneling adhesive	Cafeteria entranceway	NQ	NAD
Interior wire mesh window glazing compound	Throughout building	NQ	NAD
Interior wire mesh window caulking compound	Located at entrances to classrooms and various hallway locations	4,000 ln ft	Positive 2%-8% Chrysotile Asbestos
6" x 6" ceramic floor tile grout and bedding mortar	Kitchen areas	NQ	NAD
Stage curtains	Room 176	NQ	NAD
Gypsum wallboard and associated joint compound	Throughout building	NQ	NAD
½" diameter mudded pipe fitting insulation	Throughout building	NQ	NAD
Canvas duct covering	Room 180	NQ	NAD

¹ Floor leveling compound is positive for asbestos due to association with the mastic beneath the 12' x 12' brown floor tile. The floor leveling compound was observed in two locations on the first floor hallway, but may be present in additional locations throughout the building.

**Summary of Suspect Asbestos-Containing Materials
Former Powderhouse School
1060 Broadway, Somerville, Massachusetts
January 8 – 16 and February 11 and 12, 2014**

<u>Material Description</u>	<u>Approximate Location(s)</u>	<u>Approximate Quantity</u>	<u>Analysis Result</u>
Brown duct seam sealant	Dishwashing area (Room 178)	200 sq ft	Positive 10% Chrysotile Asbestos
Plaster ceiling - base and skim coats	Bathroom areas	NQ	NAD
Red fire stop putty	Electrical room areas	NQ	NAD
Interior door insulation	Room 179	NQ	NAD
Plaster wall – base and skim coats	Various locations throughout building	NQ	NAD
Interior perimeter metal window glazing compound	Rooms 120 and 121B	NQ	NAD
6" diameter pipe insulation	Exterior at electric vaults and interior of Room 108	60 ln ft	Positive 10% Chrysotile Asbestos
Rough finish plaster ceiling – base and skim coats	S/E area of first Floor	NQ	NAD
18" x 18" rubber floor tile adhesive	Room 116	NQ	NAD
3" diameter pipe fitting insulation	Throughout building	NQ	NAD
Radiator caulk	Radiator located in first floor hallway adjacent to Room 103	15 ln ft	Positive 3% Chrysotile Asbestos
Interior door caulk	Throughout building	250 Doors	Positive 4% Chrysotile Asbestos

**Summary of Suspect Asbestos-Containing Materials
Former Powderhouse School
1060 Broadway, Somerville, Massachusetts
January 8 – 16 and February 11 and 12, 2014**

<u>Material Description</u>	<u>Approximate Location(s)</u>	<u>Approximate Quantity</u>	<u>Analysis Result</u>
½" x ½" ceramic floor tile grout and associated bedding mortar	Bathroom areas	NQ	NAD
2" x 2" ceramic floor tile grout and associated bedding mortar	Bathroom areas	NQ	NAD
Coating on underside of cement stairs	Stairwells throughout building	6,000 sq ft	Positive 5% Chrysotile Asbestos
Black/pink sink basin coating	Various classrooms throughout building	30 sinks	Positive 6%-12% Chrysotile Asbestos
12" x 12" light blue floor tile and associated mastic	Various classrooms and hallways throughout building	NQ	NAD
Carpet adhesive	Various classrooms throughout building	NQ	NAD
12" x 12" gray with white floor tile and associated mastic	Room 121D	NQ	NAD
12" x 12" tan with brown floor tile and associated mastic	Various classrooms throughout building	NQ	NAD
Compressed partition wall board	Room 121 D	NQ	NAD
Plaster wall, Type II – base and skim coats	Rear of Room 136	NQ	NAD
Column caulk	Throughout building	4,000 ln ft	Positive NAD-2% Chrysotile Asbestos
Pipe/vent penetration sealant	Roof	NQ	NAD
Capstone sealant	Roof	NQ	NAD

**Summary of Suspect Asbestos-Containing Materials
Former Powderhouse School
1060 Broadway, Somerville, Massachusetts
January 8 – 16 and February 11 and 12, 2014**

<u>Material Description</u>	<u>Approximate Location(s)</u>	<u>Approximate Quantity</u>	<u>Analysis Result</u>
Underside of parapet, copper flashing sealant	Roof	1,500 sq ft	Positive 15% Chrysotile Asbestos
Asphalt built-up roofing material	Perimeter	10,000 sq ft	Positive 12% Chrysotile Asbestos
Asphalt built-up roofing material	Roof	NQ	NAD
Skylight window glazing compound	West side of third floor roof	NQ	NAD
Exterior louvre vent caulk	Roof and ground levels	20 ln ft	Positive 10% Chrysotile Asbestos
White exterior window caulk	South side of second floor roof	NQ	NAD
Exterior duct covering atop fiberglass insulation	Roof	NQ	NAD
Cement exterior wall slab joint compound	Second floor roof	NQ	NAD
Exterior rooftop access door caulk	Second floor roof	NQ	NAD
Capstone waterproofing black sealant	North side of second floor roof	20 ln ft	Positive 12% Chrysotile Asbestos
Exterior door caulk	Exterior of building	NQ	NAD
Exterior gray door caulk	North side, exterior	NQ	NAD
Black damp proofing inside perimeter CMU block wall	Interior of perimeter walls throughout building	50,000 sq ft	Positive 14% Chrysotile Asbestos

**Summary of Suspect Asbestos-Containing Materials
Former Powderhouse School
1060 Broadway, Somerville, Massachusetts
January 8 – 16 and February 11 and 12, 2014**

<u>Material Description</u>	<u>Approximate Location(s)</u>	<u>Approximate Quantity</u>	<u>Analysis Result</u>
Padded 6' wall panel adhesive	Gymnasium	NQ	NAD
Rubber flooring adhesive	Gymnasium	NQ	NAD
Duct rope-like insulation	Room 235	20 ln ft	Positive 80% Chrysotile Asbestos
Skim coat on concrete wall	Room 235	NQ	NAD
Acoustical 4' x 8' wall panel black glue daub	Room 236	NQ	NAD
2' x 4' fissured ceiling tile	S-6 hall	NQ	NAD
Partition retractable wall panel	Various locations throughout building	NQ	NAD
Chalkboard black glue daub	Classrooms throughout building	NQ	NAD
Black coating on copper flashing on perimeter walls beneath windows	Various locations throughout building	NQ	NAD
Caulking under perimeter metal windows on CMU block	Various locations throughout building	NQ	NAD
Duct vibration cloth	Room 301	NQ	NAD
12" x 12' white floor tile and associated mastic	Third floor classrooms	NQ	NAD
6" diameter roof drain mudded fitting insulation	Various areas throughout building	NQ	NAD
Adhesive under metal stair treads	Staircases throughout building	NQ	NAD
6' wall base and associated adhesive	Library	NQ	NAD

**Summary of Suspect Asbestos-Containing Materials
Former Powderhouse School
1060 Broadway, Somerville, Massachusetts
January 8 – 16 and February 11 and 12, 2014**

<u>Material Description</u>	<u>Approximate Location(s)</u>	<u>Approximate Quantity</u>	<u>Analysis Result</u>
Skim coat on concrete columns	Throughout building	16,000 sq ft	Positive 3%-8% Chrysotile Asbestos
Skim coat/paint on concrete beams and CMU walls	Various locations throughout building	NQ	NAD

Table Notes:

sq ft – square feet

ln ft – linear feet

NQ – Not Quantified

NAD - No Asbestos Detected

2.2 Asbestos Removal Cost Estimates

The below table presents approximate quantities of ACM observed at the site and estimates for removal. These estimated removal costs do not include related engineering and air monitoring costs, which typically add ten to fifteen percent to the total cost of abatement, or the cost of replacement materials.

**Cost Estimates
Former Powder House School
1060 Broadway, Somerville, Massachusetts**

Material	Locations	Estimated Quantities	Removal Cost Estimate
12" x 12" brown floor tile and associated mastic (any floor leveling compound located under floor tile is to be considered ACM due to association with mastic)	First Level: Hallways, Cafeteria/Auditorium, Classrooms Second Level: Hallways and Rooms 201-208 Third Level: Hallways and Room 329	28,000 sq ft	\$84,000
Caulk on interior wire mesh windows	Located at entrances to Classrooms and various Hallway locations	4,000 ln ft	\$20,000

**Cost Estimates
Former Powder House School
1060 Broadway, Somerville, Massachusetts**

Material	Locations	Estimated Quantities	Removal Cost Estimate
Brown duct seam sealant	First Level, Room 178	200 sq ft	\$1,000
6" pipe insulation	Exterior at Electric Vaults and Interior of Room 108 (Electric Room)	60 ln ft	\$6,000
Radiator caulk	Radiator located in First Floor S. hallway at Room 103	15 ln ft	\$500
Interior door caulk	Interior doors	250 Doors	\$10,000
Coating on underside of cement stairs	Stairwells	6,000 sq ft	\$60,000
Sink basin coating	Throughout Building	30 Sinks	\$3,000
Caulk on columns	Throughout Building	4,000 ln ft	\$24,000
Sealant	Parapet wall beneath copper flashing	1,500 ln ft	\$10,000
Asphalt roofing material	Perimeter on parapet wall and roof	10,000 sq ft	\$40,000
Exterior louver vent caulk	At Second Floor rooftops and Exterior at Ground Level	250 ln ft	\$4,000
Black damp proofing	On perimeter CMU block walls	50,000 sq ft	\$800,000
Black sealant	On capstone on Second Floor Roof	20 ln ft	\$3,000
Rope insulation/sealant	Room 235 around duct	20 ln ft	\$2,000
Skim coat on concrete columns	Interior columns	16,000 sq ft	\$250,000
Total Asbestos Removal Cost Estimate			\$1,317,500

2.3 Asbestos Recommendations

Covino recommends the following:

1. Prior to the start of any renovation or demolition activities, a Massachusetts DLS certified Project Designer should prepare a work plan for removal of all ACM that may be disturbed by renovation or demolition activities.

2. The US EPA Regulation 40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP), Paragraph 61.145, Standard for Demolition and Renovation, requires that all regulated ACM be removed from a building prior to the start of renovation or demolition activities if the materials may be disturbed by these activities. Removal of ACM must be performed by a licensed asbestos removal contractor in accordance with federal, state, and local regulations.
3. Non-friable asphalt-based roofing materials were identified on the building. Non-friable asphalt-based roofing materials do not represent an asbestos hazard unless disturbed by mechanical cutting, grinding, etc. Massachusetts regulations allow for the removal and disposal of asphalt based roofing products as general construction waste by demolition or roofing contractors provided certain work practice requirements are followed (DEP Policy #BWP-96-012). Asbestos containing asphalt based roofing materials can't be recycled and must be disposed of in a Massachusetts DEP approved landfill.
4. Additional suspect materials may be present in inaccessible areas such as within mechanical and electrical components, behind floor, wall, and ceiling finishes, inside chases and soffits, buried areas, etc. If additional suspect materials are encountered during building maintenance, renovation, or demolition activities, then precautions should be taken to prevent disturbance of the suspect materials and bulk sampling and laboratory analysis should be performed to determine the materials asbestos content.

3.0 OTHER POTENTIALLY HAZARDOUS MATERIALS

Covino performed a visual inspection in representative, readily accessible interior areas for suspect mercury containing devices and suspect liquid polychlorinated biphenyl (PCB) containing electrical components. Note that sampling and laboratory analysis was not performed to confirm our visual observations for mercury and PCB or other potentially hazardous building materials, except for lead paint, which was tested in the field using a portable XRF analyzer.

3.1 Mercury

Fluorescent lamps are present throughout the buildings and are assumed to contain mercury. All suspect mercury containing devices should be removed from the buildings prior to the start of renovation and demolition activities that may disturb these devices. Mercury containing devices such as thermostats and lamps that are removed from the buildings should be treated by retort and distillation processes to recover and recycle the elemental mercury at an EPA permitted facility.

Fluorescent lamps should be stored in containers specially designed for the intact storage of fluorescent lamps. Do not break fluorescent lamps. Label each storage box with the date that lamps were first placed in the box. Properly packaged fluorescent lamps may be stored for up to one year in a secure building location. Dispose of spent lamps at an authorized recycler, hazardous waste transporter, or other universal waste handler within one year of the date marked on the storage containers. All observed light fixtures and mercury switches are listed in Appendix C.

3.2 Polychlorinated Biphenyl (PCB)

A visual inspection of electrical equipment/components was performed to identify light ballasts, switchgear components or other items that may contain suspect liquid PCB. Ballasts and transformers were observed in the buildings or at the site and should be treated as containing PCBs until proven otherwise.

3.3 Additional Hazardous Materials

Covino noted the presence of other hazardous building materials or stored items that may require special handling and/or disposal prior to demolition.

Additional building materials observed that require special handling prior to building renovation and demolition activities include white goods containing refrigerants, electronics and cathode ray tubes (CRTs), trash compactor fluids, compressor fluids, and miscellaneous chemicals and stored items.

White goods containing refrigerants (refrigeration units, air conditioning units, and associated compressors) were observed in the building. White goods are banned from disposal by the Massachusetts DEP. Refrigerants are required to be removed from appliances in accordance with EPA protocols.

Miscellaneous stored items, including aerosol products, paint containers, floor cleaners, floor strippers and waxes, and pesticides were observed throughout the buildings. These items should be removed from the building prior to renovation and demolition activities, properly stored and evaluated for proper disposal.

3.4 Lead Paint

Testing for lead paint was performed on representative interior and exterior painted surfaces. The lead content of painted surfaces was determined using a portable XRF spectrum analyzer. The results of the XRF testing are presented in Appendix B in milligrams of lead per square centimeter (mg/cm^2) of sampled surface area. XRF testing results indicate that levels of lead on the surfaces tested range from less than $0.05 \text{ mg}/\text{cm}^2$ (the lower limit of quantification of the XRF) to $2.9 \text{ mg}/\text{cm}^2$.

The employer of workers who disturb or remove lead paint must comply with OSHA Standard 29 CFR 1926.62 - Lead. This applies to all construction work, including demolition, where an employee may be occupationally exposed to lead. This standard does not establish a minimum threshold for the lead content, below which an initial exposure assessment is not required. An initial exposure assessment is required for each renovation and demolition activity that will disturb lead. This standard also contains additional requirements concerning the disturbance or removal of lead.

Debris containing lead generated from demolition activities must be characterized to determine disposal requirements (construction debris or hazardous waste). This can be accomplished by performing the characteristic leachate procedure (TCLP) or using other methods, which accurately characterize the waste.

3.5 Non-Liquid PCBs

The PCB analytical results in the attached laboratory report are presented in concentration units of micrograms PCB per kilogram of the sample material (ug/kg). These concentration units are equivalent to 0.001 parts of PCB per million parts of the sample material, by weight (ppm). The results summarized in the table below are presented in concentration units of milligrams of PCBs per kilograms of material (ppm), which equals parts per million.

Former Powderhouse School
1060 Broadway, Somerville, Massachusetts
February 11, 2014

Lab ID	Sample Description	Results Parts per million (ppm)
SB84669-01	Exterior caulk around door frame	Aroclor 1016 - BRL (< 0.182 ppm) Aroclor 1221 - BRL (< 0.182 ppm) Aroclor 1232 - BRL (< 0.182 ppm) Aroclor 1242 - BRL (< 0.182 ppm) Aroclor 1248 - BRL (< 0.182 ppm) Aroclor 1254 - BRL (< 0.182 ppm) Aroclor 1260 - BRL (< 0.182 ppm) Aroclor 1262 - BRL (< 0.182 ppm) Aroclor 1268 - BRL (< 0.182 ppm)
SB84669-02	Exterior caulk around glass door frame	Aroclor 1016 - BRL (< 0.159 ppm) Aroclor 1221 - BRL (< 0.159 ppm) Aroclor 1232 - BRL (< 0.159 ppm) Aroclor 1242 - BRL (< 0.159 ppm) Aroclor 1248 - 1.05 ppm Aroclor 1254 - 1.69 ppm Aroclor 1260 - BRL (< 0.159 ppm) Aroclor 1262 - BRL (< 0.159 ppm) Aroclor 1268 - BRL (< 0.159 ppm)
SB84669-03	Interior caulk around door frame	Aroclor 1016 - BRL (< 0.18 ppm) Aroclor 1221 - BRL (< 0.18 ppm) Aroclor 1232 - BRL (< 0.18 ppm) Aroclor 1242 - BRL (< 0.18 ppm) Aroclor 1248 - 0.839 ppm Aroclor 1254 - 0.18 ppm Aroclor 1260 - BRL (< 0.18 ppm) Aroclor 1262 - BRL (< 0.18 ppm) Aroclor 1268 - BRL (< 0.18 ppm)
SB84669-04	Exterior caulk around door frame	Aroclor 1016 - BRL (< 0.169 ppm) Aroclor 1221 - BRL (< 0.169 ppm) Aroclor 1232 - BRL (< 0.169 ppm) Aroclor 1242 - BRL (< 0.169 ppm) Aroclor 1248 - 0.685 ppm Aroclor 1254 - BRL (< 0.169 ppm) Aroclor 1260 - BRL (< 0.169 ppm) Aroclor 1262 - BRL (< 0.169 ppm) Aroclor 1268 - BRL (< 0.169 ppm)

**Former Powderhouse School
1060 Broadway, Somerville, Massachusetts
February 11, 2014**

Lab ID	Sample Description	Results Parts per million (ppm)
SB84669-05	Exterior caulk around window frame	Aroclor 1016 - BRL (< 0.169 ppm) Aroclor 1221 - BRL (< 0.169 ppm) Aroclor 1232 - BRL (< 0.169 ppm) Aroclor 1242 - BRL (< 0.169 ppm) Aroclor 1248 - BRL (< 0.169 ppm) Aroclor 1254 – 0.414 ppm Aroclor 1260 - BRL (< 0.169 ppm) Aroclor 1262 - BRL (< 0.169 ppm) Aroclor 1268 - BRL (< 0.169 ppm)
SB84669-06	Exterior caulk around vent	Aroclor 1016 - BRL (< 0.177 ppm) Aroclor 1221 - BRL (< 0.177 ppm) Aroclor 1232 - BRL (< 0.177 ppm) Aroclor 1242 - BRL (< 0.177 ppm) Aroclor 1248 – 1.51 ppm Aroclor 1254 – 0.743 ppm Aroclor 1260 - BRL (< 0.177 ppm) Aroclor 1262 - BRL (< 0.177 ppm) Aroclor 1268 - BRL (< 0.177 ppm)
SB84669-07	Exterior caulk on capstone	Aroclor 1016 - BRL (< 0.169 ppm) Aroclor 1221 - BRL (< 0.169 ppm) Aroclor 1232 - BRL (< 0.169 ppm) Aroclor 1242 - BRL (< 0.169 ppm) Aroclor 1248 – 24.6 ppm Aroclor 1254 – 34.4 ppm Aroclor 1260 – 7.85 ppm Aroclor 1262 - BRL (< 0.169 ppm) Aroclor 1268 - BRL (< 0.169 ppm)
SB84669-08	Exterior caulk around cement exterior panels	Aroclor 1016 - BRL (< 0.831 ppm) Aroclor 1221 - BRL (< 0.831 ppm) Aroclor 1232 - BRL (< 0.831 ppm) Aroclor 1242 - BRL (< 0.831 ppm) Aroclor 1248 - BRL (< 0.831 ppm) Aroclor 1254 - BRL (< 0.831 ppm) Aroclor 1260 - BRL (< 0.831 ppm) Aroclor 1262 - BRL (< 0.831 ppm) Aroclor 1268 - BRL (< 0.831 ppm)

**Former Powderhouse School
1060 Broadway, Somerville, Massachusetts
February 11, 2014**

Lab ID	Sample Description	Results Parts per million (ppm)
SB84669-09	Exterior caulk around window frame	Aroclor 1016 - BRL (< 0.164 ppm) Aroclor 1221 - BRL (< 0.164 ppm) Aroclor 1232 - BRL (< 0.164 ppm) Aroclor 1242 - BRL (< 0.164 ppm) Aroclor 1248 – 1.34 ppm Aroclor 1254 – 2.8 ppm Aroclor 1260 - BRL (< 0.164 ppm) Aroclor 1262 - BRL (< 0.164 ppm) Aroclor 1268 - BRL (< 0.164 ppm)
SB84669-10	Interior caulk around door frame in hallway	Aroclor 1016 - BRL (< 0.165 ppm) Aroclor 1221 - BRL (< 0.165 ppm) Aroclor 1232 - BRL (< 0.165 ppm) Aroclor 1242 - BRL (< 0.165 ppm) Aroclor 1248 – 2.53 ppm Aroclor 1254 – 0.684 ppm Aroclor 1260 - BRL (< 0.165 ppm) Aroclor 1262 - BRL (< 0.165 ppm) Aroclor 1268 - BRL (< 0.165 ppm)

Table Notes:

BRL – Below Reporting Limit – Analyte not detected at or above the reporting limit

The United States Environmental Protection Agency (US EPA) has established PCB decontamination standards, procedures and requirements for PCB spill cleanup under the Toxic Substances Control Act (40 CFR 761.79 and 40 CFR 761.125). Under 40 CFR 761, *Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution In Commerce, and Use Prohibitions*, caulk contains ³ 50 ppm (mg/kg) PCBs were not authorized for use and must be disposed of as PCB bulk product waste according to 40 CFR 761.62. Note that PCBs may leach into adjacent building materials (e.g. masonry, wood, concrete). Any adjacent building material coated or serviced by PCB Bulk Product Waste at the time of designation for disposal may be managed as PCB bulk product waste. If PCBs have leached into the adjacent materials and removed at a later time, then the contaminated materials must be disposed of as PCB remediation waste.

Based on these criteria, sample 07 exceeded the threshold of 50 ppm and is therefore regulated PCB bulk product waste. Removal and disposal of PCB bulk product waste should be performed by a qualified remediation contractor using appropriate work practices, engineering controls, personal

protective equipment, transporter and disposal facility. Note that depending on the method chosen for removal and disposal, notification to the EPA may be required.

Since the PCB concentrations of the other samples collected as part of this project are greater than 1 PPM but less than 50 PPM, they may be disposed of as an excluded PCB product if the following criteria are met:

1. The paint was legally manufactured, processed, distributed in commerce, or used before October 1, 1984; or
2. After October 1, 1984, the paint was manufactured, processed, distributed in commerce, or used pursuant to authority granted by regulation, by exemption petition, by settlement agreement, or pursuant to other approved programs; and
3. The resultant concentration (i.e. below 50 PPM) is not the result of dilution or of leaks or spills of PCBs in concentrations over 50 PPM.

If the three criteria outlined above are not met, then the paint is PCB remediation waste and depending on the method chosen for removal and disposal, notification to the EPA may be required.

Also, additional sampling will be required for compliance with the EPA's PCB regulations under the Toxic Substances Control Act (TSCA), 40 CFR 761 for the building materials adjacent to sample 07.

4.0 LIMITATIONS

Services performed by Covino were conducted in a manner consistent with "state of the industry" practices, recognizing that even the most comprehensive inspection may not detect all suspect materials in a building. Reasonable measures were taken to detect the presence of normally suspect materials within the inspection areas, however, additional materials may be enclosed in solid walls and ceilings, or otherwise may be inaccessible and materials that are not normally suspect may contain hazardous materials. Covino cannot act as an insurer or certify that the site is free of asbestos or other hazardous materials. No expressed or implied representation or warranty is included in our report except that the services were performed within the limit of the scope of work authorized by the client and the encountered site conditions.

Lead testing was performed to evaluate OSHA worker protection requirements and may not be used to determine compliance with the Massachusetts Department of Public Health Childhood Lead Poisoning Prevention Program.

Covino did not disassemble mechanical or electrical equipment and our scope of services for PCB sampling was limited to ten samples of caulk. Sampling and analysis of other suspect materials such as hydraulic fluids, transformer dielectric fluids, paints, adhesives, fiberglass, etc. was not included in our scope of work.

APPENDIX A

ANALYTICAL LABORATORY REPORTS FOR BULK SAMPLES

CLIENT: ADD INC.
311 SUMMER STREET
BOSTON, MA 02210

LOCATION: FORMER POWDERHOUSE SCHOOL
1060 BROADWAY
SOMERVILLE, MASSACHUSETTS

PROJECT: 14.00046 - 407976
DATE RECEIVED: 01/21/14
ANALYZED: 01/23/14 TO 01/27/14
COLLECTED BY: COVINO
COLLECTED: 01/08/14 TO 01/16/14

ANALYTICAL RESULTS OF BULK SAMPLES

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS
407976	FIELD ID: 1A MATERIAL: 12" X 12" BLUE FLOOR TILE LOCATION: S-4	BL N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
407977	FIELD ID: 1B MATERIAL: 12" X 12" BLUE FLOOR TILE LOCATION: LIBRARY	BL N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
407978	FIELD ID: 2A MATERIAL: 12" X 12" BLUE FLOOR TILE MASTIC LOCATION: S-4	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
407979	FIELD ID: 2B MATERIAL: 12" X 12" BLUE FLOOR TILE MASTIC LOCATION: LIBRARY	BK N	NO ASBESTOS DETECTED CELLULOSE 05 % NONFIBROUS MATERIAL 95 %
407980	FIELD ID: 3A MATERIAL: LIGHTWEIGHT FLOORING CONCRETE LOCATION: S-4	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
407981	FIELD ID: 3B MATERIAL: LIGHTWEIGHT FLOORING CONCRETE LOCATION: S-4	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
407982	FIELD ID: 4A MATERIAL: EXTERIOR METAL WINDOW INSERT CAULK LOCATION: EXTERIOR, NORTHEAST CORNER	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
407983	FIELD ID: 4B MATERIAL: EXTERIOR METAL WINDOW INSERT CAULK LOCATION: EXTERIOR, NORTHEAST CORNER	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
407984	FIELD ID: 5A MATERIAL: EXTERIOR METAL WINDOW FRAME CAULK LOCATION: EXTERIOR, NORTHEAST CORNER	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
407985	FIELD ID: 5B MATERIAL: EXTERIOR METAL WINDOW FRAME CAULK LOCATION: EXTERIOR, COURTYARD, NORTH	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
407986	FIELD ID: 5C MATERIAL: EXTERIOR METAL WINDOW FRAME CAULK LOCATION: EXTERIOR, COURTYARD, SOUTH	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
407987	FIELD ID: 6A MATERIAL: 12" X 12" BROWN FLOOR TILE LOCATION: S-4	BR/GY N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	10 % 90 %
407988	FIELD ID: 6B MATERIAL: 12" X 12" BROWN FLOOR TILE LOCATION: 156A	BR/GY N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	10 % 90 %
407989	FIELD ID: 7A MATERIAL: 12" X 12" BROWN FLOOR TILE MASTIC LOCATION: S-4	BK N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	12 % 88 %
407990	FIELD ID: 7B MATERIAL: 12" X 12" BROWN FLOOR TILE MASTIC LOCATION: 156A	BK N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	12 % 88 %
407991	FIELD ID: 8A MATERIAL: EXTERIOR OVERHANG STUCCO LOCATION: COURTYARD, EAST	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
407992	FIELD ID: 8B MATERIAL: EXTERIOR OVERHANG STUCCO LOCATION: COURTYARD, NORTH	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
407993	FIELD ID: 8C MATERIAL: EXTERIOR OVERHANG STUCCO LOCATION: COURTYARD, WEST	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
407994	FIELD ID: 9A MATERIAL: 1' X 1' SPLINE CEILING TILE LOCATION: HALL 120	YL N	NO ASBESTOS DETECTED MINERAL WOOL NONFIBROUS MATERIAL	65 % 35 %
407995	FIELD ID: 9B MATERIAL: 1' X 1' SPLINE CEILING TILE LOCATION: HALL 244	WH/TN N	NO ASBESTOS DETECTED MINERAL WOOL NONFIBROUS MATERIAL	65 % 35 %
407996	FIELD ID: 9C MATERIAL: 1' X 1' SPLINE CEILING TILE LOCATION: HALL 322	WH/GY N	NO ASBESTOS DETECTED MINERAL WOOL NONFIBROUS MATERIAL	65 % 35 %
407997	FIELD ID: 10A MATERIAL: GRAY FLOOR LEVELING COMPOUND LOCATION: HALL 120 LAB NOTE: ASBESTOS DETECTED IN BLACK MASTIC.	GY/BK Y	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	06 % 94 %
407998	FIELD ID: 10B MATERIAL: GRAY FLOOR LEVELING COMPOUND LOCATION: HALL 120 LAB NOTE: ASBESTOS DETECTED IN BLACK MASTIC.	GY/BK Y	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	06 % 94 %
407999	FIELD ID: 11A MATERIAL: COMPRESSED BOARD FILLER ATOP CMU WALL LOCATION: 176	BR N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	98 % 02 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408000	FIELD ID: 11B MATERIAL: COMPRESSED BOARD FILLER ATOP CMU WALL LOCATION: 214C	BR N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	98 % 02 %
408001	FIELD ID: 11C MATERIAL: COMPRESSED BOARD FILLER ATOP CMU WALL LOCATION: 323D	BR N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	98 % 02 %
408002	FIELD ID: 12A MATERIAL: WHITE WALL PANELING ADHESIVE LOCATION: ENTRANCE TO 176	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408003	FIELD ID: 12B MATERIAL: WHITE WALL PANELING ADHESIVE LOCATION: ENTRANCE TO 176	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408004	FIELD ID: 13A MATERIAL: INTERIOR WIRE MESH WINDOW GLAZING COMPOUND LOCATION: 176	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408005	FIELD ID: 13B MATERIAL: INTERIOR WIRE MESH WINDOW GLAZING COMPOUND LOCATION: 121A	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408006	FIELD ID: 13C MATERIAL: INTERIOR WIRE MESH WINDOW GLAZING COMPOUND LOCATION: HALL AT 256	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408007	FIELD ID: 14A MATERIAL: INTERIOR WIRE MESH WINDOW CAULKING COMPOUND LOCATION: 176	WH N	ASBESTOS - CHRYSOTILE CELLULOSE NONFIBROUS MATERIAL	08 % 02 % 90 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408008	FIELD ID: 14B MATERIAL: INTERIOR WIRE MESH WINDOW CAULKING COMPOUND LOCATION: 121A	TN/GY N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	02 % 98 %
408009	FIELD ID: 14C MATERIAL: INTERIOR WIRE MESH WINDOW CAULKING COMPOUND LOCATION: HALL AT 256	TN/GY Y	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	05 % 95 %
408010	FIELD ID: 15A MATERIAL: 6" X 6" CERAMIC FLOOR TILE GROUT LOCATION: 179	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408011	FIELD ID: 15B MATERIAL: 6" X 6" CERAMIC FLOOR TILE GROUT LOCATION: 179	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408012	FIELD ID: 15C MATERIAL: 6" X 6" CERAMIC FLOOR TILE GROUT LOCATION: 179	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408013	FIELD ID: 16A MATERIAL: 6" X 6" CERAMIC FLOOR TILE BEDDING MORTAR LOCATION: 179	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408014	FIELD ID: 16B MATERIAL: 6" X 6" CERAMIC FLOOR TILE BEDDING MORTAR LOCATION: 179	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408015	FIELD ID: 16C MATERIAL: 6" X 6" CERAMIC FLOOR TILE BEDDING MORTAR LOCATION: 179	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408016	FIELD ID: 17A MATERIAL: STAGE CURTAIN LOCATION: 176	BK N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	 99 % 01 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS
408017	FIELD ID: 17B MATERIAL: STAGE CURTAIN LOCATION: 176	BK N	NO ASBESTOS DETECTED CELLULOSE 99 % NONFIBROUS MATERIAL 01 %
408018	FIELD ID: 18A MATERIAL: GYPSUM WALLBOARD LOCATION: 177	TN/WH Y	NO ASBESTOS DETECTED FIBROUS GLASS 02 % CELLULOSE 23 % NONFIBROUS MATERIAL 75 %
408019	FIELD ID: 18B MATERIAL: GYPSUM WALLBOARD LOCATION: 122	TN/WH Y	NO ASBESTOS DETECTED FIBROUS GLASS 05 % CELLULOSE 25 % NONFIBROUS MATERIAL 70 %
408020	FIELD ID: 19A MATERIAL: JOINT COMPOUND LOCATION: 177	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408021	FIELD ID: 19B MATERIAL: JOINT COMPOUND LOCATION: 122	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408022	FIELD ID: 19C MATERIAL: JOINT COMPOUND LOCATION: 156A	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408023	FIELD ID: 19D MATERIAL: JOINT COMPOUND LOCATION: 181	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408024	FIELD ID: 19E MATERIAL: JOINT COMPOUND LOCATION: 179	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408025	FIELD ID: 20A MATERIAL: 1/2" PIPE, MUDDERED FITTING INSULATION LOCATION: 179	GY N	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	 30 % 10 % 60 %
408026	FIELD ID: 20B MATERIAL: 1/2" PIPE, MUDDERED FITTING INSULATION LOCATION: INTERIOR WALL CAVITY, 129D	GY N	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	 30 % 10 % 60 %
408027	FIELD ID: 20C MATERIAL: 1/2" PIPE, MUDDERED FITTING INSULATION LOCATION: S-3	GY N	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	 30 % 07 % 63 %
408028	FIELD ID: 20D MATERIAL: 1/2" PIPE, MUDDERED FITTING INSULATION LOCATION: 215	GY N	NO ASBESTOS DETECTED CELLULOSE MINERAL WOOL NONFIBROUS MATERIAL	 15 % 18 % 67 %
408029	FIELD ID: 20E MATERIAL: 1/2" PIPE, MUDDERED FITTING INSULATION LOCATION: 301	GY N	NO ASBESTOS DETECTED CELLULOSE MINERAL WOOL NONFIBROUS MATERIAL	 12 % 18 % 70 %
408030	FIELD ID: 21A MATERIAL: CANVAS DUCT COVERING LOCATION: 180	TN N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	 98 % 02 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408031	FIELD ID: 21B MATERIAL: CANVAS DUCT COVERING LOCATION: 180	TN N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	 98 % 02 %
408032	FIELD ID: 21C MATERIAL: CANVAS DUCT COVERING LOCATION: 180	TN N	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	 15 % 80 % 05 %
408033	FIELD ID: 22A MATERIAL: BROWN DUCT SEAM SEALANT LOCATION: 178	BR N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	10 % 90 %
408034	FIELD ID: 22B MATERIAL: BROWN DUCT SEAM SEALANT LOCATION: 178	BR N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	10 % 90 %
408035	FIELD ID: 23A MATERIAL: PLASTER CEILING, BASE COAT LOCATION: 178	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408036	FIELD ID: 23B MATERIAL: PLASTER CEILING, BASE COAT LOCATION: 178	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408037	FIELD ID: 23C MATERIAL: PLASTER CEILING, BASE COAT LOCATION: 168A	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408038	FIELD ID: 23D MATERIAL: PLASTER CEILING, BASE COAT LOCATION: 218	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408039	FIELD ID: 23E MATERIAL: PLASTER CEILING, BASE COAT LOCATION: 3RD FLOOR, S-1	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408040	FIELD ID: 23F MATERIAL: PLASTER CEILING, BASE COAT LOCATION: 313	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408041	FIELD ID: 24A MATERIAL: PLASTER CEILING, SKIM COAT LOCATION: 178	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408042	FIELD ID: 24B MATERIAL: PLASTER CEILING, SKIM COAT LOCATION: 178	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408043	FIELD ID: 24C MATERIAL: PLASTER CEILING, SKIM COAT LOCATION: 168A	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408044	FIELD ID: 24D MATERIAL: PLASTER CEILING, SKIM COAT LOCATION: 218	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408045	FIELD ID: 24E MATERIAL: PLASTER CEILING, SKIM COAT LOCATION: 3RD FLOOR, S-1	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408046	FIELD ID: 24F MATERIAL: PLASTER CEILING, SKIM COAT LOCATION: 313	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408047	FIELD ID: 25A MATERIAL: RED FIRESTOP LOCATION: 180	RD N	NO ASBESTOS DETECTED SYNTHETIC NONFIBROUS MATERIAL	12 % 88 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408048	FIELD ID: 25B MATERIAL: RED FIRESTOP LOCATION: 180	RD N	NO ASBESTOS DETECTED SYNTHETIC NONFIBROUS MATERIAL	12 % 88 %
408049	FIELD ID: 26A MATERIAL: INTERIOR DOOR INSULATION LOCATION: 179	WH N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	20 % 80 %
408050	FIELD ID: 26B MATERIAL: INTERIOR DOOR INSULATION LOCATION: 179	WH N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	20 % 80 %
408051	FIELD ID: 27A MATERIAL: PLASTER WALL, BASE COAT LOCATION: 181	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408052	FIELD ID: 27B MATERIAL: PLASTER WALL, BASE COAT LOCATION: 136	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408053	FIELD ID: 27C MATERIAL: PLASTER WALL, BASE COAT LOCATION: 136	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408054	FIELD ID: 28A MATERIAL: PLASTER WALL, SKIM COAT LOCATION: 181	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408055	FIELD ID: 28B MATERIAL: PLASTER WALL, SKIM COAT LOCATION: 136	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408056	FIELD ID: 28C MATERIAL: PLASTER WALL, SKIM COAT LOCATION: 136	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408057	FIELD ID: 29A MATERIAL: INTERIOR PERIMETER METAL WINDOW GLAZING COMPOUND LOCATION: 120	BK N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408058	FIELD ID: 29B MATERIAL: INTERIOR PERIMETER METAL WINDOW GLAZING COMPOUND LOCATION: 121B	BK N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408059	FIELD ID: 30A MATERIAL: 6" PIPE INSULATION LOCATION: ELEC ROOM 108	GY N	ASBESTOS - AMOSITE NONFIBROUS MATERIAL	20 % 80 %
408060	FIELD ID: 30B MATERIAL: 6" PIPE INSULATION LOCATION: 108	N/A N/A	SAMPLE NOT ANALYZED	
408061	FIELD ID: 31A MATERIAL: 6" PIPE FITTING INSULATION LOCATION: 108	GY N	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	30 % 10 % 60 %
408062	FIELD ID: 31B MATERIAL: 6" PIPE FITTING INSULATION LOCATION: 108	GY N	NO ASBESTOS DETECTED FIBROUS GLASS NONFIBROUS MATERIAL	35 % 65 %
408063	FIELD ID: 32A MATERIAL: ROUGH FINISH PLASTER CEILING, BASE COAT LOCATION: 101	GY N	NO ASBESTOS DETECTED HAIR NONFIBROUS MATERIAL	< 1 % 100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408064	FIELD ID: 32B MATERIAL: ROUGH FINISH PLASTER CEILING, BASE COAT LOCATION: 116	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408065	FIELD ID: 33A MATERIAL: ROUGH FINISH PLASTER CEILING, SKIM COAT LOCATION: 101	N/A N/A	INSUFFICIENT SAMPLE	
408066	FIELD ID: 33B MATERIAL: ROUGH FINISH PLASTER CEILING, SKIM COAT LOCATION: 116	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408067	FIELD ID: 34A MATERIAL: 18" X 18" RUBBER FLOOR TILE ADHESIVE LOCATION: 116	GY N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	07 % 93 %
408068	FIELD ID: 34B MATERIAL: 18" X 18" RUBBER FLOOR TILE ADHESIVE LOCATION: 116	GY/RD Y	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	06 % 94 %
408069	FIELD ID: 35A MATERIAL: 3" PIPE FITTING INSULATION LOCATION: 110	GY N	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	30 % 10 % 60 %
408070	FIELD ID: 35B MATERIAL: 3" PIPE FITTING INSULATION LOCATION: 171	GY N	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	30 % 10 % 60 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS
408071	FIELD ID: 35C MATERIAL: 3" PIPE FITTING INSULATION LOCATION: 147	GY N	NO ASBESTOS DETECTED MINERAL WOOL 20 % NONFIBROUS MATERIAL 80 %
408072	FIELD ID: 36A MATERIAL: RADIATOR CAULK LOCATION: 116	GY N	ASBESTOS - CHRYSOTILE 03 % NONFIBROUS MATERIAL 97 %
408073	FIELD ID: 36B MATERIAL: RADIATOR CAULK LOCATION: 116	GY N	ASBESTOS - CHRYSOTILE 03 % NONFIBROUS MATERIAL 97 %
408074	FIELD ID: 37A MATERIAL: INTERIOR DOOR CAULK LOCATION: 116	GY N	ASBESTOS - CHRYSOTILE 04 % NONFIBROUS MATERIAL 96 %
408075	FIELD ID: 37B MATERIAL: INTERIOR DOOR CAULK LOCATION: 218	GY N	ASBESTOS - CHRYSOTILE 04 % NONFIBROUS MATERIAL 96 %
408076	FIELD ID: 38A MATERIAL: 1/2" X 1/2" CERAMIC FLOOR TILE GROUT LOCATION: BASEMENT, BOY'S ROOM	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408077	FIELD ID: 38B MATERIAL: 1/2" X 1/2" CERAMIC FLOOR TILE GROUT LOCATION: BASEMENT, BOY'S ROOM	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408078	FIELD ID: 38C MATERIAL: 1/2" X 1/2" CERAMIC FLOOR TILE GROUT LOCATION: BASEMENT, GIRL'S ROOM	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408079	FIELD ID: 39A MATERIAL: 1/2" X 1/2" CERAMIC FLOOR TILE BEDDING MORTAR LOCATION: BASEMENT, BOY'S ROOM	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS
408080	FIELD ID: 39B MATERIAL: 1/2" X 1/2" CERAMIC FLOOR TILE BEDDING MORTAR LOCATION: BASEMENT, BOY'S ROOM	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408081	FIELD ID: 39C MATERIAL: 1/2" X 1/2" CERAMIC FLOOR TILE BEDDING MORTAR LOCATION: BASEMENT, GIRL'S ROOM	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408082	FIELD ID: 40A MATERIAL: 2" X 2" CERAMIC FLOOR TILE GROUT LOCATION: 114	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408083	FIELD ID: 40B MATERIAL: 2" X 2" CERAMIC FLOOR TILE GROUT LOCATION: 114	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408084	FIELD ID: 40C MATERIAL: 2" X 2" CERAMIC FLOOR TILE GROUT LOCATION: 114	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408085	FIELD ID: 41A MATERIAL: 2" X 2" CERAMIC FLOOR TILE BEDDING MORTAR LOCATION: 114	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408086	FIELD ID: 41B MATERIAL: 2" X 2" CERAMIC FLOOR TILE BEDDING MORTAR LOCATION: 114	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408087	FIELD ID: 41C MATERIAL: 2" X 2" CERAMIC FLOOR TILE BEDDING MORTAR LOCATION: 114	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408088	FIELD ID: 42A MATERIAL: COATING ON UNDERSIDE OF CEMENT STAIRS LOCATION: S-1, BASEMENT	GY N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL 05 % 95 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408089	FIELD ID: 42B MATERIAL: COATING ON UNDERSIDE OF CEMENT STAIRS LOCATION: S-1, BASEMENT	GY N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	05 % 95 %
408090	FIELD ID: 42C MATERIAL: COATING ON UNDERSIDE OF CEMENT STAIRS LOCATION: S-6, 2ND FLOOR	GY N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	05 % 95 %
408091	FIELD ID: 43A MATERIAL: BLACK SINK BASIN COATING LOCATION: 121A	BK N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	06 % 94 %
408092	FIELD ID: 43B MATERIAL: BLACK SINK BASIN COATING LOCATION: 214D	BK N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	06 % 94 %
408093	FIELD ID: 44A MATERIAL: 12" X 12" LIGHT BLUE FLOOR TILE LOCATION: 121A	BL N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408094	FIELD ID: 44B MATERIAL: 12" X 12" LIGHT BLUE FLOOR TILE LOCATION: 256	BL N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408095	FIELD ID: 45A MATERIAL: 12" X 12" LIGHT BLUE FLOOR TILE MASTIC LOCATION: 121A	BK N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	 05 % 95 %
408096	FIELD ID: 45B MATERIAL: 12" X 12" LIGHT BLUE FLOOR TILE MASTIC LOCATION: 256	BK N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	 04 % 96 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS
408097	FIELD ID: 46A MATERIAL: CARPET ADHESIVE LOCATION: 113	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408098	FIELD ID: 46B MATERIAL: CARPET ADHESIVE LOCATION: 233	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408099	FIELD ID: 46C MATERIAL: CARPET ADHESIVE LOCATION: 307D	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408100	FIELD ID: 47A MATERIAL: 12" X 12" GRAY W/WHITE FLOOR TILE LOCATION: 121D	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408101	FIELD ID: 47B MATERIAL: 12" X 12" GRAY W/WHITE FLOOR TILE LOCATION: 121D	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408102	FIELD ID: 48A MATERIAL: 12" X 12" GRAY W/WHITE FLOOR TILE MASTIC LOCATION: 121D	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408103	FIELD ID: 48B MATERIAL: 12" X 12" GRAY W/WHITE FLOOR TILE MASTIC LOCATION: 121D	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408104	FIELD ID: 49A MATERIAL: 12" X 12" TAN W/BROWN FLOOR TILE LOCATION: 121D	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408105	FIELD ID: 49B MATERIAL: 12" X 12" TAN W/BROWN FLOOR TILE LOCATION: 250	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408106	FIELD ID: 50A MATERIAL: 12" X 12" TAN W/BROWN FLOOR TILE MASTIC LOCATION:	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408107	FIELD ID: 50B MATERIAL: 12" X 12" TAN W/BROWN FLOOR TILE MASTIC LOCATION:	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408108	FIELD ID: 51A MATERIAL: COMPRESSED PETITION WALLBOARD LOCATION: 129B	MU Y	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	88 % 12 %
408109	FIELD ID: 51B MATERIAL: COMPRESSED PETITION WALLBOARD LOCATION: 129B	MU Y	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	88 % 12 %
408110	FIELD ID: 52A MATERIAL: PLASTER WALL, TYPE II, BASE COAT LOCATION: REAR OF 136	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408111	FIELD ID: 52B MATERIAL: PLASTER WALL, TYPE II, BASE COAT LOCATION: REAR OF 136	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408112	FIELD ID: 52C MATERIAL: PLASTER WALL, TYPE II, BASE COAT LOCATION: REAR OF 136	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408113	FIELD ID: 53A MATERIAL: PLASTER WALL, TYPE II, SKIM COAT LOCATION: REAR OF 136	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408114	FIELD ID: 53B MATERIAL: PLASTER WALL, TYPE II, SKIM COAT LOCATION: REAR OF 136	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408115	FIELD ID: 53C MATERIAL: PLASTER WALL, TYPE II, SKIM COAT LOCATION: REAR OF 136	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408116	FIELD ID: 54A MATERIAL: PINK SINK BASIN COATING LOCATION: 182	PI N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	12 % 88 %
408117	FIELD ID: 54B MATERIAL: PINK SINK BASIN COATING LOCATION: 255	PI N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	12 % 88 %
408118	FIELD ID: 54C MATERIAL: PINK SINK BASIN COATING LOCATION: 329	PI N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	12 % 88 %
408119	FIELD ID: 55A MATERIAL: COLUMN CAULK LOCATION: HALL, AT 182	YL/WH/GY Y	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	02 % 98 %
408120	FIELD ID: 55B MATERIAL: COLUMN CAULK LOCATION: 208	YL/WH Y	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408121	FIELD ID: 56A MATERIAL: PIPE/VENT PENETRATION SEALANT LOCATION: ROOFTOP	BK N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408122	FIELD ID: 56B MATERIAL: PIPE/VENT PENETRATION SEALANT LOCATION: ROOFTOP	BK N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408123	FIELD ID: 57A MATERIAL: CAPSTONE SEALANT LOCATION: ROOFTOP E	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408124	FIELD ID: 57B MATERIAL: CAPSTONE SEALANT LOCATION: ROOFTOP W	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408125	FIELD ID: 59A MATERIAL: UNDERSIDE OF PARAPET COPPER FLASHING SEALANT LOCATION: ROOFTOP	BK N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	15 % 85 %
408126	FIELD ID: 59B MATERIAL: UNDERSIDE OF PARAPET COPPER FLASHING SEALANT LOCATION: ROOFTOP	N/A N/A	SAMPLE NOT ANALYZED	
408127	FIELD ID: 60A MATERIAL: EDGE ROOF COMPOSITE LOCATION: 3RD FLOOR, E	MU Y	ASBESTOS - CHRYSOTILE FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	12 % 03 % 25 % 60 %
408128	FIELD ID: 60B MATERIAL: EDGE ROOF COMPOSITE LOCATION: 3RD FLOOR, W	N/A N/A	SAMPLE NOT ANALYZED	
408129	FIELD ID: 60C MATERIAL: EDGE ROOF COMPOSITE LOCATION: 3RD FLOOR, N	N/A N/A	SAMPLE NOT ANALYZED	
408130	FIELD ID: 61A MATERIAL: FIELD ROOF COMPOSITE LOCATION: 3RD FLOOR, E	MU Y	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	05 % 25 % 70 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408131	FIELD ID: 61B MATERIAL: FIELD ROOF COMPOSITE LOCATION: 3RD FLOOR, W	MU Y	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	 05 % 25 % 70 %
408132	FIELD ID: 61C MATERIAL: FIELD ROOF COMPOSITE LOCATION: 2ND FLOOR, N	MU Y	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	 05 % 25 % 70 %
408133	FIELD ID: 62A MATERIAL: SKYLIGHT WINDOW GLAZING COMPOUND LOCATION: 3RD FLOOR, ROOF, W	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408134	FIELD ID: 62B MATERIAL: SKYLIGHT WINDOW GLAZING COMPOUND LOCATION: 3RD FLOOR, ROOF, W	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408135	FIELD ID: 63A MATERIAL: EXTERIOR LOUVRE VENT CAULK LOCATION: 2ND FLR, ROOF, N	GY N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	10 % 90 %
408136	FIELD ID: 63B MATERIAL: EXTERIOR LOUVRE VENT CAULK LOCATION: 2ND FLR, ROOF, S	N/A N/A	SAMPLE NOT ANALYZED	
408137	FIELD ID: 64A MATERIAL: WHITE EXTERIOR WINDOW CAULK LOCATION: 2ND FLOOR, ROOF, S.	GY N	NO ASBESTOS DETECTED WOLLASTONITE NONFIBROUS MATERIAL	 03 % 97 %
408138	FIELD ID: 64B MATERIAL: WHITE EXTERIOR WINDOW CAULK LOCATION: 2ND FLOOR, ROOF, S.	GY N	NO ASBESTOS DETECTED WOLLASTONITE NONFIBROUS MATERIAL	 03 % 97 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS
408139	FIELD ID: 65A MATERIAL: EXTERIOR DUCT COVERING ATOP FIBERGLASS INSULATION LOCATION: 2ND FLOOR, ROOF, S.	BK/TN Y	NO ASBESTOS DETECTED FIBROUS GLASS 15 % CELLULOSE 45 % NONFIBROUS MATERIAL 40 %
408140	FIELD ID: 65B MATERIAL: EXTERIOR DUCT COVERING ATOP FIBERGLASS INSULATION LOCATION: 2ND FLOOR, ROOF, N.	BK/TN Y	NO ASBESTOS DETECTED FIBROUS GLASS 15 % CELLULOSE 45 % NONFIBROUS MATERIAL 40 %
408141	FIELD ID: 66A MATERIAL: CEMENT EXTERIOR WALL SLAB JOINT CAULK LOCATION: 2ND FLR, ROOF, S.	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408142	FIELD ID: 66B MATERIAL: CEMENT EXTERIOR WALL SLAB JOINT CAULK LOCATION: 2ND FLR, ROOF, N.	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408143	FIELD ID: 67A MATERIAL: EXTERIOR ROOFTOP ACCESS DOOR CAULK LOCATION: 2ND FLOOR, ROOF, N.	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408144	FIELD ID: 67B MATERIAL: EXTERIOR ROOFTOP ACCESS DOOR CAULK LOCATION: 2ND FLOOR, ROOF, S.	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408145	FIELD ID: 68A MATERIAL: CAPSTONE WATERPROOFING BLACK SEALANT LOCATION: 2ND FLOOR, ROOF, N.	BK N	ASBESTOS - CHRYSOTILE 12 % CELLULOSE 25 % NONFIBROUS MATERIAL 63 %
408146	FIELD ID: 68B MATERIAL: CAPSTONE WATERPROOFING BLACK SEALANT LOCATION: 2ND FLOOR, ROOF, N.	N/A N/A	SAMPLE NOT ANALYZED

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408147	FIELD ID: 69A MATERIAL: EXTERIOR DOOR CAULK LOCATION: BASEMENT, E. SIDE	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408148	FIELD ID: 69B MATERIAL: EXTERIOR DOOR CAULK LOCATION: BASEMENT, E. SIDE	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408149	FIELD ID: 70A MATERIAL: EXTERIOR GRAY DOOR CAULK LOCATION: BASEMENT, N. SIDE	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408150	FIELD ID: 70B MATERIAL: EXTERIOR GRAY DOOR CAULK LOCATION: BASEMENT, N. SIDE	GY N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408151	FIELD ID: 71A MATERIAL: BLACK DAMPROOFING INSIDE PERIMETER CMU BRICK WALL LOCATION: 256	BK N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	14 % 86 %
408152	FIELD ID: 71B MATERIAL: BLACK DAMPROOFING INSIDE PERIMETER CMU BRICK WALL LOCATION: STAIRS AT 244	BK N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	14 % 86 %
408153	FIELD ID: 71C MATERIAL: BLACK DAMPROOFING INSIDE PERIMETER CMU BRICK WALL LOCATION: 307D	BK N	ASBESTOS - CHRYSOTILE NONFIBROUS MATERIAL	14 % 86 %
408154	FIELD ID: 72A MATERIAL: GYMNASIUM PADDED 6' WALL PANEL ADHESIVE LOCATION: 245A	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408155	FIELD ID: 72B MATERIAL: GYMNASIUM PADDED 6' WALL PANEL ADHESIVE LOCATION: 245B	TN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408156	FIELD ID: 73A MATERIAL: GYMNASIUM RUBBER FLOORING ADHESIVE LOCATION: 245A	YL N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408157	FIELD ID: 73B MATERIAL: GYMNASIUM RUBBER FLOORING ADHESIVE LOCATION: 245B	YL N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408158	FIELD ID: 74A MATERIAL: DUCT ROPE-LIKE INSULATION LOCATION: 235	WH N	ASBESTOS - CHRYSOTILE SYNTHETIC NONFIBROUS MATERIAL	80 % 19 % 01 %
408159	FIELD ID: 74B MATERIAL: DUCT ROPE-LIKE INSULATION LOCATION: 235	N/A N/A	SAMPLE NOT ANALYZED	
408160	FIELD ID: 75A MATERIAL: SKIM COAT ON CONCRETE WALL LOCATION: 235	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408161	FIELD ID: 75B MATERIAL: SKIM COAT ON CONCRETE WALL LOCATION: 235	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408162	FIELD ID: 75C MATERIAL: SKIM COAT ON CONCRETE WALL LOCATION: 235	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408163	FIELD ID: 76A MATERIAL: ACOUSTICAL 4' X 8' WALL PANEL BLACK GLUE DAUB LOCATION: 236	BR N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408164	FIELD ID: 76B MATERIAL: ACOUSTICAL 4' X 8' WALL PANEL BLACK GLUE DAUB LOCATION: 236	BR N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408165	FIELD ID: 77A MATERIAL: 2' X 4' FISSURED CEILING TILE LOCATION: S-6, HALL	GY/WH N	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	 35 % 50 % 15 %
408166	FIELD ID: 77B MATERIAL: 2' X 4' FISSURED CEILING TILE LOCATION: S-6, HALL	GY/WH N	NO ASBESTOS DETECTED FIBROUS GLASS CELLULOSE NONFIBROUS MATERIAL	 35 % 50 % 15 %
408167	FIELD ID: 78A MATERIAL: PETITION RETRACTABLE WALL PANEL LOCATION: 231D	YL/TN N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	 98 % 02 %
408168	FIELD ID: 78B MATERIAL: PETITION RETRACTABLE WALL PANEL LOCATION: 231B	TN/RD N	NO ASBESTOS DETECTED CELLULOSE NONFIBROUS MATERIAL	 98 % 02 %
408169	FIELD ID: 79A MATERIAL: CHALK BOARD BLACK GLUE DAUB LOCATION: 214D	BR N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408170	FIELD ID: 79B MATERIAL: CHALK BOARD BLACK GLUE DAUB LOCATION: 223D	BR N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408171	FIELD ID: 79C MATERIAL: CHALK BOARD BLACK GLUE DAUB LOCATION: 238	BR N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %
408172	FIELD ID: 80A MATERIAL: BLACK COATING ON COPPER FLASHING ON PERIMETER WALLS UNDER WINDOWS LOCATION: 307D	BK N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	 100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408173	FIELD ID: 80B MATERIAL: BLACK COATING ON COPPER FLASHING ON PERIMETER WALLS UNDER WINDOWS LOCATION: 307D	BK N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408174	FIELD ID: 81A MATERIAL: CAULKING UNDER PERIMETER METAL WINDOWS ATOP CMU BRICK LOCATION: 307D	BR N	NO ASBESTOS DETECTED SYNTHETIC NONFIBROUS MATERIAL	10 % 90 %
408175	FIELD ID: 81B MATERIAL: CAULKING UNDER PERIMETER METAL WINDOWS ATOP CMU BRICK LOCATION: 307D	BR N	NO ASBESTOS DETECTED SYNTHETIC NONFIBROUS MATERIAL	10 % 90 %
408176	FIELD ID: 82A MATERIAL: DUCT VIBRATION CLOTH LOCATION: 301	BK/WH Y	NO ASBESTOS DETECTED FIBROUS GLASS NONFIBROUS MATERIAL	40 % 60 %
408177	FIELD ID: 82B MATERIAL: DUCT VIBRATION CLOTH LOCATION: 301	BK/WH Y	NO ASBESTOS DETECTED FIBROUS GLASS NONFIBROUS MATERIAL	40 % 60 %
408178	FIELD ID: 83A MATERIAL: 12" X 12" WHITE FLOOR TILE LOCATION: 315D	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408179	FIELD ID: 83B MATERIAL: 12" X 12" WHITE FLOOR TILE LOCATION: 315D	WH N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408180	FIELD ID: 84A MATERIAL: 12" X 12" WHITE FLOOR TILE MASTIC LOCATION: 301	YL N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS
408181	FIELD ID: 84B MATERIAL: 12" X 12" WHITE FLOOR TILE MASTIC LOCATION: 301	YL N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408182	FIELD ID: 85A MATERIAL: 6" ROOF DRAIN MUDDER FITTING INSULATION LOCATION: 338	GY Y	NO ASBESTOS DETECTED FIBROUS GLASS 18 % CELLULOSE 20 % NONFIBROUS MATERIAL 62 %
408183	FIELD ID: 85B MATERIAL: 6" ROOF DRAIN MUDDER FITTING INSULATION LOCATION: 301	GY Y	NO ASBESTOS DETECTED FIBROUS GLASS 20 % CELLULOSE 18 % NONFIBROUS MATERIAL 62 %
408184	FIELD ID: 85C MATERIAL: 6" ROOF DRAIN MUDDER FITTING INSULATION LOCATION: 301	GY Y	NO ASBESTOS DETECTED FIBROUS GLASS 25 % CELLULOSE 10 % NONFIBROUS MATERIAL 65 %
408185	FIELD ID: 86A MATERIAL: ADHESIVE UNDER METAL STAIR TREADS LOCATION: 195	GN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408186	FIELD ID: 86B MATERIAL: ADHESIVE UNDER METAL STAIR TREADS LOCATION: 195	GN N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408187	FIELD ID: 87A MATERIAL: 6" WALL BASE LOCATION: LIBRARY	BK N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %
408188	FIELD ID: 87B MATERIAL: 6" WALL BASE LOCATION: LIBRARY	BK N	NO ASBESTOS DETECTED NONFIBROUS MATERIAL 100 %

LAB ID	SAMPLE DESCRIPTION	COLOR LAYERED	ANALYTICAL RESULTS	
408189	FIELD ID: 88A MATERIAL: 6" WALL BASE ADHESIVE LOCATION: LIBRARY	BR/TN Y	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %
408190	FIELD ID: 88B MATERIAL: 6" WALL BASE ADHESIVE LOCATION: LIBRARY	BR/TN Y	NO ASBESTOS DETECTED NONFIBROUS MATERIAL	100 %

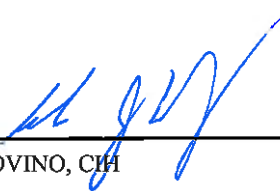
NOTES: N/A=NOT APPLICABLE

COLOR CODES:	BG BEIGE	BR BROWN	GY GRAY	OR ORANGE	RD RED	WH WHITE
	BK BLACK	CL CLEAR	MU MULTI	PI PINK	SI SILVER	YL YELLOW
	BL BLUE	GN GREEN	N/A NONE	PR PURPLE	TN TAN	MA MAROON

LABORATORY CERTIFICATIONS: MA #AA000006 RI #AAL-025C3 VT #AL332367 ME #LB-061
CT #PH-0248

ACCREDITATION: NVLAP #101781-0

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APPROVED SIGNATORY: 
SAMUEL J. COVINO, CH

THESE SAMPLES WERE ANALYZED BY POLARIZED LIGHT MICROSCOPY WITH DISPERSION STAINING (PLM/DS) ACCORDING TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US EPA) "INTERIM METHOD FOR THE DETERMINATION OF ASBESTOS IN BULK INSULATION SAMPLES" (EPA-600/M4-82-020) AND "METHOD FOR THE DETERMINATION OF ASBESTOS IN BULK BUILDING MATERIALS" (EPA-600/R93/116). THIS METHOD IS CONSIDERED SENSITIVE TO THE PRESENCE OF ASBESTOS AT LESS THAN ONE PERCENT. THIS REPORT RELATES ONLY TO THOSE SAMPLES ANALYZED, AND MAY NOT BE INDICATIVE OF OTHER SIMILAR APPEARING MATERIALS EXISTING AT THIS, OR OTHER SITES.

FLOOR TILES AND RESINOUSLY BOUND MATERIALS ANALYZED BY EPA METHOD 600/R93/116, "METHOD FOR THE DETERMINATION OF ASBESTOS IN BULK BUILDING MATERIALS," MAY YIELD FALSE NEGATIVE RESULTS DUE TO DIFFICULTIES IN ISOLATING SUSPECT FIBERS AND SUBSEQUENTLY IDENTIFYING THEM BENEATH THE MATRIX MATERIAL WHICH ENCAPSULATES THEM. SHEARING DURING THE MANUFACTURE OF VINYL TILE DECREASES THE FIBER SIZE OF THE ASBESTOS COMPONENT; THEREFORE, THE FIBERS MAY NOT BE READILY DETECTABLE USING POLARIZED LIGHT MICROSCOPY. AS A RESULT, LABORATORY ANALYSIS CANNOT ALWAYS BE ACCOMPLISHED USING STANDARD TECHNIQUES. WHEN THE EPA METHOD YIELDS A "NO ASBESTOS DETECTED" RESULT FOR FLOOR TILES AND RESINOUSLY BOUND MATERIALS, COVINO ENVIRONMENTAL ASSOCIATES RECOMMENDS FURTHER ANALYSIS USING SEM OR TEM TECHNIQUES FOR THE IDENTIFICATION OF ASBESTOS.

THE EPA REQUIRES THAT FRIABLE SAMPLES WITH ASBESTOS CONTENTS OF LESS THAN 10%, DETERMINED BY A VISUAL ESTIMATION, BE VERIFIED USING THE POINT COUNTING TECHNIQUE OR OTHERWISE BE ASSUMED TO CONTAIN GREATER THAN 1% ASBESTOS BY THE BUILDING OWNER OR OPERATOR. IF ANALYTICAL RESULTS INDICATE THE PRESENCE OF 1% OR LESS ASBESTOS IN A FRIABLE MATERIAL, THAT MATERIAL MUST BE TREATED AS ASBESTOS-CONTAINING MATERIAL UNLESS THESE QUANTITIES ARE VERIFIED USING THE POINT COUNTING TECHNIQUE. FRIABLE SAMPLES WILL BE POINT-COUNTED UPON REQUEST BY THE CLIENT. POINT COUNTING IS NOT REQUIRED FOR THOSE SAMPLES IN WHICH NO ASBESTOS IS DETECTED DURING ANALYSIS BY PLM.

LAYERED SAMPLES ARE ANALYZED IN THE FOLLOWING MANNER: ALL LAYERS ARE ANALYZED SEPARATELY, AND QUANTITIES ARE REPORTED AS A PERCENTAGE OF THE ENTIRE COMPOSITE SAMPLE.

ALL SAMPLES ARE STORED AT THE COVINO LABORATORY FOR A PERIOD OF THREE MONTHS. FURTHER ANALYSIS OR RETURN OF SAMPLES MUST BE REQUESTED WITHIN THIS THREE-MONTH PERIOD TO GUARANTEE THEIR AVAILABILITY.

THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN ITS ENTIRETY, WITHOUT PERMISSION OF THE COVINO ENVIRONMENTAL ASSOCIATES, INC. LABORATORY DIRECTOR OR ONE OF THE LABORATORY SIGNATORIES. THIS REPORT MAY NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.

APPENDIX B

LEAD PAINT TESTING RESULTS BY XRF ANALYSIS

**Lead Paint Testing Results by XRF Analysis
Former Powderhouse School
1060 Broadway
Somerville, Massachusetts
January 17, 2014**

Location/Component	Substrate	Results (mg/cm ²)
First Floor		
Hallway		
Wall	Concrete	< 0.05
Door	Wood	< 0.05
Door Frame	Metal	< 0.05
Door	Metal	< 0.05
Fire Extinguisher Box	Metal	< 0.05
Fluorescent Light Holder	Metal	< 0.05
Student Bathroom		
Wall	Concrete	< 0.05
Door	Wood	< 0.05
Door Frame	Metal	< 0.05
Floor	Tile	< 0.05
Ceiling	Gypsum	< 0.05
Room 113		
Wall	Concrete	< 0.05
Window	Metal	< 0.05
Room 129C		
Wall	Concrete	< 0.05
Floor	Vinyl	< 0.05
Column	Concrete	< 0.05
Divider Wall	Wood	< 0.05
Ceiling	Metal	< 0.05
Cabinet Frame	Wood	< 0.05
Cabinet Door	Wood	< 0.05
Room 129A		
Wall	Concrete	< 0.05
Floor	Vinyl	< 0.05
Column	Concrete	< 0.05
Window	Metal	< 0.05
Electrical Panel	Metal	< 0.05
Cabinet Frame	Wood	< 0.05
Fluorescent Light Holder	Metal	< 0.05

**Lead Paint Testing Results by XRF Analysis
Former Powderhouse School
1060 Broadway
Somerville, Massachusetts
January 17, 2014**

Location/Component	Substrate	Results (mg/cm ²)
Faculty Bathroom		
Wall	Concrete	< 0.05
Door	Wood	< 0.05
Door Frame	Metal	< 0.05
Floor	Tile	< 0.05
Staircase		
Railing	Metal	1.3
Stair Treads	Concrete	< 0.05
Stringer	Concrete	< 0.05
Wall	Concrete	< 0.05
Window	Metal	< 0.05
Door	Metal	< 0.05
Door Frame	Metal	< 0.05
Column	Concrete	< 0.05
Handrail	Metal	1.8
Cafeteria		
Stage	Wood	< 0.05
Columns	Concrete	< 0.05
Door	Metal	< 0.05
Kitchen		
Wall	Concrete	< 0.05
Floor	Tile	< 0.05
Door Frame	Metal	< 0.05
Electrical Room		
Wall	Concrete	< 0.05
Electrical Breaker	Metal	< 0.05
Locker	Metal	< 0.05
Second Floor		
Room 214C		
Wall	Concrete	< 0.05
Floor	Vinyl	< 0.05
Column	Concrete	< 0.05
Divider Wall	Wood	< 0.05
Ceiling	Metal	< 0.05
Cabinet Frame	Wood	< 0.05
Door	Wood	< 0.05

Lead Paint Testing Results by XRF Analysis
Former Powderhouse School
1060 Broadway
Somerville, Massachusetts
January 17, 2014

Location/Component	Substrate	Results (mg/cm²)
Door Frame	Metal	< 0.05
Electrical Panel	Metal	< 0.05
Storage Room		
Wall	Concrete	< 0.05
Floor	Concrete	< 0.05
Shelves	Metal	< 0.05
Pipe	Metal	< 0.05
Electrical Conduit	Metal	< 0.05
Custodial Closet		
Wall	Concrete	< 0.05
Shelf	Wood	< 0.05
Sink Base	Concrete	< 0.05
Room 223A		
Radiator	Metal	< 0.05
Wall	Concrete	< 0.05
Divider Wall	Wood	< 0.05
Divider Wall Frame	Metal	< 0.05
Column	Concrete	< 0.05
Window	Metal	< 0.05
Fluorescent Light Holder	Wood	< 0.05
Ceiling	Metal	< 0.05
Cabinet Door	Wood	< 0.05
Electrical Panel	Metal	< 0.05
Door Glass Side-lite Frame	Metal	< 0.05
Gymnasium Balcony/Entry		
Wall	Concrete	< 0.05
Column	Concrete	< 0.05
Door Frame	Metal	< 0.05
Solid Railing Half-Wall	Wood	< 0.05
Gymnasium		
Wall	Concrete	< 0.05
Floor	Wood	< 0.05
Bleachers	Wood	0.26
Interior Door	Metal	< 0.05
Exterior/Exit Door	Metal	2.9

Lead Paint Testing Results by XRF Analysis
Former Powderhouse School
1060 Broadway
Somerville, Massachusetts
January 17, 2014

Location/Component	Substrate	Results (mg/cm ²)
Main Entryway		
Solid Railing Half-Wall	Concrete	< 0.05
Ceiling	Concrete	0.11
Exterior/Exit Doors	Metal	< 0.05
Exterior/Exit Door Frame	Metal	< 0.05
Railing	Wood	< 0.05
Railing Supports	Metal	< 0.05
Third Floor		
Room 315C		
Radiator	Metal	< 0.05
Wall	Concrete	< 0.05
Floor	Vinyl	< 0.05
Door	Wood	< 0.05
Door Frame	Metal	< 0.05
Cabinet Frame	Metal	< 0.05
Electrical Panel	Metal	< 0.05
Door Glass Side-lite Frame	Metal	< 0.05
Column	Concrete	< 0.05
Rear Staircase		
Wall	Concrete	< 0.05
Door	Metal	< 0.05
Stair Treads	Concrete	< 0.05
Floor	Vinyl	< 0.05
Columns	Concrete	< 0.05
Door Frame	Metal	< 0.05
Door Glass Side-lite Frame	Metal	< 0.05
Railing	Metal	0.8
Handrail	Metal	1.1
Hallway		
Wall	Concrete	< 0.05
Door	Wood	< 0.05
Door	Metal	< 0.05
Door Frame	Metal	< 0.05
Fluorescent Light Holder	Metal	< 0.05

Lead Paint Testing Results by XRF
Former Powderhouse School
1060 Broadway
Somerville, Massachusetts
January 17, 2014

Location/Component	Substrate	Results (mg/cm ²)
Exterior		
Garage Door	Metal	0.17
Garage Bumpers	Metal	0.4
Post	Metal	0.3
Pipe	Metal	0.4

- <0.05 = less than the limit of quantification of the XRF.
- mg/cm² = milligrams of lead per square centimeter of sampled surface area.

APPENDIX C

INVENTORY OF OBSERVED POTENTIALLY HAZARDOUS BUILDING MATERIALS

**Inventory of Observed Potentially Hazardous Equipment and Stored Items
 Former Powderhouse School
 1060 Broadway
 Somerville, Massachusetts
 January 16, 2014**

Item	Size	Approximate Quantity
First Floor		
Fluorescent lamp	4' x 2'	574 each
	3' x 6'	696 each
	4' x 4'	7 each
	2' x 2'	12 each
CFL	N/A	10 each
Stored bulb	N/A	23 each
Refrigerator	N/A	1 each
Fire alarm panel	N/A	1 each
Switchgear (Westinghouse installed 3/72)	N/A	1 each
Capacitor Bank (Autovar. Cap. Bank #125MCSD4313)	N/A	1 each
Transformer (Westinghouse DT-3 Serial #71K4368)	N/A	1 each
Gas Meter	N/A	1 each
Paint	1 Gallon	9 each
Paint	5 Gallon	1 each
Sports floor cleaner	5 Gallon	3 each
Linoleum adhesive	5 Gallon	1 each
Pesticide	1 Gallon	1 each
Disinfectant concentrate	1 Gallon	1 each
Walk-in freezer	N/A	1 each
Trash compactor	N/A	1 each
Industrial refrigerator	N/A	1 each
Compressor	N/A	3 each

**Inventory of Observed Potentially Hazardous Equipment and Stored Items
 Former Powderhouse School
 1060 Broadway
 Somerville, Massachusetts
 January 16, 2014**

Item	Size	Approximate Quantity
Floor wax stripper	N/A	5 each
Cathode Ray Tube	N/A	1 each
Unknown	5 Gallon	5 each
Second Floor		
Fluorescent lamp	4' x 2'	376 each
	3' x 6'	1386 each
	3' x 2'	14 each
	2' x 2'	9 each
	4' x 1'	2 each
Smoke detectors	N/A	10 each
Sodium (?)	N/A	15 each
Third Floor		
Fluorescent lamp	4' x 2'	214 each
	3' x 6'	630 each
	2' x 2'	4 each
Smoke detectors	N/A	7 each
Gas water heater	N/A	3 each
Refrigeration oil	5 Gallon	1 each
Gas fixed air heaters	N/A	2 each
Compressor with oil reserve	N/A	1 each
Fan penetrating oil	Can	1 each

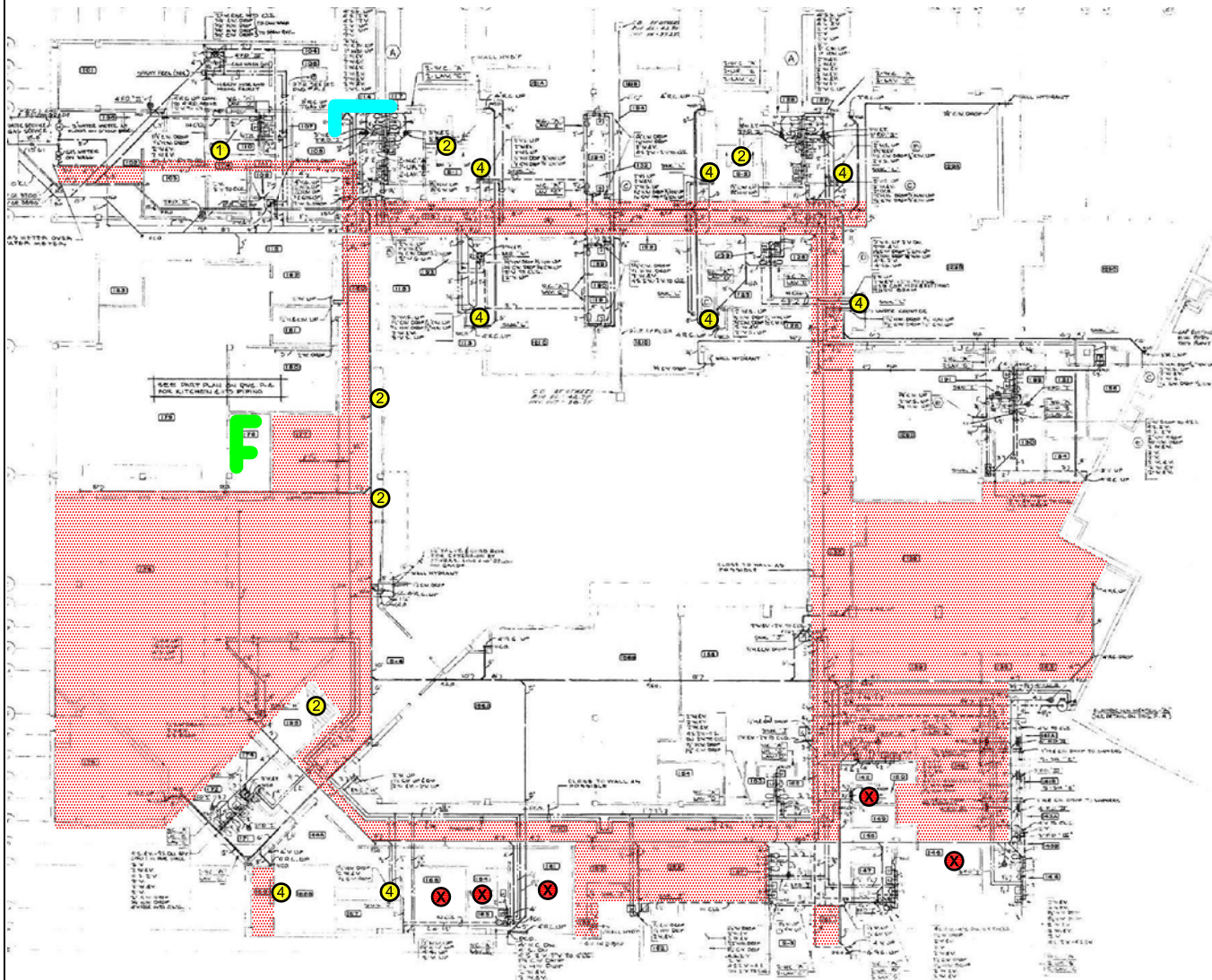
Inventory of Observed Potentially Hazardous Equipment and Stored Items
Former Powderhouse School
1060 Broadway
Somerville, Massachusetts
January 16, 2014

Roof		
HVAC units (high roof)	N/A	6 each
HVAC units (low roof)	N/A	4 each
Exterior		
Transformer (16-1461 585-114H)	N/A	1 each

Notes: N/A = Not Applicable

APPENDIX D

APPROXIMATE LOCATIONS OF IDENTIFIED AND ASSUMED ASBESTOS-CONTAINING MATERIALS



Key - Asbestos-Containing Materials

- Brown duct seam sealant
- 6" diameter pipe insulation
- ▨ 12" x 12" Brown floor tile and associated mastic
- ① Radiator caulk compound
- ② Coating on underside of cement stairs
- ③ Duct rope-like insulation/sealant
- ④ Sink basin coating (black and pink)
- ⓧ Inaccessible areas

ACM not shown on drawing - Located throughout building

Caulk on interior wire mesh windows (located at entrances to most classrooms and various hallway locations)

Interior door caulk (all interior doors)

Exterior louvre vent caulk; perimeter roofing composite materials and capstone waterproofing black sealant located on exterior

Black dampproofing inside perimeter CMU block walls (located in wall cavity of all perimeter walls, all elevations)

Skim coat on concrete columns throughout building



300 Wildwood Avenue, Woburn, MA 01801
Tel: 781.933.2555 * Fax 781.932.9402
email: mail@covinoinc.com

Client:
ADD, Inc.
311 Summer Street
Boston, Massachusetts

Site:
Former Powderhouse School
1060 Broadway
Somerville, Massachusetts

Approximate Locations of Identified and Assumed Asbestos-Containing Materials

January 8 - 16 and February 11 - 12, 2014

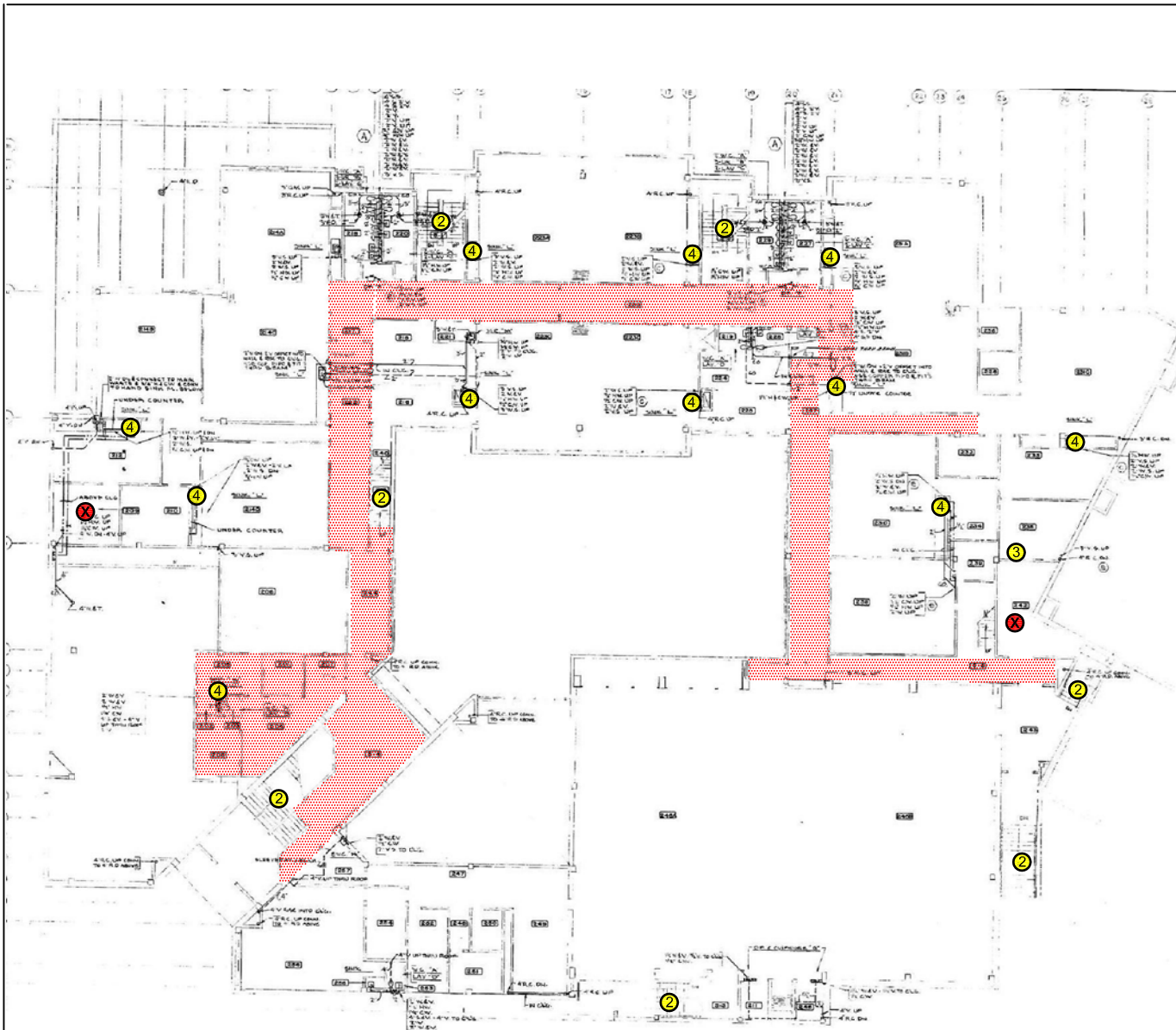
Covino Project 14.00046

NOT TO SCALE

First Floor

Revised by: ALM

Date: 03.12.14



Key - Asbestos-Containing Materials

- Brown duct seam sealant
- 6" diameter pipe insulation
- 12" x 12" Brown floor tile and associated mastic
- ① Radiator caulk compound
- ② Coating on underside of cement stairs
- ③ Duct rope-like insulation/sealant
- ④ Sink basin coating (black and pink)
- ✗ Inaccessible areas

ACM not shown on drawing - Located throughout building

Caulk on interior wire mesh windows (located at entrances to most classrooms and various hallway locations)

Interior door caulk (all interior doors)

Exterior louvre vent caulk; perimeter roofing composite materials and capstone waterproofing black sealant located on exterior

Black dampproofing inside perimeter CMU block walls (located in wall cavity of all perimeter walls, all elevations)

Skim coat on concrete columns throughout building



300 Wildwood Avenue, Woburn, MA 01801
Tel: 781.933.2555 * Fax 781.932.9402
email: mail@covinoinc.com

Client:
ADD, Inc.
311 Summer Street
Boston, Massachusetts

Site:
Former Powderhouse School
1060 Broadway
Somerville, Massachusetts

Approximate Locations of Identified and Assumed
Asbestos-Containing Materials

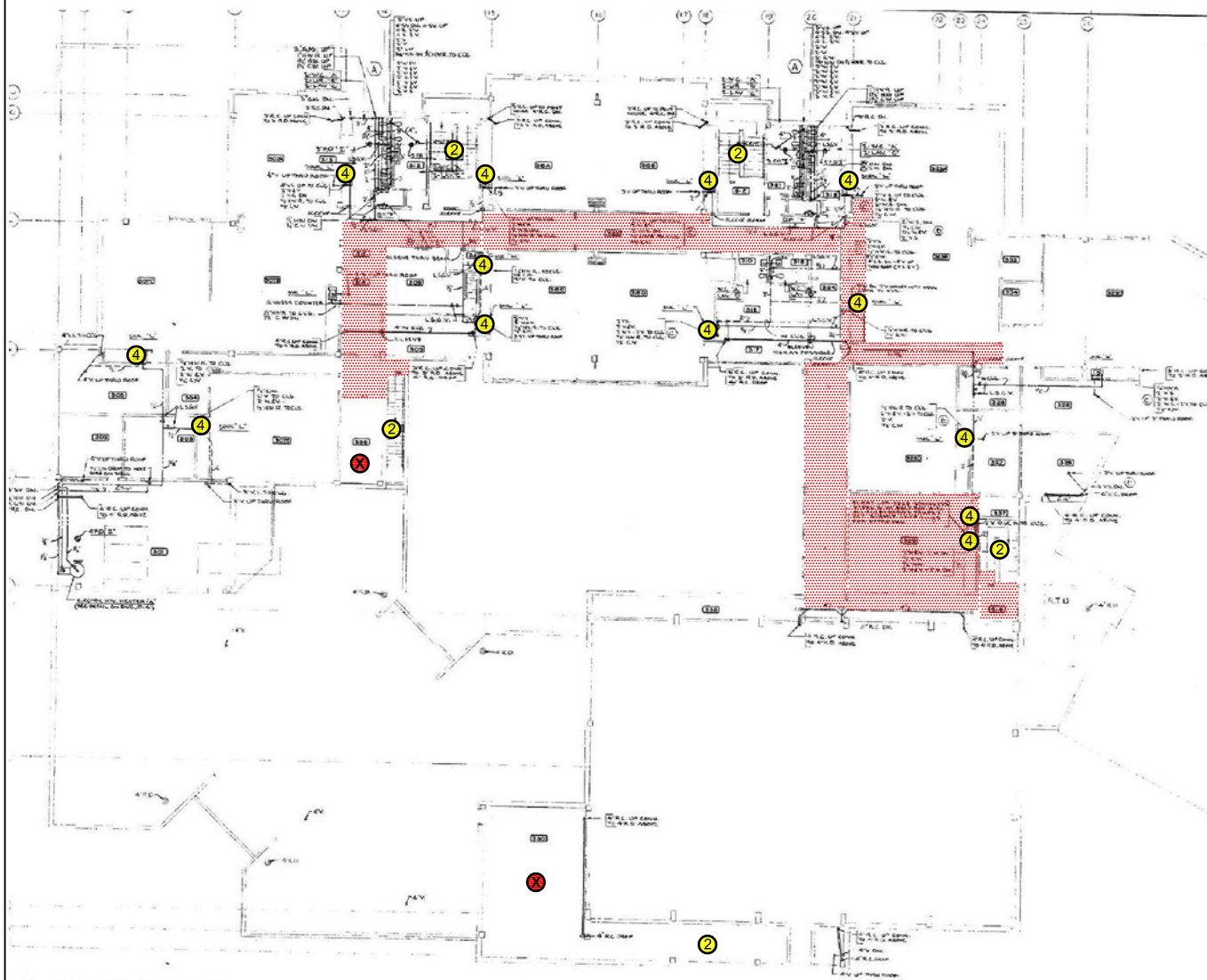
January 8 - 16 and February 11 - 12, 2014

Covino Project 14.00046

NOT TO SCALE

Second Floor

Revised by: ALM Date: 03.12.14



Key - Asbestos-Containing Materials

- Brown duct seam sealant
- 6" diameter pipe insulation
- 12" x 12" Brown floor tile and associated mastic
- 1 Radiator caulk compound
- 2 Coating on underside of cement stairs
- 3 Duct rope-like insulation/sealant
- 4 Sink basin coating (black and pink)
- X Inaccessible areas

ACM not shown on drawing - Located throughout building

Caulk on interior wire mesh windows (located at entrances to most classrooms and various hallway locations)

Interior door caulk (all interior doors)

Exterior louvre vent caulk; perimeter roofing composite materials and capstone waterproofing black sealant located on exterior

Black dampproofing inside perimeter CMU block walls (located in wall cavity of all perimeter walls, all elevations)

Skim coat on concrete columns throughout building



300 Wildwood Avenue, Woburn, MA 01801
Tel: 781.933.2555 * Fax 781.932.9402
email: mail@covinoinc.com

Client:
ADD, Inc.
311 Summer Street
Boston, Massachusetts

Site:
Former Powderhouse School
1060 Broadway
Somerville, Massachusetts

Approximate Locations of Identified and Assumed Asbestos-Containing Materials

January 8 - 16 and February 11 - 12, 2014

Covino Project 14.00046

NOT TO SCALE

Third Floor

Revised by: ALM

Date: 03.12.14

APPENDIX E

PCB BULK SAMPLE LABORATORY ANALYSIS REPORT

Date:
Feb-14 17:09



SPECTRUM ANALYTICAL, INC.

Featuring
HANIBAL TECHNOLOGY

Laboratory Report

- ☒ Final Report
☐ Re-Issued Report
☐ Revised Report

Covino Environmental Associates, Inc.
300 Wildwood Avenue
Woburn, MA 01801
Attn: Kevin Craig

Project: Former Powder House School - Somerville, MA
Project #: 14.00046

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SB84669-01	1	Caulking Compounds	11-Feb-14 09:35	14-Feb-14 16:05
SB84669-02	2	Caulking Compounds	11-Feb-14 09:55	14-Feb-14 16:05
SB84669-03	3	Caulking Compounds	11-Feb-14 10:15	14-Feb-14 16:05
SB84669-04	4	Caulking Compounds	11-Feb-14 10:50	14-Feb-14 16:05
SB84669-05	5	Caulking Compounds	11-Feb-14 11:00	14-Feb-14 16:05
SB84669-06	6	Caulking Compounds	11-Feb-14 11:20	14-Feb-14 16:05
SB84669-07	7	Caulking Compounds	11-Feb-14 11:45	14-Feb-14 16:05
SB84669-08	8	Caulking Compounds	11-Feb-14 12:20	14-Feb-14 16:05
SB84669-09	9	Caulking Compounds	11-Feb-14 13:05	14-Feb-14 16:05
SB84669-10	10	Caulking Compounds	11-Feb-14 13:25	14-Feb-14 16:05

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435



Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 15 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, NJ-MA012, PA-68-04426 and FL-E87936).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

The samples were received 5.7 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

SW846 8082A

Samples:

SB84669-03 3

Difference between the two GC columns is greater than 40%.

Aroclor-1254

SB84669-04 4

Difference between the two GC columns is greater than 40%.

Aroclor-1248

SB84669-05 5

The Reporting Limit has been raised to account for matrix interference.

Aroclor-1248

SB84669-06 6

Difference between the two GC columns is greater than 40%.

Aroclor-1248

SB84669-08 8

The Reporting Limit has been raised to account for matrix interference.

Sample Acceptance Check Form

Client: Covino Environmental Associates, Inc.
 Project: Former Powder House School - Somerville, MA / 14.00046
 Work Order: SB84669
 Sample(s) received on: 2/14/2014
 Received by: Vickie Knowles

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
1. Were custody seals present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Were custody seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Were samples received at a temperature of $\leq 6^{\circ}\text{C}$?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Were samples cooled on ice upon transfer to laboratory representative?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Were samples refrigerated upon transfer to laboratory representative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Were sample containers received intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Were samples accompanied by a Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Did sample container labels agree with Chain of Custody document?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Were samples received within method-specific holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sample Identification

I
SB84669-01

Client Project # 14.00046

Matrix Caulking Compounds

Collection Date/Time 11-Feb-14 09:35

Received 14-Feb-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Semivolatile Organic Compounds by GC

Polychlorinated Biphenyls

Prepared by method SW846 3540C

12674-11-2	Aroclor-1016	< 182		µg/kg dry	182	136	1	SW846 8082A	18-Feb-14	20-Feb-14	BLM	1403612	
11104-28-2	Aroclor-1221	< 182		µg/kg dry	182	164	1	"	"	"	"	"	
11141-16-5	Aroclor-1232	< 182		µg/kg dry	182	117	1	"	"	"	"	"	
53469-21-9	Aroclor-1242	< 182		µg/kg dry	182	109	1	"	"	"	"	"	
12672-29-6	Aroclor-1248	< 182		µg/kg dry	182	94.6	1	"	"	"	"	"	
11097-69-1	Aroclor-1254	< 182		µg/kg dry	182	152	1	"	"	"	"	"	
11096-82-5	Aroclor-1260	< 182		µg/kg dry	182	113	1	"	"	"	"	"	
37324-23-5	Aroclor-1262	< 182		µg/kg dry	182	169	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 182		µg/kg dry	182	75.0	1	"	"	"	"	"	

Surrogate recoveries:

10385-84-2	4,4-DB-Octafluorobiphenyl (Sr)	100			30-150 %			"	"	"	"	"	
10385-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	85			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr)	75			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	80			30-150 %			"	"	"	"	"	

General Chemistry Parameters

% Solids	99.0	%				1	SM2540 G Mod.	21-Feb-14	21-Feb-14	DT	1403943	
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182.

< 0.182

Sample Identification

2

SB84669-02

Client Project #

14.00046

Matrix

Caulking Compounds

Collection Date/Time

11-Feb-14 09:55

Received

14-Feb-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Semivolatile Organic Compounds by GC

Polychlorinated BiphenylsPrepared by method SW846 3540C

12674-11-2	Aroclor-1016	< 159		µg/kg dry	159	119	1	SW846 8082A	18-Feb-14	20-Feb-14	BLM	1403612	
11104-28-2	Aroclor-1221	< 159		µg/kg dry	159	143	1	"	"	"	"	"	"
11141-16-5	Aroclor-1232	< 159		µg/kg dry	159	102	1	"	"	"	"	"	"
53469-21-9	Aroclor-1242	< 159		µg/kg dry	159	95.8	1	"	"	"	"	"	"
12672-29-6	Aroclor-1248	1,050		µg/kg dry	159	82.8	1	"	"	"	"	"	"
11097-69-1	Aroclor-1254 [2C]	1,690		µg/kg dry	159	93.2	1	"	"	"	"	"	"
11096-82-5	Aroclor-1260	< 159		µg/kg dry	159	98.7	1	"	"	"	"	"	"
37324-23-5	Aroclor-1262	< 159		µg/kg dry	159	148	1	"	"	"	"	"	"
11100-14-4	Aroclor-1268	< 159		µg/kg dry	159	65.7	1	"	"	"	"	"	"

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	80			30-150 %			"	"	"	"	"	"
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	65			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr)	70			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr) [2C]	80			30-150 %			"	"	"	"	"	"

General Chemistry Parameters

% Solids	97.9	%					1	SM2540 G Mod.	21-Feb-14	21-Feb-14	DT	1403943	
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50 ppm

1690

1.69

Sample Identification

3

SB84669-03

Client Project #

14.00046

Matrix

Caulking Compounds

Collection Date/Time

11-Feb-14 10:15

Received

14-Feb-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Semivolatile Organic Compounds by GCPolychlorinated BiphenylsPrepared by method SW846 3540C

12674-11-2	Aroclor-1016	< 180		µg/kg dry	180	135	1	SW846 8082A	18-Feb-14	20-Feb-14	BLM	1403612	
11104-28-2	Aroclor-1221	< 180		µg/kg dry	180	163	1	"	"	"	"	"	
11141-16-5	Aroclor-1232	< 180		µg/kg dry	180	116	1	"	"	"	"	"	
53469-21-9	Aroclor-1242	< 180		µg/kg dry	180	109	1	"	"	"	"	"	
12672-29-6	Aroclor-1248 [2C]	839		µg/kg dry	180	79.2	1	"	"	"	"	"	
11097-69-1	Aroclor-1254	180	P	µg/kg dry	180	150	1	"	"	"	"	"	
11096-82-5	Aroclor-1260	< 180		µg/kg dry	180	112	1	"	"	"	"	"	
37324-23-5	Aroclor-1262	< 180		µg/kg dry	180	168	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 180		µg/kg dry	180	74.4	1	"	"	"	"	"	

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	80			30-150 %			"	"	"	"	"	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	65			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr)	55			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	85			30-150 %			"	"	"	"	"	

General Chemistry Parameters

% Solids	98.5	%					1	SM2540 G Mod.	21-Feb-14	21-Feb-14	DT	1403943	
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Sample Identification

4

SB84669-04

Client Project #

14.00046

Matrix

Caulking Compounds

Collection Date/Time

11-Feb-14 10:50

Received

14-Feb-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Semivolatile Organic Compounds by GCPolychlorinated BiphenylsPrepared by method SW846 3540C

12674-11-2	Aroclor-1016	< 169		µg/kg dry	169	126	1	SW846 8082A	18-Feb-14	20-Feb-14	BLM	1403612	
11104-28-2	Aroclor-1221	< 169		µg/kg dry	169	152	1	"	"	"	"	"	
11141-16-5	Aroclor-1232	< 169		µg/kg dry	169	109	1	"	"	"	"	"	
53469-21-9	Aroclor-1242	< 169		µg/kg dry	169	102	1	"	"	"	"	"	
12672-29-6	Aroclor-1248	685	P	µg/kg dry	169	87.9	1	"	"	"	"	"	
11097-69-1	Aroclor-1254	< 169		µg/kg dry	169	141	1	"	"	"	"	"	
11096-82-5	Aroclor-1260	< 169		µg/kg dry	169	105	1	"	"	"	"	"	
37324-23-5	Aroclor-1262	< 169		µg/kg dry	169	158	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 169		µg/kg dry	169	69.8	1	"	"	"	"	"	

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	85			30-150 %			"	"	"	"	"	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	80			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr)	55			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	80			30-150 %			"	"	"	"	"	

General Chemistry Parameters

% Solids	98.3	%					1	SM2540 G Mod.	21-Feb-14	21-Feb-14	DT	1403944	
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Sample Identification

5

SB84669-05

Client Project #

14.00046

Matrix

Caulking Compounds

Collection Date/Time

11-Feb-14 11:00

Received

14-Feb-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Semivolatile Organic Compounds by GC

Polychlorinated BiphenylsPrepared by method SW846 3540C

12674-11-2	Aroclor-1016	< 169		µg/kg dry	169	126	1	SW846 8082A	18-Feb-14	20-Feb-14	BLM	1403612	
11104-28-2	Aroclor-1221	< 169		µg/kg dry	169	152	1	"	"	"	"	"	"
11141-16-5	Aroclor-1232	< 169		µg/kg dry	169	108	1	"	"	"	"	"	"
53469-21-9	Aroclor-1242	< 169		µg/kg dry	169	102	1	"	"	"	"	"	"
12672-29-6	Aroclor-1248	< 338	R01	µg/kg dry	338	176	1	"	"	"	"	"	"
11097-69-1	Aroclor-1254 [2C]	414		µg/kg dry	169	98.9	1	"	"	"	"	"	"
11095-82-5	Aroclor-1260	< 169		µg/kg dry	169	105	1	"	"	"	"	"	"
37324-23-5	Aroclor-1262	< 169		µg/kg dry	169	157	1	"	"	"	"	"	"
11100-14-4	Aroclor-1268	< 169		µg/kg dry	169	69.7	1	"	"	"	"	"	"

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	95			30-150 %			"	"	"	"	"	"
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	80			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr)	60			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr) [2C]	70			30-150 %			"	"	"	"	"	"

General Chemistry Parameters

% Solids	99.4	%					1	SM2540 G Mod.	21-Feb-14	21-Feb-14	DT	1403944	
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Sample Identification

6

SB84669-06

Client Project #

14.00046

Matrix

Caulking Compounds

Collection Date/Time

11-Feb-14 11:20

Received

14-Feb-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Semivolatile Organic Compounds by GC

Polychlorinated BiphenylsPrepared by method SW846 3540C

12674-11-2	Aroclor-1016	< 177		µg/kg dry	177	132	1	SW846 8082A	18-Feb-14	20-Feb-14	BLM	1403612	
11104-28-2	Aroclor-1221	< 177		µg/kg dry	177	159	1	"	"	"	"	"	"
11141-16-5	Aroclor-1232	< 177		µg/kg dry	177	114	1	"	"	"	"	"	"
53469-21-9	Aroclor-1242	< 177		µg/kg dry	177	106	1	"	"	"	"	"	"
12672-29-6	Aroclor-1248	1,510	P	µg/kg dry	177	92.0	1	"	"	"	"	"	"
11097-69-1	Aroclor-1254	743		µg/kg dry	177	147	1	"	"	"	"	"	"
11096-82-5	Aroclor-1260	< 177		µg/kg dry	177	110	1	"	"	"	"	"	"
37324-23-5	Aroclor-1262	< 177		µg/kg dry	177	165	1	"	"	"	"	"	"
11100-14-4	Aroclor-1268	< 177		µg/kg dry	177	73.0	1	"	"	"	"	"	"

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	90			30-150 %			"	"	"	"	"	"
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	75			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr)	55			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr) [2C]	70			30-150 %			"	"	"	"	"	"

General Chemistry Parameters

% Solids	97.5	%					1	SM2540 G Mod.	21-Feb-14	21-Feb-14	DT	1403944	
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Sample Identification

7

SB84669-07

Client Project #

14.00046

Matrix

Caulking Compounds

Collection Date/Time

11-Feb-14 11:45

Received

14-Feb-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Semivolatile Organic Compounds by GC

Polychlorinated BiphenylsPrepared by method SW846 3540C

12674-11-2	Aroclor-1016	< 169		µg/kg dry	169	126	1	SW846 8082A	18-Feb-14	20-Feb-14	BLM	1403612	
11104-28-2	Aroclor-1221	< 169		µg/kg dry	169	152	1	"	"	"	"	"	"
11141-16-5	Aroclor-1232	< 169		µg/kg dry	169	108	1	"	"	"	"	"	"
53469-21-9	Aroclor-1242	< 169		µg/kg dry	169	101	1	"	"	"	"	"	"
12672-29-6	Aroclor-1248	24,600		µg/kg dry	169	87.7	1	"	"	"	"	"	"
11097-69-1	Aroclor-1254	34,400		µg/kg dry	169	141	1	"	"	"	"	"	"
11096-82-5	Aroclor-1260 [2C]	7,850		µg/kg dry	169	84.4	1	"	"	"	"	"	"
37324-23-5	Aroclor-1262	< 169		µg/kg dry	169	157	1	"	"	"	"	"	"
11100-14-4	Aroclor-1268	< 169		µg/kg dry	169	69.6	1	"	"	"	"	"	"

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	75			30-150 %			"	"	"	"	"	"
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	90			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr)	50			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr) [2C]	85			30-150 %			"	"	"	"	"	"

General Chemistry Parameters

% Solids	97.5	%					1	SM2540 G Mod.	21-Feb-14	21-Feb-14	DT	1403944	
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34,400.

34.4 ppm

Sample Identification

8

SB84669-08

Client Project #

14.00046

Matrix

Caulking Compounds

Collection Date/Time

11-Feb-14 12:20

Received

14-Feb-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Semivolatile Organic Compounds by GCPolychlorinated Biphenyls

R01

Prepared by method SW846 3540C

12674-11-2	Aroclor-1016	< 831		µg/kg dry	831	621	1	SW846 8082A	18-Feb-14	20-Feb-14	BLM	1403612	
11104-28-2	Aroclor-1221	< 831		µg/kg dry	831	749	1	"	"	"	"	"	
11141-16-5	Aroclor-1232	< 831		µg/kg dry	831	534	1	"	"	"	"	"	
53469-21-9	Aroclor-1242	< 831		µg/kg dry	831	500	1	"	"	"	"	"	
12672-29-6	Aroclor-1248	< 831		µg/kg dry	831	432	1	"	"	"	"	"	
11097-69-1	Aroclor-1254	< 831		µg/kg dry	831	693	1	"	"	"	"	"	
11096-82-5	Aroclor-1260	< 831		µg/kg dry	831	515	1	"	"	"	"	"	
37324-23-5	Aroclor-1262	< 831		µg/kg dry	831	774	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 831		µg/kg dry	831	343	1	"	"	"	"	"	

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	105			30-150 %			"	"	"	"	"	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	80			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr)	50			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	65			30-150 %			"	"	"	"	"	

General Chemistry Parameters

% Solids	98.6	%					1	SM2540 G Mod.	21-Feb-14	21-Feb-14	DT	1403944	
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Sample Identification

9

SB84669-09

Client Project #

14.00046

Matrix

Caulking Compounds

Collection Date/Time

11-Feb-14 13:05

Received

14-Feb-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Semivolatile Organic Compounds by GC

Polychlorinated BiphenylsPrepared by method SW846 3540C

12674-11-2	Aroclor-1016	< 164		µg/kg dry	164	122	1	SW846 8082A	18-Feb-14	20-Feb-14	BLM	1403612	
11104-28-2	Aroclor-1221	< 164		µg/kg dry	164	147	1	"	"	"	"	"	"
11141-16-5	Aroclor-1232	< 164		µg/kg dry	164	105	1	"	"	"	"	"	"
53469-21-9	Aroclor-1242	< 164		µg/kg dry	164	98.4	1	"	"	"	"	"	"
12672-29-6	Aroclor-1248 [2C]	1,340		µg/kg dry	164	71.8	1	"	"	"	"	"	"
11097-69-1	Aroclor-1254	2,800		µg/kg dry	164	136	1	"	"	"	"	"	"
11096-82-5	Aroclor-1260	< 164		µg/kg dry	164	101	1	"	"	"	"	"	"
37324-23-5	Aroclor-1262	< 164		µg/kg dry	164	152	1	"	"	"	"	"	"
11100-14-4	Aroclor-1268	< 164		µg/kg dry	164	67.5	1	"	"	"	"	"	"

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	80			30-150 %			"	"	"	"	"	"
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	60			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr)	55			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr) [2C]	75			30-150 %			"	"	"	"	"	"

General Chemistry Parameters

% Solids	98.3	%					1	SM2540 G Mod.	21-Feb-14	21-Feb-14	DT	1403944	
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Sample Identification10
SB84669-10Client Project #

14.00046

Matrix

Caulking Compounds

Collection Date/Time

11-Feb-14 13:25

Received

14-Feb-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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Semivolatile Organic Compounds by GC

Polychlorinated BiphenylsPrepared by method SW846 3540C

12674-11-2	Aroclor-1016	< 165		µg/kg dry	165	123	1	SW846 8082A	18-Feb-14	20-Feb-14	BLM	1403612	
11104-28-2	Aroclor-1221	< 165		µg/kg dry	165	148	1	"	"	"	"	"	"
11141-16-5	Aroclor-1232	< 165		µg/kg dry	165	106	1	"	"	"	"	"	"
53469-21-9	Aroclor-1242	< 165		µg/kg dry	165	99.1	1	"	"	"	"	"	"
12672-29-6	Aroclor-1248 [2C]	2,530		µg/kg dry	165	72.3	1	"	"	"	"	"	"
11097-69-1	Aroclor-1254	684		µg/kg dry	165	137	1	"	"	"	"	"	"
11096-82-5	Aroclor-1260	< 165		µg/kg dry	165	102	1	"	"	"	"	"	"
37324-23-5	Aroclor-1262	< 165		µg/kg dry	165	153	1	"	"	"	"	"	"
11100-14-4	Aroclor-1268	< 165		µg/kg dry	165	68.0	1	"	"	"	"	"	"

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	85			30-150 %			"	"	"	"	"	"
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	65			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr)	55			30-150 %			"	"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr) [2C]	75			30-150 %			"	"	"	"	"	"

General Chemistry Parameters

% Solids	98.3	%					1	SM2540 G Mod.	21-Feb-14	21-Feb-14	DT	1403944	
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Semivolatile Organic Compounds by GC - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1403612 - SW846 3540C										
<u>Blank (1403612-BLK1)</u>					<u>Prepared: 18-Feb-14 Analyzed: 20-Feb-14</u>					
Aroclor-1016	< 64.0		µg/kg wet	64.0						
Aroclor-1016 [2C]	< 64.0		µg/kg wet	64.0						
Aroclor-1221	< 64.0		µg/kg wet	64.0						
Aroclor-1221 [2C]	< 64.0		µg/kg wet	64.0						
Aroclor-1232	< 64.0		µg/kg wet	64.0						
Aroclor-1232 [2C]	< 64.0		µg/kg wet	64.0						
Aroclor-1242	< 64.0		µg/kg wet	64.0						
Aroclor-1242 [2C]	< 64.0		µg/kg wet	64.0						
Aroclor-1248	< 64.0		µg/kg wet	64.0						
Aroclor-1248 [2C]	< 64.0		µg/kg wet	64.0						
Aroclor-1254	< 64.0		µg/kg wet	64.0						
Aroclor-1254 [2C]	< 64.0		µg/kg wet	64.0						
Aroclor-1260	< 64.0		µg/kg wet	64.0						
Aroclor-1260 [2C]	< 64.0		µg/kg wet	64.0						
Aroclor-1262	< 64.0		µg/kg wet	64.0						
Aroclor-1262 [2C]	< 64.0		µg/kg wet	64.0						
Aroclor-1268	< 64.0		µg/kg wet	64.0						
Aroclor-1268 [2C]	< 64.0		µg/kg wet	64.0						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	51.2		µg/kg wet		64.0		80	30-150		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	51.2		µg/kg wet		64.0		80	30-150		
Surrogate: Decachlorobiphenyl (Sr)	32.0		µg/kg wet		64.0		50	30-150		
Surrogate: Decachlorobiphenyl (Sr) [2C]	41.6		µg/kg wet		64.0		65	30-150		
<u>LCS (1403612-BS1)</u>					<u>Prepared: 18-Feb-14 Analyzed: 20-Feb-14</u>					
Aroclor-1016	816		µg/kg wet	63.5	794		103	40-140		
Aroclor-1016 [2C]	715		µg/kg wet	63.5	794		90	40-140		
Aroclor-1260	604		µg/kg wet	63.5	794		76	40-140		
Aroclor-1260 [2C]	693		µg/kg wet	63.5	794		87	40-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	66.7		µg/kg wet		63.5		105	30-150		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	69.9		µg/kg wet		63.5		110	30-150		
Surrogate: Decachlorobiphenyl (Sr)	44.5		µg/kg wet		63.5		70	30-150		
Surrogate: Decachlorobiphenyl (Sr) [2C]	57.2		µg/kg wet		63.5		90	30-150		
<u>LCS Dup (1403612-BSD1)</u>					<u>Prepared: 18-Feb-14 Analyzed: 20-Feb-14</u>					
Aroclor-1016	795		µg/kg wet	61.6	770		103	40-140	0.4	30
Aroclor-1016 [2C]	659		µg/kg wet	61.6	770		86	40-140	5	30
Aroclor-1260	585		µg/kg wet	61.6	770		76	40-140	0	30
Aroclor-1260 [2C]	699		µg/kg wet	61.6	770		91	40-140	4	30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	64.7		µg/kg wet		61.6		105	30-150		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	67.8		µg/kg wet		61.6		110	30-150		
Surrogate: Decachlorobiphenyl (Sr)	43.1		µg/kg wet		61.6		70	30-150		
Surrogate: Decachlorobiphenyl (Sr) [2C]	55.5		µg/kg wet		61.6		90	30-150		

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Notes and Definitions

P	Difference between the two GC columns is greater than 40%.
R01	The Reporting Limit has been raised to account for matrix interference.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

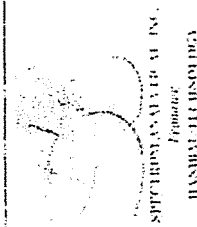
Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Kimberly Wisk



CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: KEVIN CRANE

Invoice To: CONCRETE CONSTRUCTION, INC.
300 GARDEN AVENUE
ROCHESTER, MA 01601
P.O. No.: _____ RQN: _____

Project No.: 14-00046
Site Name: FAIRWAY PARKWAY
Location: FAIRWAY PARKWAY State: MA
Sampler(s): KEN FERRARO

Project Mgr. KEN FERRARO

1- Na₂SO₄ 2- HCl 3- H₂SO₄ 4- HNO₃ 5- NaOH 6- Ascorbic Acid 7- CH₃OH 12-
8- NaHSO₄ 9- Detonized Water 10- H₂PO₄ 11-
DW=Drinking Water GW=Groundwater VW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= X2= X3=

List preservative code below:

Containers:

AN LAMINATING COMPOUNDS
G=Grab C=Composite

Analytes:

QA/QC Reporting Notes:
* additional changes may apply
MA DEP MCP CAM Report: Yes ☐ No ☒
CT DEP MCP Report: Yes ☐ No ☒

QA/QC Reporting Level
☒ Standard ☐ No QC ☐ DQA*
☐ NY ASP A* ☐ NY ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ TIER II* ☐ TIER IV*
☐ Other _____
State-specific reporting standards:

Lab Id:	Sample Id:	Date:	Time:	Type:	Matrix:
105-1060-1	1	2/11/2014	09:35	C	EXT.
105-1060-2	2		09:35	C	EXT.
105-1060-3	3		10:15	C	EXT.
105-1060-4	4		10:50	C	EXT.
105-1060-5	5		11:00	C	EXT.
105-1060-6	6		11:20	C	EXT.
105-1060-7	7		11:45	C	EXT.
105-1060-8	8		12:20	C	EXT.
105-1060-9	9		13:05	C	EXT.
105-1060-10	10		13:25	C	EXT.

Received by:

Relinquished by:

Date: 2/14/14 Time: 12:05

EDD Format

E-mail to KERR@SPECTROANALYTICAL.COM

Condition upon receipt:
☐ Ambient ☒ Filled ☒ Refrigerated ☐ D/VOA Frozen ☐ Soil Jar Frozen