



engineering and constructing a better tomorrow

May 19, 2010

Mr. Garnett Brown
City of Atlanta - Bureau of Planning
55 Trinity Avenue
Suite 3350
Atlanta, Georgia 30303

Subject: **Report of Asbestos and Leaded Paint Consulting Services
English Avenue Elementary School, Atlanta, Georgia
MACTEC Project: 6122-11-0019.03.6**

Mr. Brown:


MACTEC Engineering and Consulting, Inc. (MACTEC) has completed the asbestos-containing materials (ACM) survey and lead-containing paint screening at the abandoned structure previously known as English Avenue Elementary School located at 627 English Avenue in Atlanta, Georgia. Our services were performed in accessible areas within and on the exterior of the building at the site. Our services were performed in general accordance with the scope of work outlined in our Proposal Number PROP11ATLN-145, dated March 17, 2011.

This report presents relevant background information, our survey findings, our conclusions, and corresponding recommendations concerning asbestos-containing materials (ACM) and lead-containing paint located. This report has been prepared on behalf and exclusively for use by the City of Atlanta Bureau of Planning. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party without MACTEC's prior written consent. If other parties wish to rely on information in this report, please have them contact us so that a mutual understanding and agreement of the terms and conditions for our services can be established prior to their use of this information. Use of this report for purposes beyond those reasonably intended by the City of Atlanta Bureau of Planning and MACTEC will be at the sole risk of the user.

BACKGROUND

MACTEC understands that the City of Atlanta is planning renovation activities associated with the subject abandoned structure. The City of Atlanta requested MACTEC provide a pre-renovation asbestos survey and screening for lead-containing paint prior to commencement of renovation activities.

FACILITY DESCRIPTION AND OBSERVATIONS

 The subject building, reportedly constructed in 1910, is a three level abandoned elementary school approximately 18,000 square feet in size. Review of aerial photographs indicated that a second self-standing structure was previously located to the southeast of the subject building. This second self-standing structure was not present onsite during our survey. Reportedly, the subject building has not been used as an elementary school in fifteen years. The building structure consists of concrete, masonry, and wood framing with exterior masonry walls and a concrete slab on grade. There is a single main roof, a roof area associated with an eastside mechanical room, and roof overhangs on each elevation of the main floor. The roof systems are comprised of built-up roofing materials. The building was unoccupied during our site work. Conditioned air for heating and cooling is primarily provided by steam radiators located throughout the building and air handling units (AHUs) located in the north and south stair tower attic spaces and above finish ceilings.

Floor finishes observed included bare and painted concrete, vinyl tiles, ceramic tiles, and carpet. Ceiling finishes observed included suspended ceiling systems with lay-in tile and painted plaster. Wall finishes observed included plaster, concrete, concrete masonry units (CMU), and masonry.

REVIEW OF EXISTING DATA

No previous written documentation of asbestos or regulated materials surveys for the structures was provided to MACTEC by the City of Atlanta. MACTEC previously performed targeted asbestos sampling in this building for others and had previously obtained limited United States (US) Environmental Protection Agency's (EPA) Asbestos Hazard Emergency Response Act (AHERA) survey information generated when the building functioned as a school.

MACTEC performed a review of the previous asbestos survey information to gain an understanding of the building. Relative information gathered from the review is included in the findings section of this report.

ASBESTOS SURVEY

MACTEC was retained to perform an asbestos survey within the subject building in order to meet the asbestos sampling and reporting requirements of the US Occupational Safety and Health Administration (OSHA) and the EPA's National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations. The scope of the ACM survey included destructive techniques as an attempt to locate suspect ACM concealed within pipe chases, wall/ceiling cavities, multiple layers of flooring, etc.

The purpose of the survey was to provide information related to ACM for planning purposes related to the anticipated renovation of the structure on the site. MACTEC attempted to locate suspect asbestos-containing materials throughout the facility; however due to access limitations within the partially damaged facility (several rooms were boarded, with construction debris and waste stored within the rooms), construction

characteristics, and the nature of demolition/renovation, it is possible that additional suspect ACM may be encountered during demolition/renovation.

Josh Januzelli and Chris Dubour, EPA AHERA-accredited Building Inspectors, performed the site work April 26 through April 28, 2010. Copies of our inspectors' accreditations are included in Appendix A.

Sampling and Analysis

The US EPA and OSHA have published regulations, guidelines, and recommendations regarding inspection and sampling for ACM, which were adhered to as appropriate during our field efforts.

Our services began with a walk-through of accessible areas to locate and inventory materials suspected to contain asbestos (suspect materials). Suspect materials were grouped based on material homogeneity. A homogeneous material is one that appears to be uniform in texture and color, and appears to have been applied or installed during the same general time period. Limited destructive means were utilized to locate concealed suspect materials or to access areas concealed with chases, enclosures, etc. We did not repair areas of selective demolition.

MACTEC located a total of 38 unique suspect homogeneous materials, some with multiple layers. US EPA and OSHA guidelines allow accredited Building Inspectors to visually determine that certain materials (e.g., fiberglass, rubber, metal, etc.) are not suspected to contain asbestos. As such, MACTEC did not inventory, sample, or otherwise assess these non-suspect materials.

Following the visual survey, multiple bulk samples were collected of suspect homogeneous materials. A total of 95 samples were collected. The samples were delivered to MACTEC's National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory in Atlanta, Georgia for analysis by Polarized Light Microscopy (PLM) coupled with dispersion staining (EPA Method 600/R-93/116). The laboratory results of the PLM analyses are presented in Appendix B. Table 1 – Summary of Suspect ACM Located below summarizes the suspect ACM located during our survey.

Table 1 - Summary of Suspect ACM Located

<i>Suspect Asbestos-Containing Material Description</i>	<i>Sample Results</i>
Plaster	No Asbestos Detected
Pipe Insulation – 4"	30 percent Chrysotile Asbestos
9" x 9" Floor Tile – Brown with Red Streaks	10 percent Chrysotile Asbestos Tile 5 percent Chrysotile Asbestos Mastic
Pipe Insulation – 6"	25-30 percent Chrysotile Asbestos
Pipe Insulation – 8"	25-30 percent Chrysotile Asbestos
Covebase Mastic – Brown	No Asbestos Detected
Covebase – Black	No Asbestos Detected
Window Glazing	2 percent Chrysotile Asbestos

<i>Suspect Asbestos-Containing Material Description</i>	<i>Sample Results</i>
Residual Mastic – Black	3 percent Chrysotile Asbestos
12” x 12” Floor Tile – Light Grey with Multi-Color Streaks	3-5 percent Chrysotile Asbestos Tile 3 percent Chrysotile Asbestos Mastic
Wire Insulation – Woven	No Asbestos Detected
1’ x 1’ Ceiling Tile - Pindot	No Asbestos Detected
Ceiling Felt – Black	No Asbestos Detected
3’ x 4’ Ceiling Tile – Smooth/White	No Asbestos Detected
9” x 9” Floor Tile – Light Brown with Black Streaks	5 percent Chrysotile Asbestos Tile 3 percent Chrysotile Asbestos Mastic
9” x 9” Floor Tile – Light Grey Mottled	10 percent Chrysotile Asbestos Tile 3-5 percent Chrysotile Asbestos Mastic
12” x 12” Floor Tile – Grey with White Streaks	No Asbestos Detected
9” x 9” Floor Tile – Brown with Multi-Color Streaks	15 percent Chrysotile Asbestos Tile 7 percent Chrysotile Asbestos Mastic
12” x 12” Floor Tile – Grey Mottled	No Asbestos Detected
Wall Mastic – Black	No Asbestos Detected
Wall Mastic – Light Brown	No Asbestos Detected
12” x 12” Floor Tile – Light Green Mottled	No Asbestos Detected
Carpet Mastic – Yellow	No Asbestos Detected
12” x 12” Floor Tile – Green Mottled	No Asbestos Detected
12” x 12” Floor Tile – Blue with Multi-Colored Streaks	5 percent Chrysotile Asbestos Tile 2-3 percent Chrysotile Asbestos Mastic
Stair Tread and Mastic	No Asbestos Detected
12” x 12” Floor Tile – Light Green with Multi-Colored Streaks	10 percent Chrysotile Asbestos Tile 2 percent Chrysotile Asbestos Mastic
Wall Mastic – White	No Asbestos Detected
Wall Mastic – Brown	No Asbestos Detected
9” x 9” Floor Tile – Dark Brown	10 percent Chrysotile Asbestos Tile 5 percent Chrysotile Asbestos Mastic
2’ x 2’ Ceiling Tile – Pindot	No Asbestos Detected
Paper-backing on 12” Pipe Insulation	No Asbestos Detected
Mudded Elbows	No Asbestos Detected
White Mastic on Mechanical Equipment	No Asbestos Detected
Paper-backing on Water Tank	No Asbestos Detected
4’ x 4’ Ceiling Tile – Smooth/White	No Asbestos Detected
Exterior Caulk – White	2 percent Chrysotile Asbestos
Built-up Roofing Materials	5 percent Chrysotile Asbestos

Findings

The following asbestos-containing materials were located in the subject facility:

Thermal Systems Insulation – Thermal systems insulation (TSI) in the form of various diameter pipe insulation are friable and are categorized as Regulated Asbestos-Containing Material (RACM) by EPA NESHAP. Approximately 1,000 linear feet of TSI is estimated to be present throughout the building. These materials were observed in mechanical areas and chases, as well as surface-mounted to exposed walls and ceilings. Additional quantities of these materials should be assumed to also be present in cavities, crawlspaces, and below grade.

Floor Tile and Adhesives – These materials are currently categorized as Category I non-friable asbestos-containing materials by EPA NESHAP but for renovation/demolition purposes are to be considered RACM. Approximately 14,000 square feet of these materials were observed. These materials were observed to be present as finish flooring as well as multiple layers beneath finish flooring (on concrete substrate). Finish flooring reported herein as non-ACM were observed to be present with multiple layers of ACM flooring. Based on these findings, all vinyl/asphalt flooring and associated mastics and adhesives present within the planned renovation areas within the subject building should be considered asbestos-containing.

Window and Exterior Caulks and Glazings – These materials are currently categorized as Category II non-friable asbestos-containing materials by EPA NESHAP but for renovation and demolition purposes are to be considered RACM. Approximately 22,000 linear feet of these materials were observed on the exterior of approximately 250 windows.

Roofing System Materials – The main roof was inaccessible during our survey. Review of aerial photographs indicated the main roof to be comprised of built-up roofing materials. We collected samples of built-up roofing materials at the eastside mechanical room and have assumed the main roof materials to be homogeneous to this material. Approximately 6,800 square feet of roofing materials were assumed to be present on the subject building. These materials are currently categorized as Category I non-friable asbestos-containing materials by EPA NESHAP but for renovation/demolition purposes are to be considered RACM.

The quantities presented in this report were developed through information obtained during the survey of the subject facility. The estimated quantities are presented for informational purposes, and more detailed quantities should be prepared in the course of developing bids or quotes for removal. Additionally, the estimated quantities do not represent ACM associated with potentially concealed materials, discussed below.

Previously Reported Materials

The previous AHERA survey information performed by others reported the following ACM present within the subject building:

- 9"x9" floor tile
- 2'x2' ceiling tile
- Steam pipe insulation
- Pipe Fitting Insulation

MACTEC compared the inventory of previously reported ACM to those materials observed within the building during our survey. MACTEC was able to locate the floor tiles and steam pipe insulation (confirmatory sampling and analyses indicated the presence of asbestos in the materials). The ceiling tile described in the previous AHERA survey information was not observed. Pipe fitting insulation described in the previous AHERA survey information appeared visually to have been replaced. Confirmatory sampling and analyses did not indicate the presence of asbestos in the material; however, given asbestos was observed in the samples of remaining TSI sampled, all TSI should be considered asbestos-containing.

Potentially Concealed Materials

We used destructive means to access materials that may have been concealed within normally inaccessible areas of the facility such as wall cavities, ceiling cavities, under multiple layers of flooring, etc. Additionally, the scope of work did not include disassembly of equipment or system components (electrical equipment, mechanical equipment, plumbing, fire doors, etc.) to evaluate for suspect asbestos-containing materials (gaskets, packings, brakes/clutch components, concealed materials, etc.). Additional materials may be present within these areas and/or within this equipment.

Concrete masonry unit walls were observed at the facility. The interior of CMU walls was viewed in multiple locations throughout the facility. Evidence of vermiculite or other interior fill material was not observed; however, it is not practical to penetrate each wall, and it is possible that vermiculite or similar products may have been used for insulation or soundproofing in some area(s) of the building(s). Vermiculite, though not an asbestos-containing material, may be contaminated with asbestos through the mining and processing of vermiculite.

PRELIMINARY OPINION OF COSTS FOR ABATEMENT DURING RENOVATION

MACTEC's preliminary opinion of costs for addressing the located asbestos-containing materials during the renovation of the subject building is included below for budgetary purposes. This opinion of costs was

developed to provide information for preliminary budgetary planning and is not intended to be considered as a bid for abatement. The preliminary opinion of costs is derived from the task efforts outlined below:

Table 2 – Preliminary Opinion of Costs for Removal/Disposal of ACM

<i>Material</i>	<i>Quantity</i>	<i>Range of Unit Costs</i>	<i>Range of Extended Costs</i>
Thermal Systems Insulation	1,000 LF	\$5.00 to \$15.00 per SF	\$5,000 to \$15,000
Floor Tile and Adhesives	14,000 SF multiple layers	\$1.00 to \$2.50 per SF	\$14,000 to \$35,000
Window and Exterior Caulks and Glazings	22,000 LF	\$65.00 to \$175.00 per window	\$16,250 to \$43,750 (Based on estimate of 250 windows)
Roofing System Materials and Mastic	6,800 SF	\$3.00 to \$4.00 per SF	\$20,400,000 to \$27,200
Approximate Costs for Removal/Disposal of Asbestos-Containing Materials			\$55,650 to \$120,950
Approximate Additional Costs Associated with Debris / Access / Safety			\$5,600 to 13,000
Approximate Costs for Engineering and Consulting Services including Project Design, Contract Administration, Project Management, Project Monitoring, Clearance Sampling and Analyses			\$5,000 to \$13,500
Total Preliminary Opinion of Costs			\$66,250 to \$147,450

LF – Linear Feet

SF – Square Feet

Assumptions were made in developing our preliminary opinion of costs. Our assumptions include the following:

- The opinion of costs is based on 2011 dollars with no provisions for inflation.
- The work will be performed in general accordance with written work procedures prepared by an EPA-accredited asbestos project designer.

- The opinion of costs was based on field-estimated quantities of materials included in the previous sections, unit price estimates provided by local, licensed asbestos abatement contractors, and our past experience with similar projects in similar facilities within metropolitan Atlanta. Reduction in unit costs may be achieved in areas or locations where multiple materials are being removed.
- The opinion of costs was developed by addressing quantities of located ACM reported herein. The opinion of costs does not include abatement of materials not located during our survey efforts (i.e., concealed, below grade, equipment, etc.).
- The opinion of costs does not include the costs of replacement materials or scaffolding or cranes necessary to access the exterior or roof areas.
- An abatement contractor, licensed to perform asbestos work in Georgia will perform the removal and disposal during multiple mobilizations, under one contract.
- The building will be unoccupied, and unrestricted access within the renovation areas will be available for the abatement contractor during the performance of the activities.
- The Owner/Owner's Representative will provide electricity and water for use during the removal/disposal efforts.
- Periodic project oversight and monitoring will be conducted during the removal/disposal efforts by an independent third-party.

SCREENING FOR LEADED PAINT

MACTEC's scope of work included a screening for leaded paint of predominate paint coatings from accessible surfaces within the facility. Paint chip samples were collected from various accessible interior and exterior building components for analysis to evaluate lead content. Our accepted scope of work for the project estimated the collection and analyses of up to 30 paint chip samples. Our screening effort resulted in the collection and analyses of 22 paint chip samples.

The samples were collected from the components by removing a representative sample of the coating from the components until the substrate was visible. The paint chip samples were submitted to EMSL Analytical Inc.'s (EMSL) laboratory in Westmont, New Jersey for analysis utilizing Flame Atomic Absorption Spectroscopy using the U.S. EPA method SW846-7420. The EMSL analytical report is included in Appendix C. The painted components sampled, along with corresponding lead content (percent by weight), are summarized in Table 3 - Lead Paint Chip Sample Summary.

Table 3 - Lead Paint Chip Sample Summary

<i>Surface Paint Color</i>	<i>Substrate</i>	<i>Component</i>	<i>Percent Lead by Weight*</i>
Tan	Plaster	Wall	0.68
Tan	Wood	Wall	0.11
White	Insulation	Pipe	0.51
Light Green	Plaster	Wall	0.35
Grey	Plaster	Ceiling	0.065
White	Metal	Doors	0.93
Blue	Plaster	Wall	0.44
Light Tan	Plaster	Wall	<0.010
Off-white	Plaster	Wall	0.73
Light Brown	Plaster	Wall	0.46
Light Blue	Plaster	Wall	0.69
Black	Wood	Wall	0.11
Green	Plaster	Wall	0.92
Purple	Metal	Doors	0.21
Blue	Metal	Wall	1.9
Blue	Metal	Door	1.3
Light Blue	Plaster	Wall	0.059
Camel	Plaster	Wall	1.2
Camel	Wood	Wall	0.061
Camel	Metal	Door	0.49
Beige	Plaster	Wall	<0.010
Beige	Wood	Wall	<0.010

* - The reporting limit for the lead paint chip samples is 0.01 percent lead by weight. Results reported less than (<) a numerical value are below the detection limit for the analytical method.

The screening for lead in paint was performed with the understanding that this building is not currently and will not in the future be occupied by children. The survey does not meet US Department of Housing and Urban Development (HUD) guidelines and was not intended for that purpose. The purpose of the screening for lead paint was to provide data to the building owner for notification purposes to individuals and companies working at the facility.

CONCLUSIONS AND RECOMMENDATIONS

Based on our site observations, sampling, and analysis, we offer the following conclusions and recommendations:

Asbestos Survey

1. MACTEC has performed an asbestos survey of the subject building that meets the US EPA NESHAP inspection requirements. The survey located asbestos-containing materials. The limitations of the survey are presented in this report.
2. It is the Building Owner's responsibility to inform contractors of the known or suspected hazardous or potentially hazardous materials that may be impacted during renovation or demolition. As such, the construction designer and contractor performing the work should be informed of the asbestos survey results.
3. Current Georgia Environmental Protection Division (GA-EPD) Regulations require that ACM be removed and properly disposed of prior to demolition or renovation activities that disturb ACM. NESHAP and GA-EPD Regulations also require a notification to be submitted 10 working days prior to any demolition project, regardless of the presence or absence of ACM. The OSHA Construction Standard and the EPA-NESHAP require that contractors have a "competent person" on site to identify and properly address unreported suspect asbestos that is discovered during renovation or demolition. Current GA-EPD regulations require that all ACM be disposed of in landfills approved to accept asbestos waste and that proper waste manifest documentation be prepared and maintained.

We recommend that the asbestos-containing materials be removed and disposed of prior to disturbance during the anticipated demolition/renovation efforts. The ACM removal efforts should be performed by a qualified and licensed asbestos abatement contractor under controlled conditions. Although not required by Federal or State regulation, we recommend that the abatement be designed and monitored by a qualified asbestos consulting firm, not retained by the abatement contractor, to represent the building owner's interest. ACM left in place should not be disturbed. In the event portions of the facility become occupied, ACM left in place should be appropriately managed in an Asbestos Operations and Maintenance Program.

4. It is our understanding that the subject building or portions thereof may be used in the future as a school. As such, specific AHERA requirements will apply for the portions of the facility that will function as a school. We recommend that an AHERA-accredited asbestos management planner and an AHERA-accredited asbestos project designer be utilized to support the required asbestos removal prior to demolition/renovation. We recommend that, at a minimum, requirements for the project outline the findings of our survey and require the contractor to properly address unreported asbestos-containing materials that may be discovered. Additional AHERA requirements will be applicable in the event the building or some portion thereof will be used as a school. Such requirements will be dependent on the extent of renovation and ACM that is to remain in-place.
5. Prior to disturbing any equipment with potentially concealed suspect ACM, MACTEC recommends that an accredited asbestos Inspector evaluate the material and equipment for the presence of suspect ACM. If suspect ACM is located, representative bulk samples should be collected and appropriately analyzed to evaluate for asbestos. To access the internal components of the equipment it may be necessary to perform this evaluation as the equipment is being dismantled.
6. Additional roofing samples should be collected from the main roof to confirm or refute the presence of asbestos.
7. It is important to note that this report is not intended to replace a design for asbestos abatement prior to renovation and should not be used without a properly designed asbestos abatement specification to obtain bids for asbestos abatement.

8. Although our asbestos survey efforts attempted to locate suspect ACM present within the subject building, it is possible that additional suspect ACM or additional quantities of confirmed ACM may be present. Should suspect materials in addition to those reported herein be uncovered, MACTEC recommends that work activities be immediately halted until the materials can be sampled and analyzed to confirm or rebut the presence of asbestos. Should an additional quantity of ACM reported herein be uncovered, MACTEC recommends that work activities be immediately halted until the extent of the location of the material and a revised quantity can be determined. In the event that vermiculite or other interior fill material is found during renovation or demolition activities, the work should be immediately halted until appropriate sampling and analyses can be performed and an appropriate evaluation conducted.

Screening for Leaded Paint

There are no current regulations that require the painted coatings containing lead be removed. Issues associated with demolition of components coated with lead-containing paint include the protection of workers during the demolition work efforts, and the subsequent disposal of the demolition debris. Currently, in Georgia, OSHA regulations govern the protection of workers performing work impacting lead. As such, the requirements of the OSHA Lead in Construction standard (29 CFR 1926.62) should be followed when surfaces containing detectable concentrations of lead are disturbed.

The current 29 CFR 1926.62 addresses an employee's exposure to airborne levels of lead, rather than the level of lead in a particular coating. Accordingly, identifying levels of lead in a paint coating can only give an indication of potential exposure with regard to this OSHA regulation. OSHA requires that construction personnel who are involved in the construction (renovation/demolition) activities associated with lead paint to be monitored by a "Competent Person" to establish engineering controls and potentially a negative initial determination of lead exposure. The contractor selected to perform demolition/ renovation should be informed of the lead content within the associated coatings. The contractor will be responsible for the protection of their employees and complying with existing applicable OSHA regulations.

Under the EPA's Resource Conservation and Recovery Act (RCRA) regulation, the generation of hazardous waste streams and potentially hazardous waste must be characterized regarding its corrosivity, ignitability, reactivity, and toxicity. Toxicity of waste streams must be determined by representative sampling and analysis in accordance with Toxic Characteristic Leaching Procedure (TCLP) methods. Waste that is determined to be hazardous through TCLP analysis must be handled, transported, and disposed of properly. Characterization of the waste stream generated by a specific project is dependent on the materials affected and the efforts performed during the renovation.

Based on our site observations, sampling, and analysis, we offer the following conclusions and recommendations:


1. Detectable concentrations of lead were reported in samples of paint collected during the screening. OSHA Interim Final Lead in Construction Standard 29 CFR 1926.62 specifies exposure monitoring and worker protection for personnel whose job activities require disturbance of these coatings.
2. MACTEC recommends that requirements for demolition/renovation outline the findings in this report and require the contractor to comply with applicable OSHA, USEPA, and GA-EPD regulations. MACTEC further recommends that the contractor performing the renovation remove and dispose of painted components, if applicable, with the paint intact and minimize sanding, scraping, cutting, or torch burning the lead-containing paints presented in this report. Also, the contractor performing the renovation may elect to recycle metal components in which the paint coating is intact and has not deteriorated. It should be noted that paint is in significantly damaged condition. Areas should be pre-cleaned prior to any additional work being performed.
3. It is our understanding that the subject building or portions thereof may be used in the future as a Child Occupied Facility. As such, specific HUD requirements will apply for the portions of the facility that will be occupied by children. We recommend that an EPA-accredited lead project designer incorporate lead-safe work procedures into the technical specifications to support the renovation project. This will also allow incorporation of HUD requirements for Child Occupied Facilities.
4. MACTEC recommends that waste determination be performed as necessary to fully characterize the waste after the final demolition plans have been established, which would include re-use, reclamation, or recycling of building components/materials.
5. While MACTEC made reasonable efforts to access suspect lead coatings that could be present in the building, additional coatings may be present in areas that were not accessed during our site work.

We appreciate the opportunity to provide these consulting services. Should questions arise concerning this report or if we may be of further service please call us.

Sincerely,

MACTEC Engineering and Consulting, Inc.


Tom D. Morrison
Senior Scientist


Tod A. Dawson For 
Principal Scientist with permission

Attachments: Appendix A – Inspector Accreditations
Appendix B – Laboratory Results of Bulk Samples
Appendix C – Laboratory Results of Paint Chip Samples

APPENDIX A
INSPECTOR ACCREDITATIONS

The Environmental Institute

Josh Januzelli

Social Security Number - XXX-XX-8870

Mactec Engineering & Consulting - 396 Plasters Avenue - Atlanta, Georgia 30324

*Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Rec accreditation*

Asbestos in Buildings: Inspector Refresher

February 25, 2011

Course Date

12420

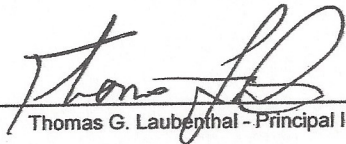
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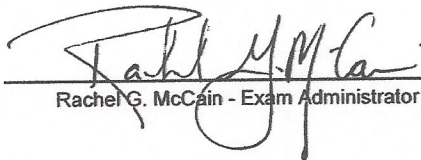
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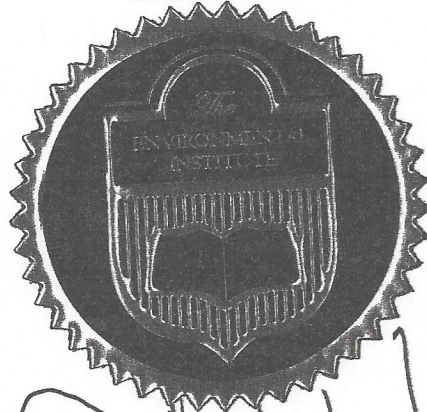
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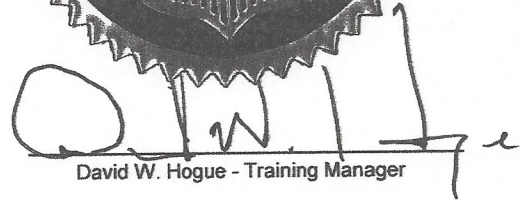


Thomas G. Laubenthal - Principal Instructor



Rachel G. McCain - Exam Administrator





David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point)
(American Council for Accredited Certification - Re-certification Credit Registration #10072802)
(Florida Provider Registration Number 0001342 - Course #0002805)

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The Environmental Institute

Chris DuBour

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an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation*

Asbestos in Buildings: Inspector Refresher

November 19, 2010

Course Date

12278

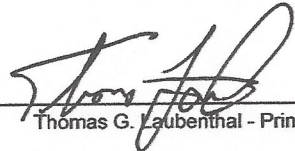
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November 19, 2010

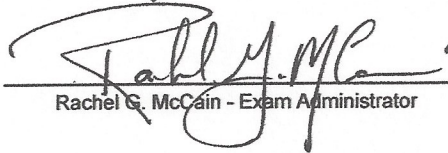
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November 18, 2011

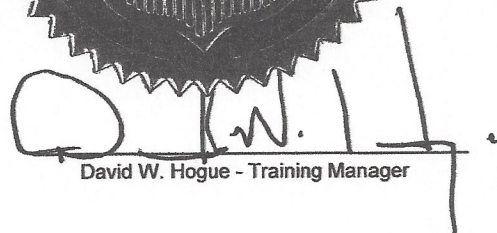
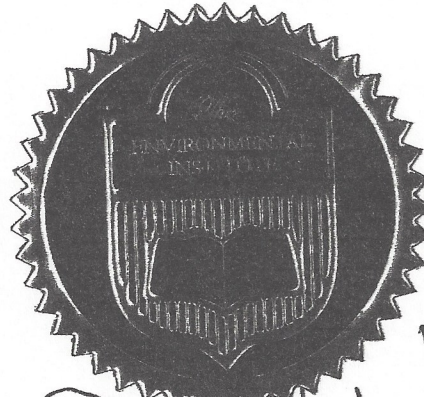
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APPENDIX B

LABORATORY RESULTS OF ASBESTOS BULK SAMPLES

PLM REPORT SUMMARY

Mactec Engineering and Consulting, Inc.
 396 Plasters Ave. NE
 Atlanta, GA 30324 (404) 873-4761

NVLAP Lab Code 101066-0
 TDH License No. 30-0306

Client :	City of Atlanta - Bureau of Planning	Mactec Job No. : 6122-11-0019/03.6
Project :	627 English Avenue School	Report Date : 5/4/2011
Client Project No.:	N/A	Sample Date : 4/26-28/11
Identification :	Asbestos, Bulk Sample Analysis	
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600/R-93/116	

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On 4/29/2011, ninety-five (95) bulk material samples were submitted by Josh Januzelli for asbestos analysis by PLM/DS.

Lab Sample No.	Sample Description / Location	Asbestos Content
221352	Plaster 1st Floor - North Stairwell 01	None Detected-Plaster
221353	Plaster 1st Floor - Northeast Room 02	None Detected-Plaster
221354	Plaster 1st Floor - Hallway 03	None Detected-Plaster
221355	Plaster 1st Floor - West Room 04	None Detected-Plaster
221356	Plaster 1st Floor Southwest Room 05	None Detected-Plaster
221357	Plaster 2nd Floor - South Stairwell 06	None Detected-Plaster
221358	Plaster 2nd Floor - Southwest Room 07	None Detected-Plaster

These samples were analyzed by layers. The first percentage is the overall asbestos content for the sample. Specific layer or component asbestos content is indicated where relevant. The EPA considers a material to be asbestos containing only if it contains more than one percent asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also state that Regulated Asbestos Containing Materials (RACM) -- materials which are friable or may become friable -- be further analyzed by point counting when the results indicate less than ten percent asbestos by CVAE. Our laboratory utilizes CVAE on a routine basis and does not include point counting unless specifically requested. These reports may not be reproduced except in full. Any unauthorized use or distribution of these reports shall be at the client's and recipient's sole risk and without liability to Mactec Engineering and Consulting, Inc.

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NVLAP Lab Code 101066-0
 TDH License No. 30-0306

Client :	City of Atlanta - Bureau of Planning	Mactec Job No. : 6122-11-0019/03.6
Project :	627 English Avenue School	Report Date : 5/4/2011
Client Project No.:	N/A	Sample Date : 4/26-28/11
Identification :	Asbestos, Bulk Sample Analysis	
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600/R-93/116	

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Lab Sample No.	Sample Description / Location	Asbestos Content
221359	Plaster 2nd Floor - Auditorium 08	None Detected-Plaster
221360	Plaster 2nd Floor - Hallway 09	None Detected-Plaster
221361	Plaster 2nd Floor - Northeast Room 10	None Detected-Plaster
221362	Plaster 3rd Floor - Stairwell 11	None Detected-Plaster
221363	Plaster 3rd Floor - Northeast Room 12	None Detected-Plaster
221364	Plaster 3rd Floor - Northwest Room 13	None Detected-Plaster
221365	Plaster 3rd Floor - Hallway (North) 14	None Detected-Plaster

These samples were analyzed by layers. The first percentage is the overall asbestos content for the sample. Specific layer or component asbestos content is indicated where relevant. The EPA considers a material to be asbestos containing only if it contains more than one percent asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also state that Regulated Asbestos Containing Materials (RACM) -- materials which are friable or may become friable -- be further analyzed by point counting when the results indicate less than ten percent asbestos by CVAE. Our laboratory utilizes CVAE on a routine basis and does not include point counting unless specifically requested. These reports may not be reproduced except in full. Any unauthorized use or distribution of these reports shall be at the client's and recipient's sole risk and without liability to Mactec Engineering and Consulting, Inc.

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Lab Sample No.	Sample Description / Location	Asbestos Content
221366	Plaster 3rd Floor - Hallway (South) 15	None Detected-Plaster
221367	Pipe Insulation - 4" 1st Floor - Northeast 16	30% Chrysotile-Thermal Insulation
221368	Pipe Insulation - 4" 1st Floor - West 17	30% Chrysotile-Thermal Insulation
221369	9"x9" Floor Tile - Brown with Red Streaks 1st Floor - Northeast Room 18	10% Chrysotile-Floor Tile 5% Chrysotile-Black Mastic
221370	9"x9" Floor Tile - Brown with Red Streaks 2nd Floor - Northeast Room 19	10% Chrysotile-Floor Tile 5% Chrysotile-Black Mastic
221371	Pipe Insulation - 6" 1st Floor - Northeast 20	25% Chrysotile-Thermal Insulation
221372	Pipe Insulation - 6" 1st Floor - West 21	25% Chrysotile-Thermal Insulation

These samples were analyzed by layers. The first percentage is the overall asbestos content for the sample. Specific layer or component asbestos content is indicated where relevant. The EPA considers a material to be asbestos containing only if it contains more than one percent asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also state that Regulated Asbestos Containing Materials (RACM) -- materials which are friable or may become friable -- be further analyzed by point counting when the results indicate less than ten percent asbestos by CVAE. Our laboratory utilizes CVAE on a routine basis and does not include point counting unless specifically requested. These reports may not be reproduced except in full. Any unauthorized use or distribution of these reports shall be at the client's and recipient's sole risk and without liability to Mactec Engineering and Consulting, Inc.

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Lab Sample No.	Sample Description / Location	Asbestos Content
221373	Pipe Insulation - 8" 1st Floor - Northeast 22	25% Chrysotile-Thermal Insulation
221374	Pipe Insulation - 8" 1st Floor - West 23	30% Chrysotile-Thermal Insulation
221375	Covebase Mastic - Brown 1st Floor - Northeast Room 24	None Detected-Brown Mastic
221376	Covebase Mastic - Brown 1st Floor - Northwest Room 25	None Detected-Brown Mastic
221377	Covebase - Black 1st Floor - Northeast Room 26	None Detected-Cove Base
221378	Covebase - Black 1st Floor - Northwest Room 27	None Detected-Cove Base
221379	Window Glazing 1st Floor - Northeast 28	2% Chrysotile-Window Glazing

These samples were analyzed by layers. The first percentage is the overall asbestos content for the sample. Specific layer or component asbestos content is indicated where relevant. The EPA considers a material to be asbestos containing only if it contains more than one percent asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also state that Regulated Asbestos Containing Materials (RACM) -- materials which are friable or may become friable -- be further analyzed by point counting when the results indicate less than ten percent asbestos by CVAE. Our laboratory utilizes CVAE on a routine basis and does not include point counting unless specifically requested. These reports may not be reproduced except in full. Any unauthorized use or distribution of these reports shall be at the client's and recipient's sole risk and without liability to Mactec Engineering and Consulting, Inc.

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Lab Sample No.	Sample Description / Location	Asbestos Content
221380	Window Glazing 2nd Floor - Northwest 29	2% Chrysotile-Window Glazing
221381	Residual Mastic - Black 1st Floor - Hallway 30	3% Chrysotile-Black Mastic
221382	Residual Mastic - Black 1st Floor - Hallway 31	3% Chrysotile-Black Mastic
221383	12"x12" Floor Tile - Light Grey with Multi Color Streaks 1st Floor - East 32	5% Chrysotile-Floor Tile 3% Chrysotile-Black Mastic
221384	12"x12" Floor Tile - Light Grey with Multi Color Streaks 1st Floor - East 33	3% Chrysotile-Floor Tile 3% Chrysotile-Black Mastic
221385	Wire Insulation - Woven 1st Floor - East Electrical Room 34	None Detected-Wire Insulation
221386	Wire Insulation - Woven 1st Floor - East Electrical Room 35	None Detected-Wire Insulation

These samples were analyzed by layers. The first percentage is the overall asbestos content for the sample. Specific layer or component asbestos content is indicated where relevant. The EPA considers a material to be asbestos containing only if it contains more than one percent asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also state that Regulated Asbestos Containing Materials (RACM) – materials which are friable or may become friable – be further analyzed by point counting when the results indicate less than ten percent asbestos by CVAE. Our laboratory utilizes CVAE on a routine basis and does not include point counting unless specifically requested. These reports may not be reproduced except in full. Any unauthorized use or distribution of these reports shall be at the client's and recipient's sole risk and without liability to Mactec Engineering and Consulting, Inc.

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Lab Sample No.	Sample Description / Location	Asbestos Content
221387	1'x1' Ceiling Tile - Pindot 1st Floor - West 36	None Detected-Ceiling Tile
221388	1'x1' Ceiling Tile - Pindot 1st Floor - West 37	None Detected-Ceiling Tile
221389	Ceiling Felt - Black 1st Floor - West 38	None Detected-Felt
221390	Ceiling Felt - Black 1st Floor - West 39	None Detected-Felt
221391	3'x4' Ceiling Tile - Smooth/White 1st Floor - West 40	None Detected-Ceiling Tile
221392	3'x4' Ceiling Tile - Smooth/White 1st Floor - West 41	None Detected-Ceiling Tile
221393	9"x9" Floor Tile - Light Brown with Black Streaks 1st Floor - West 42	5% Chrysotile-Floor Tile 3% Chrysotile-Black Mastic

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Lab Sample No.	Sample Description / Location	Asbestos Content
221394	9"x9" Floor Tile - Light Brown with Black Streaks 1st Floor - West 43	5% Chrysotile-Floor Tile 3% Chrysotile-Black Mastic
221395	9"x9" Floor Tile - Light Grey Mottled 1st Floor - West Restroom 44	10% Chrysotile-Floor Tile 5% Chrysotile-Black Mastic
221396	9"x9" Floor Tile - Light Grey Mottled 1st Floor - West Restroom 45	10% Chrysotile-Floor Tile 3% Chrysotile-Black Mastic
221397	12"x12" Floor Tile Grey with White Streaks 2nd Floor - Auditorium 46	None Detected-Floor Tile None Detected-Yellow Mastic
221398	12"x12" Floor Tile Grey with White Streaks 2nd Floor - Auditorium 47	None Detected-Floor Tile None Detected-Yellow Mastic
221399	9"x9" Floor Tile - Brown with Multi-Colored Streaks 2nd Floor - Southwest 48	15% Chrysotile-Floor Tile 7% Chrysotile-Black Mastic
221400	9"x9" Floor Tile - Brown with Multi-Colored Streaks 3rd Floor - Northeast 49	15% Chrysotile-Floor Tile 7% Chrysotile-Black Mastic

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Lab Sample No.	Sample Description / Location	Asbestos Content
221401	12"x12" Floor Tile - Grey Mottled 2nd Floor - Southwest 50	None Detected-Floor Tile None Detected-Yellow Mastic
221402	12"x12" Floor Tile - Grey Mottled 2nd Floor - Southwest 51	None Detected-Floor Tile None Detected-Yellow Mastic
221403	Wall Mastic - Black 2nd Floor - Southwest 52	None Detected-Mastic
221404	Wall Mastic - Black 2nd Floor - Southwest 53	None Detected-Mastic
221405	Wall Mastic - Light Brown 2nd Floor - Southwest 54	None Detected-Brown Mastic
221406	Wall Mastic - Light Brown 2nd Floor - Southwest 55	None Detected-Brown Mastic
221407	12"x12" Floor Tile - Light Green Mottled 2nd Floor - Hallway 56	None Detected-Floor Tile None Detected-Mastic

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Lab Sample No.	Sample Description / Location	Asbestos Content
221408	12"x12" Floor Tile - Light Green Mottled 2nd Floor - Northwest 57	None Detected-Floor Tile None Detected-Mastic
221409	Carpet Mastic - Yellow 2nd Floor - West 58	None Detected-Yellow Mastic
221410	Carpet Mastic - Yellow 2nd Floor - West 59	None Detected-Yellow Mastic
221411	12"x12" Floor Tile - Green Mottled 2nd Floor - Hallway 60	None Detected-Floor Tile None Detected-Mastic
221412	12"x12" Floor Tile - Green Mottled 2nd Floor - Northwest 61	None Detected-Floor Tile None Detected-Mastic
221413	12"x12" Floor Tile - Blue with Multi-Colored Streaks 2nd Floor - Hallway 62	5% Chrysotile-Brown Floor Tile 3% Chrysotile-Tan Floor Tile 2% Chrysotile-Black Mastic
221414	12"x12" Floor Tile - Blue with Multi-Colored Streaks 2nd Floor - Hallway 63	5% Chrysotile-Brown Floor Tile 3% Chrysotile-Tan Floor Tile 2% Chrysotile-Black Mastic

These samples were analyzed by layers. The first percentage is the overall asbestos content for the sample. Specific layer or component asbestos content is indicated where relevant. The EPA considers a material to be asbestos containing only if it contains more than one percent asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also state that Regulated Asbestos Containing Materials (RACM) – materials which are friable or may become friable – be further analyzed by point counting when the results indicate less than ten percent asbestos by CVAE. Our laboratory utilizes CVAE on a routine basis and does not include point counting unless specifically requested. These reports may not be reproduced except in full. Any unauthorized use or distribution of these reports shall be at the client's and recipient's sole risk and without liability to Mactec Engineering and Consulting, Inc.

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Lab Sample No.	Sample Description / Location	Asbestos Content
221415	Stair Tread and Mastic West Main Entrance 64	None Detected-Stair Tread None Detected-Brown Mastic
221416	Stair Tread and Mastic East Main Entrance 65	None Detected-Stair Tread None Detected-Brown Mastic
221417	12"x12" Floor Tile - Light Green with Multi-Colored Streaks 2nd Floor - Northeast 66	10% Chrysotile-Brown Floor Tile 2% Chrysotile-Tan Floor Tile 2% Chrysotile-Black Mastic
221418	12"x12" Floor Tile - Light Green with Multi-Colored Streaks 3rd Floor - Northeast 67	10% Chrysotile-Brown Floor Tile 2% Chrysotile-Tan Floor Tile 2% Chrysotile-Black Mastic
221419	Wall Mastic - White 2nd Floor - Northeast Room 68	None Detected-White Mastic
221420	Wall Mastic - White 2nd Floor - Northeast Room 69	None Detected-White Mastic
221421	Wall Mastic - Brown 2nd Floor - Northeast Room 70	None Detected-Brown Mastic

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Lab Sample No.	Sample Description / Location	Asbestos Content
221422	Wall Mastic - Brown 2nd Floor - Northeast Room 71	None Detected-Brown Mastic
221423	9"x9" Floor Tile - Dark Brown 2nd Floor - Northwest Room 72	10% Chrysotile-Floor Tile 5% Chrysotile-Black Mastic
221424	9"x9" Floor Tile - Dark Brown 2nd Floor - Northwest Room 73	10% Chrysotile-Floor Tile 5% Chrysotile-Black Mastic
221425	2'x2' Ceiling Tile - Pindot 3rd Floor - Hallway 74	None Detected-Ceiling Tile
221426	2'x2' Ceiling Tile - Pindot 3rd Floor - Hallway 75	None Detected-Ceiling Tile
221427	Paper-backing on 12" Pipe Insulation East Mechanical Room 76	None Detected-Backing
221428	Paper-backing on 12" Pipe Insulation East Mechanical Room 77	None Detected-Backing

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Lab Sample No.	Sample Description / Location	Asbestos Content
221429	Mudded Elbows East Mechanical Room 78	None Detected-Thermal Insulation
221430	Mudded Elbows East Mechanical Room 79	None Detected-Thermal Insulation
221431	White Mastic on Mechanical Equipment East Mechanical Room 80	None Detected-Mastic
221432	White Mastic on Mechanical Equipment East Mechanical Room 81	None Detected-Mastic
221433	Paper-backing on Water Tank East Mechanical Room 82	None Detected-Backing
221434	Paper-backing on Water Tank East Mechanical Room 83	None Detected-Backing
221435	4'x4' Ceiling Tile - Smooth/White 2nd Floor - Auditorium 84	None Detected-Ceiling Tile

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Lab Sample No.	Sample Description / Location	Asbestos Content
221436	4'x4' Ceiling Tile - Smooth/White 2nd Floor - Auditorium 85	None Detected-Ceiling Tile
221437	Pipe Insulation - 4" 1st Floor - Southwest 86	30% Chrysotile-Thermal Insulation
221438	Pipe Insulation - 6" 1st Floor - Southwest 87	30% Chrysotile-Thermal Insulation
221439	Pipe Insulation - 8" 1st Floor - North 88	30% Chrysotile-Thermal Insulation
221440	Paper-backing on 12" Pipe Insulation East Mechanical Room 89	None Detected-Backing
221441	Mudded Elbows East Mechanical Room 90	None Detected-Thermal Insulation
221442	Paper-backing on Water Tank East Mechanical Room 91	None Detected-Backing

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On 4/29/2011, ninety-five (95) bulk material samples were submitted by Josh Januzelli for asbestos analysis by PLM/DS.

Lab Sample No.	Sample Description / Location	Asbestos Content
221443	Exterior Caulk - White Northeast Exterior 92	2% Chrysotile-Caulking
221444	Exterior Caulk - White West Exterior 93	2% Chrysotile-Caulking
221445	Built-Up Roofing Materials East Mechanical Room Roof 94	5% Chrysotile-Roofing
221446	Built-Up Roofing Materials East Mechanical Room Roof 95	None Detected-Roofing

These samples were analyzed by layers. The first percentage is the overall asbestos content for the sample. Specific layer or component asbestos content is indicated where relevant. The EPA considers a material to be asbestos containing only if it contains more than one percent asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also state that Regulated Asbestos Containing Materials (RACM) -- materials which are friable or may become friable -- be further analyzed by point counting when the results indicate less than ten percent asbestos by CVAE. Our laboratory utilizes CVAE on a routine basis and does not include point counting unless specifically requested. These reports may not be reproduced except in full. Any unauthorized use or distribution of these reports shall be at the client's and recipient's sole risk and without liability to Mactec Engineering and Consulting, Inc.

PLM REPORT SUMMARY

Mactec Engineering and Consulting, Inc.
396 Plasters Ave. NE
Atlanta, GA 30324 (404) 873-4761

NVLAP Lab Code 101066-0
TDH License No. 30-0306

Client :	City of Atlanta - Bureau of Planning	Mactec Job No. :	6122-11-0019/03.6
Project :	627 English Avenue School	Report Date :	5/4/2011
Client Project No.:	N/A	Sample Date :	4/26-28/11
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600/R-93/116		

Page 15 of 15

STATEMENT OF LABORATORY ACCREDITATION

These samples were analyzed at the Atlanta Branch of Mactec Engineering and Consulting, Inc. in the Asbestos Laboratory at 396 Plasters Ave. NE, Atlanta, GA, 30324. The laboratory holds accreditation from the National Institute of Standards and Technology (formerly National Bureau of Standards) under the National Voluntary Laboratory Accreditation Program (NVLAP). This laboratory also is licensed and authorized to perform as an Asbestos Laboratory in the State of Texas within the purview of Texas Civil Statutes, Article 4477-3a, as amended, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

The samples were analyzed by polarized light microscopy in general accordance with the procedures described in the Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116. The results of each bulk sample analysis relate only to the material tested. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

Specific questions concerning bulk sample results shall be directed to the PLM Laboratory Manager.

Analyst : Chris DuBour

PLM Laboratory Manager : Christopher DuBour

Approved Signatory :





APPENDIX C

LABORATORY RESULTS OF PAINT CHIP SAMPLES

Attn: **Tom Morrison**
MACTEC Engineering and Consulting, Inc
396 Plasters Avenue
Atlanta, GA 30324

Customer ID: LAWE52G
 Customer PO: 201105110
 Received: 04/29/11 10:46 AM
 EMSL Order: 201105364

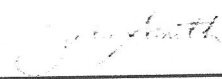
Fax: (404) 817-0221 Phone: (404) 873-4761
 Project: 6122-11-0019 / Received Atlanta 4/28/11

EMSL Proj:

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

Client Sample Description	Lab ID	Collected	Analyzed	Lead Concentration
6122-11-0019-01	0001		5/3/2011	0.68 % wt
Site: Tan/Plaster /Wall				
6122-11-0019-02	0002		5/3/2011	0.11 % wt
Site: Tan/Wood/Wall				
6122-11-0019-03	0003		5/3/2011	0.51 % wt
Site: White/Insulation /Pipe				
6122-11-0019-04	0004		5/3/2011	0.35 % wt
Site: Light Green/Plaster/Wall				
6122-11-0019-05	0005		5/3/2011	0.065 % wt
Site: Grey/Plaster/Ceiling				
6122-11-0019-06	0006		5/3/2011	0.93 % wt
Site: White/Metal/Doors				
6122-11-0019-07	0007		5/3/2011	0.44 % wt
Site: Blue/Plaster/Wall				
6122-11-0019-08	0008		5/3/2011	<0.010 % wt
Site: Lt.Tan/Plaster/Wall				
6122-11-0019-09	0009		5/3/2011	0.73 % wt
Site: Off.White/Plaster/Wall				
6122-11-0019-10	0010		5/3/2011	0.46 % wt
Site: Lt.Brown/Plaster/Wall				
6122-11-0019-11	0011		5/3/2011	0.69 % wt
Site: Lt. Blue/Plaster/Wall				
6122-11-0019-12	0012		5/3/2011	0.11 % wt
Site: Black/Wood/Wall				
6122-11-0019-13	0013		5/3/2011	0.92 % wt
Site: Green/Plaster/Wall				

Initial report from 05/03/2011 19:50:36


 Julie Smith - Laboratory Director
 NJ-NELAP Accredited:04653
 or other approved signatory

Reporting limit is 0.01 % wt. The QC data associated with these sample results included in this report meet the method quality control requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities.

* slight modifications to methods applied Samples received in good condition unless otherwise noted. Quality Control Data associated with this sample set is within acceptable limits, unless otherwise noted

Samples analyzed by EMSL Analytical, Inc. Westmont, NJ NELAP Certifications: NJ 04653, NY 10896, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Attn: **Tom Morrison**
MACTEC Engineering and Consulting, Inc
396 Plasters Avenue
Atlanta, GA 30324

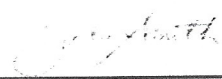
Fax: (404) 817-0221 Phone: (404) 873-4761
Project: 6122-11-0019 / Received Atlanta 4/28/11

Customer ID: LAWE52G
Customer PO: 201105110
Received: 04/29/11 10:46 AM
EMSL Order: 201105364
EMSL Proj:

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

Client Sample Description	Lab ID	Collected	Analyzed	Lead Concentration
6122-11-0019-14	0014		5/3/2011	0.21 % wt
Site: Purple/Metal/Doors				
6122-11-0019-15	0015		5/3/2011	1.9 % wt
Site: Blue/Metal/Wall				
6122-11-0019-16	0016		5/3/2011	1.3 % wt
Site: Blue/Metal/Door				
6122-11-0019-17	0017		5/3/2011	0.059 % wt
Site: Lt.Blue /Plaster/Wall				
6122-11-0019-18	0018		5/3/2011	1.2 % wt
Site: Camel/Plaster/Wall				
6122-11-0019-19	0019		5/3/2011	0.061 % wt
Site: Camel/Wood/Wall				
6122-11-0019-20	0020		5/3/2011	0.49 % wt
Site: Camel/Metal/Door				
6122-11-0019-21	0021		5/2/2011	<0.010 % wt
Site: Beige/Plaster/Wall				
6122-11-0019-22	0022		5/2/2011	<0.010 % wt
Site: Beige/Wood/Wall				

Initial report from 05/03/2011 19:50:36


Julie Smith - Laboratory Director
NJ-NELAP Accredited:04653
or other approved signatory

Reporting limit is 0.01 % wt. The QC data associated with these sample results included in this report meet the method quality control requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities.

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