Heartland Environmental Associates, Inc.

ASBESTOS BUILDING INSPECTION REPORT

Sample Street Business Complex
3702 West Sample Street
South Bend, Indiana 46619

June 16, 2011

"Your dependable partner for environmental compliance"

3410 Mishawaka Ave. South Bend, Indiana 46615 Phone 574.289.1191 Fax 574.289.7480

This report is prepared by:

Heartland Environmental Associates, Inc.

3410 Mishawaka Avenue, South Bend, IN 46615

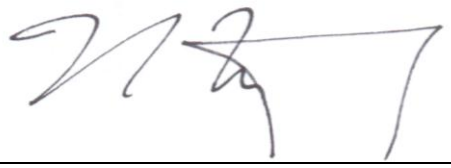
574-289-1191 Fax: 574-289-7480

Prepared for:
Urban Enterprise Association of South Bend, Inc.
227 West Jefferson Boulevard
Suite 1200S
South Bend, Indiana 46601

For the Site:

Sample Street Business Complex
3702 West Sample Street
South Bend, Indiana

Report prepared by:



Nivas R. Vijay, CHMM
Heartland Environmental Associates, Inc.

06/16/2011
Date

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EXECUTIVE SUMMARY

Heartland Environmental Associates, Inc. (Heartland) conducted an asbestos building inspection of the Sample Street Business Complex facility located at 3702 West Sample Street in South Bend, Indiana. The assessment area consisted of a single two to three story office complex housing manufacturing and warehousing businesses. The assessment area totaled approximately 333,000 square feet of space.

Based upon the results of the asbestos building inspection, **asbestos-containing materials (ACMs) were encountered. These materials included: 1) thermal system insulation (TSI) in the form of pipe wrap and mudded joint insulation wrapping, which is a regulated ACM (RACM), and 2) fire doors, which are classified as Category II, non-friable ACM.**

Heartland understands that this assessment was completed to evaluate the presence of ACM at the facility. Should the building be renovated or demolished, meeting the definition of renovation and demolition in accordance with the National Emission Standards for Hazardous Air Pollutant (NESHAP) for the State of Indiana, **written notification must be submitted to the Indiana Department of Environmental Management (IDEM) at least ten (10) working days prior to any future planned renovation/demolition activities** as RACM (TSI) was identified. These requirements are as specified in Indiana Administrative Code (326 IAC 14-10).

1.0 INTRODUCTION

Heartland received written authorization from the Urban Enterprise Association of South Bend, Inc. (UEA) to conduct an asbestos building inspection of the Sample Street Business Complex facility located at 3702 West Sample Street in South Bend, Indiana. The purpose of the inspection was to identify ACMs. A site location map has been provided as Figure 1.

The assessment area consisted of a single two to three story business complex housing manufacturing and warehouse spaces encompassing approximately 333,000 square feet of space. The building contained 142 individual tenant spaces, with 75 occupied during the time of the inspection, incorporating approximately 188,000 square feet of the facility.

The facility building was constructed with steel and wood frame construction with a brick and concrete façade. The building was constructed on a concrete foundation, with two small basement areas, also constructed on a concrete foundation. The roof was constructed with both built up asphalt roof tar and asphaltic roofing shingles over top wooden decking. The building interior was segmented primarily with cinder block and brick walls, with areas of drywall over walls on the first and second floor office spaces. Concrete floors cover the building with areas of resilient vinyl flooring covering portions of the first and second levels.

A site map depicting the assessment area is included as Figure 2.

Reasonable efforts were made to identify suspect ACM within the facility inspected. Heartland acted on the understanding that the building was occupied; therefore the inspection was performed using “non-destructive” sampling methods. The manner of the inspection did not compromise the structural integrity of the buildings or endanger the safety of sampling personnel or other contractors/occupants.

2.0 METHODOLOGY

On May 18, 2011, Mr. Nivas R. Vijay, Project Manager with Heartland completed the inspection of the facility. Mr. Vijay is an accredited asbestos building inspector in the State of Indiana (License# 197004016). A Copy of Mr. Vijay's Certificate of Asbestos Accreditation has been provided for review in Appendix A. As part of the inspection, Heartland performed the following activities:

- Inspected the construction materials of the building;
- Obtained bulk samples for laboratory analysis;
- Reviewed historic asbestos building inspections conducted at the facility;
- Correlated inspection results with those of the previous completed inspections; and
- Completed a report documenting Heartland's findings.

Based on Heartland's visual assessment of the facility, several types of building materials were considered non-suspect ACMs and therefore were not sampled. These materials include: concrete floors, brick and block, metal fixtures, wood and plywood materials, fiberglass insulation and ceramic tiles.

Based on Heartland's visual inspection, two types of building materials were assumed to be ACM:

- TSI (thermal system pipe wrap insulation) and mudded insulation on pipe joints were present on vertical and horizontal pipes located throughout the first floor of the building.
- Fire doors were located in entryways on the first floor of the building.

Heartland identified 16 homogeneous areas of suspect ACMs within the building. The suspect materials were assessed based on condition of the material and friability (the ability to be crumbled or turned to dust by hand pressure). Heartland utilized disposable nitrile gloves while obtaining samples. The samples were then placed into pre-labeled sealable bags. Further definitions and information on sampling analysis and strategies are included in Appendix B.

Following collection of the samples, Heartland transported the samples under Heartland chain of custody to ACM Engineering and Environmental Services, a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory, in South Bend, Indiana. The materials sampled were submitted for Polarized Light Microscopy (PLM) analysis, with the laboratory estimating the percent asbestos by visual inspection. Materials defined as ACM are those that contain greater than 1% asbestos. Materials that are not friable and contain less than 1% asbestos are not considered to be ACM. In two sets of samples (FT-1(A-E) and FT-4(A-C)), PLM results indicated the samples each contained 3% asbestos. In order to more accurately determine if this material was an ACM, the material was point counted. Point count results determined the samples did not contain asbestos.

3.0 SAMPLE LOCATIONS AND FINDINGS

3.1 Previous Report Review

Heartland reviewed the *Asbestos Containing Building Materials Survey Volume 1* and *Volume 2* completed by Asbestos Control Methods, Inc. of Indiana (ACM) of South Bend, Indiana dated August 28, 1991. From late July through August 1991, ACM personnel completed an asbestos building inspection for purposes of identifying suspect ACMs located throughout the facility.

Based on the results of the asbestos building inspection, ACMs in the form of resilient vinyl floor tile and associated mastics, pipe wrap insulation, roofing materials, joint compound, duct insulation and fire doors were identified.

ACM issued the UEA with a *Removal Specifications* report to provide asbestos abatement dated October 9, 1991. The removal specifications outlined measures to remove ACM pipe wrap and joint compound throughout the facility, with further removal of damaged or loose resilient flooring materials also conducted. Additionally, removal of all non-asbestos containing duct insulation was also to be conducted. The removal specifications segmented the facility building into four "Phases", Phase A, Phase B, Phase C and Phase D, for which abatement work was to be segregated into and completed.

The UEA subcontracted Clean Air Systems, Inc. to complete the asbestos removal project per the issued removal specifications. ACM provided air clearance sampling services for the asbestos abatement and issued the UEA a Certificate of Completion report for the project dated December 19, 1991. The report noted the contracted abatement areas and adjacent staging areas were certified clean and fit for re-occupancy. Note all four phases of the project abatement were completed and air clearance samples were completed and certified by ACM.

Heartland further reviewed the *Asbestos Containing Building Materials and Lead Based Paint Survey- Area "C" of Sample Street Business Complex* report completed by ACM dated November 30, 1999. Based on this inspection ACMs in the form of pipe wrap and mudded joints were noted in Area C, and recommendations were provided for abatement. No abatement forms were reviewed during the site research regarding this area.

3.2 Previous Report Review Conclusions

Based on the review of previous asbestos building inspections and a review of removal documentation, it appeared that ACMs previously present at the site were evaluated and partially abated. It appears that abatement of documented ACMs was completed in phases. Based on the age of the building and the various stages of redevelopment and remodeling which has occurred, it is likely that a majority of ACMs were removed; however a thorough asbestos inspection should be completed, encompassing the entire building, to fully identify any remaining ACMs. This asbestos building inspection was designed to evaluate the entire facility and determine the presence of any

remaining ACMs.

3.3 Description of Sample Locations

Heartland personnel obtained 38 bulk samples from 16 homogeneous areas of suspect materials for laboratory analysis. These sampled materials consisted of one type of ceiling tile, one type of drywall material, one type of insulation material, six types of resilient vinyl flooring material with associated mastic, five types of asphalt roofing material, one type of pipe wrapping material, and one type of transite material. Site layout maps depicting sample locations are provided as Figure 2 and Figure 3.

3.2 Findings

Both friable and Category I and II non-friable ACMs were identified during the site inspection. These materials consisted of TSI pipe wrap and mudded insulation on pipe joints, and fire doors. The TSI is considered friable and thus RACM. Fire doors are considered Category II non-friable materials and are not typically regulated unless they are subjected to sanding, grinding, abrading, or cutting during renovation or removal.

The TSI was located on vertical and horizontal pipe runs in the northeastern portion of the first floor of the building. Some of the TSI pipe run was identified amidst sections of fiberglass pipe insulation. In several areas, piping had been replaced with newer fiberglass insulation. TSI pipe run was easily identifiable amidst this newer pipe insulation. Numerous pipe connections were also identified with mudded asbestos joints throughout these sections.

At least four fire doors were observed serving as entrances into tenant spaces in the central and southern portion of the first floor of the building. It should be noted that additional fire doors may be present that were not readily identifiable during the site of the inspection due to active tenant usage.

A copy of the laboratory's Certificate of Analysis is provided in Appendix C. Table 1 below provides a summary of the materials sampled, as well as the presumed ACM.

Table 1
Summary of Sampled Building Materials
Sample Street Business Complex
3702 West Sample Street
South Bend, Indiana
May 18, 2011

Material/Location	Friable	Category	Asbestos Content	Area (ft^2)*	Sample #
Ceiling Tile – 2' x 2' off-white w/ squiggle design, second floor hallways and tenant spaces	Yes	-	ND	~1,000	CT-1(A-C)
Drywall, in office/tenant spaces throughout building	Yes	II	ND	~3,500	DW-1(A-E)
Insulation – white, associated with the boiler tank in the basement maintenance area	Yes	-	ND	~100	INS-1
Pipe Wrap Paper – Paper/Fiber covering over piping in boiler maintenance areas and "penthouse" cooling areas on roof	No	I	ND	~500	PW-1(A-C)
Transite Material – Northeast portion of roof on window panels (fibrous)	No	II	ND	~420	Trans-1
Resilient vinyl flooring and associated mastic, 9" x 9" black w/brown streaks, Second Floor offices	No	I / II (Mastic Only)	<1% Asbestos**	~2,400	FT-1(A-E)
Resilient vinyl flooring and associated mastic, 12" x 12" white w/dark brown squiggles, Second Floor offices	No	I / II (Mastic Only)	ND	<1,000	FT-2(A-C)
Resilient vinyl flooring and associated mastic, 12" x 12" grayish green w/white squiggles, Second Floor offices	No	I / II (Mastic Only)	ND	<1,000	FT-3(A-C)
Resilient vinyl flooring and associated mastic, 9" x 9" white w/black streaks, Second Floor offices	No	I / II (Mastic Only)	<1% Asbestos**	<1,000	FT-4(A-C)
Resilient vinyl flooring and associated mastic, 9" x 9" black w/white streaks, Second Floor offices	No	I / II (Mastic Only)	ND	<1,000	FT-5(A-C)
Resilient vinyl flooring and associated mastic, 12" x 12" light blue w/white squiggles, First Floor offices	No	I / II (Mastic Only)	ND	<1,000	FT-6(A-C)
Asphalt Roofing Material (tar over pea gravel)	No	I	ND	-	Roof-1

Table 1
Summary of Sampled Building Materials
Sample Street Business Complex
3702 West Sample Street
South Bend, Indiana
May 18, 2011

Material/Location	Friable	Category	Asbestos Content	Area (ft^2)*	Sample #
Asphalt Roofing Material (tar over stone and gravel)	No	I	ND	-	Roof-2
Asphalt Roofing Material (shingles)	No	I	ND	-	Roof-3
Asphalt Roofing Material (rubber membrane and tar)	No	I	ND	-	Roof-4
Asphalt Roofing Material (silver and black tar and flashing)	No	I	ND	-	Roof-5
Fire Doors – At least 4 Fire Doors identified in central and southern tenant spaces	No	II	**PACM**	-	Not Sampled
Pipe insulation on vertical and horizontal ceiling pipe runs throughout northeastern portion of the first floor of the building	Yes	-	**PACM**	~147 Linear Feet***	Not Sampled

Friable: Yes – hand friable, No – non-friable
ND: No asbestos detected
*Square footage estimates determined from site reconnaissance and site maps obtained during site reconnaissance
**Note results obtained after further point counting of samples after PLM analysis
*** Note mudded joint linear footage estimate included with total estimate of TSI

4.0 CONCLUSIONS AND RECOMMENDATIONS

Heartland conducted an asbestos building inspection of the Sample Street Business Complex facility located at 3702 West Sample Street in South Bend, Indiana. The assessment area consisted of a single two to three story office complex housing manufacturing and warehousing businesses. The assessment area totaled approximately 333,000 square feet of space.

Based upon the results of the asbestos building inspection, **ACMs were encountered. These materials included: 1) TSI in the form of pipe wrap and mudded joint insulation wrapping, which is a RACM, and 2) fire doors, which are classified as Category II, non-friable ACM.**

Heartland understands that this assessment was completed to evaluate the presence of ACM at the facility. Should the building be renovated or demolished, meeting the definition of renovation and demolition in accordance with the NESHAP for the State of Indiana, **written notification must be submitted to the IDEM at least ten (10) working days prior to any future planned renovation/demolition activities** as RACM (TSI) was identified. These requirements are as specified in Indiana Administrative Code (326 IAC 14-10).

If the intent is to remove ACMs prior to or during renovation/demolition activities, it should be done using asbestos abatement contractors licensed to work in the State of Indiana. If any identified non-friable ACM materials are to be left in place during renovation/demolition activities, they should not be disturbed or otherwise made friable. Heartland recommends that a licensed abatement contractor be utilized to remove the RACM identified prior to the renovation/demolition of the building.

5.0 DISCLAIMER AND SIGNATURE PAGE

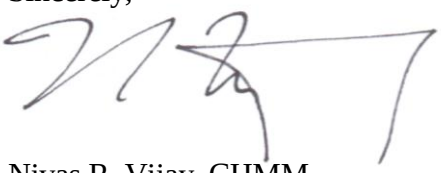
This environmental report was prepared in accordance with generally accepted principles and practices in the environmental consulting field. Conclusions and recommendations expressed herein were developed from site evaluation and limited research, and we are not responsible for unrecorded data pertaining to this site. Heartland makes no warranties, expressed or implied, as to the fitness or merchantability of said property for any particular purpose, and we are not responsible for independent conclusions or opinions made by others based on this report.

Reasonable efforts were made to identify suspect ACM within the facility inspected. This inspection was performed using "non-destructive" sampling methods. The manner of the inspection did not compromise the structural integrity of the buildings or endanger the safety of sampling personnel or other contractors/occupants.

Additionally, recommendations made as part of this report are for use by the UEA and should not be construed as a project design for the removal of ACM that may be removed as a consequence of this report.

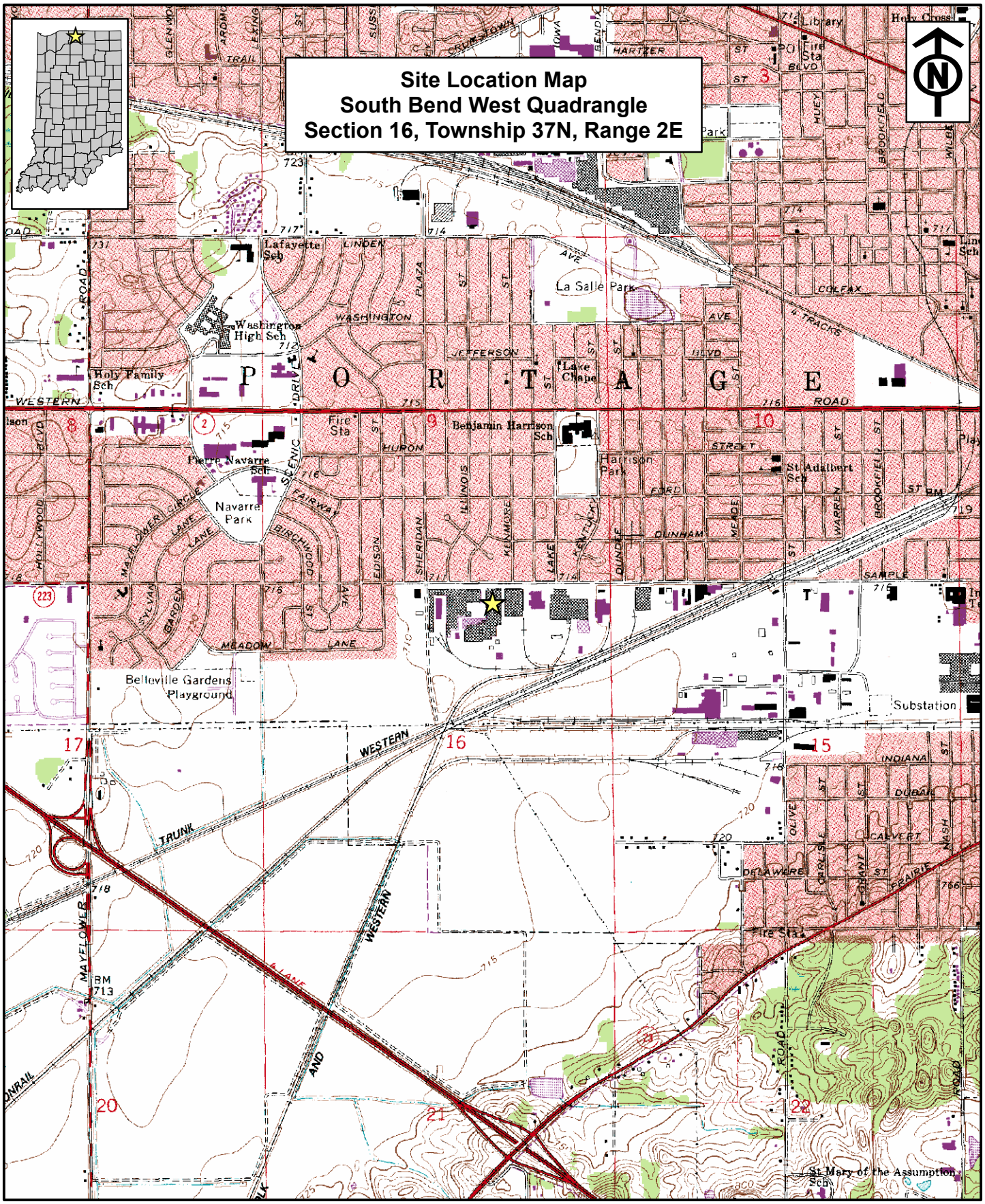
If you should have questions regarding this report, please contact Heartland at 574-289-1191.

Sincerely,



Nivas R. Vijay, CHMM
Project Manager
Indiana Asbestos License # 197004016

FIGURES



Base Map: USGS 7.5 Minute DRG Quadrangle

Heartland Environmental Associates, Inc.
3410 Mishawaka Avenue, South Bend, Indiana 46615

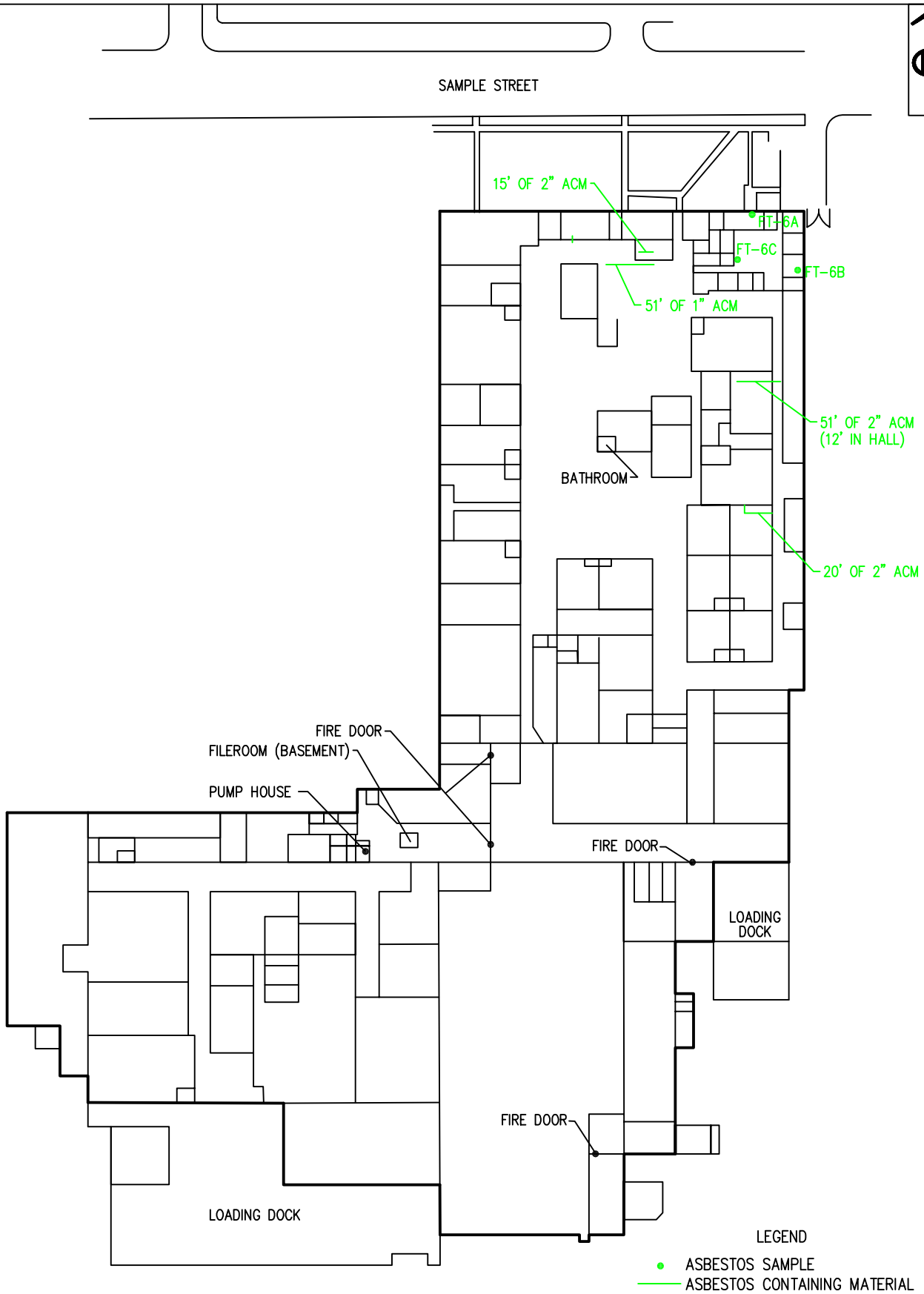
FIGURE 1
SITE LOCATION MAP

SAMPLE STREET BUSINESS COMPLEX
3702 WEST SAMPLE STREET
SOUTH BEND, INDIANA

Date: 6/13/11

Scale: 1"=2,000'

Drawn By: NV



Heartland Environmental Associates, Inc.
3410 Mishawaka Avenue, South Bend, Indiana 46615

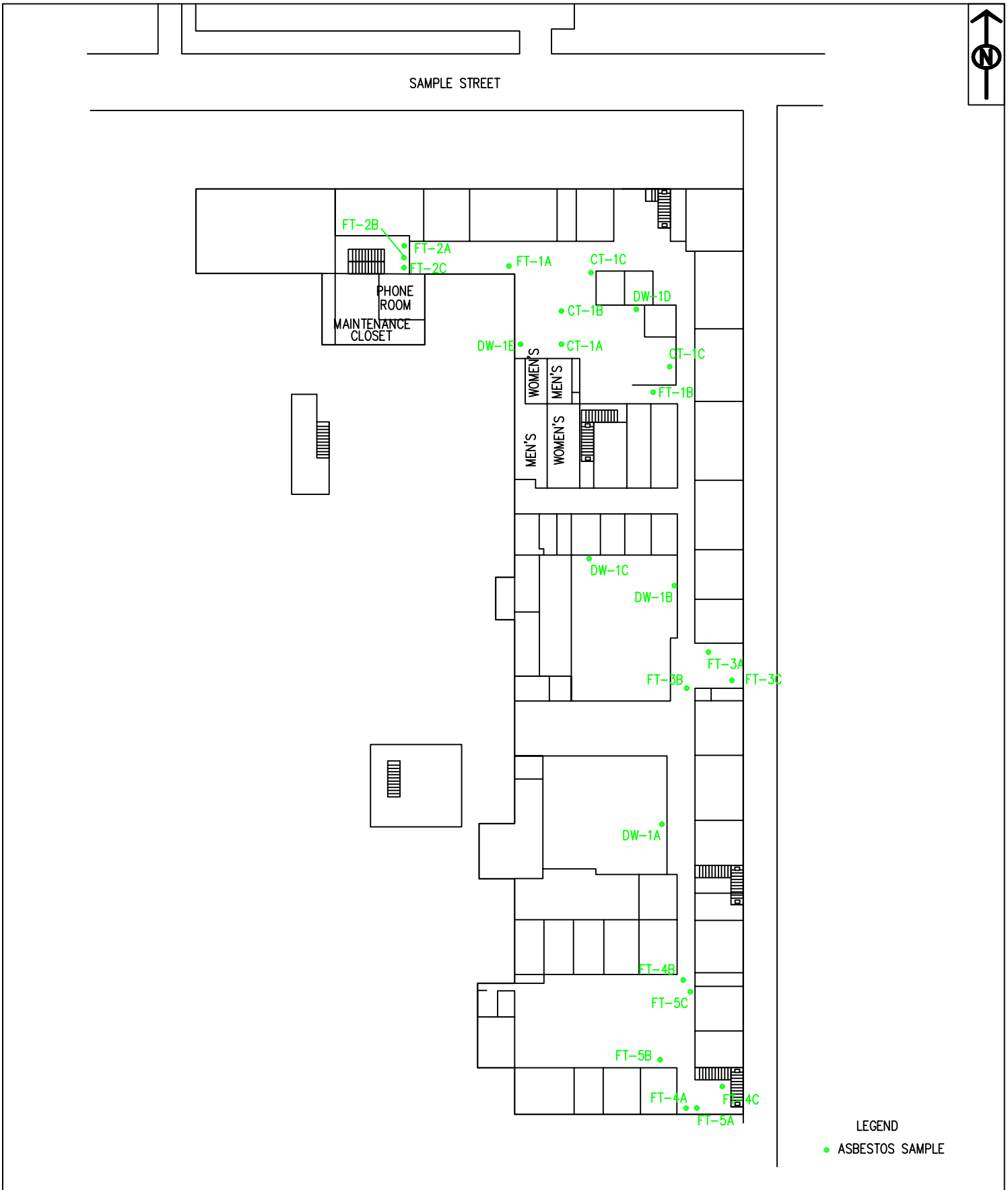
FIGURE 2
FIRST FLOOR LAYOUT MAP WITH
ACM SAMPLING LOCATIONS

SAMPLE STREET BUSINESS COMPLEX
3702 WEST SAMPLE STREET
SOUTH BEND, INDIANA

Date: 6/19/11

Scale: NTS

Drawn By: NV



Heartland Environmental Associates, Inc.
3410 Mishawaka Avenue, South Bend, Indiana 46615

FIGURE 3
SECOND FLOOR LAYOUT MAP WITH ACM SAMPLING LOCATIONS

SAMPLE STREET BUSINESS COMPLEX
3702 WEST SAMPLE STREET
SOUTH BEND, INDIANA

Date: 6/13/11

Scale: NTS

Drawn By: NV

APPENDIX A

Certificate of Asbestos Accreditation

Indiana Dept. of Environmental Management

Nivas R. Vijayaraghavan

Asbestos Inspector License #: 197004016

Effective: **01/13/2011**
Birth Date: **05/29/1979**
Height: **5-08**
Weight: **145**

Expiration: **01/13/2012**
Gender: **M**
Eye Color: **BRO**
Hair Color: **BLK**

Environmental Management Institute

5610 Crawfordsville Road, Suite 15, Indianapolis, Indiana 46224-3714

317/248-4848 • 800/488-8842 • FAX 317/248-4846
www.envtlmgmt.org

This confirms that

Nivas Vijayaraghavan

Completed the Required Refresher Training for
Asbestos Accreditation Under TSCA Title II
and has
passed with a Score of 70 or Greater the Examination for

Asbestos Building Inspector

Course Date
August 5, 2010

Examination Date
August 5, 2010

Jack E. Leonard, President

Certificate: IN(R) 6698

Expires: August 5, 2011

Approved by:: Illinois Department of Public Health
Indiana Department of Environmental Management

APPENDIX B

Standard Operating Procedures for Asbestos Sampling

Standard Operating Procedures
Asbestos Building Inspection and Sampling Protocol

1.0 PURPOSE

Asbestos inspections are completed to determine the presence of ACM in accordance with the National Emission Standard of a Hazardous Air Pollutant (NESHAP) for Asbestos, 40 CFR 61 Subpart M, and 326 IAC 14-10, Emission Standards for Asbestos; Demolition and Renovation Operations. Samples, if necessary, are collected in general conformance with the procedures outlined in the Asbestos Hazard Emergency Response Act of 1986 (AHERA). In accordance with the United States Environmental Protection Agency (USEPA) 40 CFR 763.83 Subpart E definitions, the three types of ACM are: thermal system insulation, surfacing materials, and miscellaneous materials.

2.0 SAMPLING STRATEGIES

The sampling strategy for any suspect material is dependent upon the application, area covered and apparent uniformity and homogeneity of the application. Each suspect material is placed into a grouping referred to as a homogeneous area. The homogeneous area is all material of the same type, color, texture, and estimated age of installation. Suspect materials are classified based on three (3) basic categories, thermal system insulation (TSI), surfacing material (S), and miscellaneous material (Misc).

TSI is material used to prevent heat loss or gain, or prevent condensation and includes pipe insulation, valve and fitting insulation, boiler insulation, breeching insulation, and tank insulation. Surfacing materials are sprayed on, troweled on, or otherwise applied to a surface such as acoustical plaster on ceilings or fireproofing on structural members or decking, or on surfaces for fireproofing purposes.

Miscellaneous or other materials are those that are not classified into the categories of TSI or surfacing, such as ceiling tile, floor tile, roofing felt, cove base and mastic. Upon defining homogeneous areas, each area is sub-divided into sectors. Sectors are randomly chosen from which a sample of the material is collected (per the U.S. EPA's "Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials", dated October 1985). The number of samples collected depends upon the type of material (TSI, S, Misc) and amount according to the following chart based on OSHA regulations (29 CFR 1926.1001).

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Toll Free 888.289.1191
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Type of Material	Amount	Number of Samples
Surfacing	<1,000 SF	Minimum of 3
	1,000 – 5,000 SF	Minimum of 5
	> 5,000 SF	Minimum of 7
TSI	<6 LF/SF	1
	>6 LF/SF	Minimum of 3
Misc/Other	Any	Sufficient to Determine ACM/Not-ACM (generally 3/5/7 as above for surfacing)
Note: LF = Linear Feet SF = Square Feet		

At any time, a building inspector can elect to assume the material is asbestos containing and thereby forego sampling requirements for that homogeneous area.

Collection of samples is accomplished by carefully extracting a portion of the material (1 – 10 cm^3) to include all layers present in the material. The samples are then numbered and labeled with a unique number and delivered to the laboratory for analysis by Polarized Light Microscopy.

3.0 DETERMINATION OF NON-ASBESTOS CONTAINING MATERIALS

Sampling and analysis of suspect asbestos materials is performed in an attempt to eliminate materials as ACM. Suspect materials are primarily determined by knowledge of the uses of asbestos: heat insulation, fire retardant, electric systems insulator, chemical resistant material, and many building materials that required durability. Elimination of a material as ACM for the purposes of maintenance, renovation, or demolition work may only be performed by an accredited asbestos building inspector through a building inspection and assessment procedure. Elimination of a material may occur if (1) the material is visibly non-ACM (only really applies to fiberglass and rubberized materials); (2) documentation illustrates that the materials used are non-ACM; or (3) sampling and analysis are performed. According to OSHA's Construction Standards, negative analytical results for a minimum of three (3) samples are required to conclusively determine a material to be non-ACM. All three (3) of these samples must be determined to be visually the same material from the same homogeneous area (same color, texture, and estimated date of installation). A "same" material is primarily identified as a material whose appearance and application are the same. Materials cannot be judged as being in the same homogeneous area, even if these materials appear the same and are applied the same unless the time on installation is also the same. The materials must have been installed or constructed at the same time, or purchased as the same material at the same time, but installed at different times. If date of construction or installation is in doubt more than one (1) homogeneous area must be determined.

APPENDIX C

Laboratory Certificates of Analysis

ANALYSIS OF SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

FOR:

HEARTLAND ENVIRONMENTAL
3410 MISHAWAKA AVE
SOUTH BEND, IN 46615

LOCATION:

SAMPLE STREET BUSINESS COMPLEX
3702 W. SAMPLE STREET
SOUTH BEND, IN

ACM ENGINEERING & ENVIRONMENTAL SERVICES
PROJECT#: 17643

DATE OF REPORT:

MAY 26, 2011

PREPARED BY:

ACM ENGINEERING & ENVIRONMENTAL SERVICES
26598 U.S. 20 WEST
SOUTH BEND, IN 46628

NVLAP LAB CODE: 101977

INTRODUCTION:
In May 2011, ACM Engineering & Environmental Services received bulk samples of suspect asbestos containing building material from Heartland Environmental. These are to be analyzed by ACM Engineering & Environmental Services for possible asbestos content.

THE REPORT:
The attached report quantifies the fibrous materials found in each sample submitted for analysis. A complete fibrous analysis of samples is given for each sample followed by a breakdown analysis of any sub-samples for heterogeneous material.

The first column is the client sample identification.

The second column is the laboratory sample number. The laboratory number for the overall sample analysis is a digit number. The laboratory number followed by a letter designation (A,B,C. etc.) indicates a sub-sample analysis.

The third column is the sample identification, which indicates whether the sample is homogeneous or heterogeneous, the color of the sample, and the physical description (cementitious, fibrous, cloth, etc.)

The fourth column indicates the types and percentages of asbestos identified in the sample or sub-sample.

The fifth column indicates the types and percentages of non-asbestos identified in the sample or sub-sample.

The sixth column indicates the types and percentages of non-asbestos, non-fibrous material in the sample or sub-sample.

The seventh column indicates the types and percentages of non-asbestos fibrous material in the sample or sub-sample. Fibrous material will not necessarily total 100% of the sample.

There will be dashes (----) in each column when nothing is detected.

METHOD:
All analyses and quantifications are performed in accordance with the U.S. Environmental Protection Agency's "Method for the Determination of Asbestos in Bulk Building Materials", EPA/600/R-93/116.

The method utilizes stereoscopical examination of the bulk samples, as well as utilizing the polarized light microscope and the central stop dispersion staining method.

If applicable, please be advised that the Stereo Scope/PLM methods have limitations regarding floor tile analysis for asbestos content. Historically, the production of floor tile has included the grinding of asbestos into submicroscopic portions. Therefore, this method of analysis may produce incorrect results for tests of floor tile which produce negative finding for asbestos.

Gross samples are examined under a 10X or 20X stereoscope where homogeneity (need for sub-samples), texture and /or any other distinguishing characteristics are determined.

Sub-samples are prepared if needed. Any fibrous material is mounted in high dispersion oil for further microscope examination utilizing polarized light microscopy. Any possible asbestos fibers are analyzed for morphology, color and pleochroism, index of refraction parallel and perpendicular to elongation, birefringence, extinction characteristic and sign of elongation, and any other distinguishing characteristics observed.

To determine the refractive index, the central stop dispersion staining method is used, as well as matching with refractive index oil and using light matching the sodium D line wavelength. Identification of non-asbestos species is less rigorous, as they are of secondary interest.

The percentage of asbestos and other fibrous materials are then determined according to sample area coverage and thickness. The limit of qualification is one percent (1%). The above is recorded on the laboratory analysis sheet and maintained for three years.

The error involved for reported percentages of fibrous is 100% error for 1% to 5%, 50% error for 5% to 20%, and 25% error for 20% to 100%. All percentages will be reported in a range indicating error or a single value, in which case the above error should be applied. When the value 1% or greater is reported this indicates asbestos is present in the sample.

ASBESTOS CHARACTERIZATION:
The features of the various forms of asbestos are as follows:

CHRYSOTILE: Thin fibers and fiber bundles with both straight and wavy sections. The ends of bundles tend to be frayed. Sign of elongation is positive, refractive indices are 1.493-1.560 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as white asbestos.

AMOSITE: Straight thin single fibers and bundles of such fibers usually with cleanly broken ends on individual fibers, positive sign of elongation, refractive indices of 1.653-1.696 (alpha) and 1.655-1.729 (gamma), and birefringence of 0.020-0.033. Fibers exhibit parallel extinction.

CROCIDOLITE: Similar in morphology to amosite, but is distinguished by negative sign of elongation, blue to blue-green pleochroic coloration, refractive indices of 1.654-1.701 (alpha) and 1.668-1.717 (gamma), and birefringence of 0.009-0.016. It is commonly referred to as blue asbestos.

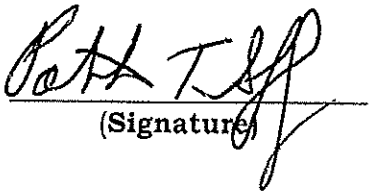
ANTHOPHYLITE: Similar in morphology to amosite, but has refractive indices of 1.596-1.652 (alpha) and 1.615-1.676 (gamma), anthophylite fibers show parallel extinction and positive sign of elongation.

TREMOLITE/ACTINOLITE SERIES:
Transparent, elongated furrowed prisms, usually with uneven, jagged ends and smooth sides, with oblique (0-20 degree) to parallel extinction and positive elongation; refractive indices are 1.599-1.668 (alpha) and 1.622-1.688 (gamma) and birefringence is 0.020-0.028.

SAMPLE RETENTION:
Samples will be retained for 6 months unless otherwise instructed. After this period, the sample(s) will be disposed of appropriately. Upon written request, the samples will be returned by mail or delivery for a nominal fee to cover postage and handling. There would be no charge for samples picked-up at ACM Engineering & Environmental Services.

DISCUSSION AND RECOMMENDATIONS:
In order to reduce the risk of introducing asbestos fibers into the air, care should be taken not to disturb the asbestos containing building materials. If renovation, demolition or other activities might disturb known asbestos containing building materials, a reputable asbestos consultant should be contacted to help effectively design and implement an asbestos management program.

Report prepared by: **Patrick T. Griffin**



(Signature)

ACM Engineering & Environmental Services
President/CEO

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: HEARTLAND ENVIRONMENTAL
3410 MISHAWAKA AVE
SOUTH BEND, IN 46614

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: SAMPLE STREET BUSINESS COMPLEX

MATRIX: BULK

DATE OF SAMPLE: 05/18/11

DATE OF ANALYSIS: 05/25/11

SAMPLE SITE: 3702 WEST SAMPLE STREET
SOUTH BEND, IN

ACM PROJECT #: 17643

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
CT-1A	1105552	WHITE FIBROUS MATERIAL	-----	41%	-----	59% G
CT-1B	1105553	WHITE FIBROUS MATERIAL	-----	42%	-----	58% G
CT-1C	1105554	WHITE FIBROUS MATERIAL	-----	41%	-----	49% G
DW-1A	1105555	WHITE FLAKY MATERIAL	-----	24%	76%	-----
DW-1B	1105556	WHITE FLAKY MATERIAL	-----	24%	76%	-----
DW-1C	1105557	WHITE FLAKY MATERIAL	-----	23%	77%	-----
DW-1D	1105558	WHITE FLAKY MATERIAL	-----	34%	66%	-----
DW-1E	1105559	WHITE FLAKY MATERIAL	-----	23%	77%	-----
FT-1A	1105560	BLACK SOLID MATERIAL	3% C	-----	97%	-----
FT-1A	1105560A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-1B	1105561	BLACK SOLID MATERIAL	3% C	-----	97%	-----
FT-1B	1105561A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-1C	1105562	BLACK SOLID MATERIAL	3% C	-----	97%	-----
FT-1C	1105562A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-1D	1105563	BLACK SOLID MATERIAL	3% C	-----	97%	-----
FT-1D	1105563A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-1E	1105564	BLACK SOLID MATERIAL	3% C	-----	97%	-----
FT-1E	1105564A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-2A	1105565	WHITE SOLID MATERIAL	-----	-----	100%	-----
FT-2A	1105565A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-2B	1105566	WHITE SOLID MATERIAL	-----	-----	100%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Tony Malave DATE: 5/26/11

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: HEARTLAND ENVIRONMENTAL
3410 MISHAWAKA AVE
SOUTH BEND, IN 46614

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: SAMPLE STREET BUSINESS COMPLEX

MATRIX: BULK

DATE OF SAMPLE: 05/18/11

DATE OF ANALYSIS: 05/25/11

SAMPLE SITE: 3702 WEST SAMPLE STREET
SOUTH BEND, IN

ACM PROJECT #: 17643

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
FT-2B	1105566A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-2C	1105567	WHITE SOLID MATERIAL	-----	-----	100%	-----
FT-2C	1105567A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-3A	1105568	GREEN SOLID MATERIAL	-----	-----	100%	-----
FT-3A	1105568A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-3B	1105569	GREEN SOLID MATERIAL	-----	-----	100%	-----
FT-3B	1105569A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-3C	1105570	GREEN SOLID MATERIAL	-----	-----	100%	-----
FT-3C	1105570A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-4A	1105571	GREY SOLID MATERIAL	-----	-----	100%	-----
FT-4A	1105571A	BLACK ADHESIVE MATERIAL	3% C	-----	97%	-----
FT-4B	1105572	GREY SOLID MATERIAL	-----	-----	100%	-----
FT-4B	1105572A	BLACK ADHESIVE MATERIAL	3% C	-----	97%	-----
FT-4C	1105573	GREY SOLID MATERIAL	-----	-----	100%	-----
FT-4C	1105573A	BLACK ADHESIVE MATERIAL	3% C	-----	97%	-----
FT-5A	1105574	BLACK SOLID MATERIAL	-----	-----	100%	-----
FT-5A	1105574A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-5B	1105575	BLACK SOLID MATERIAL	-----	-----	100%	-----
FT-5B	1105575A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----
FT-5C	1105576	BLACK SOLID MATERIAL	-----	-----	100%	-----
FT-5C	1105576A	YELLOW ADHESIVE MATERIAL	-----	-----	100%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES

WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Larry Malone DATE: 5/26/11

Analysis of Suspect Asbestos Containing Building Materials

CLIENT: HEARTLAND ENVIRONMENTAL
3410 MISHAWAKA AVE
SOUTH BEND, IN 46614

ANALYTICAL METHOD: EPA/600/R-93/116

NVLAP LAB CODE #: 101977

CLIENT PROJECT: SAMPLE STREET BUSINESS COMPLEX

MATRIX: BULK

DATE OF SAMPLE: 05/18/11

DATE OF ANALYSIS: 05/25/11

SAMPLE SITE: 3702 WEST SAMPLE STREET
SOUTH BEND, IN

ACM PROJECT #: 17643

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
FT-6A	1105577	GREY SOLID MATERIAL	-----	-----	100%	-----
FT-6A	1105577A	TAN ADHESIVE MATERIAL	-----	-----	100%	-----
FT-6B	1105578	GREY SOLID MATERIAL	-----	-----	100%	-----
FT-6B	1105578A	TAN ADHESIVE MATERIAL	-----	-----	100%	-----
FT-6C	1105579	GREY SOLID MATERIAL	-----	-----	100%	-----
FT-6C	1105579A	TAN ADHESIVE MATERIAL	-----	-----	100%	-----
PW1A	1105580	WHITE FIBROUS MATERIAL	-----	-----	-----	100%CO
PW1B	1105581	WHITE FIBROUS MATERIAL	-----	94%	6%	-----
PW1C	1105582	WHITE FIBROUS MATERIAL	-----	-----	-----	100%CO
INS-1	1105583	WHITE FIBROUS MATERIAL	-----	-----	-----	100% G
TRANS-1	1105584	GREY FIBROUS MATERIAL	-----	-----	15%	85% G
ROOF-1	1105585	BLACK SOLID MATERIAL	-----	-----	100%	-----
ROOF-2	1105586	BLACK SOLID MATERIAL	-----	-----	100%	-----
ROOF-3	1105587	BLACK FIBROUS MATERIAL	-----	47%	44%	9% G
ROOF-4	1105588	BLACK PLIABLE MATERIAL	-----	-----	100%	-----
ROOF-5	1105589	BLACK FIBROUS MATERIAL	-----	69%	31%	-----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES
WITH LESS THAN 10% (< 10%) ASBESTOS CONTENT

MICROSCOPIST: Jamy Malone DATE: 5/26/11

Analysis of Suspect Asbestos Containing Materials

ACM ENGINEERING & ENVIRONMENTAL SERVICES PROJECT NO.: 17643

DESCRIPTION OF ANY PROBLEMS ENCOUNTERED IN THE SAMPLE ANALYSIS: None

COMPONENTS DESCRIPTION:

ASBESTOS MATERIALS

ACBM = ASBESTOS CONTAINING BUILDING MATERIAL
C = CHRYSOTILE
A = AMOSITE
CR = CROCIDOLITE
AN = ANTHOPHYLITE
AC = ACTINOLITE
T = TREMOLITE
---- = NO ASBESTOS DETECTED

NON-ASBESTOS MATERIALS

CELL = CELLULOSE
G = FIBROUS GLASS
M = MINERAL WOOL
S = SYNTHETICS
H = HAIR
CO = COTTON
O = OTHER
CF = CERAMIC FIBERS
M = MICA
NON-FIB NON-ACM = NON FIBROUS NON ACBM
FIB NON ACM = FIBROUS NON ACBM

NOTES: FIBROUS QUANTITIES DO NOT NECESSARILY ADD UP TO 100%, REMAINING QUANTITIES ARE COMPOSED OF NON-FIBROUS ROCKS, BINDERS AND MISC. MATERIALS.

THIS REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT.

THIS REPORT RELATES ONLY TO THE ITEMS ABOVE.

ACM ENGINEERING & ENVIRONMENTAL SERVICES DOES NOT DEVIATE FROM THE TEST METHOD DESCRIBED IN THIS REPORT.

ACM Engineering & Environmental Services, Inc.

26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 17643

Suspect Asbestos Containing Building Material Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY

NVLAP

Client: Heartland Environmental

Billing Address: 3410 Mishawaka Ave

Billing City, State, Zip: South Bend, IN 46615

Report Results To: nvijay@heartlandenv.com

Sampling Date: 5/18/11 Sampled By: N. Vijay

Site Location: Sample St. Business Complex

Address: 3702 W. Sample St, South Bend, IN

Type of Project: Asbestos

Requested Turn Around Time: Standard

Reference Number: 5093-11-01 02

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
CT-1 (A-C)	Bulk	Ceiling Tile		PLM * STOP ANALYZE AT POSITIVE
DW-1 (A-E)		Drywall		
FT-1 (A-E)		Floor Tile + Mastic		
FT-2 (A-C)				
FT-3 (A-C)				
FT-4 (A-C)				
FT-5 (A-C)				
FT-6 (A-C)				
PW-1 (A-C)		Piping Wrap Paper		
Ins-1		Insulation		
Trans-1		Transite		
Roof-1		Roofing		

Submitted by: (sign) _____ (print) Nivas Vijay Date Submitted: 5/24/11

Received by: (sign) P.T. Griffin (print) P.T. GRIFFIN Date and time received: 5/24/11

(For lab use only) Samples processed by: Tony Malone Date: 5/25/11 Time: From _____ am/pm to 1600 am/pm

ACM Engineering & Environmental Services, Inc.

26598 US 20 West
South Bend, Indiana 46628
Phone (574) 234-8435
Fax (574) 234-6800

ACM Project # 17643

Page 2 of 2

Suspect Asbestos Containing Building Material Sampling - Chain-of-Custody - Analysis Request Form

AIHA Environmental Microbiology ACCREDITED LABORATORY

NVLAP

Client: Heart Land

Billing Address: 3410 Mishawaka Ave

Billing City, State, Zip: South Bend, IN 46615

Report Results To: nvijay@heartlandenv.com

Sampling Date: 5/18/11 Sampled By: N. Vijay

Site Location: Sample St. Business

Address: 3712 W. Sample St, South Bend, IN

Type of Project: Asbestos

Requested Turn Around Time: Standard

Reference Number: S093-11-01.02

Sample Identification	Sample Type (Bulk, Wipe, Other)	Sample Description	Sample Location	Requested Analysis; Instructions / Comments
Roof-2	Bulk	Roofing Material		PLM * STOP ANALYZE AT POSITIVE
Roof-3				
Roof-4				
Roof-5				

Submitted by: (sign) [signature] (print) Nivas Vijay Date Submitted: 5/24/11

Received by: (sign) P.T. Griffin (print) P.T. GRIFFIN Date and time received: 5/24/11

(For lab use only) Samples processed by: Tammy Malone Date: 5/25/11 Time: From _____ am/pm to 1100 am/~~pm~~

POINT COUNTING ANALYSIS OF SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

CLIENT: HEARTLAND ENVIRONMENTAL
3410 MISHAWAKA AVE
SOUTH BEND, IN 46615

ANALYTICAL METHOD: EPA 40CFR61
PT. 763 SUBPART E, APPENDIX E
POLARIZED LIGHT MICROSCOPY - POINT COUNTING

CLIENT PROJECT: SAMPLE STREET BUSINESS PROJECT

NVLAP LAB CODE #: 101977

DATE OF ANALYSIS: 06/01/11

DATE OF SAMPLE: 05/18/11

ACM PROJECT #: 17543

SAMPLE SITE: 3702 W SAMPLE STREET
SOUTH BEND, IN

CLIENT SAMPLE NUMBER	LAB SAMPLE NUMBER	# OF SLIDES	ASBESTOS CONCENTRATION BY POINT COUNTING	AVERAGE CONCENTRATION OF ASBESTOS PERCENTAGE
FT-1A	1105560	8	1/400	<1% ASBESTOS DETECTED
FT-1B	1105561	8	3/400	<1% ASBESTOS DETECTED
FT-1C	1105562	8	1/400	<1% ASBESTOS DETECTED
FT-1D	1105563	8	1/400	<1% ASBESTOS DETECTED
FT-1E	1105564	8	0/400	NO ASBESTOS DETECTED
FT-4A	1105571A	8	3/400	<1% ASBESTOS DETECTED
FT-4B	1105572A	8	0/400	NO ASBESTOS DETECTED
FT-4C	1105573A	8	1/400	<1% ASBESTOS DETECTED

MICROSCOPIST: Tony Malone DATE: 6/1/11