

April 27th, 2018
RFP 17- HHFDEMO4-2018
Request for Qualifications and Cost Proposal
Deconstruction and Demolition Services
Muskegon County Land Bank / City of Muskegon Heights

Bidder's Name: _____

Address: _____

Telephone Number: _____

E-Mail: _____

The Muskegon County Land Bank / City of Muskegon Heights invites all interested companies and individuals to submit qualifications and a cost proposal for the Hardest Hit Program. A set of conditions, specifications, and requirements are enclosed.

Sealed proposals clearly marked with "**RFP 18- HHFDEMO4-2018**" will be accepted at the **Muskegon County Land Bank**, 173 East Apple Avenue, Suite 104. Muskegon, Michigan 49442 until 3:00 p.m. May 10, 2018.

No Late Bids will be accepted

Document published by
Christopher J. Dean Fire Chief
City of Muskegon Heights

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This project is funded through the Michigan Hardest Hit Fund.

Project Purpose

The Muskegon County Land Bank / City of Muskegon Heights is accepting qualifications and cost proposal for the site demolition and removal of four (4) residential structures located in Muskegon Heights, MI 49444

Bid Packet

Bid packets will be available starting April 27th, 2018. The completed bid packet must be returned to the **Muskegon County Land Bank**, 173 East Apple Avenue, Suite 104. Muskegon, Michigan 49442 until 3:00 p.m. May 10th, 2018.

Bid documents may be obtained at www.cityofmuskegoheights.org or the Builders Exchange of Michigan. A pre-bid voluntary conference will be held on May 3rd, 2018 at 1:00 PM at Muskegon Heights, City Hall, Council Chambers (2724 Peck, Muskegon Heights, MI). Inquiries can be made by the following means: Phone 231-724-6170 Timothy Burgess or via email at BurgessTi@co.muskegon.mi.us

No late bids will be accepted. The Muskegon County Land Bank / the City of Muskegon Heights reserves the right to accept or reject any or all bids and reserves the right to waive formalities and to take such actions as it deems necessary in the best interest of Muskegon County Land Bank / the City of Muskegon Heights. Both the Muskegon County Land Bank / City of Muskegon Heights operates on an equal opportunity / affirmative action basis in its bidding policy (Title VII of the Civil Rights Act of 1964, Equal Opportunity Clause, Executive Order 11246, Chapter 60, Subpart A. 60-1.4, Revised Order No. 4)

Christopher J. Dean Fire Chief

Publish: April 27th, 2018

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Section I.
Bid Certification
(Page 1 of Bid Document)

I certify that this bid is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same materials, supplies, equipment or service, that it meets or exceeds all specifications contained herein, and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of state and federal law and can result in fines, prison sentence, and civil damage awards. I agree to abide by all conditions of this bid, all specifications as stated and certify that I am authorized to sign for the bidder.

Bidder: _____

Street Address: _____

City/State/Zip Code _____

Phone Number: _____

FAX: _____

E- Mail: _____

Signature: _____

Title: _____

Date Certified: _____

Bid Breakdown

Asbestos Abatement Total: _____

Demolition Total: _____

Disposal Total: _____

Fill: _____

Landscaping Total: _____

Total Bid Amount: _____

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CONFLICT OF INTEREST DISCLOSURE FORM
(Page 2 of Bid Document)

For purposes of determining any possible conflict of interest, all bidders/proposers, must disclose if any City of Muskegon Heights or County of Muskegon employee(s), elected officials(s), of if any of its agencies is also an owner, corporate officer, agency, employee, etc., of their business.

Indicate either "yes" (a city employee or county, elected official, or employee also associated with your business), or "no." If yes, give person(s) name(s) and position(s) with your business.

YES _____

NO _____

NAME(S)

POSITION(S)

FIRM NAME: _____

BY (PRINTED): _____

BY (SIGNATURE): _____

TITLE: _____

ADDRESS: _____

PHONE NO. _____

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**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
INELIGIBILITY AND VOLUNTARY EXCLUSION**

(Page 3 of Bid Document)

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 13 CFR Part 145. The regulations were published as Part VII of the May 26, 1988, *Federal Register* (pages 19160-19211).

Bidder certifies to the best of its knowledge and belief, that it and its principals:

(a) Are are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have have not within a three-year period preceding award of this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are are not presently indicted for or otherwise criminally charged by a governmental entity (Federal, State or Local) with commission of any of the offenses enumerated in paragraph (b) above; and

(d) Have have not within a three-year period preceding bid had one or more public transactions (Federal, State or Local) terminated for cause or default.

Bidder Signature

Date

Typed or Printed

Company Name

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A. General Bid Conditions/Instruction to Bid

These conditions are an integral part of this bid, and as such, the bidder must comply with them.

1. The prospective bidder must use Local Governmental Units bid documents.
2. Alternatives must be placed on a separate sheet of paper.

B. Federal and State Regulation Compliance

1. In accordance with the Housing and Urban Development Act of 1968, as amended (12USC1701 u) and stated in the City of Muskegon Heights, Section 3 Employment Plan 10% of the grant dollars/ contract will be used to directly employ Muskegon Heights residents or businesses in the deconstruction or demolition of buildings funded under this program.
2. At the time of the solicitation, the Prime Demolition Contractor must identify and enter into a partnership with a deconstruction company for the purpose of providing services for this contract. The Prime Demolition Contractor will be responsible for the deconstruction activities on the site. The deconstruction company will be employed and the responsibility of the Prime Demolition Contractor.

C. Project Submission Schedule

The payment time or closing dates, as stated in the bid form, shall be required to deliver and complete items after the receipt of the award. Where multiple items appear on a bid request, the bidder shall, unless otherwise stated by the City, show the closing time in each item separately. The payment schedule must be included in and restated in each bid and adhered to as the following:

- | | |
|---|----------------------|
| 1. Request for Qualifications and Cost Proposal Available to the Public | April 27, 2018 |
| 2. Pre-bid Meeting | May 3, 2018 |
| 3. Submission of Request for Qualifications and Cost Proposal Due | May 10, 2018 |
| 4. Bid Awarded by the Muskegon County Land Bank | Apx May 15, 2018 APX |
| 5. Work commence by | Jun 1, 2018 |
| 6. Demolition Completed | July 18, 2018 |

If there are any questions concerning the specifications contained in this bid request, please contact Timothy Burgess phone 231-724-6170 or via email at BurgessTi@co.muskegon.mi.us

The Muskegon County Land Bank / the City of Muskegon Heights reserves the right to accept or reject any and all bid requests, all rights granted to it by law, the right to waive formalities and take such action as it deems necessary in the best interest of the Muskegon County Land Bank / City of Muskegon Heights.

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D. Bidder/Offeror Representation

1. Each bidder/offer must sign the bid with his or her signature and shall give his or her full business address on the form provided in this bid.
2. The County of Muskegon and the City of Muskegon Heights operates on an equal opportunity / affirmative action basis in its bidding policy (Title VII of the Civil Rights Act of 1964. Equal Opportunity Clause, Executive Order 11246, Chapter 60, Subpart A, 60-1.4, Revised Order No 4.) Bidding is open to all interested parties, in compliance with national, state and local laws.
3. This award will be made to that responsible bidder whose bid conforms to this solicitation and will be most advantageous to the County and City in price and number of items purchased.

E. Bid / Offer Qualifications

~Proof of qualification must be submitted with bid~

1. Debit to City or County: No bid shall be accepted, and no contract will be awarded to any person, firm or corporation that is in arrears to the City or County, upon debt or contract that is a defaulter as surety or otherwise, upon any obligation to the City or County, or that is deemed irresponsible or unreliable by the City or County. If requested, bidder/offer shall be required to submit satisfactory evidence that they have a practical knowledge of the particular sale/supply/service bid and that they have the necessary financial resources to provide the proposed supply/service as described in the specifications.
2. Experience: All contractors have a minimum of five (5) years of proven experience providing professional licensed demolition services or similar scope/scale. Failure to provide documented experience may result in disqualification from the bidprocess.

F. Vendor /Bidder Complaints or Protests

The Muskegon County Land Bank / City of Muskegon Heights have established administrative procedures for handling bidder complaints in a fair and timely manner.

Step 1: Bidders should inform the Muskegon County Treasure's Office in writing within five days of the incident that he or she has a complaint. The County Treasure will investigate the complaint and make a decision concerning the matter.

Step 2: If the bidder is dissatisfied with the Muskegon County Treasure's reply, an appeal must be made in writing within seven days to the Muskegon County Board of Commissioners

G. Errors | Omissions | Discrepancies

Any errors, omissions or discrepancies in the specifications discovered by a prospective bidder shall be brought to the attention of the Muskegon County Land Bank as soon after discovery. Further, the bidder shall not be allowed to take advantage of errors, omissions or discrepancies in the specifications.

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H. Bid Submission

Prospective bidders will be expected to allow adequate time for the delivery of their bid by mail. Faxed bids will **not** be accepted.

I. Bid Awards

1. No bid award will be made at the time of the bid opening.
2. Individuals submitting bids, who wish to know the results before the award is made, may contact the Muskegon County Land Bank 5 business days following the bid opening.

J. Termination for Convenience

The Muskegon County Land Bank / the City of Muskegon Heights may terminate a contract, in whole or in part, whenever the City / County Land Bank determines that such termination is in the best interest of the City / County Land Bank, without showing cause, upon given notice to the contractor.

K. Termination for Default

When the bidder/contractor has not performed, or has unsatisfactorily performed the contract, the Muskegon County Land Bank may terminate the contract for default.

Bid conditions/instructions to the bidder, specifications/requirements may become part of the service contract.

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Section II
Terms and Conditions

1. Scope of Services.

The Contractor shall perform and carry out in a satisfactory and proper manner, as determined by the Local Governmental Units, the following:

- A.** Act as Prime Contract on this demolition project.
- B.** Perform, partner with or subcontract all deconstruction activities if required
- C.** Remove and dispose of asbestos materials in accordance with Environmental Protection Agency, Michigan Occupational Safety and Health Administration and Michigan Department of Environmental Quality regulations.
- D.** Demolition and removal of all structures located on property
- E.** Break up and removal of all concrete, i.e., basements, driveways, walkways, slabs, etc

2. Time and Performance.

The services of the Contractor shall commence by **June 1st, 2018**, and shall be completed by **July 18th, 2018**. All requests for payment along with approved completion inspection reports shall be submitted to the Muskegon County Land Bank no later than **August 10th, 2018**. A 10% retainage will be held by the Muskegon County Land Bank until all waivers and inspections are submitted.

3. Relationship Between Parties.

The Contractor is engaged by the Local Governmental Units only for the purposes and to the extent set forth in this Contract, and his relationship the Local Governmental Units during the term of this contract shall be that of an independent contractor. The Contractor shall be free to dispose of such portion of his entire time, energy, and skill during regular business hours as he is not obligated to devote hereunder to the Local Governmental Units in such manner as he sees fit and to such persons, firms, or corporations as he deems advisable. The Contractor shall not be considered as having employee status or as being entitled to participate in any plans, arrangements, or distributions by the Local Governmental Units pertaining to or in connection with any vacation, sick leave, insurance, retirement, longevity, or similar benefits for the Local Governmental Units' regular employees.

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4. Insurance

All Prime and Subcontractors, working under this contract, must include the Local Governmental Units as co-insured and furnish evidence of comprehensive public liability insurance coverage in the amount of **\$2,000,000**. The contractor must also comply with local laws governing the workplace including Workers Compensation Insurance. Unemployment insurance is also required to participate in this project.

The Contractor shall indemnify and hold harmless the Local Governmental Units, its officers and employees from and against all claims, damages, losses and expenses, including attorney fees, arising out of or resulting from the performance of services under this Contract, provided any such claim, damage, loss or expense that is (a) attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom, and (b) is caused in whole or in part by a negligent act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable regardless of whether or not it is caused in part by a party indemnified hereunder.

5. Permits and Codes

The Prime and Subcontractor shall obtain and pay for all permits and license necessary for the completion and execution of the work and labor performed. All work performed must conform to applicable local codes and requirements.

6. Assignment of Contract

The Prime and Subcontractor shall not assign this contract without the prior written consent of the Local Governmental Units.

7. Work Force

A. Project Management

The demolition contractor will act as the prime contractor for the project. He / She, herein called the prime demolition contractor, will be responsible for all activities on the demolition site.

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8. Penalty for Unexcused Delays

If the work is not completed within the time stipulated in this contract, including any time for excusable delays as provided below, the Contractor and or his sureties shall be liable for and shall pay to the Local Governmental Units the sum of \$200 for each calendar day of the delay as a fixed surcharge to cover the costs of additional administration and re-inspection, commencing from the time stipulated for the completion until such work is satisfactorily completed and accepted. Any such surcharge levied shall be certified by Muskegon County Land Bank and deducted from the final payment.

The rights of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with surcharge for any delays in the completion of work due to:

- a. Any acts of government, including controls or restrictions upon or requisitioning of materials, equipment, tools or labor by reason of war, national defense or other national emergency.
- b. Causes not responsible or foreseeable by the parties to this contract at the time of execution of this contract, which are beyond the control and without fault or negligence of the Contractor, such as extreme weather conditions, fires, epidemic, quarantine strikes, freight embargo, and acts of another contractor in the performance of some other contract. Note: Seasonal load and speed restrictions are not considered an unforeseeable item or covered as a weather limitation.

9. Default

In the event of default by the Contractor in the observance or performance of any covenant, condition, or agreement on his part to be observed or performed under this Contract, and the continuance of such default for seven (7) days after written notice thereof by the City to the Contractor. Any notice given hereunder shall be sufficiently given if delivered to the Contractor personally or mailed to him by United States Postal Service with certified mail/ return receipt requested at the address set forth in the heading of this contract.

10. Compensation

- A. The Local Governmental Units shall pay compensation to the Contractor for his services under this contract as follows:
 1. Compensation for completion of the work shall be payable monthly upon a billing from the Contractor describing in detail the services performed by the Contractor during the preceding month.
 2. Local Governmental Units will only be billed monthly for each completed demolition that has passed city inspections.

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3. It is expressly understood and agreed that in no event will the total compensation to be paid hereunder exceed the maximum sum for all services under this Contract.

11. Michigan Law

The laws of the State of Michigan shall govern this Agreement. Any litigation regarding this Agreement or its contents shall be filed in the County of Muskegon, if in State court, or in the Federal District Court nearest to Muskegon County, if in Federal Court.

12. Terms and Conditions

The terms and conditions used in this Agreement shall be given their common and ordinary definition and will not be construed against either party.

13. Severability

If anyone or more of the provisions contained herein shall for any reason be held to be invalid, illegal or unenforceable in any respect, then such provision or provisions shall be deemed severable from the remaining provisions hereof, and such invalidity, illegality or unenforceability shall not affect any other provisions hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision has never been contained herein.

14. Surety: Bid and Performance Bond

Bidders are required to submit proof of a bid bond for 100% of the project cost at the time the bid is submitted

Within five business days of being awarded the project, contractors must secure a performance bond in an amount equal to one hundred percent (100%) of the total contract amounts. Bonds must be issued by a bona fide company authorized to do business in the State of Michigan and to comply with state regulations. The contractor the performance bond is to ensure abatement of potential impacts to public health and safety resulting from demolition as well as ensure general cleanup of the demolition site.

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Section IV
Work Elements

A. Work Site / Structure Addresses

Muskegon Heights

2332 Riordan
2204 Hoyt
2340 6th
2905 9th
3135 7th
3219 Sanford
3213 Glendale
2521 Baker
29 E Lincoln Ave
307 E Columbia Ave
3327 7th
2216 5th St
2933 Jefferson
3019 Peck
3122 Sanford
3205 Sanford
3301 6th
55 W Oakwood

Muskegon

1725 Wood
1699 Pine
629 Allen
750 Amity
1773 Superior
452 Amity
1617 Smith

See attached asbestos surveys for more detailed information

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B. General Statement of Work

Requirements The principal items of work

consist of:

1. Remove asbestos removal and disposal as required by law.
2. Deconstruction of the structure when appropriated.
3. Demolition of all structures located on the property.
4. Break up and remove all concrete, i.e., driveways, walkways, slabs, etc.
5. Remove the basement and footings.
6. Removal of lead-based paint-containing materials according to the appropriate regulations.
7. Fill basement with clean backfill with 3 inches of clean topsoil and **seed with clover.**
 - a. Clover shall be evenly applied at a rate of 8 lbs of seed per 50x100 city lot
 - b. Approved types of clover include (common name): New Zealand White Clover, Ladino Clover or Dutch White or Sweet Clover. (A 50% -50% blend of any two approved clover types is preferred)
8. Top soil requirements:
 - a. Topsoil shall contain not less than 3% or more that 20% organic matter, by weight as determined by loss-on-ignition of oven-dried samples in accordance with ATM T-6.
 - b. Organic material shall be decomposed and free of wood.
9. Protect all trees not being removed as part of the project.
10. Remove **all** trash and debris on the work site.

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C. Technical Specifications

Before commencing demolition

work:

1. Execute rodent extermination procedures as specified by and to the satisfaction of the Muskegon County Health Authority.
2. Disconnect, or arrange for the disconnection of, utility service connections, such as water, sewers, steam, and telephone, to building to be demolished in accordance
 - a. **Note:** Natural gas and electrical disconnects have be done before the pre-bid conference and cost should **not** be included in the bid. However, the contractor is responsible for confirming service disconnections before commencing work.
3. Seal storm and sanitary sewers leading from structures to be demolished. (Note: Sanitary Sewer lateral to be plugged within five (5) feet of property line.) Also, all water services to be cut at curb box and plugged. These services cut and caps must inspected in accordance with local ordinances.
4. Preserve in operating condition active utilities traversing the project site; protect property, including but not limited to mains, manholes, catch basins, valve boxes, poles, gigs, and other appurtenances.
5. Provide adequate time for deconstruction contractors to evaluate and remove salvageable materials and equipment from the structure. (if applicable)
6. Assist when necessary the deconstruction contractor in removal of salvageable materials.

During demolition:

1. Provide adequate protection to persons and property.
2. Execute the work in such a manner as to avoid interference with the use of or passage to and from adjoining buildings and facilities.
3. Except as otherwise shown or specified, demolish structures and foundations, and remove complete steps, posts, porches, and similar construction.
4. Demolish masonry walls in small sections.

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5. Remove, regardless of elevation, all floor construction over basements and cellars.
6. Remove structural steel, cast iron, and heavy timbers by individual pieces and lower carefully (if applicable).
7. Remove partitions, stairways, furnaces, piping, apparatus, and debris from within existing basements.
8. Wet down masonry thoroughly during demolition; prevent the spread of dust; provide water and necessary connections, therefore.
9. Do no blasting on the project site.
10. Provide substantial barricades around all basements and cellars, as soon as such openings are uncovered, adequate to block access, and to afford protection to workers and the public.
11. Leave no demolished material of any sort in anybasement.
12. Remove from the site rubbish and debris found thereon and or resulting from the work of demolition. At completion, leave the site in a safe and clean condition, free or materials or equipment.
13. It shall be the Contractor's responsibility to properly dispose of **all** demolition materials. This includes regulated materials (i.e. asbestos, mercury, lead base paint, etc).
14. Properly grade soil to match existing surrounding neighborhood topography.

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Section V
Bid Submission

The following information must be included in the bid package. Any omission of the requested information may cause you to forfeit the bid.

- Page 1: Bid certification
- Page 2: Conflict of interest disclosure form
- Page 3: Certification regarding debarment and suspension
- Page 4: Copy of deconstruction and or residential demolition license
- Page 5: Proof of comprehensive liability insurance
- Page 6: Total cost proposal for deconstruction and demolition of 4 units.
- Page 8: **Per location itemization of the bid**

- Page 7: Copy of bid bond**

- Page 8: Copies of asbestos abatement contractor license(s).

- Pages 9+ Business History/ Experience in Deconstruction and Demolition. Project list references, with contact person's name and telephone numbers. ** Evidence of a minimum of five (5) years of proven experience providing professional licensed demolition services or similar scope/scale must be provided in this section.

Upon project award winning bidder may be required to produce the following documents to meet MSHDA audit requirements.

Blight Elimination Audit Sheet

Eligibility Requirements

Partner: _____ Contractor: _____

Audited By: _____

Date: _____

YES / NO	Requirements	Notes
	Evidence of Financial Stability (2 Year Tax Return)	
	Evidence of Licenses and certification (SOM or Neshap)	
	Evidence of Insurance (Commercial > than 2 million, Employee > 500k)	
	Automobile Liability (must be > than a million)	
	Current Certificates <u>must</u> be on file in partners office at all times.	
	Evidence of Legal Standing (Certificate from LARA or Articles of organization)	
	A complete list of all contractors' board/officers	
	Any operation agreements (current copies)	
	Evidence of Experience (contractors must have min. 5 years licensed experience.)	
	Bid and Performance Bond (Bond = to 100% of total contractor amounts and issued from an authorized business with SOM)	
	Partners must ensure that there is no State or Federal debarment/suspension or violations of all contractors	
	State and Local Licenses and permits for all workers (Partners must ensure that all Contractors and Sub Contractors meet all state and local ordinances through documentation.)	
	Communities proposing demolition outside the city limits must submit documentation showing that local officials agree in demolition.	

<u>Muskegon Heights</u>	<u>Asbestos/ Environmental</u>	<u>Demolition</u>	<u>Backfill / Landscape</u>	<u>Other</u>	<u>Total</u>
2204 Hoyt					
2216 5th St					
2332 Riordan					
2340 6th					
2521 Baker					
29 E Lincoln Ave					
2905 9th					
2933 Jefferson					
3019 Peck					
307 E Columbia Ave					
3122 Sanford					
3135 7th					
3205 Sanford					
3213 Glendale					
3219 Sanford					
3301 6th					
3327 7th					
55 W Oakwood					
Muskegon					
1617 Smith					
1699 Pine					
1725 Wood					
1773 Superior					
452 Amity					
629 Allen					
750 Amity					

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P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
29 E Lincoln Ave., Muskegon Heights, MI 49444
Parcel ID: 61-26-635-269-0001-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 29 E Lincoln Ave., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .11 acre residential parcel which contains an approximate 922 square foot residential building (the Building) constructed in 1915. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with Transite over asphalt siding which was over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 15, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Asphalt Siding
- Vapor Barrier
- Asphalt Flat Roofing
- Shingle Roofing
- 12"x12" Vinyl Tile
- Linoleum
- Drywall and Joint Compound
- Fiberboard
- 2'x4' Ceiling Tile
- Window Glazing

Red Cedar staff collected twenty four samples of suspect ACBM separated into twelve distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty four samples is included as Attachment A.

Hazardous Materials Inspection

On March 15, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty four samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building and the Cementitious “Transite” Siding on the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Bathroom (1 register, 15 sq. ft.)
- Living/NE Bedroom (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

The cementitious "Transite" siding located on the exterior of the Building was classified as PACM and no samples were collected. The visual assessment to quantify the extent of this material identified 1,700 sq. ft. of cementitious (Transite) siding on the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Bathroom (1 register, 15 sq. ft.)
- Living/NE Bedroom (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)

Transite siding was identified on the exterior of the Building and must be abated prior to completion of any demolition activities at the Subject Property. In demolition, all cementitious ACM must be removed prior to demolition due to the likelihood of becoming regulated due to the demolition process.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-635-269-0001-00

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Thermostat (1)
- Television (4)
- Smoke Detector (2)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-635-269-0001-00

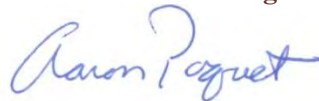
DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 29 E. Lincoln St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75678
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 01 Cust. #: LA-HM-01A Material: Asphalt Siding/Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75678 - 02 Cust. #: LA-HM-01B Material: Asphalt Siding/Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75678 - 03 Cust. #: LA-HM-02A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



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Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 04 Cust. #: LA-HM-02B Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75678 - 05 Cust. #: LA-HM-03A Material: Asphalt Flat Roofing/Felt/Tar Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Synthetic - 30% Other - 70%
Lab ID #: 75678 - 06 Cust. #: LA-HM-03B Material: Asphalt Flat Roofing/Felt/Tar Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Synthetic - 30% Other - 70%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 07 Cust. #: LA-HM-04A Material: Shingle Roofing Location: Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75678 - 07a Cust. #: LA-HM-04A Material: White Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75678 - 07b Cust. #: LA-HM-04A Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%

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Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 07c Cust. #: LA-HM-04A Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75678 - 08 Cust. #: LA-HM-04B Material: Shingle Roofing Location: Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75678 - 08a Cust. #: LA-HM-04B Material: White Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 08b Cust. #: LA-HM-04B Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75678 - 08c Cust. #: LA-HM-04B Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75678 - 09 Cust. #: LS-HM-05A Material: 12x12 Green Multilayer VFT Location: Appearance: green, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 09a Cust. #: LS-HM-05A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75678 - 09b Cust. #: LS-HM-05A Material: White Floor Tile Location: Appearance: white,nonfibrous,homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75678 - 09c Cust. #: LS-HM-05A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 10 Cust. #: LS-HM-05B Material: 12x12 Green Multilayer VFT Location: Appearance: green, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 75678 - 10a Cust. #: LS-HM-05B Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75678 - 10b Cust. #: LS-HM-05B Material: White Floor Tile Location: Appearance: white, nonfibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 10c Cust. #: LS-HM-05B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75678 - 11 Cust. #: LS-HM-06A Material: 12x12 Blue/White VFT Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75678 - 11a Cust. #: LS-HM-06A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

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Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 12 Cust. #: LS-HM-06B Material: 12x12 Blue/White VFT Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75678 - 12a Cust. #: LS-HM-06B Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75678 - 13 Cust. #: LS-HM-07A Material: Red Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

For Layered Samples, each component will be analyzed and reported separately.

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Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 14 Cust. #: LS-HM-07B Material: Red Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75678 - 15 Cust. #: LS-HM-08A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75678 - 15a Cust. #: LS-HM-08A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 16 Cust. #: LS-HM-08B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75678 - 17 Cust. #: LS-HM-09A Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75678 - 18 Cust. #: LS-HM-09B Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 19 Cust. #: LS-HM-10A Material: 2x4 White Ceiling Tile w/ Random Holes Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Mineral Wool - 30% Other - 30%
Lab ID #: 75678 - 20 Cust. #: LS-HM-10B Material: 2x4 White Ceiling Tile w/ Random Holes Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Mineral Wool - 30% Other - 30%
Lab ID #: 75678 - 21 Cust. #: LS-HM-11A Material: Window Glazing Location: House Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75678 - 22 Cust. #: LS-HM-11B Material: Window Glazing Location: House Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75678 - 23 Cust. #: LS-HM-12A Material: Basement Window Glazing Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75678 - 24 Cust. #: LS-HM-12B Material: Basement Window Glazing Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

75678

1 of 3

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

E-mail: apexresearch@chartermi.net

Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18

Project: 29E Lincoln St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaqet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: Sday

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-in _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	LA-HM-01A	Asphalt Siding			
2	LA-HM-01B	"			
3	LA-HM-02A	Vapor Barrier			
4	LA-HM-02B	"			
5	LA-HM-03A	Asphalt flat Roofing			
6	LA-HM-03B	"			
7	LA-HM-04A	Shingle Roofing			
8	LA-HM-04B	"			
9	LS-HM-05A	12x12 Green Multi-layer VFT			
10	LS-HM-05B	"			
11	LS-HM-06A	12x12 Blue-White VFT			

Relinquished by: [Signature] Received by: UPS
Date: 3-15-18 Date: 3-15-18

Relinquished by: _____ Date: _____

Received by: [Signature] Date: MAR 19 2018

RECEIVED

75678

2 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@charfermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18

Project: 29 E. Lincoln St

Project #: _____

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) P1M EPA 600, PC all samples with a detection of <5% ACM.
apquet@redcedarconsulting.net

Rush 24 hour
48 hour 72 hour
Other: 5 day

Asbestos: Bulk Wipe Point Count _____ PCM _____
Lead: Bulk Wipe Air _____ Paint _____ Soil _____
Mold: Bulk Tape BioSIS _____ Other _____ Viable _____

TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

TTP All Samples

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	LS-HM-06B	12x12 Blue & White VET			
13	LS-HM-07A	Red Limestone			
14	LS-HM-07B	..			
15	LS-HM-08A	Aluminum Joint Compound			
16	LS-HM-08B	..			
17	LS-HM-09A	Fiberboard			
18	LS-HM-09B	..			
19	LS-HM-10A	2x4 white CT w/ random holes			
20	LS-HM-10B	..			
21	LS-HM-11A	Aluminum Blazing (Hound)			
22	LS-HM-11B	..			

RECEIVED
 Received by: *John*
 Date: MAR 19 2018

Relinquished by: *UPS* Received by: _____
 Date: 3-15-18 Date: _____

75678

3 of 3

APEX Research, Inc.



11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St, Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18
Project: 29 E. Lincoln St
Project #: _____
Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour
48 hour 72 hour
Other: Sdey **TTP** All samples
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	LS-HM-12A	Basement Window Sillings			
24	LS-HM-12B	" "			

Relinquished by: Alexandra Received by: UPS
Date: 3-15-18 Date: 3-15-18

Relinquished by: _____ Received by: Mark
Date: _____ Date: MAR 19 2018
APEX RES.

Tables

Table 1 - Summary of Hazardous Materials, 29 E Lincoln Ave., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Living	Thermostat	1
Living	Television	1
Kitchen	Television	2
NE Bedroom	Television	1
Basement	Smoke Detector	2

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 29 E Lincoln Ave., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
LA-HM-01A	Asphalt Siding	No	M	Category I	ND	Exterior	NA
LA-HM-01B	Asphalt Siding	No	M	Category I	ND	Exterior	NA
LA-HM-02A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
LA-HM-02B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
LA-HM-03A	Asphalt Flat Roof	No	M	Category I	ND	Exterior	NA
LA-HM-03B	Asphalt Flat Roof	No	M	Category I	ND	Exterior	NA
LA-HM-04A	Shingle Roofing	No	M	Category I	ND/ND/ND/ND	Exterior	NA
LA-HM-04B	Shingle Roofing	No	M	Category I	ND/ND/ND/ND	Exterior	NA
LA-HM-05A	12x12 Green Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/ND	Kitchen	NA
LA-HM-05B	12x12 Green Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/ND	Kitchen	NA
LA-HM-06A	12x12 Blue and White Vinyl Tile	No	M	Category I	ND/ND	Bathroom	NA
LA-HM-06B	12x12 Blue and White Vinyl Tile	No	M	Category I	ND/ND	Bathroom	NA
LA-HM-07A	Red Linoleum	No	M	Category I	ND	NE Bedroom	NA
LA-HM-07B	Red Linoleum	No	M	Category I	ND	NE Bedroom	NA
LA-HM-08A	Drywall and Joint Compound	No	M	Category II	ND/ND	Living Ceiling	NA
LA-HM-08B	Drywall and Joint Compound	No	M	Category II	ND	SE Bedroom Wall	NA
LA-HM-09A	Fiberboard	Yes	M	Category II	ND	Bathroom Ceiling	NA
LA-HM-09B	Fiberboard	Yes	M	Category II	ND	Bathroom Ceiling	NA
LA-HM-10A	2'x4' White Ceiling Tile	Yes	M	Category II	ND	Living/Dining Ceiling	NA
LA-HM-10B	2'x4' White Ceiling Tile	Yes	M	Category II	ND	Living/Dining Ceiling	NA
LA-HM-11A	Window Glazing (House)	Yes	M	Category II	ND	Living	NA
LA-HM-11B	Window Glazing (House)	Yes	M	Category II	ND	Living	NA
LA-HM-12A	Basement Window Glazing	Yes	M	Category II	ND	Basement	NA
LA-HM-12B	Basement Window Glazing	Yes	M	Category II	ND	Basement	NA

Notes:

Material Types

Abbreviations

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 29 E Lincoln Ave., Muskegon Heights, Michigan

M = Miscellaneous building material
TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

NQ = Not quantified
NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 29 E Lincoln Ave., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Building Exterior	Transite Siding	No	Fair	M	1,700 sq. ft.
Bathroom (1 register, 15 sq. ft.) Living/NE Bedroom (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	45 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 29 E Lincoln Ave., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Bathroom (1 register, 15 sq. ft.)	HVAC Duct Wrap	Yes	45 sq. ft.
Living/NE Bedroom (1 register, 15 sq. ft.)			
Kitchen (1 register, 15 sq. ft.)			
Total			45 sq. ft.
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Exterior	Transite Siding	No	1,700 sq. ft.
Total			1,700 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
55 W Oakwood Ave., Muskegon Heights, MI 49444
Parcel ID: 61-26-770-007-0037-10***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 55 W Oakwood Ave., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .08 acre residential parcel which contains a 240 sq. ft. detached garage and approximate 682 square foot residential building (the Building) constructed in 1935. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom and a rear entry.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-007-0037-10

inspection of the Subject Property on March 14, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Asphalt Shingle
- Linoleum
- 12"x12" Vinyl Tile
- 1'x1' Ceiling Tile
- Drywall and Joint Compound
- Window Glazing
- Plaster

Red Cedar staff collected twenty nine samples of suspect ACBM separated into thirteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty nine samples is included as Attachment A.

Hazardous Materials Inspection

On March 14, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty nine samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building and the Cementitious “Transite” Panel on the Cold Air Return was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Bathroom (1 register, 15 sq. ft.)
- S Bedroom (1 register, 15 sq. ft.)
- Living (1 register, 15 sq. ft.)
- Front Entry (1 register, 15 sq. ft.)
- Basement (misc. HVAC Paper on Wood Frame, 5 sq. ft.)

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

The cementitious "Transite" panel located within the Basement of the Building was classified as PACM and no samples were collected. The visual assessment to quantify the extent of this material identified a 2'x12'x1/8" thick panel of cementitious (Transite) on the Cold Air Return within the Building.

Plaster samples, collected from the N Bedroom wall were found to contain up to 3.75% asbestos following analysis. The assessment to quantify the extent of this material identified approximately 2,665 sq. ft. of plaster within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Bathroom (1 register, 15 sq. ft.)
- S Bedroom (1 register, 15 sq. ft.)
- Living (1 register, 15 sq. ft.)
- Front Entry (1 register, 15 sq. ft.)
- Basement (misc. HVAC Paper on Wood Frame, 5 sq. ft.)

Transite Panel was identified within the Basement of the Building and must be abated prior to completion of any demolition activities at the Subject Property. In demolition, all cementitious ACM must be removed prior to demolition due to the likelihood of becoming regulated due to the demolition process.

Plaster identified on the interior of the Building must be abated prior to completion of any renovation/demolition activities at the Subject Property. Any Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations must be properly abated.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tires (6)
- Smoke Detector (1)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-007-0037-10

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 55 Oakwood St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75641
Date Collected: 03/14/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 01 Cust. #: OS-HM-01A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75641 - 02 Cust. #: OS-HM-01B Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75641 - 03 Cust. #: OS-HM-02A Material: Shingle Roof Location: Appearance: black, fibrous, homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 55 Oakwood St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75641
Date Collected: 03/14/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 03a Cust. #: OS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 75641 - 03b Cust. #: OS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 75641 - 03c Cust. #: OS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 55 Oakwood St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75641
Date Collected: 03/14/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 03d Cust. #: OS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 75641 - 03e Cust. #: OS-HM-02A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75641 - 04 Cust. #: OS-HM-02B Material: Shingle Roof Location: Appearance: black, fibrous, homogenous Layer: 1 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 55 Oakwood St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75641
Date Collected: 03/14/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 04a Cust. #: OS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 75641 - 04b Cust. #: OS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 75641 - 04c Cust. #: OS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 4 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 04d Cust. #: OS-HM-02B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75641 - 05 Cust. #: OS-HM-03A Material: Layered White Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 75641 - 05a Cust. #: OS-HM-03A Material: Floor Tile Location: Appearance: beige, nonfibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 05b Cust. #: OS-HM-03A Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 05c Cust. #: OS-HM-03A Material: Flooring/Backing Location: Appearance: yellow, fibrous, nonhomogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75641 - 06 Cust. #: OS-HM-03B Material: Layered White Linoleum Location: Appearance: beige, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 06a Cust. #: OS-HM-03B Material: Floor Tile Location: Appearance: beige, nonfibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 06b Cust. #: OS-HM-03B Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 06c Cust. #: OS-HM-03B Material: Flooring/Backing Location: Appearance: yellow, fibrous, nonhomogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 07 Cust. #: OS-HM-04A Material: Speckled 12x12 VFT Location: Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 75641 - 07a Cust. #: OS-HM-04A Material: Mastic Location: Appearance: brown, nonfibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 08 Cust. #: OS-HM-04B Material: Speckled 12x12 VFT Location: Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 08a Cust. #: OS-HM-04B Material: Mastic Location: Appearance: brown, nonfibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 09 Cust. #: OS-HM-05A Material: 1x1 White Ceiling Tile w/ Pinholes Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%
Lab ID #: 75641 - 10 Cust. #: OS-HM-05B Material: 1x1 White Ceiling Tile w/ Pinholes Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 11 Cust. #: OS-HM-06A Material: Tan Layered Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75641 - 11a Cust. #: OS-HM-06A Material: Flooring/Backing Location: Appearance: green, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75641 - 12 Cust. #: OS-HM-06B Material: Tan Layered Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 12a Cust. #: OS-HM-06B Material: Flooring/Backing Location: Appearance: green, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75641 - 13 Cust. #: OS-HM-07A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%
Lab ID #: 75641 - 14 Cust. #: OS-HM-07B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 15 Cust. #: OS-HM-08A Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75641 - 15a Cust. #: OS-HM-08A Material: Texture Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 16 Cust. #: OS-HM-08B Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 16a Cust. #: OS-HM-08B Material: Texture Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 17 Cust. #: OS-HM-09A Material: Gray Linoleum Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%
Lab ID #: 75641 - 18 Cust. #: OS-HM-09B Material: Gray Linoleum Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 19 Cust. #: OS-HM-10A Material: Front Entry Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 75641 - 20 Cust. #: OS-HM-10B Material: Front Entry Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 75641 - 21 Cust. #: OS-HM-11A Material: Main House Window Glazing Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 22 Cust. #: OS-HM-11B Material: Main House Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Wollastonite - 2% Other - 78%
Lab ID #: 75641 - 22a Cust. #: OS-HM-11B Material: Caulk Location: Appearance: beige, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 23 Cust. #: OS-HM-12A Material: Brown Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 24 Cust. #: OS-HM-12B Material: Brown Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75641 - 25 Cust. #: OS-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 25a Cust. #: OS-HS-01A Material: Plaster Base Coat Location: Appearance: grey, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 26 Cust. #: OS-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 26a Cust. #: OS-HS-01B Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75641 - 27 Cust. #: OS-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 27a Cust. #: OS-HS-01C Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75641 - 28 Cust. #: OS-HS-01D Material: Plaster Texture Location: Appearance: beige, fibrous, homogenous Layer: 1 of 3	Asbestos Present: YES Chrysotile - 3.75% POINT COUNT RESULT	Other - 96.25%
Lab ID #: 75641 - 28a Cust. #: OS-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75641 - 28b Cust. #: OS-HS-01D Material: Plaster Base Coat Location: Appearance: beige, nonfibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 29 Cust. #: OS-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75641 - 29a Cust. #: OS-HS-01E Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

1073

75641

Apex



APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 55 Oakwood St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: 5 day All Samples

Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	05-HM-01A	Vapor Barrier			
2	05-HM-01B	..			
3	05-HM-02A	Shingle Roof			
4	05-HM-02B	..			
5	05-HM-03A	Exposed White Gypsum			
6	05-HM-03B	..			
7	05-HM-04A	Speckled 12x12 VFT			
8	05-HM-04B	..			
9	05-HM-05A	1x1 White CT w/ grout			
10	05-HM-05B	..			
11	05-HM-06A	tan colored Gypsum			

RECEIVED

Relinquished by: Apex Research Received by: WPS
Date: 3-14-18 Date: 3-14-18

Relinquished by: _____ Received by: WPS
Date: _____ Date: 3/16/18 1340

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 55 Ackwood St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: Sdey ALL Samples

Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	05-HM-06B	Lean Splayed Gypsum			
13	05-HM-07A	1x1 White smooth CT			
14	05-HM-07B	" " " "			
15	05-HM-08A	Asphalt & Joint Compound			
16	05-HM-08B	" " " "			
17	05-HM-09A	Gray Gypsum			
18	05-HM-09B	" " " "			
19	05-HM-10A	Front Entry Window Siding			
20	05-HM-10B	" " " "			
21	05-HM-11A	Main House Windows Siding			
22	05-HM-11B	" " " "			

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Relinquished by: [Signature] Received by: UPS
Date: 3-14-18 Date: 3-14-18

Relinquished by: _____ Received by: [Signature]
Date: _____ Date: MAR 16 2018

393

APEX Research, Inc.



11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888)449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18
Project: 55 Oakwood St
Project #: _____
Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour
48 hour 72 hour
Other: Sdly **(TTP)** All Samples
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	05-HM-12A	Brown Sinter			
24	05-HM-12B			
25	05-HS-01A	Planter			
26	05-HS-01B	}			
27	05-HS-01C				
28	05-HS-01D	}			
29	05-HS-01E				

Relinquished by: [Signature] Received by: UPS
Date: 3-14-18 Date: 3-14-18
Relinquished by: _____ Received by: _____
Date: _____ Date: 16 2018

RECEIVED
APEX RESEARCH

Tables

Table 1 - Summary of Hazardous Materials, 55 W Oakwood Ave., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Garage	Automobile Tires	6
Living	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 55 W Oakwood Ave., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
OS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
OS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
OS-HM-02A	Shingle Roof	No	M	Category I	ND/ND/ND/N D/ND/ND	House Exterior	NA
OS-HM-02B	Shingle Roof	No	M	Category I	ND/ND/ND/N D/ND	Garage Exterior	NA
OS-HM-03A	Layered White Linoleum	No	M	Category I	ND/ND/ND/N D	Dining	NA
OS-HM-03B	Layered White Linoleum	No	M	Category I	ND/ND/ND/N D	Kitchen	NA
OS-HM-04A	Specked 12x12 Vinyl Tile	No	M	Category I	ND/ND	Bathroom	NA
OS-HM-04B	Specked 12x12 Vinyl Tile	No	M	Category I	ND/ND	Bathroom	NA
OS-HM-05A	1'x1' White Ceiling Tile with pinholes	Yes	M	Category II	ND	Bathroom	NA
OS-HM-05B	1'x1' White Ceiling Tile with pinholes	Yes	M	Category II	ND	Bathroom	NA
OS-HM-06A	Tan Layered Linoleum	No	M	Category I	ND/ND	Front Entry	NA
OS-HM-06B	Tan Layered Linoleum	No	M	Category I	ND/ND	Front Entry	NA
OS-HM-07A	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	N Bedroom	NA
OS-HM-07B	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	N Bedroom	NA
OS-HM-08A	Drywall and Joint Compound	No	M	Category II	ND/ND	Kitchen Ceiling	NA
OS-HM-08B	Drywall and Joint Compound	No	M	Category II	ND/ND	Dining Wall	NA
OS-HM-09A	Gray Linoleum	No	M	Category I	ND	Rear Entry	NA
OS-HM-09B	Gray Linoleum	No	M	Category I	ND	Rear Entry	NA
OS-HM-10A	Window Glazing	Yes	M	Category II	ND	Front Entry	NA
OS-HM-10B	Window Glazing	Yes	M	Category II	ND	Front Entry	NA
OS-HM-11A	Window Glazing	Yes	M	Category II	ND	S Bedroom	NA
OS-HM-11B	Window Glazing	Yes	M	Category II	ND/ND	Rear Entry	NA
OS-HM-12A	Brown Linoleum	No	M	Category I	ND	Under Front Porch	NA
OS-HM-12B	Brown Linoleum	No	M	Category I	ND	Under Front Porch	NA
OS-HS-01A	Plaster	No	S	Category II	ND/ND	Dining Ceiling	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 55 W Oakwood Ave., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
OS-HS-01B	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA
OS-HS-01C	Plaster	No	S	Category II	ND/ND	SE Bedroom Wall	NA
OS-HS-01D	Plaster	No	S	Category II	3.75%CH-PC/ND/ND	N Bedroom Wall	2,665 sq. ft.
OS-HS-01E	Plaster	No	S	Category II	ND/ND	Living Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 55 W Oakwood Ave., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Basement Cold Air Return	Transite Board (24 sq. ft., 1/8" Thick)	No	Fair	M	24 sq. ft.
Bathroom (1 register, 15 sq. ft.) S Bedroom (1 register, 15 sq. ft.) Living (1 register, 15 sq. ft.) Front Entry (1 register, 15 sq. ft.) Basement (misc. HVAC Paper on Wood Framing, 5 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	65 sq. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

- lin. ft. = linear feet
- sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 55 W Oakwood Ave., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Bathroom (1 register, 15 sq. ft.)			
S Bedroom (1 register, 15 sq. ft.)			
Living (1 register, 15 sq. ft.)	HVAC Duct Wrap	Yes	65 sq. ft.
Front Entry (1 register, 15 sq. ft.)			
Basement (misc. HVAC Paper on Wood Frame, 5 sq. ft.)			
	Total		65 sq. ft.
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement Cold Air Return	Transite Board (24 sq. ft., 1/8" Thick)	No	24 sq. ft.
	Total		24 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
1 st Floor	Wall Plaster	No	2,080 sq. ft.
1 st Floor	Ceiling Plaster	No	585 sq. ft.
	Total		2,665 sq. ft.

Notes:
Abbreviations

lin. ft. = linear feet
sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
307 E Columbia Ave., Muskegon Heights, MI 49444
Parcel ID: 61-26-635-257-0001-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 307 E Columbia Ave., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .12 acre residential parcel which contains a 440 sq. ft. detached garage and approximate 1,412 square foot residential building (the Building) constructed in 1930. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with Transite siding over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, kitchen, bathroom, three bedrooms and a breezeway.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

inspection of the Subject Property on March 20, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- 12"x12" Vinyl Tile
- Linoleum
- 1'x1' Ceiling Tile
- Glue Pods
- Drywall and Joint Compound
- Window Glazing
- Plaster

Red Cedar staff collected thirty samples of suspect ACBM separated into thirteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the thirty samples is included as Attachment A.

Hazardous Materials Inspection

On March 20, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, thirty samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building and the Cementitious “Transite” Siding on the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Living (1 register, 15 sq. ft.)
- SE Bedroom (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Ductwork, 25 sq. ft.)
- Basement (misc. HVAC wrap on Framing, 10 sq. ft.)

- Basement (HVAC Wrapped Water Lines, 10 lin. ft.)

Category I ACM

One type of resilient floor covering (12"x12" Tan Multilayer Vinyl Tile) located within the Kitchen was found to contain up to 20% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 247 sq. ft. of this material within the Building.

Category II ACM

The cementitious "Transite" siding located on the exterior of the Building was classified as PACM and no samples were collected. The visual assessment to quantify the extent of this material identified 1,683 sq. ft. of cementitious (Transite) siding on the Building.

Glue Pod samples, collected from the Basement Stairwell were found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified approximately 15 sq. ft. of glue pods within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Living (1 register, 15 sq. ft.)
- SE Bedroom (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Ductwork, 25 sq. ft.)
- Basement (misc. HVAC wrap on Framing, 10 sq. ft.)

- Basement (HVAC Wrapped Water Lines, 10 lin. ft.)

Transite siding was identified on the exterior of the Building and must be abated prior to completion of any demolition activities at the Subject Property. In demolition, all cementitious ACM must be removed prior to demolition due to the likelihood of becoming regulated due to the demolition process.

Glue Pods identified on the interior of the Building must be abated prior to completion of any renovation/demolition activities at the Subject Property. Any Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations must be properly abated.

The Category I resilient floor covering (12"x12" Tan Multilayer Vinyl Tile) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tires (9)
- Smoke Detector (2)
- Television (5)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-635-257-0001-00

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 307 E. Columbia Ave.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 01 Cust. #: CA-HM-01A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75732 - 02 Cust. #: CA-HM-01B Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75732 - 03 Cust. #: CA-HM-02A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 307 E. Columbia Ave.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 04 Cust. #: CA-HM-02B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 75732 - 05 Cust. #: CA-HM-03A Material: 12x12 Tan Multilayer VFT Location: Appearance: beige, fibrous, homogenous Layer: 1 of 3	Asbestos Present: YES Chrysotile - 20%	Fiberglass - 5% Other - 75%
Lab ID #: 75732 - 05a Cust. #: CA-HM-03A Material: Linoleum Location: Appearance: green, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 307 E. Columbia Ave.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 05b Cust. #: CA-HM-03A Material: Floor Tile Location: Appearance: beige, nonfibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 06 Cust. #: CA-HM-03B Material: 12x12 Tan Multilayer VFT Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75732 - 07 Cust. #: CA-HM-04A Material: Burlap Back Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 307 E. Columbia Ave.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 08 Cust. #: CA-HM-04B Material: Burlap Back Linoleum Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75732 - 09 Cust. #: CA-HM-05A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75732 - 10 Cust. #: CA-HM-05B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 11 Cust. #: CA-HM-06A Material: 1x1 White Ceiling Tile w/ Random Holes Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 75732 - 11a Cust. #: CA-HM-06A Material: Glue Pod Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75732 - 12 Cust. #: CA-HM-06B Material: 1x1 White Ceiling Tile w/ Random Holes/Glu Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Project: 307 E. Columbia Ave.

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Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 13 Cust. #: CA-HM-07A Material: 1x1 White Textured Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 75732 - 14 Cust. #: CA-HM-07B Material: 1x1 White Textured Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 75732 - 15 Cust. #: CA-HM-08A Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 16 Cust. #: CA-HM-08B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75732 - 17 Cust. #: CA-HM-09A Material: Window Glazing, Vertical Pane Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 18 Cust. #: CA-HM-09B Material: Window Glazing, Vertical Pane Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 19 Cust. #: CA-HM-10A Material: Window Glazing, Horizontal Pane Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 20 Cust. #: CA-HM-10B Material: Window Glazing, Horizontal Pane Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 21 Cust. #: CA-HM-11A Material: Basement Window Glazing Location: Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - Trace POINT COUNT RESULT	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

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ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 22 Cust. #: CA-HM-11B Material: Basement Window Glazing Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - 0.25% POINT COUNT RESULT	Other - 99.75%
Lab ID #: 75732 - 23 Cust. #: CA-HS-01A Material: Grey Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 23a Cust. #: CA-HS-01A Material: Mortar Location: Appearance: grey, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

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Lansing, MI 48901

ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 24 Cust. #: CA-HS-01B Material: Grey Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 24a Cust. #: CA-HS-01B Material: Mortar Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 25 Cust. #: CA-HS-01C Material: Grey Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 25a Cust. #: CA-HS-01C Material: Mortar Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 26 Cust. #: CA-HS-02A Material: Sand Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 26a Cust. #: CA-HS-02A Material: Mortar Location: Appearance: grey,fibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 27 Cust. #: CA-HS-02B Material: Sand Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 27a Cust. #: CA-HS-02B Material: Mortar Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 28 Cust. #: CA-HS-02C Material: Sand Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Project: 307 E. Columbia Ave.

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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 28a Cust. #: CA-HS-02C Material: Mortar Location: Appearance: grey, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75732 - 29 Cust. #: CA-HS-02D Material: Sand Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 29a Cust. #: CA-HS-02D Material: Mortar Location: Appearance: grey, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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ARI Report # 18-75732
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75732 - 30 Cust. #: CA-HS-02E Material: Sand Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75732 - 30a Cust. #: CA-HS-02E Material: Mortar Location: Appearance: grey, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

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NVLAP Lab Code 102118-0

Apex 75732

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18

Project: 307 E. Columbia Ave

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: Sdoy **(TTP)** All Samples

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	CA-HM-01A	Vapor Barrier			
2	CA-HM-01B	" "			
3	CA-HM-02A	Roofing Shingle			
4	CA-HM-02B	" "			
5	CA-HM-03A	1/2" Ins. Multi-layer VET			
6	CA-HM-03B	" "			
7	CA-HM-04A	Bubble Back Underlame			
8	CA-HM-04B	" "			
9	CA-HM-05A	1x1 white smooth CT			
10	CA-HM-05B	" "			
11	CA-HM-06A	(4) white CT w/ random holes & glue pads			

Relinquished by: A. Paquet Received by: UPS

Date: 3-20-18 Date: 3-20-18

Relinquished by: _____

Date: _____

RECEIVED
Received by: APR 10 01
Date: MAR 21 2018

75732

2013

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



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Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18

Project: 307 E. Columbia Ave

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour Lead: Bulk Wipe Air Paint Soil

48 hour Mold: Bulk Tape BioSIS Other Viable

Other: 5 day All Samples TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	CA-HM-06B	1x1 white CT w/ random hole & glue patch			
13	CA-HM-07A	1x1 white textured CT			
14	CA-HM-07B	" " "			
15	CA-HM-08A	Asphalt & Joint Compound			
16	CA-HM-08B	" " "			
17	CA-HM-09A	Window Siding (Vertical Pane)			
18	CA-HM-09B	" " "			
19	CA-HM-10A	Window Siding (Horizontal Pane)			
20	CA-HM-10B	" " "			
21	CA-HM-11A	Basement Window Siding			
22	CA-HM-11B	" " "			

Relinquished by: Alex M. [Signature] Received by: UPS Relinquished by: _____ Received by: [Signature]
 Date: 3-20-18 Date: 3-20-18 Date: _____ Date: MAR 21 2018
 APEX RESEARCH

75732

3073

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18

Project: 307 E. Columbia Ave

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour
48 hour 72 hour

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

Other: Sdey All samples TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	CA-HS-01A	Gray Plaster			
24	CA-HS-01B	" "			
25	CA-HS-01C	" "			
26	CA-HS-02A	Sand Plaster			
27	CA-HS-02B				
28	CA-HS-02C				
29	CA-HS-02D				
30	CA-HS-02E				

RECEIVED

Relinquished by: [Signature] Received by: UPS
Date: 3-20-18 Date: 3-20-18

Tables

Table 1 - Summary of Hazardous Materials, 307 E Columbia Ave., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Garage	Automobile Tires	4
Exterior	Automobile Tires	4
Living	Smoke Detector	1
Living	Automobile Tires	1
Living	Television	1
SE Bedroom	Smoke Detector	1
Garage	Television	4

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 307 E Columbia Ave., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
CA-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
CA-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
CA-HM-02A	Roofing Materials	No	M	Category I	ND	Exterior	NA
CA-HM-02B	Roofing Materials	No	M	Category I	ND	Exterior	NA
CA-HM-03A	12x12 Tan Multilayer Vinyl Tile	No	M	Category I	20%CH/NDND	Kitchen	247 sq. ft.
CA-HM-03B	12x12 Tan Multilayer Vinyl Tile	No	M	Category I	NA	Kitchen	NA
CA-HM-04A	Burlap Linoleum	No	M	Category I	ND	Living	NA
CA-HM-04B	Burlap Linoleum	No	M	Category I	ND	Living	NA
CA-HM-05A	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	SE Bedroom	NA
CA-HM-05B	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	SE Bedroom	NA
CA-HM-06A	1'x1' White Ceiling Tile with holes and Glue Pods	Yes	M	Category II	ND/5%CH	Basement Stairwell	25 sq. ft.
CA-HM-06B	1'x1' White Ceiling Tile with holes and Glue Pods	Yes	M	Category II	NA	Basement Stairwell	NA
CA-HM-07A	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	Breezeway	NA
CA-HM-07B	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	Breezeway	NA
CA-HM-08A	Drywall and Joint Compound	No	M	Category II	ND	SE Bedroom Ceiling	NA
CA-HM-08B	Drywall and Joint Compound	No	M	Category II	ND	Breezeway Ceiling	NA
CA-HM-09A	Window Glazing (Vertical)	Yes	M	Category II	ND	NW Bedroom	NA
CA-HM-09B	Window Glazing (Vertical)	Yes	M	Category II	ND	SW Bedroom	NA
CA-HM-10A	Window Glazing (Horizontal)	Yes	M	Category II	ND	Kitchen	NA
CA-HM-10B	Window Glazing (Horizontal)	Yes	M	Category II	ND	Living	NA
CA-HM-11A	Window Glazing	Yes	M	Category II	Trace CH	Basement	NA
CA-HM-11B	Window Glazing	Yes	M	Category II	0.25%CH-PC	Basement	NA
CA-HS-01A	Gray Plaster	No	S	Category II	ND/ND	NW Bedroom Ceiling	NA
CA-HS-01B	Gray Plaster	No	S	Category II	ND/ND	NW Bedroom Wall	NA
CA-HS-01C	Gray Plaster	No	S	Category II	ND/ND	SW Bedroom Wall	NA
CA-HS-02A	Sand Plaster	No	S	Category II	ND/ND	Living Ceiling	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 307 E Columbia Ave., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
CA-HS-02B	Sand Plaster	No	S	Category II	ND/ND	Bathroom Ceiling	NA
CA-HS-02C	Sand Plaster	No	S	Category II	ND/ND	Bathroom Wall	NA
CA-HS-02D	Sand Plaster	No	S	Category II	ND/ND	Kitchen Wall	NA
CA-HS-02E	Sand Plaster	No	S	Category II	ND/ND	Living Wall	NA

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material
- PC = Point Count Analysis
- CH = Chrysotile Asbestos

Abbreviations

- NQ = Not quantified
- NA = Not applicable
- ND = Not detected. Laboratory result is less than 1 % asbestos
- lin. ft. = linear feet
- sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 307 E Columbia Ave., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Building Exterior	Transite Siding	No	Fair	M	1,683 sq. ft.
Living (1 register, 15 sq. ft.) SE Bedroom (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Ductwork, 25 sq. ft.) Basement (misc. HVAC wrap on Framing, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	65 sq. ft.
Basement (HVAC Wrapped Water Lines, 10 lin. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	10 lin. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 307 E Columbia Ave., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen	12"x12" Tan Multilayer Vinyl Tile	No	247 sq. ft.
Total			247 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 register, 15 sq. ft.) SE Bedroom (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Ductwork, 25 sq. ft.) Basement (misc. HVAC wrap on Framing, 10 sq. ft.)	HVAC Duct Wrap	Yes	65 sq. ft.
Total			65 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (HVAC Wrapped Water Lines, 10 lin. ft.)	HVAC Duct Wrap	Yes	10 lin. ft.
Total			10 lin. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement Stairwell	1'x1' White Ceiling Tile with holes and Glue Pods	No	25 sq. ft.
Total			25 sq. ft.
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Exterior	Transite Siding	No	1,683 sq. ft.
Total			1,683 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Table 4 - Summary of All Asbestos Containing Materials, 307 E Columbia Ave., Muskegon Heights, Michigan

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
452 Amity Ave., Muskegon, MI 49442
Parcel ID: 61-24-205-046-0012-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 452 Amity Ave., Muskegon, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .20 acre residential parcel which contains an approximate 996 square foot residential building (the Building) with an unknown construction date. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with vinyl over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, kitchen, bathroom and three bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 23, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- 12"x12" Vinyl Tile
- Drywall and Joint Compound
- Window Glazing
- Plaster

Red Cedar staff collected seventeen samples of suspect ACBM separated into seven distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the seventeen samples is included as Attachment A.

Hazardous Materials Inspection

On March 23, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, seventeen samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window glazing sample collected from a window in the SE Bedroom was found to contain up to 1.50% asbestos following analysis. The assessment to quantify the extent of this material identified twenty three windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Living (2 windows 26" wide x 68" tall)
- Living (1 window 44" wide x 68" tall)
- Basement Stair (1 window 30" wide x 18" tall)
- NW Bedroom (3 windows 24" wide x 38" tall)
- Kitchen (6 windows 24" wide x 46" tall)
- E Bedroom (1 window 28" wide x 68" tall)
- SE Bedroom (2 windows 44" wide x 66" tall)
- Bathroom (1 window 30" wide x 40" tall)
- Basement (2 windows 30" wide x 20" tall)
- Basement (4 windows 30" wide x 14" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Kitchen (1 register, 10 sq. ft.)
- Living (1 register, 10 sq. ft.)

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Kitchen (1 register, 10 sq. ft.)
- Living (1 register, 10 sq. ft.)

Friable asbestos containing window glazing was identified on twenty three windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Living (2 windows 26" wide x 68" tall)
- Living (1 window 44" wide x 68" tall)
- Basement Stair (1 window 30" wide x 18" tall)
- NW Bedroom (3 windows 24" wide x 38" tall)
- Kitchen (6 windows 24" wide x 46" tall)
- E Bedroom (1 window 28" wide x 68" tall)
- SE Bedroom (2 windows 44" wide x 66" tall)
- Bathroom (1 window 30" wide x 40" tall)
- Basement (2 windows 30" wide x 20" tall)
- Basement (4 windows 30" wide x 14" tall)
-

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- No Hazardous Materials Identified

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-205-046-0012-00

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov


DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 452 Amity St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75840
Date Collected: 03/25/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75840 - 01 Cust. #: AT-HM-01A Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75840 - 02 Cust. #: AT-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 75840 - 03 Cust. #: AT-HM-02A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 452 Amity St.

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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75840
Date Collected: 03/25/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75840 - 03a Cust. #: AT-HM-02A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75840 - 04 Cust. #: AT-HM-02B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75840 - 04a Cust. #: AT-HM-02B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 452 Amity St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75840
Date Collected: 03/25/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75840 - 05 Cust. #: AT-HM-03A Material: Layered Brown Square Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 75840 - 05a Cust. #: AT-HM-03A Material: Sheet Flooring Location: Appearance: brown, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75840 - 06 Cust. #: AT-HM-03B Material: Layered Brown Square Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75840
Date Collected: 03/25/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75840 - 06a Cust. #: AT-HM-03B Material: Sheet Flooring Location: Appearance: brown, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75840 - 07 Cust. #: AT-HM-04A Material: 12x12 Grey VFT Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75840 - 07a Cust. #: AT-HM-04A Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 452 Amity St.

Report To:
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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75840
Date Collected: 03/25/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75840 - 08 Cust. #: AT-HM-04B Material: 12x12 Grey VFT Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75840 - 08a Cust. #: AT-HM-04B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75840 - 09 Cust. #: AT-HM-05A Material: Drywall Location: Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 452 Amity St.

Report To:
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Lansing, MI 48901

ARI Report # 18-75840
Date Collected: 03/25/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75840 - 09a Cust. #: AT-HM-05A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75840 - 10 Cust. #: AT-HM-05B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%
Lab ID #: 75840 - 10a Cust. #: AT-HM-05B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 452 Amity St.

Report To:
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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75840
Date Collected: 03/25/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75840 - 11 Cust. #: AT-HM-06A Material: Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.50% POINT COUNT RESULT	Other - 98.50%
Lab ID #: 75840 - 12 Cust. #: AT-HM-06B Material: Window Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75840 - 13 Cust. #: AT-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 452 Amity St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75840
Date Collected: 03/25/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75840 - 13a Cust. #: AT-HS-01A Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75840 - 14 Cust. #: AT-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75840 - 14a Cust. #: AT-HS-01B Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 452 Amity St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75840
Date Collected: 03/25/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75840 - 15 Cust. #: AT-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75840 - 15a Cust. #: AT-HS-01C Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75840 - 16 Cust. #: AT-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 452 Amity St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75840
Date Collected: 03/25/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75840 - 16a Cust. #: AT-HS-01D Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 1% Other - 99%
Lab ID #: 75840 - 17 Cust. #: AT-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75840 - 17a Cust. #: AT-HS-01E Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

MLA Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting
 Address: PO Box 13216
 City, St., Zip: Lansing, MI 48901
 Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18
 Project: 452 *Priority A*
 Project #: _____
 Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
 apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM
 Lead: Bulk Wipe Air Paint Soil
 Mold: Bulk Tape BioSIS Other Viable
 TEM: AHERA 7400 Bulk/NOB EPA Level II

Rush 24 hour
 48 hour
 72 hour

Other: **TTP** All Samples

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	AT-HM-01A	Vapor Barriers			
2	AT-HM-01B	" "			
3	AT-HM-02A	Roofing Shingles			
4	AT-HM-02B	" "			
5	AT-HM-03A	Layered Blum Insulation			
6	AT-HM-03B	" "			
7	AT-HM-04A	12x12 Gypsum VET			
8	AT-HM-04B	" "			
9	AT-HM-05A	Argonall + Joint Compound			
10	AT-HM-05B	" "			
11	AT-HM-06A	Window Glazing			

RECEIVED

Relinquished by: *Alex* Received by: *Alex*
 Date: 3-26-18 Date: 3-26-18

Relinquished by: _____ Received by: _____
 Date: _____ Date: _____

75840

2 of 2



APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18
Project: 452 Amity St
Project #: _____
Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Rush 24 hour
48 hour
72 hour

Other: TTP All Samples

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	AT-HM-06B	Window Glazing			
13	AT-HS-01A	Plaster			
14	AT-HS-01B				
15	AT-HS-01C				
16	AT-HS-01D				
17	AT-HS-01E	↓			

RECEIVED

Relinquished by: Alex Received by: APEX
Date: 3-26-18 Date: 3-26-18

Relinquished by: _____ Received by: _____
Date: _____ Date: _____
MAR 26 2018
APEX RESEARCH

Tables

Table 1 - Summary of Hazardous Materials, 452 Amity Ave., Muskegon, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
No Hazardous Materials identified		

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 452 Amity Ave., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
AT-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
AT-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
AT-HM-02A	Roofing Shingle	No	M	Category I	ND/ND	Exterior	NA
AT-HM-02B	Roofing Shingle	No	M	Category I	ND/ND	Exterior	NA
AT-HM-03A	Layered Brown Squared Linoleum	No	M	Category I	ND/ND	Kitchen	NA
AT-HM-03B	Layered Brown Squared Linoleum	No	M	Category I	ND/ND	Kitchen	NA
AT-HM-04A	12x12 Gray Vinyl Tile	No	M	Category I	ND/ND	NW Bedroom	NA
AT-HM-04B	12x12 Gray Vinyl Tile	No	M	Category I	ND/ND	NW Bedroom	NA
AT-HM-05A	Drywall and Joint Compound	No	M	Category II	ND/ND	Kitchen Wall	NA
AT-HM-05B	Drywall and Joint Compound	No	M	Category II	ND/ND	Bathroom Wall	NA
AT-HM-06A	Window Glazing	Yes	M	Category II	1.50%CH-PC	SE Bedroom	23 Windows
AT-HM-06B	Window Glazing	Yes	M	Category II	NA	Living	NA
AT-HS-01A	Plaster	No	S	Category II	ND/ND	E Bedroom Ceiling	NA
AT-HS-01B	Plaster	No	S	Category II	ND/ND	SE Bedroom Ceiling	NA
AT-HS-01C	Plaster	No	S	Category II	ND/ND	E Bedroom Wall	NA
AT-HS-01D	Plaster	No	S	Category II	ND/ND	NW Bedroom Wall	NA
AT-HS-01E	Plaster	No	S	Category II	ND/ND	Living Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 452 Amity Ave., Muskegon, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Kitchen (1 register, 10 sq. ft.) Living (1 register, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	20 sq. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

- lin. ft. = linear feet
- sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 452 Amity Ave., Muskegon, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen (1 register, 10 sq. ft.) Living (1 register, 10 sq. ft.)	HVAC Duct Wrap	Yes	20 sq. ft.
Total			20 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (2 windows 26" wide x 68" tall)	Glazing	Yes	2 Windows
Living (1 window 44" wide x 68" tall)	Glazing	Yes	1 Window
Basement Stair (1 window 30" wide x 18" tall)	Glazing	Yes	1 Window
NW Bedroom (3 windows 24" wide x 38" tall)	Glazing	Yes	3 Windows
Kitchen (6 windows 24" wide x 46" tall)	Glazing	Yes	6 Windows
E Bedroom (1 window 28" wide x 68" tall)	Glazing	Yes	1 Window
SE Bedroom (2 windows 44" wide x 66" tall)	Glazing	Yes	2 Windows
Bathroom (1 window 30" wide x 40" tall)	Glazing	Yes	1 Window
Basement (2 windows 30" wide x 20" tall)	Glazing	Yes	2 Windows
Basement (4 windows 30" wide x 14" tall)	Glazing	Yes	4 Windows
Total			23 Windows

Notes:

Abbreviations

lin. ft. = linear feet
sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

**RE: *Asbestos Containing Material and Hazardous Materials Inspection
629 Allen Ave., Muskegon, MI 49442
Parcel ID: 61-24-205-059-0003-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 629 Allen Ave., Muskegon, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .16 acre residential parcel which contains a 168 sq. ft. detached garage and approximate 1,128 square foot residential building (the Building) with an unknown construction date. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 20, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- 12"x12" Vinyl Tile
- 1'x1' Ceiling Tile
- Drywall and Joint Compound
- Asphalt Shingle Siding
- Window Glazing
- Linoleum
- Cement Board
- Textured Surfacing
- Plaster

Red Cedar staff collected thirty two samples of suspect ACBM separated into fourteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the thirty two samples is included as Attachment A.

Hazardous Materials Inspection

On March 20, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, thirty two samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window glazing sample collected from a window in the South Bedroom was found to contain up to 2.75% asbestos following analysis. The assessment to quantify the extent of this material identified twenty windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- N Bedroom (1 window 44" wide x 62" tall)
- S Bedroom (2 windows 28" wide x 62" tall)
- S Bedroom (1 window 40" wide x 24" tall)
- Bathroom (1 window 28" wide x 46" tall)
- Kitchen (2 windows 32" wide x 46" tall)
- Living/Dining (4 windows 28" wide x 62" tall)
- Living/Dining (1 window 44" wide x 62" tall)
- Attic (2 window 12" wide x 36" tall)
- Basement (6 windows 30" wide x 20" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Kitchen (1 register, 15 sq. ft.)
- Dining (1 register, 15 sq. ft.)
- Living (1 register, 15 sq. ft.)
- Bathroom (1 register, 15 sq. ft.)

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Kitchen (1 register, 15 sq. ft.)
- Dining (1 register, 15 sq. ft.)
- Living (1 register, 15 sq. ft.)
- Bathroom (1 register, 15 sq. ft.)

Friable asbestos containing window glazing was identified on twenty windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- N Bedroom (1 window 44" wide x 62" tall)
- S Bedroom (2 windows 28" wide x 62" tall)
- S Bedroom (1 window 40" wide x 24" tall)
- Bathroom (1 window 28" wide x 46" tall)
- Kitchen (2 windows 32" wide x 46" tall)
- Living/Dining (4 windows 28" wide x 62" tall)
- Living/Dining (1 window 44" wide x 62" tall)
- Attic (2 window 12" wide x 36" tall)
- Basement (6 windows 30" wide x 20" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Television (4)
- Smoke Detector (4)
- Thermostat (1)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-205-059-0003-00

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov


DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 629 Allen St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 01 Cust. #: AS-HM-01A Material: Vapor Barrier Location: House Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%
Lab ID #: 75733 - 02 Cust. #: AS-HM-01B Material: Vapor Barrier Location: House Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%
Lab ID #: 75733 - 03 Cust. #: AS-HM-02A Material: Roofing Shingle/Vapor Barrier Location: House Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 629 Allen St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 03a Cust. #: AS-HM-02A Material: Vapor Barrier Location: House Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 75733 - 04 Cust. #: AS-HM-02B Material: Roofing Shingle/Vapor Barrier Location: House Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75733 - 04a Cust. #: AS-HM-02B Material: Vapor Barrier Location: House Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 629 Allen St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 05 Cust. #: AS-HM-03A Material: Roofing Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 75733 - 06 Cust. #: AS-HM-03B Material: Roofing Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75733 - 07 Cust. #: AS-HM-04A Material: 12x12 Green VFT Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Project: 629 Allen St.

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 08 Cust. #: AS-HM-04B Material: 12x12 Green VFT Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75733 - 09 Cust. #: AS-HM-05A Material: 12x12 White VFT Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75733 - 10 Cust. #: AS-HM-05B Material: 12x12 White VFT Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Test Method, Polarized Light Microscopy (PLM)

Project: 629 Allen St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 11 Cust. #: AS-HM-06A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Mineral Wool - 30% Other - 40%
Lab ID #: 75733 - 12 Cust. #: AS-HM-06B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Mineral Wool - 30% Other - 40%
Lab ID #: 75733 - 13 Cust. #: AS-HM-07A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 13a Cust. #: AS-HM-07A Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75733 - 14 Cust. #: AS-HM-07B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75733 - 14a Cust. #: AS-HM-07B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 15 Cust. #: AS-HM-08A Material: Shingle Siding Location: Porch Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75733 - 16 Cust. #: AS-HM-08B Material: Shingle Siding Location: Porch Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75733 - 17 Cust. #: AS-HM-09A Material: Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 18 Cust. #: AS-HM-09B Material: Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 2.75% POINT COUNT RESULT	Other - 97.25%
Lab ID #: 75733 - 19 Cust. #: AS-HM-10A Material: Tan Brick Linoleum/Layered Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%
Lab ID #: 75733 - 20 Cust. #: AS-HM-10B Material: Tan Brick Linoleum/Layered Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 21 Cust. #: AS-HM-11A Material: Brown Cement Board Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75733 - 22 Cust. #: AS-HM-11B Material: Brown Cement Board Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75733 - 23 Cust. #: AS-HM-12A Material: Floral Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 24 Cust. #: AS-HM-12B Material: Floral Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75733 - 25 Cust. #: AS-HS-01A Material: Surfacing Textured Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75733 - 26 Cust. #: AS-HS-01B Material: Surfacing Textured Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Project: 629 Allen St.

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Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 27 Cust. #: AS-HS-01C Material: Surfacing Textured Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75733 - 28 Cust. #: AS-HS-02A Material: Plaster Location: Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%
Lab ID #: 75733 - 29 Cust. #: AS-HS-02B Material: Plaster Location: Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 629 Allen St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 30 Cust. #: AS-HS-02C Material: Plaster Location: Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75733 - 31 Cust. #: AS-HS-02D Material: Plaster Location: Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75733 - 32 Cust. #: AS-HS-02E Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75733
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75733 - 32a Cust. #: AS-HS-02E Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18

Project: 629 Allen St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 days **(TTP)** All Samples

Asbestos: Bulk Wipe Point Count PCM
 Lead: Bulk Wipe Air Paint Soil
 Mold: Bulk Tape BioSIS Other Viable
 TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
 Log-In _____
 Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	AS-HM-01A	Vapor Barriers (House)			
2	AS-HM-01B	" "			
3	AS-HM-02A	Roofing Shingle (House)			
4	AS-HM-02B	" "			
5	AS-HM-03A	Roofing Shingle (Storage)			
6	AS-HM-03B	" "			
7	AS-HM-04A	12x12 Green VFT			
8	AS-HM-04B	" "			
9	AS-HM-05A	12x12 White VFT			
10	AS-HM-05B	" "			
11	AS-HM-06A	1x1 White smooth CT			

Relinquished by: [Signature] Received by: UPS
 Date: 3-20-18 Date: 3-20-18

Relinquished by: _____
 Date: _____

RECEIVED
 Received by: [Signature]
 Date: MAR 21 2018

75733

2 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18

Project: 629 *Allyant*

Project #:

Contact Person: Aaron Paquet

PLM EPA 600, PC all samples with a detection of <5% ACM.
apaquet@redcedarconsulting.net

Turn Around Times: (Circle One)

Rush 24 hour

48 hour 72 hour

Other: *5 day* TTP All Samples

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	AS-HM-06B	<i>1x1 White Smooth CT</i>			
13	AS-HM-07A	<i>Asphalt & Joint Compound</i>			
14	AS-HM-07B	<i>" " " "</i>			
15	AS-HM-08A	<i>Single Siding Panel</i>			
16	AS-HM-08B	<i>" " " "</i>			
17	AS-HM-09A	<i>Window Siding</i>			
18	AS-HM-09B	<i>" " " "</i>			
19	AS-HM-10A	<i>Iron Brick Siding</i>			
20	AS-HM-10B	<i>" " " "</i>			
21	AS-HM-11A	<i>Brown Cement Board</i>			
22	AS-HM-11B	<i>" " " "</i>			

Relinquished by: *[Signature]* Received by: *UFS* Date: 3-20-18

Relinquished by: _____ Received by: _____ Date: _____

Date: 3-20-18 Date: 3-20-18

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Received by: *[Signature]*
Date: MAR 21 2018

75733

303

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18

Project: 629 Allen St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
apaguet@redcedarconsulting.net

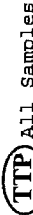
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour
48 hour 72 hour
Other: Sdey

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II



Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	AS-HM-12A	Floored Staircase			
24	AS-HM-12B	"			
25	AS-HS-01A	Surfacing Textured			
26	AS-HS-01B	↓			
27	AS-HS-01C	↓			
28	AS-HS-02A	Plastic			
29	AS-HS-02B	↓			
30	AS-HS-02C	↓			
31	AS-HS-02D	↓			
32	AS-HS-02E	↓			

RECEIVED

Relinquished by: [Signature] Received by: UPS
Date: 3-20-18 Date: 3-20-18

APEX RESEARCH

Tables

Table 1 - Summary of Hazardous Materials, 629 Allen Ave., Muskegon, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Garage	Television	3
Living	Smoke Detector	1
Living	Thermostat	1
Living	Television	1
Dining	Smoke Detector	1
N Bedroom	Smoke Detector	1
S Bedroom	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 629 Allen Ave., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
AS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
AS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
AS-HM-02A	Roofing Materials	No	M	Category I	ND/ND	House Exterior	NA
AS-HM-02B	Roofing Materials	No	M	Category I	ND/ND	House Exterior	NA
AS-HM-03A	Roofing Materials	No	M	Category I	ND	Garage Exterior	NA
AS-HM-03B	Roofing Materials	No	M	Category I	ND	Garage Exterior	NA
AS-HM-04A	12x12 Green Vinyl Tile	No	M	Category I	ND	Kitchen	NA
AS-HM-04B	12x12 Green Vinyl Tile	No	M	Category I	ND	Kitchen	NA
AS-HM-05A	12x12 White Vinyl Tile	No	M	Category I	ND	Bathroom	NA
AS-HM-05B	12x12 White Vinyl Tile	No	M	Category I	ND	Bathroom	NA
AS-HM-06A	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Dining	NA
AS-HM-06B	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Dining	NA
AS-HM-07A	Drywall and Joint Compound	No	M	Category II	ND/ND	Bathroom Ceiling	NA
AS-HM-07B	Drywall and Joint Compound	No	M	Category II	ND/ND	Basement Stairwell Wall	NA
AS-HM-08A	Shingle Siding	No	M	Category I	ND	Porch Exterior	NA
AS-HM-08B	Shingle Siding	No	M	Category I	ND	Porch Exterior	NA
AS-HM-09A	Window Glazing	Yes	M	Category II	ND	N Bedroom	NA
AS-HM-09B	Window Glazing	Yes	M	Category II	2.75%CH-PC	S Bedroom	20 Windows
AS-HM-10A	Tan Brick Linoleum Layered	No	M	Category I	ND	Basement Stairwell	NA
AS-HM-10B	Tan Brick Linoleum Layered	No	M	Category I	ND	Basement Stairwell	NA
AS-HM-11A	Brown Back Board	Yes	M	Category II	ND	Basement SW Room	NA
AS-HM-11B	Brown Back Board	Yes	M	Category II	ND	Basement SW Room	NA
AS-HM-12A	Floral Linoleum	No	M	Category I	ND	Basement SW Room	NA
AS-HM-12B	Floral Linoleum	No	M	Category I	ND	Basement SW Room	NA
AS-HS-01A	Textured Surfacing	No	S	Category II	ND	S Bedroom Ceiling	NA
AS-HS-01B	Textured Surfacing	No	S	Category II	ND	S Bedroom Ceiling	NA
AS-HS-01C	Textured Surfacing	No	S	Category II	ND	S Bedroom Ceiling	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 629 Allen Ave., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
AS-HS-02A	Plaster	No	S	Category II	ND	Kitchen Ceiling	NA
AS-HS-02B	Plaster	No	S	Category II	ND	N Bedroom Ceiling	NA
AS-HS-02C	Plaster	No	S	Category II	ND	Living Wall	NA
AS-HS-02D	Plaster	No	S	Category II	ND	Kitchen Wall	NA
AS-HS-02E	Plaster	No	S	Category II	ND/ND	S Bedroom Wall	NA

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material
- PC = Point Count Analysis
- CH = Chrysotile Asbestos

Abbreviations

- NQ = Not quantified
- NA = Not applicable
- ND = Not detected. Laboratory result is less than 1 % asbestos
- lin. ft. = linear feet
- sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 629 Allen Ave., Muskegon, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Kitchen (1 register, 15 sq. ft.) Dining (1 register, 15 sq. ft.) Living (1 register, 15 sq. ft.) Bathroom (1 register, 15 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	60 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 629 Allen Ave., Muskegon, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen (1 register, 15 sq. ft.)	HVAC Duct Wrap	Yes	60 sq. ft.
Dining (1 register, 15 sq. ft.)			
Living (1 register, 15 sq. ft.)			
Bathroom (1 register, 15 sq. ft.)			
Total			60 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
N Bedroom (1 window 44" wide x 62" tall)	Glazing	Yes	1 Window
S Bedroom (2 windows 28" wide x 62" tall)	Glazing	Yes	2 Windows
S Bedroom (1 window 40" wide x 24" tall)			1 Window
Bathroom (1 window 28" wide x 46" tall)			1 Window
Kitchen (2 windows 32" wide x 46" tall)			2 Windows
Living/Dining (4 windows 28" wide x 62" tall)			4 Windows
Living/Dining (1 window 44" wide x 62" tall)			1 Window
Attic (2 window 12" wide x 36" tall)			2 Windows
Basement (6 windows 30" wide x 20" tall)			6 Windows
Total			20 Windows

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
750 Amity Ave., Muskegon, MI 49442
Parcel ID: 61-24-205-050-0020-40

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 750 Amity Ave., Muskegon, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .13 acre residential parcel which contains a 440 sq. ft. detached garage and approximate 1,572 square foot residential building (the Building) constructed in 1926. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom, laundry room, bedroom and a rear entry on the first floor while the second floor contains three bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 23, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- 12"x12" Vinyl Tile
- Window Glazing
- Drywall
- Plaster

Red Cedar staff collected thirty three samples of suspect ACBM separated into fourteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the thirty three samples is included as Attachment A.

Hazardous Materials Inspection

On March 23, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, thirty three samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window glazing sample collected from a window in the Front Porch was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified ten windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Front Porch (10 metal windows 36" wide x 54" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Living (1 register, 15 sq. ft.)
- Dining (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- 2nd Fl. E Bedroom (1 register, 20 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. W Bedroom (1 register, 20 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- Basement (12 in. dia. HVAC Wrapped Ductwork, 12 lin. ft.)

Category I ACM

Two types of resilient floor covering (Yellow Linoleum and Beige Linoleum) located within the Basement were found to contain up to 20% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 305 sq. ft. of this material within the Building.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Living (1 register, 15 sq. ft.)
- Dining (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- 2nd Fl. E Bedroom (1 register, 20 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. W Bedroom (1 register, 20 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Basement (12 in. dia. HVAC Wrapped Ductwork, 12 lin. ft.)

Friable asbestos containing window glazing was identified on ten windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Front Porch (10 metal windows 36" wide x 54" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

The Category I resilient floor coverings (Yellow Linoleum and Beige Linoleum) are non-friable ACM's that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- No Hazardous Materials Identified

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding,

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-205-050-0020-40

- grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

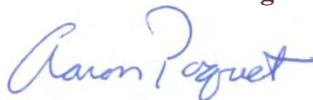
Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,

Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 750 Amity St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75839
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 01 Cust. #: AM-HM-01A Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75839 - 02 Cust. #: AM-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75839 - 03 Cust. #: AM-HM-02A Material: Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 750 Amity St.

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ARI Report # 18-75839
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 03a Cust. #: AM-HM-02A Material: Plastic Location: House Appearance: black,nonfibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 04 Cust. #: AM-HM-02B Material: Roofing Shingle Location: House Appearance: black,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 04a Cust. #: AM-HM-02B Material: Plastic Location: House Appearance: black,nonfibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

Project: 750 Amity St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75839
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 05 Cust. #: AM-HM-03A Material: Roofing Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 05a Cust. #: AM-HM-03A Material: Red Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 05b Cust. #: AM-HM-03A Material: Grey Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

Project: 750 Amity St.

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75839
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 06 Cust. #: AM-HM-03B Material: Roofing Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 06a Cust. #: AM-HM-03B Material: Red Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 06b Cust. #: AM-HM-03B Material: Grey Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Test Method, Polarized Light Microscopy (PLM)

Project: 750 Amity St.

Report To:
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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75839
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 07 Cust. #: AM-HM-04A Material: Multicolor Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 08 Cust. #: AM-HM-04B Material: Multicolor Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 09 Cust. #: AM-HM-05A Material: 12x12 Layered Sunburnt VFT Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 750 Amity St.

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75839
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 09a Cust. #: AM-HM-05A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 09b Cust. #: AM-HM-05A Material: Sheet Flooring Location: Appearance: black,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 10 Cust. #: AM-HM-05B Material: 12x12 Layered Sunburnt VFT Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 750 Amity St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75839
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 10a Cust. #: AM-HM-05B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 10b Cust. #: AM-HM-05B Material: Sheet Flooring Location: Appearance: black,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 11 Cust. #: AM-HM-06A Material: Layered 3" Square Linoleum Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 11a Cust. #: AM-HM-06A Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 11b Cust. #: AM-HM-06A Material: Brown Sheet Flooring Location: Appearance: brown,fibrous,nonhomogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 11c Cust. #: AM-HM-06A Material: Beige Sheet Flooring Location: Appearance: beige,fibrous,nonhomogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 12 Cust. #: AM-HM-06B Material: Layered 3" Square Linoleum Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75839 - 12a Cust. #: AM-HM-06B Material: Glue Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 12b Cust. #: AM-HM-06B Material: Brown Sheet Flooring Location: Appearance: brown, fibrous, nonhomogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 12c Cust. #: AM-HM-06B Material: Beige Sheet Flooring Location: Appearance: beige, fibrous, nonhomogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75839 - 13 Cust. #: AM-HM-07A Material: Dark Grey Layered Linoleum Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 5% Other - 85%
Lab ID #: 75839 - 13a Cust. #: AM-HM-07A Material: Brown Sheet Flooring Location: Appearance: brown, fibrous, nonhomogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 13b Cust. #: AM-HM-07A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75839 - 14 Cust. #: AM-HM-07B Material: Dark Grey Layered Linoleum Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 5% Other - 85%
Lab ID #: 75839 - 14a Cust. #: AM-HM-07B Material: Brown Sheet Flooring Location: Appearance: brown, fibrous, nonhomogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 14b Cust. #: AM-HM-07B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75839 - 15 Cust. #: AM-HM-08A Material: Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75839 - 16 Cust. #: AM-HM-08B Material: Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 17 Cust. #: AM-HM-09A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75839 - 17a Cust. #: AM-HM-09A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 18 Cust. #: AM-HM-09B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 18a Cust. #: AM-HM-09B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 19 Cust. #: AM-HM-10A Material: Yellow Linoleum Location: Appearance: yellow, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 75839 - 20 Cust. #: AM-HM-10B Material: Yellow Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 21 Cust. #: AM-HM-11A Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 75839 - 22 Cust. #: AM-HM-11B Material: Beige Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75839 - 23 Cust. #: AM-HM-12A Material: Garage Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 24 Cust. #: AM-HM-12B Material: Garage Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75839 - 25 Cust. #: AM-HM-13A Material: Porch Window Glazing Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75839 - 26 Cust. #: AM-HM-13B Material: Porch Window Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 27 Cust. #: AM-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 27a Cust. #: AM-HS-01A Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 1% Other - 97%
Lab ID #: 75839 - 28 Cust. #: AM-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 28a Cust. #: AM-HS-01B Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Hair - 1% Other - 98%
Lab ID #: 75839 - 29 Cust. #: AM-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 29a Cust. #: AM-HS-01C Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Hair - 2% Other - 97%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 30 Cust. #: AM-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 30a Cust. #: AM-HS-01D Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Hair - 2% Other - 97%
Lab ID #: 75839 - 31 Cust. #: AM-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 31a Cust. #: AM-HS-01E Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Hair - 1% Other - 98%
Lab ID #: 75839 - 32 Cust. #: AM-HS-01F Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 32a Cust. #: AM-HS-01F Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Hair - 1% Other - 98%

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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75839 - 33 Cust. #: AM-HS-01G Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75839 - 33a Cust. #: AM-HS-01G Material: Plaster Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Hair - 2% Other - 97%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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NVLAP Lab Code 102118-0

Apex # 75839

1 of 3

ARLX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18

Project: 750 Smity St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour

72 hour

Other: **TTP** All Samples

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	AM-HM-01A	Vapor Barriers			
2	AM-HM-01B	"			
3	AM-HM-02A	Roofing Shingle (Hane)			
4	AM-HM-02B	"			
5	AM-HM-03A	Roofing Shingle (Storage)			
6	AM-HM-03B	"			
7	AM-HM-04A	Multi Color Insulation			
8	AM-HM-04B	"			
9	AM-HM-05A	12x12 Bayered Substrat VFT			
10	AM-HM-05B	"			
11	AM-HM-06A	Bayered 3" Squared Insulation			RECEIVED

Relinquished by: Alex Received by: Alex

Date: 3-26-18 Date: 3-26-18

Relinquished by: _____

Date: _____

Received by: APR 26 2018

Date: APR 26 2018

3/26/18

75839

2 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18
Project: 750 Amity St
Project #:
Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour
48 hour
Other: **TTP** All Samples
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	AM-HM-06B	Layered 3" Squared Linoleum			
13	AM-HM-07A	Dark Grey Layered Linoleum			
14	AM-HM-07B	" " "			
15	AM-HM-08A	Windows Glazing			
16	AM-HM-08B	" " "			
17	AM-HM-09A	Asphalt			
18	AM-HM-09B	" " "			
19	AM-HM-10A	Yellow Linoleum			
20	AM-HM-10B	" " "			
21	AM-HM-11A	Beige Linoleum			
22	AM-HM-11B	" " "			

Relinquished by: Alex Paquet Received by: APEX
Date: 3-26-18 Date: 3-26-18

Relinquished by: _____ Received by: **RECEIVED**
Date: _____ Date: MAR 26 2018

75839

3 of 3

APEX Research, Inc.



11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18
Project: 750 Amity St
Project #: _____
Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Rush 24 hour
48 hour
72 hour

Other: All Samples

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	AM-HM-12A	Garage Window Glazing			
24	AM-HM-12B	" "			
25	AM-HM-13A	Porch Window Glazing			
26	AM-HM-13B	" "			
27	AM-HS-01A	Plaster			
28	AM-HS-01B				
29	AM-HS-01C				
30	AM-HS-01D				
31	AM-HS-01E				
32	AM-HS-01F				
33	AM-HS-01G				RECEIVED

MAR 26 2018

Relinquished by: Alex Received by: Alex
Date: 3-26-18 Date: 3-26-18

Relinquished by: [Signature] Received by: [Signature]
Date: _____ Date: _____

Tables

Table 1 - Summary of Hazardous Materials, 750 Amity Ave., Muskegon, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
No Hazardous Materials Identified		

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 750 Amity Ave., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
AM-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
AM-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
AM-HM-02A	Roofing Shingle	No	M	Category I	ND/ND	House Exterior	NA
AM-HM-02B	Roofing Shingle	No	M	Category I	ND/ND	House Exterior	NA
AM-HM-03A	Roofing Shingle	No	M	Category I	ND/ND/ND	Garage Exterior	NA
AM-HM-03B	Roofing Shingle	No	M	Category I	ND/ND/ND	Garage Exterior	NA
AM-HM-04A	Multicolor Linoleum	No	M	Category I	ND	Front Entry	NA
AM-HM-04B	Multicolor Linoleum	No	M	Category I	ND	Front Entry	NA
AM-HM-05A	12x12 Layered Sunburst Vinyl Tile	No	M	Category I	ND/ND/ND	Kitchen	NA
AM-HM-05B	12x12 Layered Sunburst Vinyl Tile	No	M	Category I	ND/ND/ND	Kitchen	NA
AM-HM-06A	Layered 3” Squared Linoleum	No	M	Category I	ND/ND/ND/ND	Laundry Room	NA
AM-HM-06B	Layered 3” Squared Linoleum	No	M	Category I	ND/ND/ND/ND	Hallway	NA
AM-HM-07A	Dark Gray Layered Linoleum	No	M	Category I	ND/ND/ND	Bathroom	NA
AM-HM-07B	Dark Gray Layered Linoleum	No	M	Category I	ND/ND/ND	Bathroom	NA
AM-HM-08A	Window Glazing	Yes	M	Category II	ND	Dining	NA
AM-HM-08B	Window Glazing	Yes	M	Category II	ND	Living	NA
AM-HM-09A	Drywall	No	M	Category II	ND/ND	Rear Entry Wall	NA
AM-HM-09B	Drywall	No	M	Category II	ND/ND	Rear Entry Wall	NA
AM-HM-10A	Yellow Linoleum	No	M	Category I	20%CH	Basement	160 sq. ft.
AM-HM-10B	Yellow Linoleum	No	M	Category I	NA	Basement	NA
AM-HM-11A	Beige Linoleum	No	M	Category I	20%CH	Basement	145 sq. ft.
AM-HM-11B	Beige Linoleum	No	M	Category I	NA	Basement	NA
AM-HM-12A	Window Glazing	Yes	M	Category II	ND	Garage	NA
AM-HM-12B	Window Glazing	Yes	M	Category II	ND	Garage	NA
AM-HM-13A	Window Glazing	Yes	M	Category II	5%CH	Porch	10 Windows
AM-HM-13B	Window Glazing	Yes	M	Category II	NA	Porch	NA
AM-HS-01A	Plaster	No	S	Category II	ND/ND	Front Entry Ceiling	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 750 Amity Ave., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
AM-HS-01B	Plaster	No	S	Category II	ND/ND	Hallway Ceiling	NA
AM-HS-01C	Plaster	No	S	Category II	ND/ND	Living Wall	NA
AM-HS-01D	Plaster	No	S	Category II	ND/ND	E Bedroom Wall	NA
AM-HS-01E	Plaster	No	S	Category II	ND/ND	2 nd Fl. S Bedroom Ceiling	NA
AM-HS-01F	Plaster	No	S	Category II	ND/ND	2 nd Fl. E Bedroom Wall	NA
AM-HS-01G	Plaster	No	S	Category II	ND/ND	2 nd Fl. W Bedroom Wall	NA

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material
- PC = Point Count Analysis
- CH = Chrysotile Asbestos

Abbreviations

- NQ = Not quantified
- NA = Not applicable
- ND = Not detected. Laboratory result is less than 1 % asbestos
- lin. ft. = linear feet
- sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 750 Amity Ave., Muskegon, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Living (1 register, 15 sq. ft.) Dining (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) 2 nd Fl. E Bedroom (1 register, 20 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. W Bedroom (1 register, 20 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	170 sq. ft.
Basement (12 in. dia. HVAC Wrapped Ductwork, 12 lin. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	12 lin. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 750 Amity Ave., Muskegon, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement	Yellow Linoleum	No	160 sq. ft.
Basement	Beige Linoleum	No	145 sq. ft.
Total			305 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 register, 15 sq. ft.) Dining (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) 2 nd Fl. E Bedroom (1 register, 20 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. W Bedroom (1 register, 20 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	170 sq. ft.
Total			170 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Front Porch (10 metal windows 36" wide x 54" tall)	Glazing	Yes	10 Windows
Total			10 Windows
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (12 in. dia. HVAC Wrapped Ductwork, 12 lin. ft.)	HVAC Duct Wrap	Yes	12 lin. ft.
Total			12 lin. ft.

Notes:

Abbreviations

lin. ft. = linear feet
sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Table 4 - Summary of All Asbestos Containing Materials, 750 Amity Ave., Muskegon, Michigan

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
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Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
1617 Smith St., Muskegon, MI 49442
Parcel ID: 61-24-205-294-0011-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 1617 Smith St., Muskegon, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .18 acre residential parcel which contains a 440 sq. ft. detached garage and approximate 1,560 square foot residential building (the Building) with an unknown construction date. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom, two bedrooms and a rear entry on the first floor while the second floor contains three bedrooms and a bathroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

inspection of the Subject Property on March 23, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- 12"x12" Vinyl Tile
- 9"x9" Vinyl Tile
- 1'x1' Ceiling Tile
- 2'x4' Ceiling Tile
- Drywall and Joint Compound
- Fiberboard with Glue
- Window Caulk
- Window Glazing
- Plaster

Red Cedar staff collected fifty three samples of suspect ACBM separated into twenty four distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control

measures defined by AHERA. The laboratory analytical report prepared by APEX for the fifty three samples is included as Attachment A.

Hazardous Materials Inspection

On March 23, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, fifty three samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window caulk sample collected from a window in the Basement was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified four windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Basement (4 windows 32" wide x 12" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- 2nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Category I ACM

Five types of resilient floor covering (Brown Layered Rectangle Linoleum, 12"x12" White and Gray Vinyl Tile, Yellow Linoleum, Dark Gray Layered 9"x9" Vinyl Tile and Green 9"x9" Vinyl Tile) located within the Building were found to contain up to 40% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 612 sq. ft. of this material within the Building.

Category II ACM

Plaster samples, collected from the Dining Room were found to contain up to 2.25% asbestos following analysis. The assessment to quantify the extent of this material identified approximately 6,307 sq. ft. of plaster within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- 2nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Friable asbestos containing window glazing was identified on four windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Basement (4 windows 32" wide x 12" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

Plaster identified on the interior of the Building must be abated prior to completion of any renovation/demolition activities at the Subject Property. Any Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations must be properly abated.

The Category I resilient floor coverings (Brown Layered Rectangle Linoleum, 12"x12" White and Gray Vinyl Tile, Yellow Linoleum, Dark Gray Layered 9"x9" Vinyl Tile and Green 9"x9" Vinyl Tile) are non-friable ACM's that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Smoke Detector (1)
- Thermostat (1)
- Television (1)

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-205-294-0011-00

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-205-294-0011-00

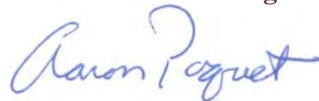
DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1617 Smith St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 01 Cust. #: SM-HM-01A Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 75836 - 02 Cust. #: SM-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 75836 - 03 Cust. #: SM-HM-02A Material: Green Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1617 Smith St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 03a Cust. #: SM-HM-02A Material: Vapor Paper Location: House Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75836 - 04 Cust. #: SM-HM-02B Material: Green Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75836 - 04a Cust. #: SM-HM-02B Material: Vapor Paper Location: House Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1617 Smith St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 05 Cust. #: SM-HM-03A Material: Rolled Roofing Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75836 - 05a Cust. #: SM-HM-03A Material: Vapor Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75836 - 06 Cust. #: SM-HM-03B Material: Rolled Roofing Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Project: 1617 Smith St.

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Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 06a Cust. #: SM-HM-03B Material: Vapor Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75836 - 07 Cust. #: SM-HM-04A Material: Brown Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75836 - 07a Cust. #: SM-HM-04A Material: Shingle Location: House Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 07b Cust. #: SM-HM-04A Material: Vapor Paper Location: House Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75836 - 08 Cust. #: SM-HM-04B Material: Brown Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75836 - 08a Cust. #: SM-HM-04B Material: Shingle Location: House Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 08b Cust. #: SM-HM-04B Material: Vapor Paper Location: House Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75836 - 09 Cust. #: SM-HM-05A Material: Brown Layered Rectangle Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 75836 - 10 Cust. #: SM-HM-05B Material: Brown Layered Rectangle Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 11 Cust. #: SM-HM-06A Material: 12x12 Layered White/Grey VFT Location: Appearance: green, fibrous, homogenous Layer: 1 of 6	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75836 - 11a Cust. #: SM-HM-06A Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 11b Cust. #: SM-HM-06A Material: Floor Tile Location: Appearance: beige, fibrous, homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 11c Cust. #: SM-HM-06A Material: Glue Location: Appearance: beige, nonfibrous, homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 11d Cust. #: SM-HM-06A Material: Thin Felt Location: Appearance: beige, fibrous, homogenous Layer: 5 of 6	Asbestos Present: YES Chrysotile - 40%	Other - 60%
Lab ID #: 75836 - 11e Cust. #: SM-HM-06A Material: Thick Felt Location: Appearance: brown, fibrous, homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 12 Cust. #: SM-HM-06B Material: 12x12 Layered White/Grey VFT Location: Appearance: Layer: 1 of 6	Asbestos Present: NOT ANALYZED	
Lab ID #: 75836 - 12a Cust. #: SM-HM-06B Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 12b Cust. #: SM-HM-06B Material: Floor Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 12c Cust. #: SM-HM-06B Material: Glue Location: Appearance: beige, nonfibrous, homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 12d Cust. #: SM-HM-06B Material: Thin Felt Location: Appearance: Layer: 5 of 6	Asbestos Present: NOT ANALYZED	
Lab ID #: 75836 - 12e Cust. #: SM-HM-06B Material: Thick Felt Location: Appearance: brown, fibrous, homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 13 Cust. #: SM-HM-07A Material: Gold Layered Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 13a Cust. #: SM-HM-07A Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 14 Cust. #: SM-HM-07B Material: Gold Layered Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 14a Cust. #: SM-HM-07B Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 15 Cust. #: SM-HM-08A Material: Yellow Linoleum Location: Appearance: yellow, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 75836 - 16 Cust. #: SM-HM-08B Material: Yellow Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 17 Cust. #: SM-HM-09A Material: Tan 9x9 VFT Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 18 Cust. #: SM-HM-09B Material: Tan 9x9 VFT Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 19 Cust. #: SM-HM-10A Material: Grey Layered 9x9 VFT Location: Appearance: beige, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 19a Cust. #: SM-HM-10A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 19b Cust. #: SM-HM-10A Material: Flooring/Felt Location: Appearance: brown,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 20 Cust. #: SM-HM-10B Material: Grey Layered 9x9 VFT Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 20a Cust. #: SM-HM-10B Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 20b Cust. #: SM-HM-10B Material: Flooring/Felt Location: Appearance: brown, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 21 Cust. #: SM-HM-11A Material: 1x1 White Popcorn Ceiling Tile Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Wollastonite - 2% Other - 28%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 22 Cust. #: SM-HM-11B Material: 1x1 White Popcorn Ceiling Tile Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Wollastonite - 2% Other - 28%
Lab ID #: 75836 - 23 Cust. #: SM-HM-12A Material: 1x1 White Swirl Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 24 Cust. #: SM-HM-12B Material: 1x1 White Swirl Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 25 Cust. #: SM-HM-13A Material: 1x1 White Line Texture Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 26 Cust. #: SM-HM-13B Material: 1x1 White Line Texture Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 27 Cust. #: SM-HM-14A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 28 Cust. #: SM-HM-14B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 29 Cust. #: SM-HM-15A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 29a Cust. #: SM-HM-15A Material: Glue Pod Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 30 Cust. #: SM-HM-15B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 30a Cust. #: SM-HM-15B Material: Glue Pod Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 31 Cust. #: SM-HM-16A Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1617 Smith St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 32 Cust. #: SM-HM-16B Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75836 - 33 Cust. #: SM-HM-17A Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 33a Cust. #: SM-HM-17A Material: Glue Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
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Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 34 Cust. #: SM-HM-17B Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 34a Cust. #: SM-HM-17B Material: Glue Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 35 Cust. #: SM-HM-18A Material: Basement Window Caulk Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75836
Date Collected: 03/23/18
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Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 36 Cust. #: SM-HM-18B Material: Basement Window Caulk Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75836 - 37 Cust. #: SM-HM-19A Material: Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 38 Cust. #: SM-HM-19B Material: Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
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Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 39 Cust. #: SM-HM-20A Material: Dark Grey Layered 9x9 VFT Location: Appearance: beige, fibrous, homogenous Layer: 1 of 5	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75836 - 39a Cust. #: SM-HM-20A Material: Glue Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 39b Cust. #: SM-HM-20A Material: Floor Tile Location: Appearance: blue, fibrous, homogenous Layer: 3 of 5	Asbestos Present: YES Chrysotile - 10%	Other - 90%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 39c Cust. #: SM-HM-20A Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 4 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 39d Cust. #: SM-HM-20A Material: Felt/Mastic Location: Appearance: black, fibrous, nonhomogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75836 - 40 Cust. #: SM-HM-20B Material: Dark Grey Layered 9x9 VFT Location: Appearance: Layer: 1 of 4	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 40a Cust. #: SM-HM-20B Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 40b Cust. #: SM-HM-20B Material: Floor Tile Location: Appearance: Layer: 3 of 4	Asbestos Present: NOT ANALYZED	
Lab ID #: 75836 - 40c Cust. #: SM-HM-20B Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 41 Cust. #: SM-HM-21A Material: 1x1 White Textured VFT Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 42 Cust. #: SM-HM-21B Material: 1x1 White Textured VFT Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 43 Cust. #: SM-HM-22A Material: Green 9x9 VFT Location: Appearance: green, fibrous, homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 43a Cust. #: SM-HM-22A Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 44 Cust. #: SM-HM-22B Material: Green 9x9 VFT Location: Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 75836 - 44a Cust. #: SM-HM-22B Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

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Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 45 Cust. #: SM-HM-23A Material: Multicolor Linoleum Location: Appearance: red, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 46 Cust. #: SM-HM-23B Material: Multicolor Linoleum Location: Appearance: red, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 47 Cust. #: SM-HS-01A Material: Plaster Texture Location: Appearance: beige, fibrous, homogenous Layer: 1 of 3	Asbestos Present: YES Chrysotile - 2.25% POINT COUNT RESULT	Wollastonite - 2% Other - 95.75%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 47a Cust. #: SM-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 47b Cust. #: SM-HS-01A Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75836 - 48 Cust. #: SM-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 48a Cust. #: SM-HS-01B Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75836 - 49 Cust. #: SM-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 49a Cust. #: SM-HS-01C Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 03/23/18
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Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 50 Cust. #: SM-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 50a Cust. #: SM-HS-01D Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75836 - 51 Cust. #: SM-HS-01E Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 52 Cust. #: SM-HS-01F Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: 75836 - 53 Cust. #: SM-HS-01G Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

Apex 75836

1 of 5



APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Lab Use Only
Log-In _____
Report _____

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739
Date of Survey: 3-23-18
Project: 1617 Smith St
Project #: _____
Contact Person: Aaron Paquet
apauquet@redcedarconsulting.net
PLM EPA 600, PC all samples with a detection of <5% ACM.

Turn Around Times: (Circle One)

Rush 24 hour
48 hour
72 hour

Other: IITP All Samples

Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	SM-HM-01A	Vapor Barrier			
2	SM-HM-01B	"			
3	SM-HM-02A	Green Roofing Shingle (Home)			
4	SM-HM-02B	"			
5	SM-HM-03A	Roller Roofing (Garage)			
6	SM-HM-03B	"			
7	SM-HM-04A	Brown Roofing Shingle (Home)			
8	SM-HM-04B	"			
9	SM-HM-05A	Brown Layered Rectangular Insulation			
10	SM-HM-05B	"			
11	SM-HM-06A	12x12 Layered White St. Gray VFT			

RECEIVED
MAR 26 2018

Relinquished by: Alex Received by: RDW
Date: 3-26-18 Date: 1-47
Date: 3-26-18 Date: 3/26/18

75836

2 of 5

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18

Project: 1417 Smith St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
apauquet@redcedarconsulting.net

Rush 24 hour
48 hour
72 hour

Other: TTP All Samples

Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	SM-HM-06B	12x12 Layered White & Gray VFT			
13	SM-HM-07A	12x12 Layered Sandstone			
14	SM-HM-07B	" "			
15	SM-HM-08A	Yellow Sandstone			
16	SM-HM-08B	" "			
17	SM-HM-09A	tan 9x9 VFT			
18	SM-HM-09B	" "			
19	SM-HM-10A	Gray Layered 9x9 VFT			
20	SM-HM-10B	" "			
21	SM-HM-11A	1x1 White Popcorn CT			
22	SM-HM-11B	" "			RECEIVED

Relinquished by: Aaron Paquet Received by: APEX

Date: 3-26-18 Date: 3-26-18

Relinquished by: _____ Received by: _____

Date: _____ Date: _____

MAR 26 2018
APEX RESEARCH

75836

3 of 5

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

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Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 5-23-18

Project: 1617 Smith St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One)

Rush 24 hour
48 hour
72 hour

Other: (TTP) All Samples

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	SM-HM-12A	1x1 white, swirl CT			
24	SM-HM-12B	" " " "			
25	SM-HM-13A	1x1 white, fine texture CT			
26	SM-HM-13B	" " " "			
27	SM-HM-14A	2x4 white, smooth CT			
28	SM-HM-14B	" " " "			
29	SM-HM-15A	1x1 white, smooth CT w/ glue pads			
30	SM-HM-15B	" " " "			
31	SM-HM-16A	Aluminum joint compound			
32	SM-HM-16B	" " " "			
33	SM-HM-17A	Fiberboard w/ glue			NOT REVEALED

Relinquished by: Alex Received by: Alex

Date: 3-26-18 Date: 3-26-18

Relinquished by: _____ Received by: MAR 26 2018
Date: _____ Date: APR 2 2018

75836

4 of 5

APEX Research, Inc.



11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18

Project: 1617 Smith St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour

Other: All Samples

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
34	SM-HM-17B	Fiberboard w/ glue			
35	SM-HM-18A	Basement Window Bulk			
36	SM-HM-18B	" "			
37	SM-HM-19A	Window Blazing			
38	SM-HM-19B	" "			
39	SM-HM-20A	Deck Heavy Layered 9x9 VFT			
40	SM-HM-20B	" " " "			
41	SM-HM-21A	1x1 white textured VFT			
42	SM-HM-21B	" " " "			
43	SM-HM-22A	Green 9x9 VFT			
44	SM-HM-22B	" " " "			RECEIVED

MAR 26 2018

Relinquished by: Alex Martens Received by: Apex

Date: 3-26-18 Date: 3-26-18

Received by: _____

Date: _____

75836

545

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18

Project: 1617 Smith St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour
48 hour
72 hour

Other: **TTP** All Samples

Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
45	SM-HM-23A	Multi Color Penicillium			
46	SM-HM-23B	" "			
47	SM-HS-01A	Plaster			
48	SM-HS-01B				
49	SM-HS-01C				
50	SM-HS-01D				
51	SM-HS-01E				
52	SM-HS-01F				
53	SM-HS-01G				

Relinquished by: Alex Received by: Apex
 Date: 3-26-18 Date: 3-26-18
 Relinquished by: _____ Received by: _____
 Date: _____ Date: _____

RECEIVED
MAR 26 2018
APEX RESEARCH

Tables

Table 1 - Summary of Hazardous Materials, 1617 Smith St., Muskegon, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Dining	Thermostat	1
Hallway	Smoke Detector	1
1 st Floor	Television	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1617 Smith St., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SM-HM-01A	Vapor Barrier	Yes	M	Category II	ND	House Exterior	NA
SM-HM-01B	Vapor Barrier	Yes	M	Category II	ND	House Exterior	NA
SM-HM-02A	Green Roofing Shingle	No	M	Category I	ND/ND	House Exterior	NA
SM-HM-02B	Green Roofing Shingle	No	M	Category I	ND/ND	House Exterior	NA
SM-HM-03A	Rolled Roofing	No	M	Category I	ND/ND	Garage Exterior	NA
SM-HM-03B	Rolled Roofing	No	M	Category I	ND/ND	Garage Exterior	NA
SM-HM-04A	Brown Roofing Shingle	No	M	Category I	ND/ND/ND	House Exterior	NA
SM-HM-04B	Brown Roofing Shingle	No	M	Category I	ND/ND/ND	House Exterior	NA
SM-HM-05A	Brown Layered Rectangle Linoleum	No	M	Category I	20%CH	Front Entry	65 sq. ft.
SM-HM-05B	Brown Layered Rectangle Linoleum	No	M	Category I	NA	Front Entry	NA
SM-HM-06A	12x12 Layered White and Gray Vinyl Tile	No	M	Category I	5%CH/ND/ND/ ND/40%CH	Kitchen	99 sq. ft.
SM-HM-06B	12x12 Layered White and Gray Vinyl Tile	No	M	Category I	NA/ND/ND/ ND/NA	Kitchen	NA
SM-HM-07A	Gold Layered Linoleum	No	M	Category I	ND/ND	Dining	NA
SM-HM-07B	Gold Layered Linoleum	No	M	Category I	ND/ND	Dining	NA
SM-HM-08A	Yellow Linoleum	No	M	Category I	20%CH	Stairway	45 sq. ft.
SM-HM-08B	Yellow Linoleum	No	M	Category I	ND	Stairway	NA
SM-HM-09A	Tan 9x9 Vinyl Tile	No	M	Category I	ND	NW Bedroom	NA
SM-HM-09B	Tan 9x9 Vinyl Tile	No	M	Category I	ND	NE Bedroom	NA
SM-HM-10A	Gray Layered 9x9 Vinyl Tile	No	M	Category I	ND/ND/ND	Hallway	NA
SM-HM-10B	Gray Layered 9x9 Vinyl Tile	No	M	Category I	ND/ND/ND	Hallway	NA
SM-HM-11A	1'x1' White Popcorn Ceiling Tile	Yes	M	Category II	ND	Front Entry	NA
SM-HM-11B	1'x1' White Popcorn Ceiling Tile	Yes	M	Category II	ND	Front Entry	NA
SM-HM-12A	1'x1' White Swirl Ceiling Tile	Yes	M	Category II	ND	Bathroom	NA
SM-HM-12B	1'x1' White Swirl Ceiling Tile	Yes	M	Category II	ND	Bathroom	NA
SM-HM-13A	1'x1' White Line Texture Ceiling Tile	Yes	M	Category II	ND	Living	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1617 Smith St., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SM-HM-13B	1'x1' White Line Texture Ceiling Tile	Yes	M	Category II	ND	Living	NA
SM-HM-14A	2'x4' White Smooth Ceiling Tile	Yes	M	Category II	ND	NW Bedroom	NA
SM-HM-14B	2'x4' White Smooth Ceiling Tile	Yes	M	Category II	ND	NW Bedroom	NA
SM-HM-15A	1'x1' White Smooth Ceiling Tile with Glue Pods	Yes	M	Category II	ND/ND	Kitchen	NA
SM-HM-15B	1'x1' White Smooth Ceiling Tile with Glue Pods	Yes	M	Category II	ND/ND	Kitchen	NA
SM-HM-16A	Drywall and Joint Compound	No	M	Category II	ND	Living Wall	NA
SM-HM-16B	Drywall and Joint Compound	No	M	Category II	ND	Dining Wall	NA
SM-HM-17A	Fiberboard with Glue	Yes	M	Category II	ND/ND	Kitchen Wall	NA
SM-HM-17B	Fiberboard with Glue	Yes	M	Category II	ND/ND	Kitchen Wall	NA
SM-HM-18A	Window Caulk	No	M	Category I	5%CH	Basement	4 Windows
SM-HM-18B	Window Caulk	No	M	Category I	NA	Basement	NA
SM-HM-19A	Window Glazing	Yes	M	Category II	ND	Dining	NA
SM-HM-19B	Window Glazing	Yes	M	Category II	ND	Living	NA
SM-HM-20A	Dark Gray Layered 9x9 Vinyl Tile	No	M	Category I	5%CH/ND/ 10%CH/ND/ND	2 nd Fl. SE Bedroom	271 sq. ft.
SM-HM-20B	Dark Gray Layered 9x9 Vinyl Tile	No	M	Category I	NA/ND/NA/ND	2 nd Fl. SW Bedroom	NA
SM-HM-21A	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	2 nd Fl. SW Bedroom	NA
SM-HM-21B	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	2 nd Fl. SE Bedroom	NA
SM-HM-22A	Green 9x9 Vinyl Tile	No	M	Category I	5%CH/ND	2 nd Fl. NE Bedroom	132 sq. ft.
SM-HM-22B	Green 9x9 Vinyl Tile	No	M	Category I	NA/ND	2 nd Fl. NE Bedroom	NA
SM-HM-23A	Multicolor Linoleum	No	M	Category I	ND	2 nd Fl. SW Bedroom Closet	NA
SM-HM-23B	Multicolor Linoleum	No	M	Category I	ND	2 nd Fl. SW Bedroom Closet	NA
SM-HS-01A	Plaster	No	S	Category II	2.25%CH/ND/N D	Dining Ceiling	6,307 sq. ft.
SM-HS-01B	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1617 Smith St., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SM-HS-01C	Plaster	No	S	Category II	ND/ND	NW Bedroom Wall	NA
SM-HS-01D	Plaster	No	S	Category II	ND/ND	NE Bedroom Wall	NA
SM-HS-01E	Plaster	No	S	Category II	ND	2 nd Fl. NE Bedroom Ceiling	NA
SM-HS-01F	Plaster	No	S	Category II	ND	2 nd Fl. SW Bedroom Wall	NA
SM-HS-01G	Plaster	No	S	Category II	ND	2 nd Fl. Bathroom Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 1617 Smith St., Muskegon, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
2 nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. SW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	140 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 1617 Smith St., Muskegon, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Front Entry	Brown Layered Rectangle Linoleum	No	65 sq. ft.
Kitchen	12"x12" White and Gray Vinyl Tile	No	99 sq. ft.
2 nd Fl. Stairway	Yellow Linoleum	No	45 sq. ft.
2 nd Fl. SW Bedroom	Dark Gray Layered 9"x9" Vinyl Tile	No	120 sq. ft.
2 nd Fl. SE Bedroom	Dark Gray Layered 9"x9" Vinyl Tile	No	130 sq. ft.
2 nd Fl. Hallway	Dark Gray Layered 9"x9" Vinyl Tile	No	21 sq. ft.
2 nd Fl. NE Bedroom	Green 9"x9" Vinyl Tile	No	132 sq. ft.
Total			612 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
2 nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	140 sq. ft.
2 nd Fl. SW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
2 nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
2 nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
Total			140 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (4 windows 32" wide x 12" tall)	Window Caulk	Yes	4 Windows
Total			4 Windows
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
1 st Floor	Wall Plaster	No	2,848 sq. ft.
1 st Floor	Ceiling Plaster	No	887 sq. ft.
2 nd Floor	Wall Plaster	No	2,016 sq. ft.
2 nd Floor	Ceiling Plaster	No	556 sq. ft.
Total			6,307 sq. ft.

Table 4 - Summary of All Asbestos Containing Materials, 1617 Smith St., Muskegon, Michigan

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

Revised Report: April 9, 2018
Original Report Dated: March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
Revised Inspection/Report: Ceiling Texture Samples collected on April 3, 2018 and added to Table 2. These samples verified that Texture identified on the Living and Dining Ceiling is Asbestos Containing.
1617 Smith St., Muskegon, MI 49442
Parcel ID: 61-24-205-294-0011-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 1617 Smith St., Muskegon, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .18 acre residential parcel which contains a 440 sq. ft. detached garage and approximate 1,560 square foot residential building (the Building) with an unknown construction date. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom, two bedrooms and a rear entry on the first floor while the second floor contains three bedrooms and a bathroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 23, 2018 and April 4, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- 12"x12" Vinyl Tile
- 9"x9" Vinyl Tile
- 1'x1' Ceiling Tile
- 2'x4' Ceiling Tile
- Drywall and Joint Compound
- Fiberboard with Glue
- Window Caulk
- Window Glazing
- Plaster
- Texture

Red Cedar staff collected fifty three samples of suspect ACBM separated into twenty four distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency

(EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the fifty three samples is included as Attachment A.

Hazardous Materials Inspection

On March 23, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, fifty three samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window caulk sample collected from a window in the Basement was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified four windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Basement (4 windows 32" wide x 12" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- 2nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Category I ACM

Five types of resilient floor covering (Brown Layered Rectangle Linoleum, 12"x12" White and Gray Vinyl Tile, Yellow Linoleum, Dark Gray Layered 9"x9" Vinyl Tile and Green 9"x9" Vinyl Tile) located within the Building were found to contain up to 40% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 612 sq. ft. of this material within the Building.

Category II ACM

Texture samples, collected from the Dining Room and Living Room ceilings were found to contain up to 2.25% asbestos following analysis. The assessment to quantify the extent of this material identified approximately 416 sq. ft. of texture within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- 2nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Friable asbestos containing window glazing was identified on four windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Basement (4 windows 32" wide x 12" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

Ceiling Texture identified on the interior of the Building must be abated prior to completion of any renovation/demolition activities at the Subject Property. Any Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations must be properly abated.

The Category I resilient floor coverings (Brown Layered Rectangle Linoleum, 12"x12" White and Gray Vinyl Tile, Yellow Linoleum, Dark Gray Layered 9"x9" Vinyl Tile and Green 9"x9" Vinyl Tile) are non-friable ACM's that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Smoke Detector (1)
- Thermostat (1)
- Television (1)

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-205-294-0011-00

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-205-294-0011-00

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1617 Smith St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 01 Cust. #: SM-HM-01A Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 75836 - 02 Cust. #: SM-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 75836 - 03 Cust. #: SM-HM-02A Material: Green Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 03a Cust. #: SM-HM-02A Material: Vapor Paper Location: House Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75836 - 04 Cust. #: SM-HM-02B Material: Green Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75836 - 04a Cust. #: SM-HM-02B Material: Vapor Paper Location: House Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 05 Cust. #: SM-HM-03A Material: Rolled Roofing Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75836 - 05a Cust. #: SM-HM-03A Material: Vapor Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75836 - 06 Cust. #: SM-HM-03B Material: Rolled Roofing Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 06a Cust. #: SM-HM-03B Material: Vapor Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75836 - 07 Cust. #: SM-HM-04A Material: Brown Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75836 - 07a Cust. #: SM-HM-04A Material: Shingle Location: House Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 07b Cust. #: SM-HM-04A Material: Vapor Paper Location: House Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75836 - 08 Cust. #: SM-HM-04B Material: Brown Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75836 - 08a Cust. #: SM-HM-04B Material: Shingle Location: House Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 08b Cust. #: SM-HM-04B Material: Vapor Paper Location: House Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75836 - 09 Cust. #: SM-HM-05A Material: Brown Layered Rectangle Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 75836 - 10 Cust. #: SM-HM-05B Material: Brown Layered Rectangle Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 11 Cust. #: SM-HM-06A Material: 12x12 Layered White/Grey VFT Location: Appearance: green, fibrous, homogenous Layer: 1 of 6	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75836 - 11a Cust. #: SM-HM-06A Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 11b Cust. #: SM-HM-06A Material: Floor Tile Location: Appearance: beige, fibrous, homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 11c Cust. #: SM-HM-06A Material: Glue Location: Appearance: beige, nonfibrous, homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 11d Cust. #: SM-HM-06A Material: Thin Felt Location: Appearance: beige, fibrous, homogenous Layer: 5 of 6	Asbestos Present: YES Chrysotile - 40%	Other - 60%
Lab ID #: 75836 - 11e Cust. #: SM-HM-06A Material: Thick Felt Location: Appearance: brown, fibrous, homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 12 Cust. #: SM-HM-06B Material: 12x12 Layered White/Grey VFT Location: Appearance: Layer: 1 of 6	Asbestos Present: NOT ANALYZED	
Lab ID #: 75836 - 12a Cust. #: SM-HM-06B Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 12b Cust. #: SM-HM-06B Material: Floor Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 12c Cust. #: SM-HM-06B Material: Glue Location: Appearance: beige, nonfibrous, homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 12d Cust. #: SM-HM-06B Material: Thin Felt Location: Appearance: Layer: 5 of 6	Asbestos Present: NOT ANALYZED	
Lab ID #: 75836 - 12e Cust. #: SM-HM-06B Material: Thick Felt Location: Appearance: brown, fibrous, homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 13 Cust. #: SM-HM-07A Material: Gold Layered Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 13a Cust. #: SM-HM-07A Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 14 Cust. #: SM-HM-07B Material: Gold Layered Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 14a Cust. #: SM-HM-07B Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 15 Cust. #: SM-HM-08A Material: Yellow Linoleum Location: Appearance: yellow, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 75836 - 16 Cust. #: SM-HM-08B Material: Yellow Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 17 Cust. #: SM-HM-09A Material: Tan 9x9 VFT Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 18 Cust. #: SM-HM-09B Material: Tan 9x9 VFT Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 19 Cust. #: SM-HM-10A Material: Grey Layered 9x9 VFT Location: Appearance: beige, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 19a Cust. #: SM-HM-10A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 19b Cust. #: SM-HM-10A Material: Flooring/Felt Location: Appearance: brown,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 20 Cust. #: SM-HM-10B Material: Grey Layered 9x9 VFT Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 20a Cust. #: SM-HM-10B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 20b Cust. #: SM-HM-10B Material: Flooring/Felt Location: Appearance: brown,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 21 Cust. #: SM-HM-11A Material: 1x1 White Popcorn Ceiling Tile Location: Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Wollastonite - 2% Other - 28%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 22 Cust. #: SM-HM-11B Material: 1x1 White Popcorn Ceiling Tile Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Wollastonite - 2% Other - 28%
Lab ID #: 75836 - 23 Cust. #: SM-HM-12A Material: 1x1 White Swirl Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 24 Cust. #: SM-HM-12B Material: 1x1 White Swirl Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1617 Smith St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 25 Cust. #: SM-HM-13A Material: 1x1 White Line Texture Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 26 Cust. #: SM-HM-13B Material: 1x1 White Line Texture Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 27 Cust. #: SM-HM-14A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 28 Cust. #: SM-HM-14B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 29 Cust. #: SM-HM-15A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 29a Cust. #: SM-HM-15A Material: Glue Pod Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 30 Cust. #: SM-HM-15B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 30a Cust. #: SM-HM-15B Material: Glue Pod Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 31 Cust. #: SM-HM-16A Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 32 Cust. #: SM-HM-16B Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75836 - 33 Cust. #: SM-HM-17A Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 33a Cust. #: SM-HM-17A Material: Glue Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 34 Cust. #: SM-HM-17B Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 34a Cust. #: SM-HM-17B Material: Glue Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 35 Cust. #: SM-HM-18A Material: Basement Window Caulk Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 36 Cust. #: SM-HM-18B Material: Basement Window Caulk Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75836 - 37 Cust. #: SM-HM-19A Material: Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 38 Cust. #: SM-HM-19B Material: Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 39 Cust. #: SM-HM-20A Material: Dark Grey Layered 9x9 VFT Location: Appearance: beige, fibrous, homogenous Layer: 1 of 5	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75836 - 39a Cust. #: SM-HM-20A Material: Glue Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 39b Cust. #: SM-HM-20A Material: Floor Tile Location: Appearance: blue, fibrous, homogenous Layer: 3 of 5	Asbestos Present: YES Chrysotile - 10%	Other - 90%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 39c Cust. #: SM-HM-20A Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 4 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 39d Cust. #: SM-HM-20A Material: Felt/Mastic Location: Appearance: black, fibrous, nonhomogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75836 - 40 Cust. #: SM-HM-20B Material: Dark Grey Layered 9x9 VFT Location: Appearance: Layer: 1 of 4	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 40a Cust. #: SM-HM-20B Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 40b Cust. #: SM-HM-20B Material: Floor Tile Location: Appearance: Layer: 3 of 4	Asbestos Present: NOT ANALYZED	
Lab ID #: 75836 - 40c Cust. #: SM-HM-20B Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 41 Cust. #: SM-HM-21A Material: 1x1 White Textured VFT Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 42 Cust. #: SM-HM-21B Material: 1x1 White Textured VFT Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75836 - 43 Cust. #: SM-HM-22A Material: Green 9x9 VFT Location: Appearance: green, fibrous, homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%

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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 43a Cust. #: SM-HM-22A Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 44 Cust. #: SM-HM-22B Material: Green 9x9 VFT Location: Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 75836 - 44a Cust. #: SM-HM-22B Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 45 Cust. #: SM-HM-23A Material: Multicolor Linoleum Location: Appearance: red, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 46 Cust. #: SM-HM-23B Material: Multicolor Linoleum Location: Appearance: red, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75836 - 47 Cust. #: SM-HS-01A Material: Plaster Texture Location: Appearance: beige, fibrous, homogenous Layer: 1 of 3	Asbestos Present: YES Chrysotile - 2.25% POINT COUNT RESULT	Wollastonite - 2% Other - 95.75%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 47a Cust. #: SM-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 47b Cust. #: SM-HS-01A Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75836 - 48 Cust. #: SM-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 48a Cust. #: SM-HS-01B Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75836 - 49 Cust. #: SM-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 49a Cust. #: SM-HS-01C Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 50 Cust. #: SM-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75836 - 50a Cust. #: SM-HS-01D Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75836 - 51 Cust. #: SM-HS-01E Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%

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Apex 75836

1 of 5



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E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Lab Use Only
Log-In _____
Report _____

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739
Date of Survey: 3-23-18
Project: 1617 Smith St
Project #: _____
Contact Person: Aaron Paquet
apauquet@redcedarconsulting.net
PLM EPA 600, PC all samples with a detection of <5% ACM.

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.

Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Rush 24 hour
48 hour
72 hour

Other: ITP All Samples

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	SM-HM-01A	Vapor Barrier			
2	SM-HM-01B	"			
3	SM-HM-02A	Green Roofing Shingle (Home)			
4	SM-HM-02B	"			
5	SM-HM-03A	Roller Roofing (Garage)			
6	SM-HM-03B	"			
7	SM-HM-04A	Brown Roofing Shingle (Home)			
8	SM-HM-04B	"			
9	SM-HM-05A	Brown Layered Rectangular Insulation			
10	SM-HM-05B	"			
11	SM-HM-06A	12x12 Layered White St. Gray VFT			

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MAR 26 2018

Relinquished by: Alex Received by: RDW
Date: 3-26-18 Date: 1-47
Date: 3-26-18 Date: 3/26/18

75836

2 of 5

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18

Project: 1417 Smith St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaqet@redcedarconsulting.net

Rush 24 hour
48 hour
72 hour

Other: TTP All Samples

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	SM-HM-06B	12x12 Layered White & Gray VFT			
13	SM-HM-07A	12x12 Layered Sandstone			
14	SM-HM-07B	" "			
15	SM-HM-08A	Yellow Sandstone			
16	SM-HM-08B	" "			
17	SM-HM-09A	tan 9x9 VFT			
18	SM-HM-09B	" "			
19	SM-HM-10A	Gray Layered 9x9 VFT			
20	SM-HM-10B	" "			
21	SM-HM-11A	1x1 White Popcorn CT			
22	SM-HM-11B	" "			RECEIVED

Relinquished by: Aaron Paquet Received by: APEX

Date: 3-26-18 Date: 3-26-18

Relinquished by: _____ Received by: _____

Date: _____ Date: _____

MAR 26 2018
APEX RESEARCH

75836

3 of 5

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 5-23-18

Project: 1617 Smith St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.

Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Rush 24 hour
48 hour
72 hour

Other: (TTP) All Samples

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	SM-HM-12A	1x1 white, swirl CT			
24	SM-HM-12B	" " " "			
25	SM-HM-13A	1x1 white, fine texture CT			
26	SM-HM-13B	" " " "			
27	SM-HM-14A	2x4 white, smooth CT			
28	SM-HM-14B	" " " "			
29	SM-HM-15A	1x1 white, smooth CT w/ glue pads			
30	SM-HM-15B	" " " "			
31	SM-HM-16A	Aluminum joint compound			
32	SM-HM-16B	" " " "			
33	SM-HM-17A	Fiberboard w/ glue			NOT REVEALED

Relinquished by: Alex Received by: Alex
Date: 3-26-18 Date: 3-26-18

Relinquished by: _____ Received by: _____
Date: _____ Date: MAR 26 2018

75836

4 of 5

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18

Project: 1617 Smith St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour

Other: All Samples

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
34	SM-HM-17B	Fiberboard w/ glue			
35	SM-HM-18A	Basement Window Bulk			
36	SM-HM-18B	" "			
37	SM-HM-19A	Window Blazing			
38	SM-HM-19B	" "			
39	SM-HM-20A	Deck Heavy Layered 9x9 VFT			
40	SM-HM-20B	" " " "			
41	SM-HM-21A	1x1 white textured VFT			
42	SM-HM-21B	" " " "			
43	SM-HM-22A	Green 9x9 VFT			
44	SM-HM-22B	" " " "			RECEIVED

Relinquished by: Alex Martens Received by: Apex
 Date: 3-26-18 Date: 3-26-18

Relinquished by: _____ Received by: _____
 Date: _____ Date: _____

MAR 26 2018

APEX RESEARCH

75836

545

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-23-18

Project: 1617 Smith St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour
48 hour
72 hour

Other: **TTP** All Samples

Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
45	SM-HM-23A	Multi Color Penicillium			
46	SM-HM-23B	" "			
47	SM-HS-01A	Plaster			
48	SM-HS-01B				
49	SM-HS-01C				
50	SM-HS-01D				
51	SM-HS-01E				
52	SM-HS-01F				
53	SM-HS-01G				

Relinquished by: Alex Received by: Apex
 Date: 3-26-18 Date: 3-26-18
 Relinquished by: _____ Received by: _____
 Date: _____ Date: _____

RECEIVED
MAR 26 2018
APEX RESEARCH



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1617 Smith St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75836
Date Collected: 03/23/18
Date Received: 03/26/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75836 - 52 Cust. #: SM-HS-01F Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: 75836 - 53 Cust. #: SM-HS-01G Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1617 Smith St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-76105
Date Collected: 04/03/18
Date Received: 04/06/18
Date Analyzed: 04/06/18
Date Reported: 04/09/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 76105 - 01 Cust. #: SM-HS-02A Material: Texture Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.75% POINT COUNT RESULT	Other - 98.25%
Lab ID #: 76105 - 02 Cust. #: SM-HS-02B Material: Texture Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

Tables

Table 1 - Summary of Hazardous Materials, 1617 Smith St., Muskegon, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Dining	Thermostat	1
Hallway	Smoke Detector	1
1 st Floor	Television	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1617 Smith St., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SM-HM-01A	Vapor Barrier	Yes	M	Category II	ND	House Exterior	NA
SM-HM-01B	Vapor Barrier	Yes	M	Category II	ND	House Exterior	NA
SM-HM-02A	Green Roofing Shingle	No	M	Category I	ND/ND	House Exterior	NA
SM-HM-02B	Green Roofing Shingle	No	M	Category I	ND/ND	House Exterior	NA
SM-HM-03A	Rolled Roofing	No	M	Category I	ND/ND	Garage Exterior	NA
SM-HM-03B	Rolled Roofing	No	M	Category I	ND/ND	Garage Exterior	NA
SM-HM-04A	Brown Roofing Shingle	No	M	Category I	ND/ND/ND	House Exterior	NA
SM-HM-04B	Brown Roofing Shingle	No	M	Category I	ND/ND/ND	House Exterior	NA
SM-HM-05A	Brown Layered Rectangle Linoleum	No	M	Category I	20%CH	Front Entry	65 sq. ft.
SM-HM-05B	Brown Layered Rectangle Linoleum	No	M	Category I	NA	Front Entry	NA
SM-HM-06A	12x12 Layered White and Gray Vinyl Tile	No	M	Category I	5%CH/ND/ND/ ND/40%CH	Kitchen	99 sq. ft.
SM-HM-06B	12x12 Layered White and Gray Vinyl Tile	No	M	Category I	NA/ND/ND/ ND/NA	Kitchen	NA
SM-HM-07A	Gold Layered Linoleum	No	M	Category I	ND/ND	Dining	NA
SM-HM-07B	Gold Layered Linoleum	No	M	Category I	ND/ND	Dining	NA
SM-HM-08A	Yellow Linoleum	No	M	Category I	20%CH	Stairway	45 sq. ft.
SM-HM-08B	Yellow Linoleum	No	M	Category I	ND	Stairway	NA
SM-HM-09A	Tan 9x9 Vinyl Tile	No	M	Category I	ND	NW Bedroom	NA
SM-HM-09B	Tan 9x9 Vinyl Tile	No	M	Category I	ND	NE Bedroom	NA
SM-HM-10A	Gray Layered 9x9 Vinyl Tile	No	M	Category I	ND/ND/ND	Hallway	NA
SM-HM-10B	Gray Layered 9x9 Vinyl Tile	No	M	Category I	ND/ND/ND	Hallway	NA
SM-HM-11A	1'x1' White Popcorn Ceiling Tile	Yes	M	Category II	ND	Front Entry	NA
SM-HM-11B	1'x1' White Popcorn Ceiling Tile	Yes	M	Category II	ND	Front Entry	NA
SM-HM-12A	1'x1' White Swirl Ceiling Tile	Yes	M	Category II	ND	Bathroom	NA
SM-HM-12B	1'x1' White Swirl Ceiling Tile	Yes	M	Category II	ND	Bathroom	NA
SM-HM-13A	1'x1' White Line Texture Ceiling Tile	Yes	M	Category II	ND	Living	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1617 Smith St., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SM-HM-13B	1'x1' White Line Texture Ceiling Tile	Yes	M	Category II	ND	Living	NA
SM-HM-14A	2'x4' White Smooth Ceiling Tile	Yes	M	Category II	ND	NW Bedroom	NA
SM-HM-14B	2'x4' White Smooth Ceiling Tile	Yes	M	Category II	ND	NW Bedroom	NA
SM-HM-15A	1'x1' White Smooth Ceiling Tile with Glue Pods	Yes	M	Category II	ND/ND	Kitchen	NA
SM-HM-15B	1'x1' White Smooth Ceiling Tile with Glue Pods	Yes	M	Category II	ND/ND	Kitchen	NA
SM-HM-16A	Drywall and Joint Compound	No	M	Category II	ND	Living Wall	NA
SM-HM-16B	Drywall and Joint Compound	No	M	Category II	ND	Dining Wall	NA
SM-HM-17A	Fiberboard with Glue	Yes	M	Category II	ND/ND	Kitchen Wall	NA
SM-HM-17B	Fiberboard with Glue	Yes	M	Category II	ND/ND	Kitchen Wall	NA
SM-HM-18A	Window Caulk	No	M	Category I	5%CH	Basement	4 Windows
SM-HM-18B	Window Caulk	No	M	Category I	NA	Basement	NA
SM-HM-19A	Window Glazing	Yes	M	Category II	ND	Dining	NA
SM-HM-19B	Window Glazing	Yes	M	Category II	ND	Living	NA
SM-HM-20A	Dark Gray Layered 9x9 Vinyl Tile	No	M	Category I	5%CH/ND/ 10%CH/ND/ND	2 nd Fl. SE Bedroom	271 sq. ft.
SM-HM-20B	Dark Gray Layered 9x9 Vinyl Tile	No	M	Category I	NA/ND/NA/ND	2 nd Fl. SW Bedroom	NA
SM-HM-21A	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	2 nd Fl. SW Bedroom	NA
SM-HM-21B	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	2 nd Fl. SE Bedroom	NA
SM-HM-22A	Green 9x9 Vinyl Tile	No	M	Category I	5%CH/ND	2 nd Fl. NE Bedroom	132 sq. ft.
SM-HM-22B	Green 9x9 Vinyl Tile	No	M	Category I	NA/ND	2 nd Fl. NE Bedroom	NA
SM-HM-23A	Multicolor Linoleum	No	M	Category I	ND	2 nd Fl. SW Bedroom Closet	NA
SM-HM-23B	Multicolor Linoleum	No	M	Category I	ND	2 nd Fl. SW Bedroom Closet	NA
SM-HS-01A	Plaster (Texture 2.25%CH)	No	S	Category II	2.25%CH/ ND/ND	Dining Ceiling	See Sample SM-HS-02A
SM-HS-01B	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1617 Smith St., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SM-HS-01C	Plaster	No	S	Category II	ND/ND	NW Bedroom Wall	NA
SM-HS-01D	Plaster	No	S	Category II	ND/ND	NE Bedroom Wall	NA
SM-HS-01E	Plaster	No	S	Category II	ND	2 nd Fl. NE Bedroom Ceiling	NA
SM-HS-01F	Plaster	No	S	Category II	ND	2 nd Fl. SW Bedroom Wall	NA
SM-HS-01G	Plaster	No	S	Category II	ND	2 nd Fl. Bathroom Wall	NA
SM-HS-02A	Texture	No	S	Category II	1.75%CH-PC	Living Ceiling	416 sq. ft.
SM-HS-02B	Texture	No	S	Category II	NA	Dining Ceiling	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 1617 Smith St., Muskegon, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
2 nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. SW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	140 sq. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

- lin. ft. = linear feet
- sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 1617 Smith St., Muskegon, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Front Entry	Brown Layered Rectangle Linoleum	No	65 sq. ft.
Kitchen	12"x12" White and Gray Vinyl Tile	No	99 sq. ft.
2 nd Fl. Stairway	Yellow Linoleum	No	45 sq. ft.
2 nd Fl. SW Bedroom	Dark Gray Layered 9"x9" Vinyl Tile	No	120 sq. ft.
2 nd Fl. SE Bedroom	Dark Gray Layered 9"x9" Vinyl Tile	No	130 sq. ft.
2 nd Fl. Hallway	Dark Gray Layered 9"x9" Vinyl Tile	No	21 sq. ft.
2 nd Fl. NE Bedroom	Green 9"x9" Vinyl Tile	No	132 sq. ft.
Total			612 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
2 nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	140 sq. ft.
2 nd Fl. SW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
2 nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
2 nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
Total			140 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (4 windows 32" wide x 12" tall)	Window Caulk	Yes	4 Windows
Total			4 Windows
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living Ceiling	Ceiling Texture	No	208 sq. ft.
Dining Ceiling	Ceiling Texture	No	208 sq. ft.
Total			416 sq. ft.

Notes:

Table 4 - Summary of All Asbestos Containing Materials, 1617 Smith St., Muskegon, Michigan

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
1699 Pine St., Muskegon, MI 49442
Parcel ID: 61-24-205-298-0023-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 1699 Pine St., Muskegon, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .12 acre residential parcel which contains a 430 sq. ft. detached garage and approximate 982 square foot residential building (the Building) with an unknown construction date. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with Transite siding over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom and three bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 20, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- Drywall and Joint Compound
- 1'x1' Ceiling Tile
- Window Glazing
- 2'x4' Ceiling Tile
- Plaster

Red Cedar staff collected twenty one samples of suspect ACBM separated into nine distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty one samples is included as Attachment A.

Hazardous Materials Inspection

On March 20, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty one samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building and the Cementitious “Transite” Siding on the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Living (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

The cementitious "Transite" siding located on the exterior of the Building was classified as PACM and no samples were collected. The visual assessment to quantify the extent of this material identified 1,100 sq. ft. of cementitious (Transite) siding on the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Living (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)

Transite siding was identified on the exterior of the Building and must be abated prior to completion of any demolition activities at the Subject Property. In demolition, all cementitious ACM must be removed prior to demolition due to the likelihood of becoming regulated due to the demolition process.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Smoke Detector (5)

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-205-298-0023-00

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-205-298-0023-00

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1699 Pine St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75736
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75736 - 01 Cust. #: PS-HM-01A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75736 - 02 Cust. #: PS-HM-01B Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75736 - 03 Cust. #: PS-HM-02A Material: Roofing Shingle/Tar Paper Location: House Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1699 Pine St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75736
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75736 - 04 Cust. #: PS-HM-02B Material: Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75736 - 05 Cust. #: PS-HM-03A Material: Roofing Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75736 - 06 Cust. #: PS-HM-03B Material: Roofing Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

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Robert T. Letarte Jr., Laboratory Director

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Report To:
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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75736
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75736 - 07 Cust. #: PS-HM-04A Material: Grey Multilayer Linoleum Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75736 - 07a Cust. #: PS-HM-04A Material: Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75736 - 08 Cust. #: PS-HM-04B Material: Grey Multilayer Linoleum Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%

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Lansing, MI 48901

ARI Report # 18-75736
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75736 - 08a Cust. #: PS-HM-04B Material: Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75736 - 09 Cust. #: PS-HM-05A Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75736 - 09a Cust. #: PS-HM-05A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

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 Lansing, MI 48901

ARI Report # 18-75736
 Date Collected: 03/20/18
 Date Received: 03/21/18
 Date Analyzed: 03/26/18
 Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75736 - 10 Cust. #: PS-HM-05B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75736 - 10a Cust. #: PS-HM-05B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75736 - 11 Cust. #: PS-HM-06A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75736
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75736 - 12 Cust. #: PS-HM-06B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 75736 - 13 Cust. #: PS-HM-07A Material: Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - 0.25% POINT COUNT RESULT	Other - 99.75%
Lab ID #: 75736 - 14 Cust. #: PS-HM-07B Material: Window Glazing Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - 0.50% POINT COUNT RESULT	Other - 99.50%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75736
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75736 - 15 Cust. #: PS-HM-08A Material: 2x4 White Ceiling Tile w/ Pinholes Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Mineral Wool - 35% Other - 30%
Lab ID #: 75736 - 16 Cust. #: PS-HM-08B Material: 2x4 White Ceiling Tile w/ Pinholes Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Mineral Wool - 35% Other - 30%
Lab ID #: 75736 - 17 Cust. #: PS-HS-01A Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75736
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75736 - 17a Cust. #: PS-HS-01A Material: Mortar Location: Appearance: grey, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75736 - 18 Cust. #: PS-HS-01B Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75736 - 18a Cust. #: PS-HS-01B Material: Mortar Location: Appearance: grey, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Lansing, MI 48901

ARI Report # 18-75736
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75736 - 19 Cust. #: PS-HS-01C Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75736 - 19a Cust. #: PS-HS-01C Material: Mortar Location: Appearance: grey, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75736 - 20 Cust. #: PS-HS-01D Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Certificate of Laboratory Analysis

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ARI Report # 18-75736
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75736 - 20a Cust. #: PS-HS-01D Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75736 - 21 Cust. #: PS-HS-01E Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75736 - 21a Cust. #: PS-HS-01E Material: Mortar Location: Appearance: grey, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

Apex 75736

1 of 2



AREA research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18

Project: 1699 Pine St

Project #: _____

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
apauquet@redcedarconsulting.net

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____
Other: 5 day All Samples

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	PS-HM-01A	Vapor Barrier			
2	PS-HM-01B	" "			
3	PS-HM-02A	Roofing Shingle (House)			
4	PS-HM-02B	" "			
5	PS-HM-03A	Roofing Shingle (Storage)			
6	PS-HM-03B	" "			
7	PS-HM-04A	Gray Multi-layered Linoleum			
8	PS-HM-04B	" "			
9	PS-HM-05A	Asphalt & Joint Compound			
10	PS-HM-05B	" "			
11	PS-HM-06A	1x1 white smooth CT			

RECEIVED
10:01
MAR 21 2018

Relinquished by: UFS Received by: _____

Date: 3-20-18 Date: 3-20-18

Relinquished by: _____

Date: _____

Received by: _____

Date: _____

75736

292

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18

Project: 1699 Pine St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. *apaquet@redcedarconsulting.net*

Rush 24 hour

48 hour 72 hour

Other: 5 day All samples

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	PS-HM-06B	1x1 white smooth CT			
13	PS-HM-07A	Window Slegging			
14	PS-HM-07B	" "			
15	PS-HM-08A	2x4 white CT w/pindoles			
16	PS-HM-08B	" "			
17	PS-HS-01A	Plaster			
18	PS-HS-01B				
19	PS-HS-01C				
20	PS-HS-01D				
21	PS-HS-01E				

Relinquished by: [Signature] Received by: UPS
 Date: 3-20-18 Date: 3-20-18
 Relinquished by: _____ Received by: _____
 Date: _____ Date: MAR 21 2018
RECEIVED
 APEX RESEARCH

Tables

Table 1 - Summary of Hazardous Materials, 1699 Pine St., Muskegon, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
SW Bedroom	Smoke Detector	1
SE Bedroom	Smoke Detector	1
NW Bedroom	Smoke Detector	1
Hallway	Smoke Detector	1
Basement	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1699 Pine St., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
PS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
PS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
PS-HM-02A	Roofing Materials	No	M	Category I	ND	House Exterior	NA
PS-HM-02B	Roofing Materials	No	M	Category I	ND	House Exterior	NA
PS-HM-03A	Roofing Materials	No	M	Category I	ND	Garage Exterior	NA
PS-HM-03B	Roofing Materials	No	M	Category I	ND	Garage Exterior	NA
PS-HM-04A	Gray Multilayer Linoleum	No	M	Category I	ND/ND	Kitchen	NA
PS-HM-04B	Gray Multilayer Linoleum	No	M	Category I	ND/ND	Kitchen	NA
PS-HM-05A	Drywall and Joint Compound	No	M	Category II	ND/ND	Living Ceiling	NA
PS-HM-05B	Drywall and Joint Compound	No	M	Category II	ND/ND	Kitchen Wall	NA
PS-HM-06A	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Front Entry	NA
PS-HM-06B	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Front Entry	NA
PS-HM-07A	Window Glazing	Yes	M	Category II	0.25%CH-PC	NW Bedroom	NA
PS-HM-07B	Window Glazing	Yes	M	Category II	0.50%CH-PC	Kitchen	NA
PS-HM-08A	2'x4' White Ceiling Tile	Yes	M	Category II	ND	Basement	NA
PS-HM-08B	2'x4' White Ceiling Tile	Yes	M	Category II	ND	Basement	NA
PS-HS-01A	Plaster	No	S	Category II	ND/ND	Kitchen Ceiling	NA
PS-HS-01B	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA
PS-HS-01C	Plaster	No	S	Category II	ND/ND	Living Wall	NA
PS-HS-01D	Plaster	No	S	Category II	ND/ND	Kitchen Wall	NA
PS-HS-01E	Plaster	No	S	Category II	ND/ND	NW Bedroom Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1699 Pine St., Muskegon, Michigan

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 1699 Pine St., Muskegon, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Building Exterior	Transite Siding	No	Fair	M	1,100 sq. ft.
Living (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	30 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 1699 Pine St., Muskegon, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.)	HVAC Duct Wrap	Yes	30 sq. ft.
Total			30 sq. ft.
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Exterior	Transite Siding	No	1,100 sq. ft.
Total			1,100 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

**RE: *Asbestos Containing Material and Hazardous Materials Inspection
1725 Wood St., Muskegon, MI 49442
Parcel ID: 61-24-205-296-0017-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 1725 Wood St., Muskegon, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .11 acre residential parcel which contains an approximate 872 square foot residential building (the Building) with an unknown construction date. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with aluminum over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and two bedrooms on the first floor while the second floor contains one room.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 20, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- 12"x12" Vinyl Tile
- Drywall and Joint Compound
- Window Glazing
- Plaster

Red Cedar staff collected twenty seven samples of suspect ACBM separated into twelve distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty seven samples is included as Attachment A.

Hazardous Materials Inspection

On March 20, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty seven samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Living (1 register, 15 sq. ft.)
- Dining (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Framing, 25 sq. ft.)
- Basement (misc. HVAC wrap on Cold Air Return Ductwork, 25 sq. ft.)

- Basement (12 in. dia. HVAC Wrapped Ductwork, 35 lin. ft.)

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Living (1 register, 15 sq. ft.)
- Dining (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Framing, 25 sq. ft.)
- Basement (misc. HVAC wrap on Cold Air Return Ductwork, 25 sq. ft.)

- Basement (12 in. dia. HVAC Wrapped Ductwork, 35 lin. ft.)

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- 2' Fluorescent Light (Fixture and Ballast Only) (1)
- 2' Fluorescent Bulb (1)
- 4' Fluorescent Light (Fixture and Ballast Only) (4)
- 4' Fluorescent Bulb (6)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-205-296-0017-00

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1725 Wood St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75735
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 01 Cust. #: WS-HM-01A Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75735 - 02 Cust. #: WS-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75735 - 03 Cust. #: WS-HM-02A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



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Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 03a Cust. #: WS-HM-02A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75735 - 04 Cust. #: WS-HM-02B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75735 - 04a Cust. #: WS-HM-02B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Robert T. Letarte Jr., Laboratory Director

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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 05 Cust. #: WS-HM-03A Material: Woodgrain Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 75735 - 06 Cust. #: WS-HM-03B Material: Woodgrain Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 75735 - 07 Cust. #: WS-HM-04A Material: 12x12 Burgundy Multilayer VFT Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 08 Cust. #: WS-HM-04B Material: 12x12 Burgundy Multilayer VFT Location: Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75735 - 09 Cust. #: WS-HM-05A Material: 12x12 Parquet VFT Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75735 - 09a Cust. #: WS-HM-05A Material: Linoleum Location: Appearance: white,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 10 Cust. #: WS-HM-05B Material: 12x12 Parquet VFT Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75735 - 10a Cust. #: WS-HM-05B Material: Linoleum Location: Appearance: white, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75735 - 11 Cust. #: WS-HM-06A Material: Beige Linoleum Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 12 Cust. #: WS-HM-06B Material: Beige Linoleum Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75735 - 13 Cust. #: WS-HM-07A Material: White/Grey Linoleum Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75735 - 14 Cust. #: WS-HM-07B Material: White/Grey Linoleum Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 15 Cust. #: WS-HM-08A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75735 - 15a Cust. #: WS-HM-08A Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75735 - 16 Cust. #: WS-HM-08B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 16a Cust. #: WS-HM-08B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75735 - 17 Cust. #: WS-HM-09A Material: Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75735 - 18 Cust. #: WS-HM-09B Material: Window Glazing Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 19 Cust. #: WS-HM-10A Material: Blue Multilayer Linoleum Location: Appearance: white, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75735 - 19a Cust. #: WS-HM-10A Material: Linoleum Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75735 - 20 Cust. #: WS-HM-10B Material: Blue Multilayer Linoleum Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1725 Wood St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75735
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 20a Cust. #: WS-HM-10B Material: Linoleum Location: Appearance: white, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75735 - 21 Cust. #: WS-HM-11A Material: White Linoleum Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75735 - 22 Cust. #: WS-HM-11B Material: White Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1725 Wood St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75735
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 23 Cust. #: WS-HS-01A Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75735 - 23a Cust. #: WS-HS-01A Material: Mortar Location: Appearance: grey, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75735 - 24 Cust. #: WS-HS-01B Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1725 Wood St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75735
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 24a Cust. #: WS-HS-01B Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75735 - 25 Cust. #: WS-HS-01C Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75735 - 25a Cust. #: WS-HS-01C Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1725 Wood St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75735
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 26 Cust. #: WS-HS-01D Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75735 - 26a Cust. #: WS-HS-01D Material: Mortar Location: Appearance: grey, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75735 - 27 Cust. #: WS-HS-01E Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1725 Wood St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75735
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75735 - 27a Cust. #: WS-HS-01E Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



APEX research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3.20.18

Project: 1725 Wood St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
 Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: 5 day All Samples

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
 Log-In _____
 Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	WS-HM-01A	Vapor Barrier			
2	WS-HM-01B	"			
3	WS-HM-02A	Roofing Shingle			
4	WS-HM-02B	"			
5	WS-HM-03A	Woodgrain Linoleum			
6	WS-HM-03B	"			
7	WS-HM-05A	12x12 Burgundy Multi Layer VFT			
8	WS-HM-05B	"			
9	WS-HM-09A	12x12 Parkway VFT			
10	WS-HM-09B	"			
11	WS-HM-06A	Beige Linoleum			

RECEIVED

Received by: [Signature] Date: MAR 21 2018

Relinquished by: _____ Date: _____

Relinquished by: [Signature] Received by: UTS Date: 3-20-18

Date: 3-20-18 Date: 3-20-18

75735

2 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Turn Around Times: (Circle One)

Rush 24 hour

48 hour 72 hour

Other: 5 day **TTP** All Samples

Date of Survey: 3-20-18

Project: 1725 Wood St

Project #:

Contact Person: Aaron Paquet

PLM EPA 600, PC all samples with a detection of <5% ACM.
apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	WS-HM-06B	Beige Linoleum			
13	WS-HM-07A	White & Gray Linoleum			
14	WS-HM-07B	" " " "			
15	WS-HM-08A	Allylwall & Joint Compound			
16	WS-HM-08B	" " " "			
17	WS-HM-09A	Window Sillaging			
18	WS-HM-09B	" " " "			
19	WS-HM-10A	Black Multi-Layer Linoleum			
20	WS-HM-10B	" " " "			
21	WS-HM-11A	White Linoleum			
22	WS-HM-11B	" " " "			

Relinquished by: A. Paquet Received by: UPS Relinquished by: REPEL Received by: REPEL
 Date: 3-20-18 Date: 3-20-18 Date: MAR 21 2018 Date: MAR 21 2018

Tables

Table 1 - Summary of Hazardous Materials, 1725 Wood St., Muskegon, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Living	4' Fluorescent Light (Fixture and Ballast Only)	2
Living	4' Fluorescent Bulb	4
Kitchen	2' Fluorescent Light (Fixture and Ballast Only)	1
Kitchen	2' Fluorescent Bulb	1
Basement	4' Fluorescent Light (Fixture and Ballast Only)	2
Basement	4' Fluorescent Bulb	2

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1725 Wood St., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
WS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
WS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
WS-HM-02A	Roofing Materials	No	M	Category I	ND/ND	Exterior	NA
WS-HM-02B	Roofing Materials	No	M	Category I	ND/ND	Exterior	NA
WS-HM-03A	Woodgrain Linoleum	No	M	Category I	ND	Living	NA
WS-HM-03B	Woodgrain Linoleum	No	M	Category I	ND	Living	NA
WS-HM-04A	12x12 Parkay Vinyl Tile	No	M	Category I	ND/ND	Dining	NA
WS-HM-04B	12x12 Parkay Vinyl Tile	No	M	Category I	ND/ND	Dining	NA
WS-HM-05A	12x12 Burgundy Multilayer Vinyl Tile	No	M	Category I	ND	Kitchen	NA
WS-HM-05B	12x12 Burgundy Multilayer Vinyl Tile	No	M	Category I	ND	Kitchen	NA
WS-HM-06A	Beige Linoleum	No	M	Category I	ND	Bathroom	NA
WS-HM-06B	Beige Linoleum	No	M	Category I	ND	Bathroom	NA
WS-HM-07A	White and Gray Linoleum	No	M	Category I	ND	E Bedroom Closet	NA
WS-HM-07B	White and Gray Linoleum	No	M	Category I	ND	W Bedroom Closet	NA
WS-HM-08A	Drywall and Joint Compound	No	M	Category II	ND/ND	Kitchen Ceiling	NA
WS-HM-08B	Drywall and Joint Compound	No	M	Category II	ND/ND	Dining Wall	NA
WS-HM-09A	Window Glazing	Yes	M	Category II	ND	Kitchen	NA
WS-HM-09B	Window Glazing	Yes	M	Category II	ND	Living	NA
WS-HM-10A	Blue Multilayer Linoleum	No	M	Category I	ND/ND	2 nd Fl.	NA
WS-HM-10B	Blue multilayer Linoleum	No	M	Category I	ND/ND	2 nd Fl.	NA
WS-HM-11A	White Linoleum	No	M	Category I	ND	Basement Stairwell	NA
WS-HM-11B	White Linoleum	No	M	Category I	ND	Basement Stairwell	NA
WS-HS-01A	Plaster	No	S	Category II	ND/ND	W Bedroom Ceiling	NA
WS-HS-01B	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA
WS-HS-01C	Plaster	No	S	Category II	ND/ND	E Bedroom Wall	NA
WS-HS-01D	Plaster	No	S	Category II	ND/ND	W Bedroom Wall	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1725 Wood St., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
WS-HS-01E	Plaster	No	S	Category II	ND/ND	Bathroom Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 1725 Wood St., Muskegon, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Living (1 register, 15 sq. ft.) Dining (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Framing, 25 sq. ft.) Basement (misc. HVAC wrap on Cold Air Return Ductwork, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	95 sq. ft.
Basement (12 in. dia. HVAC Wrapped Ductwork, 35 lin. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	35 lin. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

- lin. ft. = linear feet
- sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 1725 Wood St., Muskegon, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 register, 15 sq. ft.)			
Dining (1 register, 15 sq. ft.)			
Kitchen (1 register, 15 sq. ft.)			
Basement (misc. HVAC wrap on Framing, 25 sq. ft.)	HVAC Duct Wrap	Yes	95 sq. ft.
Basement (misc. HVAC wrap on Cold Air Return Ductwork, 25 sq. ft.)			
	Total		95 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (12 in. dia. HVAC Wrapped Ductwork, 35 lin. ft.)	HVAC Duct Wrap	Yes	35 lin. ft.
	Total		35 lin. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

**RE: *Asbestos Containing Material and Hazardous Materials Inspection
1773 Superior St., Muskegon, MI 49442
Parcel ID: 61-24-185-115-0010-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 1773 Superior St., Muskegon, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .12 acre residential parcel which contains a 192 sq. ft. detached garage and approximate 1,056 square foot residential building (the Building) with an unknown construction date. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 20, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- 1'x1' Ceiling Tile
- Drywall
- Window Glazing
- Plaster

Red Cedar staff collected twenty five samples of suspect ACBM separated into eleven distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty five samples is included as Attachment A.

Hazardous Materials Inspection

On March 20, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty five samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window glazing sample collected from a window in the Basement was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified four windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Basement (4 windows 32" wide x 20" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Bathroom (1 register, 15 sq. ft.)
- Living (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Cold Air Ductwork, 50 sq. ft.)
- Basement (misc. HVAC Debris on Floor, 25 sq. ft.)

- Basement (8 in. dia. HVAC Wrapped Ductwork, 50 lin. ft.)

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Bathroom (1 register, 15 sq. ft.)
- Living (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Cold Air Ductwork, 50 sq. ft.)
- Basement (misc. HVAC Debris on Floor, 25 sq. ft.)

- Basement (8 in. dia. HVAC Wrapped Ductwork, 50 lin. ft.)

Friable asbestos containing window glazing was identified on four windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Basement (4 windows 32" wide x 20" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- 2' Fluorescent Light (Fixture and Ballast Only) (1)
- 2' Fluorescent Bulb (1)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-24-185-115-0010-00

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1773 Superior St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75734
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 01 Cust. #: SS-HM-01A Material: Vapor Barrier Location: House Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75734 - 02 Cust. #: SS-HM-01B Material: Vapor Barrier Location: House Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75734 - 03 Cust. #: SS-HM-02A Material: Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1773 Superior St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75734
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 04 Cust. #: SS-HM-02B Material: Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75734 - 05 Cust. #: SS-HM-03A Material: Vapor Barrier Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75734 - 06 Cust. #: SS-HM-03B Material: Vapor Barrier Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75734
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 07 Cust. #: SS-HM-04A Material: Roofing Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 75734 - 07a Cust. #: SS-HM-04A Material: Membrane Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75734 - 08 Cust. #: SS-HM-04B Material: Roofing Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75734
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 08a Cust. #: SS-HM-04B Material: Tar Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75734 - 09 Cust. #: SS-HM-05A Material: Grey Linoleum Location: Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75734 - 10 Cust. #: SS-HM-05B Material: Grey Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75734
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 11 Cust. #: SS-HM-06A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 75734 - 12 Cust. #: SS-HM-06B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 75734 - 13 Cust. #: SS-HM-07A Material: Drywall Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75734
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 14 Cust. #: SS-HM-07B Material: Joint Compound Location: Appearance: yellow,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75734 - 14a Cust. #: SS-HM-07B Material: Drywall Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75734 - 15 Cust. #: SS-HM-08A Material: 1x1 White Texture Ceiling Tile Location: Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Mineral Wool - 30% Other - 40%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75734
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 16 Cust. #: SS-HM-08B Material: 1x1 White Texture Ceiling Tile Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Mineral Wool - 30% Other - 40%
Lab ID #: 75734 - 17 Cust. #: SS-HM-09A Material: Window Glazing Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - 1.00% POINT COUNT RESULT	Other - 99.00%
Lab ID #: 75734 - 18 Cust. #: SS-HM-09B Material: Window Glazing Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - 1.00% POINT COUNT RESULT	Other - 99.00%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75734
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 19 Cust. #: SS-HM-10A Material: Window Glazing Location: Basement Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Cellulose - 10% Other - 85%
Lab ID #: 75734 - 20 Cust. #: SS-HM-10B Material: Window Glazing Location: Basement Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75734 - 21 Cust. #: SS-HS-01A Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Project: 1773 Superior St.

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Red Cedar Consulting
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Lansing, MI 48901

ARI Report # 18-75734
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 21a Cust. #: SS-HS-01A Material: Mortar Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75734 - 22 Cust. #: SS-HS-01B Material: Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75734 - 22a Cust. #: SS-HS-01B Material: Mortar Location: Appearance: grey,fibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

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Project: 1773 Superior St.

Report To:

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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75734
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 23 Cust. #: SS-HS-01C Material: Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75734 - 23a Cust. #: SS-HS-01C Material: Mortar Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75734 - 24 Cust. #: SS-HS-01D Material: Plaster Location: Appearance: white,nonfibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75734 - 24a Cust. #: SS-HS-01D Material: Mortar Location: Appearance: grey, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75734 - 25 Cust. #: SS-HS-01E Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75734 - 25a Cust. #: SS-HS-01E Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting
 Address: PO Box 13216
 City, St., Zip: Lansing, MI 48901
 Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18
 Project: 1773 Superior St
 Project #: _____
 Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.

Asbestos: Bulk Wipe Point Count _____ PCM _____
 Lead: Bulk Wipe Air Paint Soil
 Mold: Bulk Tape BioSIS Other Viable
 Other: 5 day All Samples TEM: AHERA 7400 Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	SS-HM-01A	Vapor Barrier (House)			
2	SS-HM-01B	" "			
3	SS-HM-02A	Roofing Shingle (House)			
4	SS-HM-02B	" "			
5	SS-HM-03A	Vapor Barrier (Garage)			
6	SS-HM-03B	" "			
7	SS-HM-04A	Roofing Shingle (Garage)			
8	SS-HM-04B	" "			
9	SS-HM-05A	Gray Sinterstone			
10	SS-HM-05B	" "			
11	SS-HM-06A	1x1 White Smooth CT			

Relinquished by: [Signature] Received by: UPS Date: 3-20-18
 Relinquished by: _____ Received by: _____ Date: _____
 Date: 3-20-18 Date: 3-20-18

RECEIVED
 Received by: [Signature] 10:01
 Date: MAR 21 2018

75734

2 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18

Project: 1773 Superior St

Project #:

Contact Person: Aaron Paquet

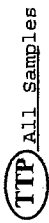
Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour Lead: Bulk Wipe Air Paint Soil

48 hour Mold: Bulk Tape BioSIS Other Viable

Other: 5 day TEM: AHERA 7400 Bulk/NOB EPA Level II



Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	SS-HM-06B	1 X 1 white panel CT			
13	SS-HM-07A	Skymold			
14	SS-HM-07B	"			
15	SS-HM-08A	1 X 1 white texture CT			
16	SS-HM-08B	"			
17	SS-HM-09A	Windows Gleying			
18	SS-HM-09B	"			
19	SS-HM-10A	Windows Gleying (Beeman)			
20	SS-HM-10B	"			
21	SS-HS-01A	Plaster			
22	SS-HS-01B	"			

RECEIVED

Received by: APR Date: MAR 21 2018

Relinquished by: _____ Date: _____

Received by: UPS Date: 3-20-18

Relinquished by: Aaron Paquet Date: 3-20-18

APEX RESEARCH

Tables

Table 1 - Summary of Hazardous Materials, 1773 Superior St., Muskegon, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Kitchen	2' Fluorescent Light (Fixture and Ballast Only)	1
Kitchen	2' Fluorescent Bulb	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1773 Superior St., Muskegon, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	House Exterior	NA
SS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	House Exterior	NA
SS-HM-02A	Roofing Materials	No	M	Category I	ND	House Exterior	NA
SS-HM-02B	Roofing Materials	No	M	Category I	ND	House Exterior	NA
SS-HM-03A	Vapor Barrier	Yes	M	Category II	ND	Garage Exterior	NA
SS-HM-03B	Vapor Barrier	Yes	M	Category II	ND	Garage Exterior	NA
SS-HM-04A	Roofing Materials	No	M	Category I	ND/ND	Garage Exterior	NA
SS-HM-04B	Roofing Materials	No	M	Category I	ND/ND	Garage Exterior	NA
SS-HM-05A	Gray Linoleum	No	M	Category I	ND	Kitchen	NA
SS-HM-05B	Gray Linoleum	No	M	Category I	ND	Kitchen	NA
SS-HM-06A	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Living	NA
SS-HM-06B	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Living	NA
SS-HM-07A	Drywall and Joint Compound	No	M	Category II	ND	W Bedroom Ceiling	NA
SS-HM-07B	Drywall and Joint Compound	No	M	Category II	ND/ND	Living Wall	NA
SS-HM-08A	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	E Bedroom	NA
SS-HM-08B	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	E Bedroom	NA
SS-HM-09A	Window Glazing	Yes	M	Category II	1.00%CH-PC	Kitchen	NA
SS-HM-09B	Window Glazing	Yes	M	Category II	1.00%CH-PC	E Bedroom	NA
SS-HM-10A	Window Glazing	Yes	M	Category II	5%CH	Basement	4 Windows
SS-HM-10B	Window Glazing	Yes	M	Category II	NA	Basement	NA
SS-HS-01A	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA
SS-HS-01B	Plaster	No	S	Category II	ND/ND	W Bedroom Ceiling	NA
SS-HS-01C	Plaster	No	S	Category II	ND/ND	Bathroom Wall	NA
SS-HS-01D	Plaster	No	S	Category II	ND/ND	Kitchen Wall	NA
SS-HS-01E	Plaster	No	S	Category II	ND/ND	E Bedroom Wall	NA

Notes:

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1773 Superior St., Muskegon, Michigan

Material Types

M = Miscellaneous building material
TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 1773 Superior St., Muskegon, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Bathroom (1 register, 15 sq. ft.) Living (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Cold Air Ductwork, 50 sq. ft.) Basement (misc. HVAC Debris on Floor, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	120 sq. ft.
Basement (8 in. dia. HVAC Wrapped Ductwork, 50 lin. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	50 lin. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 1773 Superior St., Muskegon, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Bathroom (1 register, 15 sq. ft.)			
Living (1 register, 15 sq. ft.)			
Kitchen (1 register, 15 sq. ft.)			
Basement (misc. HVAC wrap on Cold Air Ductwork, 50 sq. ft.)	HVAC Duct Wrap	Yes	120 sq. ft.
Basement (misc. HVAC Debris on Floor, 25 sq. ft.)			
Total			120 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (8 in. dia. HVAC Wrapped Ductwork, 50 lin. ft.)	HVAC Duct Wrap	Yes	50 lin. ft.
Total			50 lin. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (4 windows 32" wide x 20" tall)	Glazing	Yes	4 Windows
Total			4 Windows

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
2204 Hoyt St., Muskegon Heights, MI 49444
Parcel ID: 61-26-185-066-0023-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2204 Hoyt St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .14 acre residential parcel which contains an approximate 1,038 square foot residential building (the Building) constructed in 1915. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and a bedroom on the first floor while the second floor contains three bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

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Muskegon County Land Bank
Parcel ID: 61-26-185-066-0023-00

inspection of the Subject Property on March 20, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- 1'x1' Ceiling Tile
- 12"x12" Vinyl Tile
- Window Glazing
- Plaster
- Drywall and Joint Compound

Red Cedar staff collected twenty five samples of suspect ACBM separated into eleven distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty five samples is included as Attachment A.

Hazardous Materials Inspection

On March 20, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty five samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Living (2 registers, 20 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- 2nd Fl. Hallway (1 vertical chase to basement, 25 sq. ft.)
- Basement (misc. HVAC wrap on Basement and Crawl Space Ductwork, 10 sq. ft.)

Category I ACM

Two types of resilient floor covering (12"x12" Tan Marble Vinyl Tile and 12"x12" Gray Pebble Vinyl Tile) located within the 2nd Fl. Bedrooms were found to contain up to 2.00% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 182 sq. ft. of this material within the Building.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Living (2 registers, 20 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- 2nd Fl. Hallway (1 vertical chase to basement, 25 sq. ft.)
- Basement (misc. HVAC wrap on Basement and Crawl Space Ductwork, 10 sq. ft.)

The Category I resilient floor coverings (12"x12" Tan Marble Vinyl Tile and 12"x12" Gray Pebble Vinyl Tile) are non-friable ACM's that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

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Parcel ID: 61-26-185-066-0023-00

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tires (10)
- Smoke Detector (1)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-185-066-0023-00

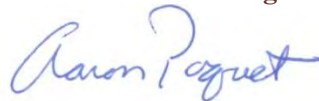
DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2204 Hoyt St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75737
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 01 Cust. #: HS-HM-01A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75737 - 02 Cust. #: HS-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 75737 - 03 Cust. #: HS-HM-02A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2204 Hoyt St.

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Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75737
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 04 Cust. #: HS-HM-02B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 75737 - 05 Cust. #: HS-HM-03A Material: Flooring Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75737 - 05a Cust. #: HS-HM-03A Material: Beige Multilayer Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 06 Cust. #: HS-HM-03B Material: Beige Multilayer Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75737 - 06a Cust. #: HS-HM-03B Material: Flooring Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75737 - 07 Cust. #: HS-HM-04A Material: Tan Multilayer Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75737
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 07a Cust. #: HS-HM-04A Material: Floor Tile Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75737 - 07b Cust. #: HS-HM-04A Material: Flooring Location: Appearance: white, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 75737 - 07c Cust. #: HS-HM-04A Material: Linoleum Location: Appearance: beige, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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ARI Report # 18-75737
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 08 Cust. #: HS-HM-04B Material: Tan Multilayer Linoleum/Floor Tile Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75737 - 08a Cust. #: HS-HM-04B Material: Flooring Location: Appearance: white, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 75737 - 08b Cust. #: HS-HM-04B Material: Linoleum Location: Appearance: beige, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 08c Cust. #: HS-HM-04B Material: Linoleum Location: Appearance: beige, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75737 - 09 Cust. #: HS-HM-05A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 75737 - 10 Cust. #: HS-HM-05B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Project: 2204 Hoyt St.

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Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 11 Cust. #: HS-HM-06A Material: 1x1 White Textured Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 75737 - 12 Cust. #: HS-HM-06B Material: 1x1 White Textured Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 75737 - 13 Cust. #: HS-HM-07A Material: 12x12 Tan Marble VFT Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.25% POINT COUNT RESULT	Other - 98.75%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 14 Cust. #: HS-HM-07B Material: 12x12 Tan Marble VFT Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75737 - 15 Cust. #: HS-HM-08A Material: 12x12 Grey Pebble VFT Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 2.00% POINT COUNT RESULT	Other - 98.00%
Lab ID #: 75737 - 16 Cust. #: HS-HM-08B Material: 12x12 Grey Pebble VFT Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2204 Hoyt St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75737
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 17 Cust. #: HS-HM-09A Material: Window Glazing Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75737 - 18 Cust. #: HS-HM-09B Material: Window Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75737 - 19 Cust. #: HS-HS-01A Material: Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

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Project: 2204 Hoyt St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75737
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 19a Cust. #: HS-HS-01A Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75737 - 20 Cust. #: HS-HS-01B Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75737 - 20a Cust. #: HS-HS-01B Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2204 Hoyt St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75737
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 21 Cust. #: HS-HS-01C Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75737 - 21a Cust. #: HS-HS-01C Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75737 - 22 Cust. #: HS-HS-01D Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2204 Hoyt St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75737
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 22a Cust. #: HS-HS-01D Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75737 - 23 Cust. #: HS-HS-01E Material: Plaster Location: Appearance: Layer: of	Asbestos Present: NO SAMPLE RECEIVED	
Lab ID #: 75737 - 24 Cust. #: HS-HM-10A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2204 Hoyt St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75737
Date Collected: 03/20/18
Date Received: 03/21/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75737 - 24a Cust. #: HS-HM-10A Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75737 - 25 Cust. #: HS-HM-10B Material: Drywall/Joint Compound Location: Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

Apex 75737

1 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18

Project: 2204 Hoyt St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour Lead: Bulk Wipe Air Paint Soil

48 hour 72 hour Mold: Bulk Tape BioSIS Other Viable

Other: 5 day All samples TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	HS-HM-01A	Vapor Barrier			
2	HS-HM-01B	"			
3	HS-HM-02A	Roofing Shingle			
4	HS-HM-02B	"			
5	HS-HM-03A	Beige Multi-Layer Gypsum			
6	HS-HM-03B	"			
7	HS-HM-04A	tan Multi-Layer Gypsum			
8	HS-HM-04B	"			
9	HS-HM-05A	1X1 White Smooth CT			
10	HS-HM-05B	"			
11	HS-HM-06A	1X1 White Texture CT			

RECEIVED

Received by: Ind / 0.01

Date: MAR 21 2018

Relinquished by: _____

Date: _____

Received by: UPS

Date: 3-20-18

Relinquished by: Aaron Paquet

Date: 3-20-18

75737

2 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-20-18
Project: 2204 Hought St
Project #: _____

Contact Person: Aaron Paquet
apaquet@redcedarconsulting.net
with a detection of <5% ACM.

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One)

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Other: Sdey **TTP** All Samples

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	HS-HM-06B	1x1 White Limestone CT			
13	HS-HM-07A	12x12 Tan Marble VET			
14	HS-HM-07B	" " " "			
15	HS-HM-08A	12x12 Gray Pebble VET			
16	HS-HM-08B	" " " "			
17	HS-HM-09A	Window Sillaging			
18	HS-HM-09B	" " " "			
19	HS-HS-01A	Plaster			
20	HS-HS-01B				
21	HS-HS-01C				
22	HS-HS-01D				RECEIVED

Relinquished by: AR de Paqueta Received by: UPS
Date: 3-20-18 Date: 3-20-18

Relinquished by: _____ Received by: MAR 21 2018
Date: _____ Date: _____



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2204 Hoyt St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75933
Date Collected: 03/27/18
Date Received: 03/28/18
Date Analyzed: 03/28/18
Date Reported: 03/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75933 - 01 Cust. #: HS-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75933 - 01a Cust. #: HS-HS-01E Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

Tables

Table 1 - Summary of Hazardous Materials, 2204 Hoyt St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Automobile Tires	3
Living	Automobile Tires	6
Kitchen	Automobile Tires	1
2 nd Fl. Hallway	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2204 Hoyt St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
HS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
HS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
HS-HM-02A	Roofing Materials	No	M	Category I	ND	Exterior	NA
HS-HM-02B	Roofing Materials	No	M	Category I	ND	Exterior	NA
HS-HM-03A	Beige Linoleum Multilayer	No	M	Category I	ND/ND	Kitchen	NA
HS-HM-03B	Beige Linoleum Multilayer	No	M	Category I	ND/ND	Kitchen	NA
HS-HM-04A	Tan Linoleum Multilayer	No	M	Category I	ND/ND/ND/ND	Bathroom	NA
HS-HM-04B	Tan Linoleum Multilayer	No	M	Category I	ND/ND/ND/ND	Bathroom	NA
HS-HM-05A	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Living	NA
HS-HM-05B	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Living	NA
HS-HM-06A	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	Kitchen	NA
HS-HM-06B	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	Kitchen	NA
HS-HM-07A	12x12 Tan Marble Vinyl Tile	No	M	Category I	1.25%CH-PC	2 nd Fl. S Bedroom	110 sq. ft.
HS-HM-07B	12x12 Tan Marble Vinyl Tile	No	M	Category I	NA	2 nd Fl. S Bedroom	NA
HS-HM-08A	12x12 Gray Pebble Vinyl Tile	No	M	Category I	2.00%CH-PC	2 nd Fl. W Bedroom	72 sq. ft.
HS-HM-08B	12x12 Gray Pebble Vinyl Tile	No	M	Category I	NA	2 nd Fl. W Bedroom	NA
HS-HM-09A	Window Glazing	Yes	M	Category II	ND	Living	NA
HS-HM-09B	Window Glazing	Yes	M	Category II	ND	Kitchen	NA
HS-HM-10A	Drywall and Joint Compound	No	M	Category II	ND/ND	Bathroom Ceiling	NA
HS-HM-10B	Drywall and Joint Compound	No	M	Category II	ND	Bathroom Wall	NA
HS-HS-01A	Plaster	No	S	Category II	ND/ND	Kitchen Ceiling	NA
HS-HS-01B	Plaster	No	S	Category II	ND/ND	Bedroom Wall	NA
HS-HS-01C	Plaster	No	S	Category II	ND/ND	Living Wall	NA
HS-HS-01D	Plaster	No	S	Category II	ND/ND	2 nd Fl. W Bedroom Ceiling	NA
HS-HS-01E	Plaster	No	S	Category II	ND/ND	2 nd Fl. S Bedroom Wall	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2204 Hoyt St., Muskegon Heights, Michigan

Notes:

Material Types

M = Miscellaneous building material
TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 2204 Hoyt St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Living (2 registers, 20 sq. ft.) Kitchen (1 register, 15 sq. ft.) 2 nd Fl. Hallway (1 vertical chase to basement, 25 sq. ft.) Basement (misc. HVAC wrap on Basement and Crawl Space Ductwork, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	70 sq. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

- lin. ft. = linear feet
- sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 2204 Hoyt St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
2 nd Fl. S Bedroom	12"x12" Tan Marble Vinyl Tile	No	110 sq. ft.
2 nd Fl. W Bedroom	12"x12" Gray Pebble Vinyl Tile	No	72 sq. ft.
Total			182 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (2 registers, 20 sq. ft.) Kitchen (1 register, 15 sq. ft.) 2 nd Fl. Hallway (1 vertical chase to basement, 25 sq. ft.) Basement (misc. HVAC wrap on Basement and Crawl Space Ductwork, 10 sq. ft.)	HVAC Duct Wrap	Yes	70 sq. ft.
Total			70 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet
sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
2216 5th St., Muskegon Heights, MI 49444
Parcel ID: 61-26-185-073-0020-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2216 5th St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .14 acre residential parcel which contains an approximate 1,254 square foot residential building (the Building) constructed in 1920. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with clapboard over fiberboard asphalt which was over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into three apartments for inspection purposes.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 19, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Fiberboard Asphalt Siding
- Roofing Shingle
- Rolled Roofing
- 12"x12" Vinyl Tile
- Linoleum
- Drywall and Joint Compound
- Window Glazing
- Textured Surfacing
- Plaster

Red Cedar staff collected thirty eight samples of suspect ACBM separated into sixteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the thirty eight samples is included as Attachment A.

Hazardous Materials Inspection

On March 19, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, thirty eight samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window glazing sample collected from a window in the Basement was found to contain up to 1.50% asbestos following analysis. The assessment to quantify the extent of this material identified five windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Basement (5 windows 32" wide x 14" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- E Dining (1 register, 10 sq. ft.)
- N Kitchen (1 register, 10 sq. ft.)
- E Bathroom (1 register, 10 sq. ft.)
- S Kitchen (1 register, 10 sq. ft.)
- S Living/Dining (1 register, 10 sq. ft.)
- 2nd Fl. Kitchen (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. Living/Dining (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. N Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- Basement (misc. HVAC Tape on Cold Air Duct, 25 sq. ft.)
- Basement (12 in. dia. HVAC Wrapped Ductwork, 50 lin. ft.)

Category I ACM

One type of resilient floor covering (Red Stripe Linoleum) located within the Kitchen, Living Room and NW Bedroom was found to contain up to 20% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 210 sq. ft. of this material within the Building.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- E Dining (1 register, 10 sq. ft.)
- N Kitchen (1 register, 10 sq. ft.)
- E Bathroom (1 register, 10 sq. ft.)
- S Kitchen (1 register, 10 sq. ft.)
- S Living/Dining (1 register, 10 sq. ft.)
- 2nd Fl. Kitchen (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. Living/Dining (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. N Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- Basement (misc. HVAC Tape on Cold Air Duct, 25 sq. ft.)

- Basement (12 in. dia. HVAC Wrapped Ductwork, 50 lin. ft.)

Friable asbestos containing window glazing was identified on five windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Basement (5 windows 32" wide x 14" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

The Category I resilient floor covering (Red Stripe Linoleum) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Smoke Detector (3)
- Thermostat (1)

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-185-073-0020-00

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-185-073-0020-00

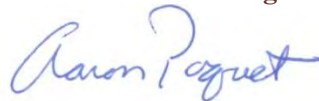
DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2216 5th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75725C
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 01 Cust. #: FS-HM-01A Material: Vapor Barrier Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 75725 - 02 Cust. #: FS-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 75725 - 03 Cust. #: FS-HM-02A Material: Fiberboard Asphalt Siding Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



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Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 04 Cust. #: S-HM-02B Material: Fiberboard Asphalt Siding Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%
Lab ID #: 75725 - 05 Cust. #: FS-HM-03A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 75725 - 05a Cust. #: FS-HM-03A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 05b Cust. #: FS-HM-03A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75725 - 05c Cust. #: FS-HM-03A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75725 - 06 Cust. #: FS-HM-03B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 06a Cust. #: FS-HM-03B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 75725 - 06b Cust. #: FS-HM-03B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75725 - 06c Cust. #: FS-HM-03B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 07 Cust. #: FS-HM-04A Material: Rolled Roofing Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 75725 - 08 Cust. #: FS-HM-04B Material: Rolled Roofing Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 75725 - 09 Cust. #: FS-HM-05A Material: 12x12 White Multi-Layer VFT Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 09a Cust. #: FS-HM-05A Material: Mastic Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 09b Cust. #: FS-HM-05A Material: Floor Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 09c Cust. #: FS-HM-05A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 09d Cust. #: FS-HM-05A Material: Floor Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 09e Cust. #: FS-HM-05A Material: Mastic Location: Appearance: yellow,nonfibrous,homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 10 Cust. #: FS-HM-05B Material: 12x12 White Multi-Layer VFT Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 10a Cust. #: FS-HM-05B Material: Floor Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 10b Cust. #: FS-HM-05B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 3 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 10c Cust. #: FS-HM-05B Material: Floor Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 4 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

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Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 10d Cust. #: FS-HM-05B Material: Mastic Location: Appearance: yellow,nonfibrous,homogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 11 Cust. #: FS-HM-06A Material: Brown Linoleum Location: Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75725 - 12 Cust. #: FS-HM-06B Material: Brown Linoleum Location: Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 13 Cust. #: FS-HM-07A Material: Red Stripe Linoleum Location: Appearance: red, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Cellulose - 10% Other - 70%
Lab ID #: 75725 - 14 Cust. #: FS-HM-07B Material: Red Stripe Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75725 - 15 Cust. #: FS-HM-08A Material: 12x12 Green Multi-Layer VFT Location: Appearance: green, nonfibrous, homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 15a Cust. #: FS-HM-08A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 15b Cust. #: FS-HM-08A Material: Floor Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 15c Cust. #: FS-HM-08A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 15d Cust. #: FS-HM-08A Material: Floor Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 15e Cust. #: FS-HM-08A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 16 Cust. #: FS-HM-08B Material: 12x12 Green Multi-Layer VFT Location: Appearance: green,nonfibrous,homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 16a Cust. #: FS-HM-08B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 16b Cust. #: FS-HM-08B Material: Floor Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 16c Cust. #: FS-HM-08B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2216 5th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75725C
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 16d Cust. #: FS-HM-08B Material: Floor Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 16e Cust. #: FS-HM-08B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 17 Cust. #: FS-HM-09A Material: 12x12 Brown Multi-Layer VFT Location: Appearance: yellow,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 17a Cust. #: FS-HM-09A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 17b Cust. #: FS-HM-09A Material: Flooring & Backing Location: Appearance: yellow,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75725 - 18 Cust. #: FS-HM-09B Material: 12x12 Brown Multi-Layer VFT Location: Appearance: yellow,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 18a Cust. #: FS-HM-09B Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 18b Cust. #: FS-HM-09B Material: Flooring & Backing Location: Appearance: yellow, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75725 - 19 Cust. #: FS-HM-10A Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 19a Cust. #: FS-HM-10A Material: Joint Compound Location: Appearance: beige, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 20 Cust. #: FS-HM-10B Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%
Lab ID #: 75725 - 20a Cust. #: FS-HM-10B Material: Joint Compound Location: Appearance: beige, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 21 Cust. #: FS-HM-11A Material: 12x12 Dark Brown Multi-Layer VFT Location: Appearance: brown, fibrous, homogenous Layer: 1 of 8	Asbestos Present: NO No Asbestos Observed	Synthetic - 5% Other - 95%
Lab ID #: 75725 - 21a Cust. #: FS-HM-11A Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 21b Cust. #: FS-HM-11A Material: Floor Tile Location: Appearance: beige, nonfibrous, homogenous Layer: 3 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 21c Cust. #: FS-HM-11A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 21d Cust. #: FS-HM-11A Material: Floor Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 5 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 21e Cust. #: FS-HM-11A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 6 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 21f Cust. #: FS-HM-11A Material: Floor Tile Location: Appearance: beige, nonfibrous, homogenous Layer: 7 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 21g Cust. #: FS-HM-11A Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 8 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 22 Cust. #: FS-HM-11B Material: 12x12 Dark Brown Multi-Layer VFT Location: Appearance: brown, fibrous, homogenous Layer: 1 of 8	Asbestos Present: NO No Asbestos Observed	Synthetic - 5% Other - 95%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 22a Cust. #: FS-HM-11B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 22b Cust. #: FS-HM-11B Material: Floor Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 3 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 22c Cust. #: FS-HM-11B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 22d Cust. #: FS-HM-11B Material: Floor Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 5 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 22e Cust. #: FS-HM-11B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 6 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 22f Cust. #: FS-HM-11B Material: Floor Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 7 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 22g Cust. #: FS-HM-11B Material: Mastic Location: Appearance: yellow,nonfibrous,homogenous Layer: 8 of 8	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 23 Cust. #: FS-HM-12A Material: White Linoleum Location: Appearance: brown,fibrous,homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Synthetic - 5% Other - 95%
Lab ID #: 75725 - 23a Cust. #: FS-HM-12A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 23b Cust. #: FS-HM-12A Material: Floor Tile Location: Appearance: beige, nonfibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 23c Cust. #: FS-HM-12A Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 24 Cust. #: FS-HM-12B Material: White Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Synthetic - 5% Other - 95%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 24a Cust. #: FS-HM-12B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 24b Cust. #: FS-HM-12B Material: Floor Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 24c Cust. #: FS-HM-12B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 25 Cust. #: FS-HM-13A Material: 12x12 Brown Brick VFT Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Synthetic - 5% Other - 95%
Lab ID #: 75725 - 25a Cust. #: FS-HM-13A Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 26 Cust. #: FS-HM-13B Material: 12x12 Brown Brick VFT Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Synthetic - 5% Other - 95%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 26a Cust. #: FS-HM-13B Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 27 Cust. #: FS-HM-14A Material: Basement Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.5% POINT COUNT RESULT	Other - 98.5%
Lab ID #: 75725 - 28 Cust. #: FS-HM-14B Material: Basement Window Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 29 Cust. #: FS-HS-01A Material: Textured Surfacing Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Vermiculite - 20% Other - 80%
Lab ID #: 75725 - 30 Cust. #: FS-HS-01B Material: Textured Surfacing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Vermiculite - 25% Other - 75%
Lab ID #: 75725 - 31 Cust. #: FS-HS-01C Material: Textured Surfacing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Vermiculite - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 32 Cust. #: FS-HS-01D Material: Textured Surfacing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Vermiculite - 15% Other - 85%
Lab ID #: 75725 - 33 Cust. #: FS-HS-01E Material: Textured Surfacing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Vermiculite - 20% Other - 80%
Lab ID #: 75725 - 34 Cust. #: FS-HS-02A Material: Textured Surfacing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Vermiculite - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2216 5th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75725C
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 34a Cust. #: FS-HS-02A Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 34b Cust. #: FS-HS-02A Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75725 - 35 Cust. #: FS-HS-02B Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2216 5th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75725C

Date Collected: 03/19/18

Date Received: 03/20/18

Date Analyzed: 03/26/18

Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 35a Cust. #: FS-HS-02B Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75725 - 36 Cust. #: FS-HS-02C Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 36a Cust. #: FS-HS-02C Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2216 5th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75725C

Date Collected: 03/19/18

Date Received: 03/20/18

Date Analyzed: 03/26/18

Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 37 Cust. #: FS-HS-02D Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 37a Cust. #: FS-HS-02D Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75725 - 38 Cust. #: FS-HS-02E Material: Textured Surfacing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2216 5th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75725C
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75725 - 38a Cust. #: FS-HS-02E Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75725 - 38b Cust. #: FS-HS-02E Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

APEX Research, Inc.



11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Lab Use Only
 Log-In _____
 Report _____

Client Name: Red Cedar Consulting
 Address: PO Box 13216
 City, St., Zip: Lansing, MI 48901
 Phone: (888)449-4566 Fax: (888) 448-8739
 Date of Survey: 3-19-18
 Project: 2216 5th St
 Project #: _____
 Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
 Other: 5 bags **TTP** All Samples Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	FS-HM-01A	Vapor Barrier			
2	FS-HM-01B	"			
3	FS-HM-02A	Fiberboard Asphalt Siding			
4	FS-HM-02B	"			
5	FS-HM-03A	Roofing Shingle			
6	FS-HM-03B	"			
7	FS-HM-04A	Roller Roofing			
8	FS-HM-04B	"			
9	FS-HM-05A	12x12 White Multi Layer VFT			
10	FS-HM-05B	"			
11	FS-HM-06A	Brown Gypsum			

RECEIVED

Relinquished by: Aaron Paquet Received by: UPS
 Date: 3-19-18 Date: 3-19-18
 Relinquished by: _____ Received by: _____
 Date: _____ Date: _____

75725

2 of 4

APEX Research, Inc.



11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: _____

Project: _____

Project #: _____

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Other: Slag All Samples

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	FS-HM-06B	Brown Limestone			
13	FS-HM-07A	Red Stripe Limestone			
14	FS-HM-07B	" "			
15	FS-HM-08A	12x12 Green Multi-Layer VET			
16	FS-HM-08B	" "			
17	FS-HM-09A	12x12 Brown Multi-Layer VET			
18	FS-HM-09B	" "			
19	FS-HM-10A	Asphalt & Joint Compound			
20	FS-HM-10B	" "			
21	FS-HM-11A	12x12 Dark Brown Multi-Layer VET			
22	FS-HM-11B	" "			

RECEIVED

Relinquished by: Alexander Received by: UPS
Date: 3-19-18 Date: 3-17-18

Relinquished by: _____ Received by: APR 20 2018
Date: _____ Date: _____

75725

3 of 4

APEX Research, Inc.



11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-19-18

Project: 2216 5th St

Project #: _____

Contact Person: Aaron Paquet

PLM EPA 600, PC all samples with a detection of <5% ACM.
apaquet@redcedarconsulting.net

Turn Around Times: (Circle One)

Rush 24 hour

48 hour 72 hour

Other: 5 day **(TTP)** All Samples

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____

Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____

Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____

TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	FS-HM-12A	White Limestone			
24	FS-HM-12B	12442 Brown Brick VFL			
25	FS-HM-13A	12442 Brown Brick VFT			
26	FS-HM-13B	" " " "			
27	FS-HM-14A	Basement Window Hazing			
28	FS-HM-14B	" " " "			
29	FS-HS-01A	Septic Tank Surfacing			
30	FS-HS-01B	" " " "			
31	FS-HS-01C	" " " "			
32	FS-HS-01D	" " " "			
33	FS-HS-01E	" " " "			

Relinquished by: Aaron Paquet Received by: UFS
Date: 3-19-18 Date: 3-19-18

Relinquished by: _____ Received by: RECEIVED
Date: _____ Date: MAR 20 2018

75725

4 of 4



APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-19-18
Project: 2216 5th St
Project #: _____
Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour
48 hour 72 hour
Other: 5 day All samples

Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
34	FS-HS-02A	Plaster			
35	FS-HS-02B				
36	FS-HS-02C				
37	FS-HS-02D				
38	FS-HS-02E				

Relinquished by: Aaron Paquet Received by: UPS
Date: 3-19-18 Date: 3-19-18

Relinquished by: _____ Received by: REC
Date: _____ Date: MAR 20 2018

Tables

Table 1 - Summary of Hazardous Materials, 2216 5th St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
East Dining	Thermostat	1
Kitchen	Smoke Detector	1
NE Bedroom	Smoke Detector	1
SE Bedroom	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2216 5th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
FS-HM-01A	Vapor barrier	Yes	M	Category II	ND	Exterior	NA
FS-HM-01B	Vapor barrier	Yes	M	Category II	ND	Exterior	NA
FS-HM-02A	Asphalt Fiberboard	Yes	M	Category II	ND	Exterior	NA
FS-HM-02B	Asphalt Fiberboard	Yes	M	Category II	ND	Exterior	NA
FS-HM-03A	Roofing Materials	No	M	Category I	ND/ND/ND/ND	Exterior	NA
FS-HM-03B	Roofing Materials	No	M	Category I	ND/ND/ND/ND	Exterior	NA
FS-HM-04A	Rolled Roofing	No	M	Category I	ND	Exterior	NA
FS-HM-04B	Rolled Roofing	No	M	Category I	ND	Exterior	NA
FS-HM-05A	12x12 White Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/ND/ ND/ND	N Kitchen	NA
FS-HM-05B	12x12 White Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/ ND/ND	N Kitchen	NA
FS-HM-06A	Brown Linoleum	No	M	Category I	ND	E Entry	NA
FS-HM-06B	Brown Linoleum	No	M	Category I	ND	E Entry	NA
FS-HM-07A	Red Stripe Linoleum	No	M	Category I	20%CH	NE Bedroom	210 sq. ft.
FS-HM-07B	Red Stripe Linoleum	No	M	Category I	NA	NE Bedroom	NA
FS-HM-08A	12x12 Green Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/ND/ ND/ND	S Entry	NA
FS-HM-08B	12x12 Green Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/ND/ ND/ND	S Entry	NA
FS-HM-09A	12x12 Brown Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND	S Living/Dining	NA
FS-HM-09B	12x12 Brown Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND	S Living/Dining	NA
FS-HM-10A	Drywall and Joint Compound	No	M	Category II	ND/ND	N Kitchen Wall	NA
FS-HM-10B	Drywall and Joint Compound	No	M	Category II	ND/ND	W Bath Wall	NA
FS-HM-11A	12x12 Dark Brown Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/ND/ ND/ND/ND/ND	2 nd Fl. Kitchen	NA
FS-HM-11B	12x12 Dark Brown Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/ND/ ND/ND/ND/ND	2 nd Fl. Kitchen	NA
FS-HM-12A	White Linoleum	No	M	Category I	ND/ND/ND/ND	2 nd Fl. Bathroom	NA
FS-HM-12B	White Linoleum	No	M	Category I	ND/ND/ND/ND	2 nd Fl. Bathroom	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2216 5th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
FS-HM-13A	Brown Brick 12x12 Vinyl Tile	No	M	Category I	ND/ND	2 nd Fl. Stairway Landing	NA
FS-HM-13B	Brown Brick 12x12 Vinyl Tile	No	M	Category I	ND/ND	2 nd Fl. Stairway Landing	NA
FS-HM-14A	Window Glazing	Yes	M	Category II	1.50%CH-PC	Basement	5 Windows
FS-HM-14B	Window Glazing	Yes	M	Category II	NA	Basement	NA
FS-HS-01A	Textured Surfacing	No	S	Category II	ND	E Living/Dining Ceiling	NA
FS-HS-01B	Textured Surfacing	No	S	Category II	ND	N Kitchen Ceiling	NA
FS-HS-01C	Textured Surfacing	No	S	Category II	ND	NE Bedroom Ceiling	NA
FS-HS-01D	Textured Surfacing	No	S	Category II	ND	NW Bedroom Ceiling	NA
FS-HS-01E	Textured Surfacing	No	S	Category II	ND	Center Bedroom Ceiling	NA
FS-HS-02A	Plaster	No	S	Category II	ND/ND/ND	N Kitchen Ceiling	NA
FS-HS-02B	Plaster	No	S	Category II	ND/ND	E Entry Wall	NA
FS-HS-02C	Plaster	No	S	Category II	ND/ND	2 nd Fl. Kitchen Ceiling	NA
FS-HS-02D	Plaster	No	S	Category II	ND/ND	2 nd Fl. N Bedroom Wall	NA
FS-HS-02E	Plaster	No	S	Category II	ND/ND/ND	2 nd Fl. S Bedroom Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 2216 5th St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
E Dining (1 register, 10 sq. ft.) N Kitchen (1 register, 10 sq. ft.) E Bathroom (1 register, 10 sq. ft.) S Kitchen (1 register, 10 sq. ft.) S Living/Dining (1 register, 10 sq. ft.) 2 nd Fl. Kitchen (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. Living/Dining (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. N Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) Basement (misc. HVAC Tape on Cold Air Duct, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	150 sq. ft.
Basement (12 in. dia. HVAC Wrapped Ductwork, 50 lin. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	50 lin. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 2216 5th St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
NE Bedroom	Red Stripe Linoleum	No	72 sq. ft.
Living (Under Subfloor)	Red Stripe Linoleum	No	48 sq. ft.
NW Bedroom (Under Subfloor)	Red Stripe Linoleum	No	90 sq. ft.
Total			210 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
E Dining (1 register, 10 sq. ft.)			
N Kitchen (1 register, 10 sq. ft.)			
E Bathroom (1 register, 10 sq. ft.)			
S Kitchen (1 register, 10 sq. ft.)			
S Living/Dining (1 register, 10 sq. ft.)			
2 nd Fl. Kitchen (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
2 nd Fl. S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	150 sq. ft.
2 nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
2 nd Fl. Living/Dining (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
2 nd Fl. N Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
Basement (misc. HVAC Tape on Cold Air Duct, 25 sq. ft.)			
Total			150 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (12 in. dia. HVAC Wrapped Ductwork, 50 lin. ft.)	HVAC Duct Wrap	Yes	50 lin. ft.
Total			50 lin. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (5 windows 32" wide x 14" tall)	Glazing	Yes	5 Windows
Total			5 Windows

Table 4 - Summary of All Asbestos Containing Materials, 2216 5th St., Muskegon Heights, Michigan

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

**RE: *Asbestos Containing Material and Hazardous Materials Inspection
2332 Riordan St., Muskegon Heights, MI 49444
Parcel ID: 61-26-185-102-0016-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2332 Riordan St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .14 acre residential parcel which contains a 440 sq. ft. detached garage and approximate 1,066 square foot residential building (the Building) constructed in 1920. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with aluminum over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and two bedrooms on the first floor while the second floor contains two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

inspection of the Subject Property on March 19, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Fire Rated Board
- Linoleum
- 9"x9" Vinyl Tile
- 1'x1' Ceiling Tile
- Drywall and Joint Compound
- Window Glazing
- Textured Surfacing
- Plaster

Red Cedar staff collected twenty six samples of suspect ACBM separated into eleven distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty six samples is included as Attachment A.

Hazardous Materials Inspection

On March 19, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty six samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Window glazing samples collected from windows in the Bathroom and Garage were found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified sixteen windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Living (2 windows 28" wide x 62" tall)
- NW Bedroom (1 window 28" wide x 62" tall)
- NW Bedroom (1 window 24" wide x 38" tall)
- Bathroom (1 window 24" wide x 38" tall)
- Dining (1 window 60" wide x 54" tall)
- Kitchen (1 window 44" wide x 32" tall)
- 2nd Fl. N Bedroom (1 window 24" wide x 54" tall)
- 2nd Fl. S Bedroom (1 window 24" wide x 54" tall)
- Basement (4 windows 30" wide x 20" tall)
- Garage (3 windows 24" wide x 46" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- NW Bedroom (1 register, 10 sq. ft.)
- Kitchen (1 register, 10 sq. ft.)

Category I ACM

One type of resilient floor covering (9"x9" White Vinyl Tile) located within the SE Bedroom and Kitchen was found to contain up to 5% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 252 sq. ft. of this material within the Building.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- NW Bedroom (1 register, 10 sq. ft.)
- Kitchen (1 register, 10 sq. ft.)

Friable asbestos containing window glazing was identified on sixteen windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Living (2 windows 28" wide x 62" tall)
- NW Bedroom (1 window 28" wide x 62" tall)
- NW Bedroom (1 window 24" wide x 38" tall)
- Bathroom (1 window 24" wide x 38" tall)
- Dining (1 window 60" wide x 54" tall)
- Kitchen (1 window 44" wide x 32" tall)
- 2nd Fl. N Bedroom (1 window 24" wide x 54" tall)
- 2nd Fl. S Bedroom (1 window 24" wide x 54" tall)
- Basement (4 windows 30" wide x 20" tall)
- Garage (3 windows 24" wide x 46" tall)
-

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

The Category I resilient floor covering (9"x9" White Vinyl Tile) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tires (4)
- 4' Fluorescent Light (Fixture and Ballast Only) (1)
- 4' Fluorescent Bulb (1)
- Television (1)

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-185-102-0016-00

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-185-102-0016-00

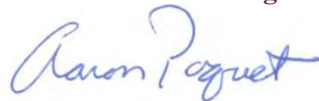
DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2332 Riordan St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75724
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 01 Cust. #: RS-HM-01A Material: Vapor Barrier Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%
Lab ID #: 75724 - 02 Cust. #: RS-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%
Lab ID #: 75724 - 03 Cust. #: RS-HM-02A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



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Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 04 Cust. #: RS-HM-02B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 75724 - 05 Cust. #: RS-HM-03A Material: Fire Rated Board Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 5% Other - 80%
Lab ID #: 75724 - 06 Cust. #: RS-HM-03B Material: Fire Rated Board Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 5% Other - 80%

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Robert T. Letarte Jr., Laboratory Director

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Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 07 Cust. #: RS-HM-04A Material: Cream Layered Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 75724 - 08 Cust. #: RS-HM-04B Material: Cream Layered Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 75724 - 09 Cust. #: RS-HM-05A Material: 9x9 White VFT Location: Appearance: green, fibrous, homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%

For Layered Samples, each component will be analyzed and reported separately.

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 09a Cust. #: RS-HM-05A Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75724 - 10 Cust. #: RS-HM-05B Material: 9x9 White VFT Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75724 - 11 Cust. #: RS-HM-06A Material: 1x1 White Textured Ceiling Tile Location: Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 12 Cust. #: RS-HM-06B Material: 1x1 White Textured Ceiling Tile Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75724 - 13 Cust. #: RS-HM-07A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75724 - 13a Cust. #: RS-HM-07A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 14 Cust. #: RS-HM-07B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75724 - 14a Cust. #: RS-HM-07B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75724 - 15 Cust. #: RS-HM-08A Material: House Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%

For Layered Samples, each component will be analyzed and reported separately.

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 16 Cust. #: RS-HM-08B Material: House Window Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75724 - 17 Cust. #: RS-HM-09A Material: Garage Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75724 - 18 Cust. #: RS-HM-09B Material: Garage Window Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 19 Cust. #: RS-HS-01A Material: Textured Surfacing Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 75724 - 20 Cust. #: RS-HS-01B Material: Textured Surfacing Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 75724 - 21 Cust. #: RS-HS-01C Material: Textured Surfacing Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%

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Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 22 Cust. #: RS-HS-02A Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75724 - 22a Cust. #: RS-HS-02A Material: Plaster Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: 75724 - 23 Cust. #: RS-HS-02B Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 23a Cust. #: RS-HS-02B Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: 75724 - 24 Cust. #: RS-HS-02C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75724 - 24a Cust. #: RS-HS-02C Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 25 Cust. #: RS-HS-02D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75724 - 25a Cust. #: RS-HS-02D Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: 75724 - 26 Cust. #: RS-HS-02E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2332 Riordan St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75724
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/27/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75724 - 26a Cust. #: RS-HS-02E Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

Apex # 75724

1 of 3



ARLA Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-19-18
Project: 2332 Residen St
Project #: _____
Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe _____ Point Count _____ PCM _____

Rush 24 hour
48 hour 72 hour
Other: 5 day All Samples
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	RS-HM-01A	Vapor Barrier			
2	RS-HM-01B	" "			
3	RS-HM-02A	Roofing Shingle			
4	RS-HM-02B	" "			
5	RS-HM-03A	Fire Rated Board			
6	RS-HM-03B	" "			
7	RS-HM-04A	Cream Layered Insulation			
8	RS-HM-04B	" "			
9	RS-HM-05A	9x9 white VFT			
10	RS-HM-05B	" "			
11	RS-HM-06A	1x1 white textured CT			

Relinquished by: Aaron Paquet Received by: UPS
Date: 3-19-18 Date: 3-19-18
Relinquished by: _____ Date: _____
Date: 3-19-18 Date: 3-19-18
Received by: Jack 1122
Date: MAR 20 2018
RECEIVED
APEX RESEARCH

75724

2013

APEX Research, Inc.



11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Date of Survey: 3-19-18

Project: 2332 Riederer St

Project #: _____

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaqet@redcedarconsulting.net

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____

Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____

Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____

Other: 5 day **(TTP)** All Samples Bulk/NOB _____ EPA Level II _____

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	RS-HM-06B	1x1 white textured CT			
13	RS-HM-07A	Asphalt & Joint Compound			
14	RS-HM-07B	" " " "			
15	RS-HM-08A	House Window Siding			
16	RS-HM-08B	" " " "			
17	RS-HM-09A	Garage Window Siding			
18	RS-HM-09B	" " " "			
19	RS-HS-01A	Textured Surfacing			
20	RS-HS-01B	" " " "			
21	RS-HS-01C	" " " "			
22	RS-HS-02A	Plaster			

REC'D

Relinquished by: [Signature] Received by: UTS Relinquished by: _____ Received by: [Signature]
Date: 3-19-18 Date: 3-19-18 Date: _____ Date: MAR 20 2018

Date: _____
APEX RESEARCH

Tables

Table 1 - Summary of Hazardous Materials, 2332 Riordan St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Automobile Tires	2
Garage	Automobile Tires	2
Kitchen	4' Fluorescent Light (Fixture and Ballast Only)	1
Kitchen	4' Fluorescent Bulb	1
Basement	Television	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2332 Riordan St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
RS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
RS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
RS-HM-02A	Roofing Materials	No	M	Category I	ND	House Exterior	NA
RS-HM-02B	Roofing Materials	No	M	Category I	ND	Garage Exterior	NA
RS-HM-03A	Fire Rated Board	No	M	Category II	ND	Garage Exterior	NA
RS-HM-03B	Fire Rated Board	No	M	Category II	ND	Garage Exterior	NA
RS-HM-04A	Cream Layered Linoleum	No	M	Category I	ND	Kitchen	NA
RS-HM-04B	Cream Layered Linoleum	No	M	Category I	ND	Kitchen	NA
RS-HM-05A	9x9 White Vinyl Tile	No	M	Category I	5%CH/ND	SE Bedroom	252 sq. ft.
RS-HM-05B	9x9 White Vinyl Tile	No	M	Category I	NA/ND	SE Bedroom	NA
RS-HM-06A	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	SE Bedroom	NA
RS-HM-06B	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	SE Bedroom	NA
RS-HM-07A	Drywall and Joint Compound	No	M	Category II	ND/ND	SE Bedroom Ceiling	NA
RS-HM-07B	Drywall and Joint Compound	No	M	Category II	ND/ND	Kitchen Wall	NA
RS-HM-08A	Window Glazing	Yes	M	Category II	5%CH	Bathroom	13 Windows
RS-HM-08B	Window Glazing	Yes	M	Category II	NA	Living	NA
RS-HM-09A	Window Glazing	Yes	M	Category II	5%CH	Garage	3 Windows
RS-HM-09B	Window Glazing	Yes	M	Category II	NA	Garage	NA
RS-HS-01A	Textured Surfacing	No	S	Category II	ND	Living Ceiling	NA
RS-HS-01B	Textured Surfacing	No	S	Category II	ND	Dining Ceiling	NA
RS-HS-01C	Textured Surfacing	No	S	Category II	ND	Kitchen Ceiling	NA
RS-HS-02A	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA
RS-HS-02B	Plaster	No	S	Category II	ND/ND	Dining Wall	NA
RS-HS-02C	Plaster	No	S	Category II	ND/ND	NW Bedroom Wall	NA
RS-HS-02D	Plaster	No	S	Category II	ND/ND	2 nd Fl. N Bedroom Ceiling	NA
RS-HS-02E	Plaster	No	S	Category II	ND/ND	2 nd Fl. S Bedroom Wall	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2332 Riordan St., Muskegon Heights, Michigan

Notes:

Material Types

M = Miscellaneous building material
TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 2332 Riordan St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
NW Bedroom (1 register, 10 sq. ft.) Kitchen (1 register, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	20 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 2332 Riordan St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
SE Bedroom	9"x9" White Vinyl Tile	No	72 sq. ft.
Kitchen (Under Subfloor)	9"x9" White Vinyl Tile	No	180 sq. ft.
Total			252 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
NW Bedroom (1 register, 10 sq. ft.)	HVAC Duct Wrap	Yes	20 sq. ft.
Kitchen (1 register, 10 sq. ft.)			
Total			20 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (2 windows 28" wide x 62" tall)	Glazing	Yes	2 Windows
NW Bedroom (1 window 28" wide x 62" tall)	Glazing	Yes	1 Windows
NW Bedroom (1 window 24" wide x 38" tall)	Glazing	Yes	1 Window
Bathroom (1 window 24" wide x 38" tall)	Glazing	Yes	1 Window
Dining (1 window 60" wide x 54" tall)	Glazing	Yes	1 Window
Kitchen (1 window 44" wide x 32" tall)	Glazing	Yes	1 Window
2 nd Fl. N Bedroom (1 window 24" wide x 54" tall)	Glazing	Yes	1 Window
2 nd Fl. S Bedroom (1 window 24" wide x 54" tall)	Glazing	Yes	1 Window
Basement (4 windows 30" wide x 20" tall)	Glazing	Yes	4 Windows
Garage (3 windows 24" wide x 46" tall)	Glazing	Yes	3 Windows
Total			16 Windows

Notes:
Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Table 4 - Summary of All Asbestos Containing Materials, 2332 Riordan St., Muskegon Heights, Michigan

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
2340 6th St., Muskegon Heights, MI 49444
Parcel ID: 61-26-185-091-0014-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2340 6th St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .14 acre residential parcel which contains a 240 sq. ft. detached garage and approximate 1,116 square foot residential building (the Building) constructed in 1930. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with asphalt fiberboard over wood which was over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front porch, living room, dining room, kitchen, bathroom, three bedrooms and a rear entry. Please note this is a severely fire burned structure.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

inspection of the Subject Property on March 19, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Asphalt Fiber Board
- Roofing Shingle
- Vapor Barrier
- Linoleum
- 12"x12" Vinyl Tile
- 1'x1' Ceiling Tile
- Drywall and Joint Compound
- Window Glazing
- Plaster

Red Cedar staff collected twenty nine samples of suspect ACBM separated into thirteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty nine samples is included as Attachment A.

Hazardous Materials Inspection

On March 19, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty nine samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

Air-O-Cell Pipe Wrap and Cementitious “Transite” Pipe located within the Building was classified as PACM due to the age of the structure and samples were not collected.

Vermiculite insulation was identified during the completion of this inspection and was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window glazing sample collected from a window in the Living Room was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified thirty two windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Front Porch (12 windows 28" wide x 56" tall)
- Living (2 windows 44" wide x 66" tall)
- Living (3 windows 24" wide x 40" tall)
- NW Bedroom (1 window 28" wide x 66" tall)
- Center Bedroom (1 window 28" wide x 66" tall)
- NE Bedroom (1 window 28" wide x 66" tall)
- Bathroom (1 window 20" wide x 46" tall)
- Kitchen (2 windows 24" wide x 52" tall)
- Basement (1 window 30" wide x 16" tall)
- Garage (6 windows 22" wide x 30" tall)
- Garage (2 windows 54" wide x 36" tall)

Air-O-Cell Pipe Wrap identified in the Building in conjunction with the hot water heating system is classified as a friable ACM. The visual assessment to quantify the extent of this material identified Friable ACM at the following locations within the basement, first and second floors:

- Attic (Air-O-Cell 3" to 4") (78 lin. ft.)
- Basement and Crawl Space (Air-O-Cell Debris) (50 sq. ft.)

Vermiculite insulation identified in the Building is classified as friable ACM. The visual assessment to quantify the extent of this material identified approximately 950 sq. ft. at a depth of 8" within the Buildings attic and Rear Entry.

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

The cementitious "Transite" Pipe located in the Rear Entry of the Building was classified as PACM and no samples were collected. The visual assessment to quantify the extent of this material identified 6 lin. ft. of 6" diameter cementitious (Transite) Pipe within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Attic (Air-O-Cell 3" to 4") (78 lin. ft.)
- Basement and Crawl Space (Air-O-Cell Debris) (50 sq. ft.)

Friable asbestos containing window glazing was identified on thirty two windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Front Porch (12 windows 28" wide x 56" tall)
- Living (2 windows 44" wide x 66" tall)
- Living (3 windows 24" wide x 40" tall)
- NW Bedroom (1 window 28" wide x 66" tall)
- Center Bedroom (1 window 28" wide x 66" tall)
- NE Bedroom (1 window 28" wide x 66" tall)
- Bathroom (1 window 20" wide x 46" tall)
- Kitchen (2 windows 24" wide x 52" tall)
- Basement (1 window 30" wide x 16" tall)
- Garage (6 windows 22" wide x 30" tall)
- Garage (2 windows 54" wide x 36" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

A Transite Pipe was identified within the Rear Entry of the Building and must be abated prior to completion of any demolition activities at the Subject Property. In demolition, all cementitious ACM must be removed prior to demolition due to the likelihood of becoming regulated due to the demolition process.

Vermiculite insulation identified in the Building attic is classified as friable ACM and should be removed prior to any renovation/demolition activities.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tire (1)
- Smoke Detector (4)

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-185-091-0014-00

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-185-091-0014-00

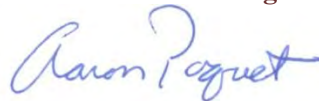
DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2340 6th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75726
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 01 Cust. #: SS-HM01A Material: Asphalt Siding Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 75726 - 01a Cust. #: SS-HM01A Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75726 - 02 Cust. #: SS-HM-01B Material: Asphalt Siding Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2340 6th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75726
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 02a Cust. #: SS-HM-01B Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75726 - 03 Cust. #: SS-HM-02A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75726 - 03a Cust. #: SS-HM-02A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

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Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

Project: 2340 6th St.

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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 04 Cust. #: SS-HM-02B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75726 - 04a Cust. #: SS-HM-02B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75726 - 05 Cust. #: SS-HM-03A Material: Vapor Barrier Location: House Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 06 Cust. #: SS-HM-03B Material: Vapor Barrier Location: House Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 75726 - 07 Cust. #: SS-HM-04A Material: Layered Vapor Barrier Location: Garage Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75726 - 08 Cust. #: SS-HM-04B Material: Layered Vapor Barrier Location: Garage Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 09 Cust. #: SS-HM-05A Material: White Linoleum Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75726 - 10 Cust. #: SS-HM-05B Material: White Linoleum Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75726 - 11 Cust. #: SS-HM-06A Material: 12x12 White VFT Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 11a Cust. #: SS-HM-06A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75726 - 12 Cust. #: SS-HM-06B Material: 12x12 White VFT Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 1100%
Lab ID #: 75726 - 12a Cust. #: SS-HM-06B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 13 Cust. #: SS-HM-07A Material: 12x12 Beige Multi-Layered VFT Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75726 - 13a Cust. #: SS-HM-07A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75726 - 13b Cust. #: SS-HM-07A Material: Floor Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 3 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 13c Cust. #: SS-HM-07A Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 4 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75726 - 13d Cust. #: SS-HM-07A Material: Sheet Flooring Location: Appearance: grey, fibrous, nonhomogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75726 - 14 Cust. #: SS-HM-07B Material: 12x12 Beige Multi-Layered VFT Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 14a Cust. #: SS-HM-07B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75726 - 14b Cust. #: SS-HM-07B Material: Floor Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 3 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75726 - 14c Cust. #: SS-HM-07B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 14d Cust. #: SS-HM-07B Material: Sheet Flooring Location: Appearance: grey, fibrous, nonhomogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75726 - 15 Cust. #: SS-HM-08A Material: Brown Sheet Flooring Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75726 - 15a Cust. #: SS-HM-08A Material: Yellow Sheet Flooring Location: Appearance: yellow, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 16 Cust. #: SS-HM-08B Material: Brown Sheet Flooring Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75726 - 16a Cust. #: SS-HM-08B Material: Yellow Sheet Flooring Location: Appearance: yellow, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75726 - 17 Cust. #: SS-HM-09A Material: 1x1 Black Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 17a Cust. #: SS-HM-09A Material: Glue Pod Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75726 - 18 Cust. #: SS-HM-09B Material: 1x1 Black Smooth Ceiling Tile Location: Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75726 - 18a Cust. #: SS-HM-09B Material: Glue Pod Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 19 Cust. #: SS-HM-10A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75726 - 19a Cust. #: SS-HM-10A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75726 - 19b Cust. #: SS-HM-10A Material: Texture Location: Appearance: white, nonfibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 20 Cust. #: SS-HM-10B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75726 - 20a Cust. #: SS-HM-10B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75726 - 20b Cust. #: SS-HM-10B Material: Texture Location: Appearance: white, nonfibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 21 Cust. #: SS-HM-11A Material: Window Glazing Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75726 - 22 Cust. #: SS-HM-11B Material: Window Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75726 - 23 Cust. #: SS-HM-12A Material: Brown Back Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 24 Cust. #: SS-HM-12B Material: Brown Back Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75726 - 25 Cust. #: SS-HS-01A Material: Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75726 - 25a Cust. #: SS-HS-01A Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 25b Cust. #: SS-HS-01A Material: Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75726 - 26 Cust. #: SS-HS-01B Material: Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75726 - 26a Cust. #: SS-HS-01B Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 26b Cust. #: SS-HS-01B Material: Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75726 - 27 Cust. #: SS-HS-01C Material: Texture Location: Appearance: white, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 75726 - 27a Cust. #: SS-HS-01C Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2340 6th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75726
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 27b Cust. #: SS-HS-01C Material: Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75726 - 28 Cust. #: SS-HS-01D Material: Texture Location: Appearance: white, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 75726 - 28a Cust. #: SS-HS-01D Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2340 6th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75726
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 28b Cust. #: SS-HS-01D Material: Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75726 - 29 Cust. #: SS-HS-01E Material: Texture Location: Appearance: white, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 75726 - 29a Cust. #: SS-HS-01E Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2340 6th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75726
Date Collected: 03/19/18
Date Received: 03/20/18
Date Analyzed: 03/26/18
Date Reported: 03/27/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75726 - 29b Cust. #: SS-HS-01E Material: Base Coat Location: Appearance: brown, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

AREA research, Inc.

11054 Hr Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-19-18

Project: 2340 6th St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
 epaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM
 Lead: Bulk Wipe Air Paint Soil
 Mold: Bulk Tape BioSIS Other Viable
 TEM: AHERA 7400 Bulk/NOB EPA Level II
 Rush 24 hour
 48 hour 72 hour
 Other: 5 day **TTP** All Samples

Lab Use Only
 Log-In _____
 Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	SS-HM-01A	Asphalt Floor Board			
2	SS-HM-01B	" "			
3	SS-HM-02A	Roofing Shingle			
4	SS-HM-02B	" "			
5	SS-HM-03A	Vapor Barrier (House)			
6	SS-HM-03B	" "			
7	SS-HM-04A	Layered Vapor Barrier (House)			
8	SS-HM-04B	" "			
9	SS-HM-05A	White Gunk			
10	SS-HM-05B	" "			
11	SS-HM-06A	12x12 White VFT			

Relinquished by: Alex Montan Received by: UPS
 Date: 3-19-18 Date: 3-19-18
 Relinquished by: _____ Date: _____
 Received by: Julie Date: MAR 20 2018
RECEIVED
 APEX RESEARCH

75726

2 of 3

APEX Research, Inc.



11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-19-18

Project: 2340 6th St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
apauquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 day

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	SS-HM-06B	12x12 White VFT			
13	SS-HM-07A	12x12 Beige Multi Layer VFT			
14	SS-HM-07B	" " " " " "			
15	SS-HM-08A	Brown x Yellow Multi Layer Linoleum			
16	SS-HM-08B	" " " " " "			
17	SS-HM-09A	1x1 Black Smooth CT			
18	SS-HM-09B	" " " " " "			
19	SS-HM-10A	Arguably Joint Compound			
20	SS-HM-10B	" " " " " "			
21	SS-HM-11A	Window Sillaging			
22	SS-HM-11B	" " " " " "			

RECEIVED
/s/ [Signature]
MAR 20 2018

Relinquished by: [Signature] Received by: UPS
Date: 3-19-18 Date: 3-19-18

Relinquished by: _____ Received by: _____
Date: _____ Date: _____

75726

363

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-19-18
Project: 2340 6th St.
Project #: _____
Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe _____ Point Count _____ PCM _____

Rush 24 hour
48 hour 72 hour
Other: Sday ALL SAMPLES
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	SS-MM-12A	Brown Back Limb			
24	SS-MM-12B	" "			
25	SS-HS-01A	Plester			
26	SS-HS-01B				
27	SS-HS-01C				
28	SS-HS-01D				
29	SS-HS-01E				

Relinquished by: APM Received by: UPS
Date: 3-19-18 Date: 3-19-18

RECEIVED
Received by: APM
Date: MAR 20 2018

Tables

Table 1 - Summary of Hazardous Materials, 2340 6th St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Automobile Tire	1
Living	Smoke Detector	1
NE Bedroom	Smoke Detector	1
Center Bedroom	Smoke Detector	1
NW Bedroom	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2340 6th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HM-01A	Fiberboard	Yes	M	Category II	ND/ND	Exterior	NA
SS-HM-01B	Fiberboard	Yes	M	Category II	ND/ND	Exterior	NA
SS-HM-02A	Roofing Materials	No	M	Category I	ND/ND	House Exterior	NA
SS-HM-02B	Roofing Materials	No	M	Category I	ND/ND	Garage Exterior	NA
SS-HM-03A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-03B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-04A	Vapor Barrier Layered	Yes	M	Category II	ND	Garage Exterior	NA
SS-HM-04B	Vapor Barrier Layered	Yes	M	Category II	ND	Garage Exterior	NA
SS-HM-05A	White Linoleum	No	M	Category I	ND	Living/Dining	NA
SS-HM-05B	White Linoleum	No	M	Category I	ND	Living/Dining	NA
SS-HM-06A	12x12 White Vinyl Tile	No	M	Category I	ND/ND	Kitchen	NA
SS-HM-06B	12x12 White Vinyl Tile	No	M	Category I	ND/ND	Kitchen	NA
SS-HM-07A	12x12 Beige Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/N D/ND	Bathroom	NA
SS-HM-07B	12x12 Beige Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/N D/ND	Bathroom	NA
SS-HM-08A	Brown and Yellow Multilayer Linoleum	No	M	Category I	ND/ND	NE Bedroom	NA
SS-HM-08B	Brown and Yellow Multilayer Linoleum	No	M	Category I	ND/ND	NE Bedroom	NA
SS-HM-09A	1'x1' Black Smooth Ceiling Tile	Yes	M	Category II	ND/ND	NE Bedroom	NA
SS-HM-09B	1'x1' Black Smooth Ceiling Tile	Yes	M	Category II	ND/ND	NE Bedroom	NA
SS-HM-10A	Drywall and Joint Compound	No	M	Category II	ND/ND/ND	Living/Dining Ceiling	NA
SS-HM-10B	Drywall and Joint Compound	No	M	Category II	ND/ND/ND	Living/Dining Wall	NA
SS-HM-11A	Window Glazing	Yes	M	Category II	5%CH	Living	32 Windows
SS-HM-11B	Window Glazing	Yes	M	Category II	NA	Living	NA
SS-HM-12A	Brown Back Linoleum	No	M	Category I	ND	Front Porch	NA
SS-HM-12B	Brown Back Linoleum	No	M	Category I	ND	Front Porch	NA
SS-HS-01A	Plaster	No	S	Category II	ND/ND/ND	Center Bedroom Ceiling	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2340 6th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HS-01B	Plaster	No	S	Category II	ND/ND/ND	Living/Dining Ceiling	NA
SS-HS-01C	Plaster	No	S	Category II	ND/ND/ND	NW Bedroom Wall	NA
SS-HS-01D	Plaster	No	S	Category II	ND/ND/ND	Living/Dining Wall	NA
SS-HS-01E	Plaster	No	S	Category II	ND/ND/ND	Center Bedroom Wall	NA

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material
- PC = Point Count Analysis
- CH = Chrysotile Asbestos

Abbreviations

- NQ = Not quantified
- NA = Not applicable
- ND = Not detected. Laboratory result is less than 1 % asbestos
- lin. ft. = linear feet
- sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 2340 6th St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Rear Entry	Transite Pipe (6" dia.)	No	Fair	M	6 lin. ft.
Attic	Air-O-Cell 3" to 4"	Yes	Fair	TSI	78 lin. ft.
Basement and Crawl Space	Air-O-Cell Debris	Yes	Fair	TSI	50 sq. ft.
Attic (850 sq. ft. at 8" depth) Rear Entry (100 sq. ft. at 8" depth)	Vermiculite	Yes	Fair	M	950 sq. ft. at 8" depth

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 2340 6th St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Attic	Air-O-Cell 3" to 4"	Yes	78 lin. ft.
		Total	78 lin. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement and Crawl Space	Air-O-Cell Debris	Yes	50 sq. ft.
		Total	50 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Front Porch (12 windows 28" wide x 56" tall)	Glazing	Yes	12 Windows
Living (2 windows 44" wide x 66" tall)	Glazing	Yes	2 Windows
Living (3 windows 24" wide x 40" tall)	Glazing	Yes	3 Windows
NW Bedroom (1 window 28" wide x 66" tall)	Glazing	Yes	1 Window
Center Bedroom (1 window 28" wide x 66" tall)	Glazing	Yes	1 Window
NE Bedroom (1 window 28" wide x 66" tall)	Glazing	Yes	1 Window
Bathroom (1 window 20" wide x 46" tall)	Glazing	Yes	1 Window
Kitchen (2 windows 24" wide x 52" tall)	Glazing	Yes	2 Windows
Basement (1 window 30" wide x 16" tall)	Glazing	Yes	1 Window
Garage (6 windows 22" wide x 30" tall)	Glazing	Yes	6 Windows
Garage (2 windows 54" wide x 36" tall)	Glazing	Yes	2 Windows
		Total	32 Windows
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Rear Entry	Transite Pipe (6" dia.)	No	6 lin. ft.
		Total	6 lin. ft.

Table 4 - Summary of All Asbestos Containing Materials, 2340 6th St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Attic	Vermiculite	Yes	850 sq. ft. at 8" depth
Rear Entry (10'x10', 100 sq. ft.)	Vermiculite	Yes	100 sq. ft. 8" depth
		Total	950 sq. ft. at 8" depth

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
2521 Baker St., Muskegon Heights, MI 49444
Parcel ID: 61-26-185-146-0005-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2521 Baker St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .29 acre residential parcel which contains an approximate 1,809 square foot residential building (the Building) constructed in 1997. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with vinyl over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, utility room, two bathrooms, and two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

inspection of the Subject Property on March 15, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Asphalt Shingle
- 12"x12" Vinyl Tile
- Linoleum
- Drywall and Joint Compound
- Textured Surfacing

Red Cedar staff collected nineteen samples of suspect ACBM separated into eight distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the nineteen samples is included as Attachment A.

Hazardous Materials Inspection

On March 15, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, nineteen samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

No PACM was identified during the completion of this inspection. All suspect materials identified were sampled and analyzed for ACM.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

No friable ACM's were identified during the completion of this inspection.

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

No ACM was identified within the Building that would require abatement prior to demolition/renovation of the structure.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Television (1)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-185-146-0005-00

- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2521 Baker St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75675
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75675 - 01 Cust. #: BS-HM-01A Material: Vapor Barrier/Fiberboard Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75675 - 02 Cust. #: BS-HM-01B Material: Vapor Barrier/Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75675 - 03 Cust. #: BS-HM-02A Material: Shingle Roof Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



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Test Method, Polarized Light Microscopy (PLM)

Project: 2521 Baker St.

Report To:

Mr. Aaron Paquet
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Lansing, MI 48901

ARI Report # 18-75675
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75675 - 03a Cust. #: BS-HM-02A Material: Paper Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75675 - 04 Cust. #: BS-HM-02B Material: Shingle Roof Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75675 - 04a Cust. #: BS-HM-02B Material: Paper Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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ARI Report # 18-75675
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75675 - 05 Cust. #: BS-HM-03A Material: Brown 12x12 Layered VFT Location: Appearance: brown, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75675 - 05a Cust. #: BS-HM-03A Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75675 - 05b Cust. #: BS-HM-03A Material: Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

Project: 2521 Baker St.

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Lansing, MI 48901

ARI Report # 18-75675
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75675 - 06 Cust. #: BS-HM-03B Material: Brown 12x12 Layered VFT Location: Appearance: brown, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75675 - 06a Cust. #: BS-HM-03B Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75675 - 06b Cust. #: BS-HM-03B Material: Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75675
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75675 - 07 Cust. #: BS-HM-04A Material: Blue/Grey Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75675 - 08 Cust. #: BS-HM-04B Material: Blue/Grey Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75675 - 09 Cust. #: BS-HM-05A Material: Brown 12x12 Tan Layered Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

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Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75675
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75675 - 09a Cust. #: BS-HM-05A Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75675 - 10 Cust. #: BS-HM-05B Material: Brown 12x12 Tan Layered Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75675 - 10a Cust. #: BS-HM-05B Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

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ARI Report # 18-75675
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75675 - 11 Cust. #: BS-HM-06A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75675 - 12 Cust. #: BS-HM-06B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75675 - 13 Cust. #: BS-HM-07A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

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Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75675 - 13a Cust. #: BS-HM-07A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75675 - 14 Cust. #: BS-HM-07B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75675 - 14a Cust. #: BS-HM-07B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

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Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75675 - 15 Cust. #: BS-HS-01A Material: Textured Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75675 - 16 Cust. #: BS-HS-01B Material: Textured Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75675 - 17 Cust. #: BS-HS-01C Material: Textured Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Test Method, Polarized Light Microscopy (PLM)

Project: 2521 Baker St.

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ARI Report # 18-75675
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75675 - 18 Cust. #: BS-HS-01D Material: Textured Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75675 - 19 Cust. #: BS-HS-01E Material: Textured Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

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NVLAP Lab Code 102118-0

Apex 75675

pg 1 of 2

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18

Project: 2521 Baker St.

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Other: 5 Day All Samples

Rush 24 hour
48 hour 72 hour

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	BS-HM-01A	Yellow Barrier			
2	BS-HM-01B	" "			
3	BS-HM-02A	Shingle Roof			
4	BS-HM-02B	" "			
5	BS-HM-03A	Brown (2x12) Layered VFT			
6	BS-HM-03B	" "			
7	BS-HM-04A	Blue & Grey Linoleum			
8	BS-HM-04B	" "			
9	BS-HM-05A	Brown (2x12) Tar Layered in.			
10	BS-HM-05B	" "			
11	BS-HM-06A	Drywall & Compound.			

RECEIVED

Relinquished by: [Signature] Received by: UPS

Date: 3-16-18 Date: 3-16-18

Relinquished by: _____

Date: _____

Received by: [Signature]
MAR 19 2018

Date: _____

APEX RESEARCH

75675

Pg 2 of 2

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18

Project: 2521 Baker St.

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Rush 24 hour
48 hour
Other: 5 Day TTP All Samples

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	BS-HM-06B	Drywall & Compound			
13	BS-HM-07A	Drywall & Compound			
14	BS-HM-07B	"			
15	BS-HS-01A	Texture			
16	BS-HS-01B				
17	BS-HS-01C				
18	BS-GS-01D				
19	BS-HS-01E				

Relinquished by: Chris Paquet Received by: UPS
Date: 3-16-18 Date: 3-16-18

Relinquished by: _____ Received by: Paul
Date: _____ Date: MAR 19 2018

RECEIVED

Tables

Table 1 - Summary of Hazardous Materials, 2521 Baker St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Living Room	Television	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2521 Baker St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
BS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
BS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
BS-HM-02A	Roofing Materials	No	M	Category I	ND/ND	Exterior	NA
BS-HM-02B	Roofing Materials	No	M	Category I	ND/ND	Exterior	NA
BS-HM-03A	Brown 12x12 Layered Vinyl Tile	No	M	Category I	ND/ND/ND	Front Entry	NA
BS-HM-03B	Brown 12x12 Layered Vinyl Tile	No	M	Category I	ND/ND/ND	Front Entry	NA
BS-HM-04A	Blue and Gray Linoleum	No	M	Category I	ND	Kitchen	NA
BS-HM-04B	Blue and Gray Linoleum	No	M	Category I	ND	Kitchen	NA
BS-HM-05A	Tan Layered Linoleum	No	M	Category I	ND/ND	N Bathroom	NA
BS-HM-05B	Tan Layered Linoleum	No	M	Category I	ND/ND	N Bathroom	NA
BS-HM-06A	Drywall and Joint Compound	No	M	Category II	ND	Family Room Ceiling	NA
BS-HM-06B	Drywall and Joint Compound	No	M	Category II	ND	N Bathroom Wall	NA
BS-HM-07A	Drywall and Joint Compound	No	M	Category II	ND/ND	Basement E Wall	NA
BS-HM-07B	Drywall and Joint Compound	No	M	Category II	ND/ND	Basement W Wall	NA
BS-HS-01A	Texture	No	S	Category II	ND	Living	NA
BS-HS-01B	Texture	No	S	Category II	ND	Kitchen	NA
BS-HS-01C	Texture	No	S	Category II	ND	Bath	NA
BS-HS-01D	Texture	No	S	Category II	ND	NW Bedroom	NA
BS-HS-01E	Texture	No	S	Category II	ND	NE Bedroom	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 2521 Baker St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
No Presumed Asbestos Containing Materials Identified					

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 2521 Baker St., Muskegon Heights, Michigan

Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
No Asbestos Containing Materials Identified			

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
2905 9th St., Muskegon Heights, MI 49444
Parcel ID: 61-26-185-220-0002-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2905 9th St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .14 acre residential parcel which contains a 440 sq. ft. detached garage and approximate 1,315 square foot residential building (the Building) constructed in 1940. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood lap over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, kitchen, bath, and two bedrooms on the first floor while the second floor contains one bedroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 15, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Asphalt Shingle
- 12"x12" Vinyl Tile
- Linoleum
- Window Glazing
- 1'x1' Ceiling Tile with Glue Pods
- Plaster

Red Cedar staff collected twenty seven samples of suspect ACBM separated into twelve distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty seven samples is included as Attachment A.

Hazardous Materials Inspection

On March 15, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty seven samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

No PACM was identified during the completion of this inspection. All suspect materials identified were sampled and analyzed for ACM.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Window glazing sample collected from windows in the Living Room and Basement were found to contain up to 1.5% asbestos following analysis. The assessment to quantify the extent of this material identified twenty four windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Kitchen (4 windows 32" wide x 38" tall)
- Kitchen (2 windows 36" wide x 48" tall)
- NW Bedroom (2 windows 28" wide x 54" tall)
- Bathroom (1 window 28" wide x 38" tall)
- NE Bedroom (2 windows 36" wide x 54" tall)
- Living (1 window 84" wide x 54" tall)
- Living (2 windows 24" wide x 54" tall)
- 2nd Floor (2 windows 28" wide x 46" tall)
- Basement (4 windows 32" wide x 14" tall) (Metal)
- Garage (4 windows 20" wide x 30" tall)

Category I ACM

Two types of resilient floor covering (12"x12" Layered Gray Vinyl Tile and 12"x12" Pebble Vinyl Tile) located within the kitchen were found to contain up to 30% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 686 sq. ft. of this material within the Building.

Category II ACM

Glue Pod samples, collected from the 2nd Floor were found to contain up to 1.50% asbestos following analysis. The assessment to quantify the extent of this material identified approximately 256 sq. ft. of glue pods within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

Friable asbestos containing window glazing was identified on twenty four windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Kitchen (4 windows 32" wide x 38" tall)
- Kitchen (2 windows 36" wide x 48" tall)
- NW Bedroom (2 windows 28" wide x 54" tall)
- Bathroom (1 window 28" wide x 38" tall)
- NE Bedroom (2 windows 36" wide x 54" tall)
- Living (1 window 84" wide x 54" tall)
- Living (2 windows 24" wide x 54" tall)
- 2nd Floor (2 windows 28" wide x 46" tall)

- Basement (4 windows 32” wide x 14” tall) (Metal)
- Garage (4 windows 20” wide x 30” tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

Glue Pods identified on the interior of the Building must be abated prior to completion of any renovation/demolition activities at the Subject Property. Any Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations must be properly abated.

The Category I resilient floor coverings (12”x12” Layered Gray Vinyl Tile and 12”x12” Pebble Vinyl Tile) are non-friable ACM’s that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tires (4)
- Smoke Detector (2)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM’s that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.

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Muskegon County Land Bank
Parcel ID: 61-26-185-220-0002-00

- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2905 9th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 01 Cust. #: NS-HM-01A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 02 Cust. #: NS-HM-01B Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 03 Cust. #: NS-HM-02A Material: Shingle Roof Location: Appearance: black, fibrous, homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



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Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 03a Cust. #: NS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 03b Cust. #: NS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 03c Cust. #: NS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 03d Cust. #: NS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 03e Cust. #: NS-HM-02A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 04 Cust. #: NS-HM-02B Material: Shingle Roof Location: Appearance: black, fibrous, homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 04a Cust. #: NS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 04b Cust. #: NS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 04c Cust. #: NS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 04d Cust. #: NS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 04e Cust. #: NS-HM-02B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75677 - 05 Cust. #: NS-HM-03A Material: Shingle Roof Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 05a Cust. #: NS-HM-03A Material: Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 05b Cust. #: NS-HM-03A Material: Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 05c Cust. #: NS-HM-03A Material: Tar Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 06 Cust. #: NS-HM-03B Material: Shingle Roof/Tar Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75677 - 07 Cust. #: NS-HM-04A Material: 12x12 Layered Grey VFT Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 07a Cust. #: NS-HM-04A Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 07b Cust. #: NS-HM-04A Material: Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 4	Asbestos Present: YES Chrysotile - 30%	Other - 70%
Lab ID #: 75677 - 07c Cust. #: NS-HM-04A Material: Flooring Location: Appearance: beige, fibrous, nonhomogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75677 - 08 Cust. #: NS-HM-04B Material: 12x12 Layered Grey VFT Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 08a Cust. #: NS-HM-04B Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 08b Cust. #: NS-HM-04B Material: Linoleum Location: Appearance: Layer: 3 of 4	Asbestos Present: NOT ANALYZED	
Lab ID #: 75677 - 08c Cust. #: NS-HM-04B Material: Flooring Location: Appearance: beige, fibrous, nonhomogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 09 Cust. #: NS-HM-05A Material: 12x12 Blue Multilayer Linoleum Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 09a Cust. #: NS-HM-05A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 09b Cust. #: NS-HM-05A Material: Floor Tile Location: Appearance: green,nonfibrous,homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 09c Cust. #: NS-HM-05A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 10 Cust. #: NS-HM-05B Material: 12x12 Blue Multilayer Linoleum Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 10a Cust. #: NS-HM-05B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2905 9th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 10b Cust. #: NS-HM-05B Material: Floor Tile Location: Appearance: green,nonfibrous,homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 10c Cust. #: NS-HM-05B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 11 Cust. #: NS-HM-06A Material: Brown Linoleum Location: Appearance: red,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 12 Cust. #: NS-HM-06B Material: Brown Linoleum Location: Appearance: red, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75677 - 13 Cust. #: NS-HM-07A Material: 12x12 Pebble VFT Location: Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75677 - 13a Cust. #: NS-HM-07A Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 14 Cust. #: NS-HM-07B Material: 12x12 Pebble VFT Location: Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 75677 - 14a Cust. #: NS-HM-07B Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 15 Cust. #: NS-HM-08A Material: Layered Red Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 16 Cust. #: NS-HM-08B Material: Layered Red Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75677 - 17 Cust. #: NS-HM-09A Material: Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.25% POINT COUNT RESULT	Other - 98.75%
Lab ID #: 75677 - 18 Cust. #: NS-HM-09B Material: Window Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 19 Cust. #: NS-HM-10A Material: Window Glazing Location: Basement Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.50% POINT COUNT RESULT	Other - 98.50%
Lab ID #: 75677 - 20 Cust. #: NS-HM-10B Material: Window Glazing Location: Basement Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75677 - 21 Cust. #: NS-HM-11A Material: 1x1 White Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 21a Cust. #: NS-HM-11A Material: Glue Pod Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 1.50% POINT COUNT RESULT	Other - 98.50%
Lab ID #: 75677 - 22 Cust. #: NS-HM-11B Material: 1x1 White Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%
Lab ID #: 75677 - 22a Cust. #: NS-HM-11B Material: Glue Pod Location: Appearance: Layer: 2 of 2	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 23 Cust. #: NS-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 23a Cust. #: NS-HS-01A Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Vermiculite - 5% Other - 93%
Lab ID #: 75677 - 24 Cust. #: NS-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 24a Cust. #: NS-HS-01B Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Vermiculite - 5% Other - 93%
Lab ID #: 75677 - 25 Cust. #: NS-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 25a Cust. #: NS-HS-01C Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Vermiculite - 5% Other - 93%

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Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 26 Cust. #: NS-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75677 - 26a Cust. #: NS-HS-01D Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Vermiculite - 5% Other - 93%
Lab ID #: 75677 - 27 Cust. #: NS-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2905 9th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75677
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/26/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75677 - 27a Cust. #: NS-HS-01E Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Vermiculite - 5% Other - 93%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18

Project: 2905 9th St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
 Other: 5 Day All Samples TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Rush 24 hour

48 hour 72 hour

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	US-HM-01A	Vapor Barrier			
2	US-HM-01B	" "			
3	US-HM-02A	Shingle Roof			
4	US-HM-02B	" "			
5	US-HM-03A	Shingle Roof Garage			
6	US-HM-03B	" "			
7	US-HM-04A	12x12 Insulated Concrete FT			
8	US-HM-04B	" "			
9	US-HM-05A	12x12 Blue Multilayer Lin.			
10	US-HM-05B	" "			
11	US-HM-06A	Brown Linoleum			

Relinquished by: Cam R Received by: UPS
 Date: 3-16-18 Date: 3-16-18

Relinquished by: _____
 Date: _____

RECEIVED
 Received by: Jade 1/24
 Date: MAR 19 2018

75677

Pg 2 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-08

Project: 2905 9th St

Project #:

Contact Person: Aaron Paquet

apaquet@redcedarconsulting.net
with a detection of <5% ACM.

Turn Around Times: (Circle One)

Rush 24 hour

48 hour 72 hour

Other: 5 Day All Samples

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	NS-HM-06B	Brown Linoleum			
13	NS-HM-07A	12x12 Pebble VFT			
14	NS-HM-07B	" " "			
15	NS-HM-08A	honeycombed Red Linoleum			
16	NS-HM-08B	" " "			
17	NS-HM-09A	Window Glazing			
18	NS-HM-09B	" " "			
19	NS-HM-10A	Window Ceiling Board			
20	NS-HM-10B	" " "			
21	NS-HM-11A	1x1 White CT with Glue Pads			
22	NS-HM-11B	" " "			

Relinquished by: Cheryl Received by: UPS

Date: 3-16-08 Date: 3-16-08

RE Received by: Lab Date: MAR 19 2008

Tables

Table 1 - Summary of Hazardous Materials, 2905 9th St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Automobile Tires	3
Garage	Automobile Tires	1
Living	Smoke Detector	1
Kitchen	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2905 9th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
NS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
NS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
NS-HM-02A	Roofing Materials	No	M	Category I	ND/ND/ND ND/ND/ND	Exterior	NA
NS-HM-02B	Roofing Materials	No	M	Category I	ND/ND/ND ND/ND/ND	Exterior	NA
NS-HM-03A	Roofing Materials	No	M	Category I	ND/ND/ ND/ND	Garage Exterior	NA
NS-HM-03B	Roofing Materials	No	M	Category I	ND	Garage Exterior	NA
NS-HM-04A	12x12 Layered Gray Vinyl Tile	No	M	Category I	ND/ND/ 30%CH/ND	Kitchen	270 sq. ft.
NS-HM-04B	12x12 Layered Gray Vinyl Tile	No	M	Category I	ND/ND/ NA/ND	Kitchen	NA
NS-HM-05A	12x12 Blue Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/N D	Bathroom	NA
NS-HM-05B	12x12 Blue Multilayer Vinyl Tile	No	M	Category I	ND/ND/ND/N D	Bathroom	NA
NS-HM-06A	Brown Linoleum	No	M	Category I	ND	Stairway Landing	NA
NS-HM-06B	Brown Linoleum	No	M	Category I	ND	Front Entry	NA
NS-HM-07A	12x12 Pebble Vinyl Tile	No	M	Category I	5%CH/ND	2 nd Fl. Bedroom	416 sq. ft.
NS-HM-07B	12x12 Pebble Vinyl Tile	No	M	Category I	NA/ND	2 nd Fl. Bedroom	NA
NS-HM-08A	Layered Red Linoleum	No	M	Category I	ND	Basement	NA
NS-HM-08B	Layered Red Linoleum	No	M	Category I	ND	Basement	NA
NS-HM-09A	Window Glazing	Yes	M	Category II	1.25%CH-PC	Living	20 Windows
NS-HM-09B	Window Glazing	Yes	M	Category II	NA	Dining	NA
NS-HM-10A	Window Glazing	Yes	M	Category II	1.50%CH-PC	Basement	4 Windows
NS-HM-10B	Window Glazing	Yes	M	Category II	NA	Basement	NA
NS-HM-11A	1'x1' White Ceiling Tile with Glue Pods	Yes	M	Category II	ND/1.50%CH- PC	2 nd Floor	256 sq. ft.
NS-HM-11B	1'x1' White Ceiling Tile with Glue Pods	Yes	M	Category II	ND/NA	2 nd Floor	NA
NS-HS-01A	Plaster	No	S	Category II	ND/ND	Kitchen Ceiling	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2905 9th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
NS-HS-01B	Plaster	No	S	Category II	ND/ND	NE Bedroom Ceiling	NA
NS-HS-01C	Plaster	No	S	Category II	ND/ND	NW Bedroom Wall	NA
NS-HS-01D	Plaster	No	S	Category II	ND/ND	Living Wall	NA
NS-HS-01E	Plaster	No	S	Category II	ND/ND	NE Bedroom Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 2905 9th St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
No Presumed Asbestos Containing Materials Identified					

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 2905 9th St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen	12"x12" Layered Gray Vinyl Tile	No	225 sq. ft.
Hallway	12"x12" Layered Gray Vinyl Tile	No	45 sq. ft.
2 nd Floor	12"x12" Pebble Vinyl Tile	No	416 sq. ft.
Total			686 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen (4 windows 32" wide x 38" tall)	Glazing	Yes	4 Windows
Kitchen (2 windows 36" wide x 48" tall)	Glazing	Yes	2 Windows
NW Bedroom (2 windows 28" wide x 54" tall)	Glazing		2 Windows
Bathroom (1 window 28" wide x 38" tall)	Glazing		1 Window
NE Bedroom (2 windows 36" wide x 54" tall)	Glazing		2 Windows
Living (1 window 84" wide x 54" tall)	Glazing		1 Window
Living (2 windows 24" wide x 54" tall)	Glazing		2 Windows
2 nd Floor (2 windows 28" wide x 46" tall)	Glazing		2 Windows
Basement (4 windows 32" wide x 14" tall) (Metal)	Glazing		4 Windows
Garage (4 windows 20" wide x 30" tall)	Glazing		4 Windows
Total			24 Windows
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
2 nd Floor	1'x1' White Smooth Ceiling Tile with Glue Pods	No	256 sq. ft.
Total			256 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Table 4 - Summary of All Asbestos Containing Materials, 2905 9th St., Muskegon Heights, Michigan

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
2933 Jefferson St., Muskegon Heights, MI 49444
Parcel ID: 61-26-185-225-0009-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2933 Jefferson St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .14 acre residential parcel which contains an approximate 1,152 square foot residential building (the Building) constructed in 1920. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood over a vapor barrier and Stucco while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, pantry, bathroom, and a bedroom on the first floor while the second floor contains three bedrooms and a bathroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

inspection of the Subject Property on March 15, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- 2'x4' Ceiling Tile
- 12"x12" Vinyl Tile
- Drywall and Joint Compound
- Window Glazing
- Stucco
- Plaster

Red Cedar staff collected thirty two samples of suspect ACBM separated into fourteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the thirty two samples is included as Attachment A.

Hazardous Materials Inspection

On March 15, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, thirty two samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window glazing sample collected from a window in the 2nd Fl. Bathroom was found to contain up to 1.25% asbestos following analysis. The assessment to quantify the extent of this material identified twenty three windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Kitchen (1 window 36" wide x 38" tall)
- Dining (1 window 52" wide x 22" tall)
- Dining (2 windows 28" wide x 62" tall)
- Living (1 window 52" wide x 22" tall)
- Living (3 windows 28" wide x 62" tall)
- SE Bedroom (2 windows 28" wide x 62" tall)
- 2nd Fl. Hallway (1 window 28" wide x 54" tall)
- 2nd Fl. SE Bedroom (1 window 28" wide x 38" tall)
- 2nd Fl. Bathroom (1 window 28" wide x 38" tall)
- 2nd Fl. NW Bedroom (2 windows 28" wide x 54" tall)
- 2nd Fl. NE Bedroom (2 windows 28" wide x 38" tall)
- Basement (6 windows 30" wide x 22" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Living (1 register, 10 sq. ft.)
- Kitchen (1 register, 10 sq. ft.)
- 2nd Fl. NW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Category I ACM

One type of resilient floor covering (12"x12" White Layered Vinyl Tile) located within the Basement was found to contain up to 5% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 28 sq. ft. of this material within the Building.

Category II ACM

A Plaster sample, collected from the Dining Room was found to contain up to 2% asbestos following analysis. The assessment to quantify the extent of this material identified approximately 4,995 sq. ft. of plaster within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Living (1 register, 10 sq. ft.)
- Kitchen (1 register, 10 sq. ft.)
- 2nd Fl. NW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Friable asbestos containing window glazing was identified on twenty three windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Kitchen (1 window 36" wide x 38" tall)
- Dining (1 window 52" wide x 22" tall)
- Dining (2 windows 28" wide x 62" tall)
- Living (1 window 52" wide x 22" tall)
- Living (3 windows 28" wide x 62" tall)
- SE Bedroom (2 windows 28" wide x 62" tall)
- 2nd Fl. Hallway (1 window 28" wide x 54" tall)
- 2nd Fl. SE Bedroom (1 window 28" wide x 38" tall)
- 2nd Fl. Bathroom (1 window 28" wide x 38" tall)
- 2nd Fl. NW Bedroom (2 windows 28" wide x 54" tall)
- 2nd Fl. NE Bedroom (2 windows 28" wide x 38" tall)
- Basement (6 windows 30" wide x 22" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

Plaster identified on the interior of the Building must be abated prior to completion of any renovation/demolition activities at the Subject Property. Any Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations must be properly abated.

The Category I floor covering (12"x12" White Layered Vinyl Tile) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-185-225-0009-00

the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Thermostat (1)
- 4' Fluorescent Light (Fixture and Ballast Only) (1)
- 4' Fluorescent Bulb (2)
- Television (1)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-185-225-0009-00

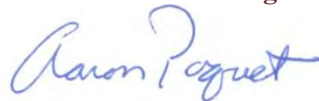
DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2933 Jefferson St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 01 Cust. #: JS-HM-01A Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%
Lab ID #: 75637 - 02 Cust. #: JS-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%
Lab ID #: 75637 - 03 Cust. #: JS-HM-02A Material: Roofing Shingle/Membrane Location: House Appearance: black, nonfibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2933 Jefferson St.

Report To:
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Red Cedar Consulting
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Lansing, MI 48901

ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 03a Cust. #: JS-HM-02A Material: Shingle Location: House Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 75637 - 04 Cust. #: JS-HM-02B Material: Roofing Shingle/Membrane Location: House Appearance: black, nonfibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 04a Cust. #: JS-HM-02B Material: Shingle Location: House Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

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Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 05 Cust. #: JS-HM-03A Material: Roofing Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75637 - 05a Cust. #: JS-HM-03A Material: Tar Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75637 - 06 Cust. #: JS-HM-03B Material: Roofing Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 06a Cust. #: JS-HM-03B Material: Tar Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75637 - 07 Cust. #: JS-HM-04A Material: Cream Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%
Lab ID #: 75637 - 08 Cust. #: JS-HM-04B Material: Cream Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



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ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 09 Cust. #: JS-HM-05A Material: Grey Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%
Lab ID #: 75637 - 10 Cust. #: JS-HM-05B Material: Grey Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%
Lab ID #: 75637 - 11 Cust. #: JS-HM-06A Material: Red Linoleum Location: Appearance: blue, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



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Project: 2933 Jefferson St.

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Lansing, MI 48901

ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 12 Cust. #: JS-HM-06B Material: Red Linoleum Location: Appearance: blue, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75637 - 13 Cust. #: JS-HM-07A Material: 2x4 White Texture CT w/Brown Back Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%
Lab ID #: 75637 - 14 Cust. #: JS-HM-07B Material: 2x4 White Texture CT w/ Brown Back Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Test Method, Polarized Light Microscopy (PLM)

Project: 2933 Jefferson St.

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Lansing, MI 48901

ARI Report # 18-75637
Date Collected: 03/15/18
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Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 15 Cust. #: JS-HM-08A Material: 2x4 White Textured CT w/Grey Back Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 65% Mineral Wool - 30% Other - 5%
Lab ID #: 75637 - 16 Cust. #: JS-HM-08B Material: 2x4 White Textured CT w/ Grey Back Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 65% Mineral Wool - 30% Other - 5%
Lab ID #: 75637 - 17 Cust. #: JS-HM-09A Material: 12x12 Tan VFT Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 17a Cust. #: JS-HM-09A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 18 Cust. #: JS-HM-09B Material: 12x12 Tan VFT Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 18a Cust. #: JS-HM-09B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2933 Jefferson St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 19 Cust. #: JS-HM-10A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75637 - 19a Cust. #: JS-HM-10A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 20 Cust. #: JS-HM-10B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 20a Cust. #: JS-HM-10B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 21 Cust. #: JS-HM-11A Material: Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 22 Cust. #: JS-HM-11B Material: Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.25% POINT COUNT RESULT	Other - 98.75%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 23 Cust. #: JS-HM-12A Material: 12x12 White Layered VFT Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 23a Cust. #: JS-HM-12A Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 23b Cust. #: JS-HM-12A Material: Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 23c Cust. #: JS-HM-12A Material: Floor Tile Location: Appearance: beige, fibrous, homogenous Layer: 4 of 5	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75637 - 23d Cust. #: JS-HM-12A Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 24 Cust. #: JS-HM-12B Material: 12x12 White Layered VFT Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 24a Cust. #: JS-HM-12B Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 24b Cust. #: JS-HM-12B Material: Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 75637 - 24c Cust. #: JS-HM-12B Material: Floor Tile Location: Appearance: Layer: 4 of 5	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 24d Cust. #: JS-HM-12B Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 25 Cust. #: JS-HS-01A Material: Stucco Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 26 Cust. #: JS-HS-01B Material: Stucco Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Red Cedar Consulting
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Lansing, MI 48901

ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 27 Cust. #: JS-HS-01C Material: Stucco Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 28 Cust. #: JS-HS-02A Material: Plaster Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75637 - 28a Cust. #: JS-HS-02A Material: Plaster Texture Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 03/15/18
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Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 28b Cust. #: JS-HS-02A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75637 - 29 Cust. #: JS-HS-02B Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 3 of 3	Asbestos Present: YES Chrysotile - 2%	Cellulose - 2% Other - 96%
Lab ID #: 75637 - 30 Cust. #: JS-HS-02C Material: Plaster Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75637
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75637 - 31 Cust. #: JS-HS-02D Material: Plaster Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75637 - 32 Cust. #: JS-HS-02E Material: Plaster Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

1673

75637 Apex



APEX Research, Inc. 11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Lab Use Only
Log-In _____
Report _____

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739
Date of Survey: 3-15-18
Project: 2933 Jefferson St
Project #: _____
Contact Person: Aaron Paquet
apauquet@redcedarconsulting.net
PC all samples with a detection of <5% ACM.

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II
Rush 24 hour
48 hour 72 hour
Other: Sday **TTP** ALL Samples

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	JS-HM-01A	Vapor Barrier			
2	JS-HM-01B	..			
3	JS-HM-02A	Roofing Shingle (House)			
4	JS-HM-02B	..			
5	JS-HM-03A	Roofing Shingle (Garage)			
6	JS-HM-03B	..			
7	JS-HM-04A	Clean Gypsum			
8	JS-HM-04B	..			
9	JS-HM-05A	Gray Gypsum			
10	JS-HM-05B	..			
11	JS-HM-06A	Red Gypsum			

Relinquished by: A. Williams Received by: U.P. Relinquished by: SSD Received by: SSD
Date: 3-15-18 Date: 3-15-18 Date: 3/16/18 Date: 3/16/18
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APR 16 2018
APEX RESEARCH

2 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18

Project: 2933 Jefferson St.

Project #: _____

Contact Person: Aaron Paquet

PLM EPA 600, PC all samples with a detection of <5% ACM.
apaquet@redcedarconsulting.net

Turn Around Times: (Circle One)

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: 5 day **(TTP)** All Samples

Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	J5-HM-06B	Red Linoleum			
13	J5-HM-07A	2x4 white textured CT w/ brown/black			
14	J5-HM-07B	" " " " " " " "			
15	J5-HM-08A	2x4 white textured CT w/ grey/black			
16	J5-HM-08B	" " " " " " " "			
17	J5-HM-09A	12x12 tan VFT			
18	J5-HM-09B	" " " " " " " "			
19	J5-HM-10A	Argonall Joint Compound			
20	J5-HM-10B	" " " " " " " "			
21	J5-HM-11A	Window Glazing			
22	J5-HM-11B	" " " " " " " "			

RECEIVED

Relinquished by: Andy [Signature] Received by: UPS
Date: 3-15-18 Date: 3-15-18

Relinquished by: _____ Received by: _____
Date: _____ Date: MAR 16 2018

3 of 3

APEX Research, Inc.



11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18
Project: 2933 Jefferson St
Project #:
Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Rush 24 hour
48 hour 72 hour
Other: 5 day All samples

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	JS-HM-12A	12x12 White Layered VFT			
24	JS-HM-12B	" "			
25	JS-HS-01A	Stucco			
26	JS-HS-01B	" "			
27	JS-HS-01C	" "			
28	JS-HS-02A	Plaster			
29	JS-HS-02B				
30	JS-HS-02C				
31	JS-HS-02D				
32	JS-HS-02E				

Relinquished by: [Signature] Received by: UPS
Date: 3-15-18 Date: 3-15-18

Relinquished by: _____ Received by: _____
Date: _____ Date: MAR 16 2018

RECEIVED

Tables

Table 1 - Summary of Hazardous Materials, 2933 Jefferson St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
2 nd Fl. Living	Thermostat	1
Basement	4' Fluorescent Light (Fixture and Ballast Only)	1
Basement	4' Fluorescent Bulb	2
Basement	Television	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2933 Jefferson St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
JS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
JS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
JS-HM-02A	Roofing Shingle	No	M	Category I	ND/ND	House Exterior	NA
JS-HM-02B	Roofing Shingle	No	M	Category I	ND/ND	House Exterior	NA
JS-HM-03A	Roofing Shingle	No	M	Category I	ND/ND	Garage Exterior	NA
JS-HM-03B	Roofing Shingle	No	M	Category I	ND/ND	Garage Exterior	NA
JS-HM-04A	Cream Linoleum	No	M	Category I	ND	Kitchen	NA
JS-HM-04B	Cream Linoleum	No	M	Category I	ND	Kitchen	NA
JS-HM-05A	Gray Linoleum	No	M	Category I	ND	Pantry	NA
JS-HM-05B	Gray Linoleum	No	M	Category I	ND	Pantry	NA
JS-HM-06A	Red Linoleum	No	M	Category I	ND	SE Bedroom	NA
JS-HM-06B	Red Linoleum	No	M	Category I	ND	SE Bedroom	NA
JS-HM-07A	2'x4' White Texture Ceiling Tile with Brown Flecks	Yes	M	Category II	ND	SE Bedroom	NA
JS-HM-07B	2'x4' White Texture Ceiling Tile with Brown Back	Yes	M	Category II	ND	SE Bedroom	NA
JS-HM-08A	2'x4' White Textured Ceiling Tile with Gray Back	Yes	M	Category II	ND	Living	NA
JS-HM-08B	2'x4' White Textured Ceiling Tile with Gray Back	Yes	M	Category II	ND	Living	NA
JS-HM-09A	12x12 Tan Vinyl Tile	No	M	Category I	ND/ND	2 nd Fl. Bathroom	NA
JS-HM-09B	12x12 Tan Vinyl Tile	No	M	Category I	ND/ND	2 nd Fl. Bathroom	NA
JS-HM-10A	Drywall and Joint Compound	No	M	Category II	ND/ND	Living Wall	NA
JS-HM-10B	Drywall and Joint Compound	No	M	Category II	ND/ND	2 nd Fl. SE Bedroom Ceiling	NA
JS-HM-11A	Window Glazing	Yes	M	Category II	ND	Living	NA
JS-HM-11B	Window Glazing	Yes	M	Category II	1.25%CH	2 nd Fl. Bathroom	23 Windows
JS-HM-12A	12x12 White Layered Vinyl Tile	No	M	Category I	ND/ND/ND/ 5%CH/ND	Basement Stairwell	28 sq. ft.
JS-HM-12B	12x12 White Layered Vinyl Tile	No	M	Category I	ND/ND/ND/ NA/ND	Basement Stairwell	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2933 Jefferson St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
JS-HS-01A	Stucco	No	S	Category II	ND	S Exterior Wall	NA
JS-HS-01B	Stucco	No	S	Category II	ND	NW Exterior Corner	NA
JS-HS-01C	Stucco	No	S	Category II	ND	N Exterior Wall	NA
JS-HS-02A	Plaster	No	S	Category II	ND/ND/ND	Living Ceiling	NA
JS-HS-02B	Plaster	No	S	Category II	2%CH	Dining Wall	4,995 sq. ft.
JS-HS-02C	Plaster	No	S	Category II	NA	Living Wall	NA
JS-HS-02D	Plaster	No	S	Category II	NA	2 nd Fl. Bathroom Ceiling	NA
JS-HS-02E	Plaster	No	S	Category II	NA	2 nd Fl. N Bedroom Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 2933 Jefferson St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Living (1 register, 10 sq. ft.) Kitchen (1 register, 10 sq. ft.) 2 nd Fl. NW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	160 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 2933 Jefferson St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement	12"x12" White Layered Vinyl Tile	No	28 sq. ft.
Total			28 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 register, 10 sq. ft.) Kitchen (1 register, 10 sq. ft.) 2 nd Fl. NW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	160 sq. ft.
Total			160 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen (1 window 36" wide x 38" tall)	Glazing	Yes	1 Window
Dining (1 window 52" wide x 22" tall)	Glazing	Yes	1 Window
Dining (2 windows 28" wide x 62" tall)	Glazing	Yes	2 Windows
Living (1 window 52" wide x 22" tall)	Glazing	Yes	1 Window
Living (3 windows 28" wide x 62" tall)	Glazing	Yes	3 Windows
SE Bedroom (2 windows 28" wide x 62" tall)	Glazing	Yes	2 Windows
2 nd Fl. Hallway (1 window 28" wide x 54" tall)	Glazing	Yes	1 Window
2 nd Fl. SE Bedroom (1 window 28" wide x 38" tall)	Glazing	Yes	1 Window
2 nd Fl. Bathroom (1 window 28" wide x 38" tall)	Glazing	Yes	1 Window
2 nd Fl. NW Bedroom (2 windows 28" wide x 54" tall)	Glazing	Yes	2 Windows
2 nd Fl. NE Bedroom (2 windows 28" wide x 38" tall)	Glazing	Yes	2 Windows
Basement (6 windows 30" wide x 22" tall)	Glazing	Yes	6 Windows
Total			23 Windows

Table 4 - Summary of All Asbestos Containing Materials, 2933 Jefferson St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials				
Location	Material Description	Friable	Approx. Quantity	
1 st Floor	Wall Plaster	No	2,160 sq. ft.	
1 st Floor	Ceiling Plaster	No	655 sq. ft.	
2 nd Floor	Wall Plaster	No	1,689 sq. ft.	
2 nd Floor	Ceiling Plaster	No	491 sq. ft.	
		Total	4,995 sq. ft.	

Notes:

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
3019 Peck St., Muskegon Heights, MI 49444
Parcel ID: 61-26-770-001-0010-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 3019 Peck St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .12 acre residential parcel which contains a 288 sq. ft. detached garage and approximate 1,040 square foot residential building (the Building) constructed in 1935. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom, two bedrooms and a utility room on the first floor while the second floor contains one bedroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-001-0010-00

inspection of the Subject Property on March 15, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- 12"x12" Vinyl Tile
- Drywall and Joint Compound
- Window Glazing
- Plaster

Red Cedar staff collected thirty one samples of suspect ACBM separated into fourteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the thirty one samples is included as Attachment A.

Hazardous Materials Inspection

On March 15, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, thirty one samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap and Air-O-Cell Pipe Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

HVAC Duct Wrap and Air-O-Cell Pipe Wrap identified in the Building in conjunction with the heating system are classified as friable ACM. The visual assessment to quantify the extent of this material identified Friable ACM at the following locations within the basement, first and second floors:

- Kitchen (1 register, 15 sq. ft.)
- Bathroom (1 register, 15 sq. ft.)
- NE Bedroom (1 register, 15 sq. ft.)
- NW Bedroom (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Framing near Chimney, 10 sq. ft.)

- Basement Crawl Space (Air-O-Cell 2" to 3") (4 lin. ft.)

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

Plaster samples, collected from the NE Bedroom ceiling were found to contain up to 2.25% asbestos following analysis. The assessment to quantify the extent of this material identified approximately 4,216 sq. ft. of plaster within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Kitchen (1 register, 15 sq. ft.)
- Bathroom (1 register, 15 sq. ft.)
- NE Bedroom (1 register, 15 sq. ft.)
- NW Bedroom (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Framing near Chimney, 10 sq. ft.)

- Basement Crawl Space (Air-O-Cell 2" to 3") (4 lin. ft.)

Plaster identified on the interior of the Building must be abated prior to completion of any renovation/demolition activities at the Subject Property. Any Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations must be properly abated.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the

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Parcel ID: 61-26-770-001-0010-00

inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tires (3)
- Gallon Container Misc. Paint (6)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

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Muskegon County Land Bank
Parcel ID: 61-26-770-001-0010-00

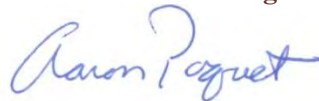
DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3019 Peck St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 01 Cust. #: PS-HM-01A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75638 - 02 Cust. #: PS-HM-01B Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75638 - 03 Cust. #: PS-HM-02A Material: Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3019 Peck St.

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Lansing, MI 48901

ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 04 Cust. #: PS-HM-02B Material: Roofing Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 75638 - 05 Cust. #: PS-HM-03A Material: Roofing Shingle Location: Garage Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 75638 - 06 Cust. #: PS-HM-03B Material: Roofing Shingle Location: Garage Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 07 Cust. #: PS-HM-04A Material: Cream Layered Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 15% Other - 70%
Lab ID #: 75638 - 08 Cust. #: PS-HM-04B Material: Cream Layered Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 15% Other - 70%
Lab ID #: 75638 - 09 Cust. #: PS-HM-05A Material: Brown Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 03/15/18
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Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 10 Cust. #: PS-HM-05B Material: Brown Linoleum Location: Appearance: red, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75638 - 11 Cust. #: PS-HM-06A Material: Blue/Tan Linoleum Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 75638 - 11a Cust. #: PS-HM-06A Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 12 Cust. #: PS-HM-06B Material: Blue/Tan Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 75638 - 12a Cust. #: PS-HM-06B Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 13 Cust. #: PS-HM-07A Material: 12x12 Woodgrain VFT Location: Appearance: black, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Lansing, MI 48901

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Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 13a Cust. #: PS-HM-07A Material: Glue Location: Appearance: clear, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 75638 - 14 Cust. #: PS-HM-07B Material: 12x12 Woodgrain VFT Location: Appearance: black, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 14a Cust. #: PS-HM-07B Material: Glue Location: Appearance: clear, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Project: 3019 Peck St.

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ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 15 Cust. #: PS-HM-08A Material: 12x12 Layered Beige VFT Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 15a Cust. #: PS-HM-08A Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 15b Cust. #: PS-HM-08A Material: Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 16 Cust. #: PS-HM-08B Material: 12x12 Layered Beige VFT Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 16a Cust. #: PS-HM-08B Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 16b Cust. #: PS-HM-08B Material: Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3019 Peck St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 17 Cust. #: PS-HM-09A Material: Black Linoleum/Floor Tile Location: Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 17a Cust. #: PS-HM-09A Material: Mastic Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 18 Cust. #: PS-HM-09B Material: Black Linoleum/Floor Tile Location: Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 18a Cust. #: PS-HM-09B Material: Mastic Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 19 Cust. #: PS-HM-10A Material: Drywall Location: Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75638 - 19a Cust. #: PS-HM-10A Material: Joint Compound Location: Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Lansing, MI 48901

ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 20 Cust. #: PS-HM-10B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75638 - 20a Cust. #: PS-HM-10B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 21 Cust. #: PS-HM-11A Material: 12x12 Blue VFT Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 21a Cust. #: PS-HM-11A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 22 Cust. #: PS-HM-11B Material: 12x12 Blue VFT Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 22a Cust. #: PS-HM-11B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

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Project: 3019 Peck St.

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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 23 Cust. #: PS-HM-12A Material: House Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 24 Cust. #: PS-HM-12B Material: House Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 25 Cust. #: PS-HM-13A Material: Garage Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 26 Cust. #: PS-HM-13B Material: Garage Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 27 Cust. #: PS-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75638 - 27a Cust. #: PS-HS-01A Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 2.25% POINT COUNT RESULT	Cellulose - 2% Hair - 1% Other - 94.75%

For Layered Samples, each component will be analyzed and reported separately.

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Project: 3019 Peck St.

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 28 Cust. #: PS-HS-01B Material: Plaster Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75638 - 29 Cust. #: PS-HS-01C Material: Plaster Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75638 - 30 Cust. #: PS-HS-01D Material: Plaster Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Project: 3019 Peck St.

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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75638
Date Collected: 03/15/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75638 - 31 Cust. #: PS-HS-01E Material: Plaster Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

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NVLAP Lab Code 102118-0

75638

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991

103



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18

Project: 3019 Peck At

Project #:

Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
 TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Other: Shay All Samples

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	PS-HM-01A	Vapor Barrier			
2	PS-HM-01B	"			
3	PS-HM-02A	Roofing Shingles (House)			
4	PS-HM-02B	"			
5	PS-HM-03A	Brown Shingle (Garage)			
6	PS-HM-03B	"			
7	PS-HM-04A	Green Sycamore Siding			
8	PS-HM-04B	"			
9	PS-HM-05A	Brown Siding			
10	PS-HM-05B	"			
11	PS-HM-06A	Blue + Tan Siding			

RECEIVED

Relinquished by: UFS Received by: UFS
 Date: 3-15-18 Date: 3-15-18

Received by: UFS APR 16 2018
 Date: 3/16/18 1330
 APEX RESEARCH

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18

Project: 3019 Peck St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour
 48 hour 72 hour
 Other: Sday

TPP ALL Samples

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
 Log-In _____
 Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	PS-HM-06B	Blue x Tan Linoleum			
13	PS-HM-07A	12x12 Woodgrain VFT			
14	PS-HM-07B	" "			
15	PS-HM-08A	12x12 Sargred Beige VFT			
16	PS-HM-08B	" "			
17	PS-HM-09A	Black Linoleum			
18	PS-HM-09B	" "			
19	PS-HM-10A	Argyle Joint Compound			
20	PS-HM-10B	" "			
21	PS-HM-11A	12x12 Blue VFT			
22	PS-HM-11B	" "			

RECEIVED

Relinquished by: Aaron Paquet Received by: UPS
 Date: 3-15-18 Date: 3-15-18

Relinquished by: SPS Received by: _____
 Date: _____ Date: MAR 16 2018

3073

APEX Research, Inc.



11054 Hf Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18

Project: 3019 Peck St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: 5 day ALL samples

Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
22	PS-HM-12A	House behind Blazing			
24	PS-HM-12B	" "			
25	PS-HM-13A	Garage behind Blazing			
26	PS-HM-13B	" "			
27	PS-HS-01A	Plaster			
28	PS-HS-01B				
29	PS-HS-01C				
30	PS-HS-01D				
31	PS-HS-01E				

RECEIVED

Relinquished by: [Signature] Received by: UPS
Date: 3-15-18 Date: 3-15-18

Relinquished by: [Signature] Received by: [Signature]
Date: _____ Date: MAR 16 2018

Tables

Table 1 - Summary of Hazardous Materials, 3019 Peck St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Garage	Automobile Tires	3
Garage	Gallon Container Misc. Paint	6

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3019 Peck St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
PS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
PS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
PS-HM-02A	Roofing Shingle	No	M	Category I	ND	House Exterior	NA
PS-HM-02B	Roofing Shingle	No	M	Category I	ND	House Exterior	NA
PS-HM-03A	Brown Shingle	No	M	Category I	ND	Garage Exterior	NA
PS-HM-03B	Brown Shingle	No	M	Category I	ND	Garage Exterior	NA
PS-HM-04A	Cream Layered Linoleum	No	M	Category I	ND	Kitchen	NA
PS-HM-04B	Cream Layered Linoleum	No	M	Category I	ND	Kitchen	NA
PS-HM-05A	Brown Linoleum	No	M	Category I	ND	Front Entry	NA
PS-HM-05B	Brown Linoleum	No	M	Category I	ND	Front Entry	NA
PS-HM-06A	Blue and Tan Linoleum	No	M	Category I	ND/ND	Bathroom	NA
PS-HM-06B	Blue and Tan Linoleum	No	M	Category I	ND/ND	Bathroom	NA
PS-HM-07A	12x12 Woodgrain Vinyl Tile	No	M	Category I	ND/ND	NE Bedroom	NA
PS-HM-07B	12x12 Woodgrain Vinyl Tile	No	M	Category I	ND/ND	NE Bedroom	NA
PS-HM-08A	12x12 Layered Beige Vinyl Tile	No	M	Category I	ND/ND/ND	NW Bedroom	NA
PS-HM-08B	12x12 Layered Beige Vinyl Tile	No	M	Category I	ND/ND/ND	NW Bedroom	NA
PS-HM-09A	Black Linoleum	No	M	Category I	ND/ND	Basement Stairwell	NA
PS-HM-09B	Black Linoleum	No	M	Category I	ND/ND	Basement Stairwell	NA
PS-HM-10A	Drywall and Joint Compound	No	M	Category II	ND/ND	Living Wall	NA
PS-HM-10B	Drywall and Joint Compound	No	M	Category II	ND/ND	2 nd Fl. Bedroom Wall	NA
PS-HM-11A	12x12 Blue Vinyl Tile	No	M	Category I	ND/ND	2 nd Fl. Bedroom	NA
PS-HM-11B	12x12 Blue Vinyl Tile	No	M	Category I	ND/ND	2 nd Fl. Bedroom	NA
PS-HM-12A	Window Glazing	Yes	M	Category II	ND	NE Bedroom	NA
PS-HM-12B	Window Glazing	Yes	M	Category II	ND	Front Entry	NA
PS-HM-13A	Window Glazing	Yes	M	Category II	ND	Garage	NA
PS-HM-13B	Window Glazing	Yes	M	Category II	ND	Garage	NA
PS-HS-01A	Plaster	No	S	Category II	ND/2.25%CH-PC	NE Bedroom Ceiling	4,216 sq. ft.

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3019 Peck St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
PS-HS-01B	Plaster	No	S	Category II	NA	Bathroom Ceiling	NA
PS-HS-01C	Plaster	No	S	Category II	NA	NE Bedroom Wall	NA
PS-HS-01D	Plaster	No	S	Category II	NA	Bathroom Wall	NA
PS-HS-01E	Plaster	No	S	Category II	NA	Living Wall	NA

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material
- PC = Point Count Analysis
- CH = Chrysotile Asbestos

Abbreviations

- NQ = Not quantified
- NA = Not applicable
- ND = Not detected. Laboratory result is less than 1 % asbestos
- lin. ft. = linear feet
- sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 3019 Peck St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Basement Crawl Space	Air-O-Cell 2” to 3”	Yes	Fair	TSI	4 lin. ft.
Kitchen (1 register, 15 sq. ft.) Bathroom (1 register, 15 sq. ft.) NE Bedroom (1 register, 15 sq. ft.) NW Bedroom (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Framing near Chimney, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	70 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 3019 Peck St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement Crawl Space	Air-O-Cell 2" to 3"	Yes	4 lin. ft.
Total			4 lin. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen (1 register, 15 sq. ft.) Bathroom (1 register, 15 sq. ft.) NE Bedroom (1 register, 15 sq. ft.) NW Bedroom (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Framing near Chimney, 10 sq. ft.)	HVAC Duct Wrap	Yes	70 sq. ft.
Total			70 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
1 st Floor	Wall Plaster	No	3,294 sq. ft.
1 st Floor	Ceiling Plaster	No	922 sq. ft.
Total			4,216 sq. ft.

Notes:
Abbreviations

lin. ft. = linear feet
sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
3122 Sanford St., Muskegon Heights, MI 49444
Parcel ID: 61-26-770-002-0028-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 3122 Sanford St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .12 acre residential parcel which contains an approximate 1,352 square foot residential building (the Building) constructed in 1940. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with vinyl over fiberboard while the roof was sealed with asphalt shingles. The Building can be further divided into a front porch, living room, dining room and kitchen on the first floor while the second floor contains three bedrooms and a bathroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

inspection of the Subject Property on March 14, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Fiberboard
- Roofing Shingle
- Linoleum
- Drywall and Joint Compound
- 2'x4' Ceiling Tile
- Window Glazing
- Plaster

Red Cedar staff collected twenty three samples of suspect ACBM separated into ten distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty three samples is included as Attachment A.

Hazardous Materials Inspection

On March 14, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty three samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Kitchen (1 register, 10 sq. ft.)
- Hallway (1 register, 10 sq. ft.)
- Dining (1 register, 10 sq. ft.)
- 2nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Category I ACM

No Category I ACM was identified during the completion of this inspection.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Kitchen (1 register, 10 sq. ft.)
- Hallway (1 register, 10 sq. ft.)
- Dining (1 register, 10 sq. ft.)
- 2nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tires (6)
- Thermostat (1)
- Smoke Detector (5)
- 4' Fluorescent Light (Fixture and Ballast Only) (7)
- 4' Fluorescent Bulb (10)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-002-0028-00

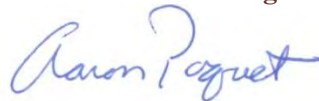
DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3122 Sanford St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75636
Date Collected: 03/14/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 01 Cust. #: SS-HM-01A Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75636 - 02 Cust. #: SS-HM-01B Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75636 - 03 Cust. #: SS-HM-02A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



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ARI Report # 18-75636
Date Collected: 03/14/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 03a Cust. #: SS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75636 - 03b Cust. #: SS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75636 - 04 Cust. #: SS-HM-02B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

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Date Collected: 03/14/18
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Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 04a Cust. #: SS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75636 - 04b Cust. #: SS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 75636 - 04c Cust. #: SS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

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Robert T. Letarte Jr., Laboratory Director

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Date Collected: 03/14/18
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Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 05 Cust. #: SS-HM-03A Material: White Linoleum Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 2% Other - 83%
Lab ID #: 75636 - 06 Cust. #: SS-HM-03B Material: White Linoleum Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 2% Other - 83%
Lab ID #: 75636 - 07 Cust. #: SS-HM-04A Material: Red Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 08 Cust. #: SS-HM-04B Material: Red Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75636 - 09 Cust. #: SS-HM-05A Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75636 - 09a Cust. #: SS-HM-05A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 10 Cust. #: SS-HM-05B Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 2% Other - 83%
Lab ID #: 75636 - 10a Cust. #: SS-HM-05B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75636 - 11 Cust. #: SS-HM-06A Material: 2x4 White Ceiling Tile w/Pinholes/Fissures Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Fiberglass - 5% Perlite - 10% Other - 25%

For Layered Samples, each component will be analyzed and reported separately.

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Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 12 Cust. #: SS-HM-06B Material: 2x4 White Ceiling Tile w/Pinholes/Fissures Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Fiberglass - 5% Perlite - 10% Other - 25%
Lab ID #: 75636 - 13 Cust. #: SS-HM-07A Material: Front Porch Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75636 - 14 Cust. #: SS-HM-07B Material: Front Porch Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

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Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 15 Cust. #: SS-HM-08A Material: Cream Linoleum Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 75636 - 16 Cust. #: SS-HM-08B Material: Cream Linoleum Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 75636 - 17 Cust. #: SS-HM-09A Material: House Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 18 Cust. #: SS-HM-09B Material: House Window Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75636 - 19 Cust. #: SS-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75636 - 19a Cust. #: SS-HS-01A Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 20 Cust. #: SS-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75636 - 20a Cust. #: SS-HS-01B Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75636 - 21 Cust. #: SS-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 21a Cust. #: SS-HS-01C Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75636 - 22 Cust. #: SS-HS-01D Material: Plaster Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75636 - 22a Cust. #: SS-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3122 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75636
Date Collected: 03/14/18
Date Received: 03/16/18
Date Analyzed: 03/22/18
Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 22b Cust. #: SS-HS-01D Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 75636 - 23 Cust. #: SS-HS-1E Material: Plaster Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75636 - 23a Cust. #: SS-HS-1E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Project: 3122 Sanford St.

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ARI Report # 18-75636
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Date Reported: 03/23/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75636 - 23b Cust. #: SS-HS-1E Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

103

75636

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3122 Sanford St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
 apaque@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour Lead: Bulk Wipe Air Paint Soil
48 hour 72 hour Mold: Bulk Tape BioSIS Other Viable

Other: Sdey **TTP** All samples Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	55-HM-01A	Fiberboard			
2	55-HM-01B	..			
3	55-HM-02A	Roofing Shingle			
4	55-HM-02B	..			
5	55-HM-03A	White Sander			
6	55-HM-03B	..			
7	55-HM-04A	Red Sander			
8	55-HM-04B	..			
9	55-HM-05A	Anywall Joint Compound			
10	55-HM-05B	..			
11	55-HM-06A	2x4 white (T&S) pinholes/finnes			

RECEIVED

Relinquished by: Alex Paquet Received by: UPS
Date: 3-15-18 Date: 3-15-18

Relinquished by: _____ Received by: SP7 Paquet
Date: _____ Date: 3/16/18

MAR 16 2018

2 of 3



APEX Research, Inc.

11054 Hf Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3122 Seafood St

Project #:

Contact Person: Aaron Paquet

PLM EPA 600, PC all samples with a detection of <5% ACM.
apaquet@redcedarconsulting.net

Turn Around Times: (Circle One)

Rush 24 hour

48 hour 72 hour

Other: 5 day **(TTP) All Samples**

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	55-HM-06B	2x4 white CT w/pinkish fibers			
13	55-HM-07A	Front Porch Siding			
14	55-HM-07B	" "			
15	55-HM-08A	Cream Siding			
16	55-HM-08B	" "			
17	55-HM-09A	House Window Siding			
18	55-HM-09B	" "			
19	55-HS-01A	Plaster			
20	55-HS-01B				
21	55-HS-01C				
22	55-HS-01D	↓			

RECEIVED

Relinquished by: [Signature] Received by: UPS
Date: 3-15-18 Date: 3-15-18

Relinquished by: _____ Received by: [Signature]
Date: _____ Date: MAR 16 2018

Tables

Table 1 - Summary of Hazardous Materials, 3122 Sanford St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Automobile Tires	6
Living	Thermostat	1
Dining	Smoke Detector	1
Kitchen	4' Fluorescent Light (Fixture and Ballast Only)	1
Kitchen	4' Fluorescent Bulb	2
2 nd Fl. NE Bedroom	4' Fluorescent Light (Fixture and Ballast Only)	1
2 nd Fl. NE Bedroom	4' Fluorescent Bulb	2
2 nd Fl. SE Bedroom	4' Fluorescent Light (Fixture and Ballast Only)	1
2 nd Fl. SE Bedroom	4' Fluorescent Bulb	2
2 nd Fl. SW Bedroom	4' Fluorescent Light (Fixture and Ballast Only)	1
2 nd Fl. SW Bedroom	4' Fluorescent Bulb	2
2 nd Fl.	Smoke Detector	1
2 nd Fl. NE Bedroom	Smoke Detector	1
2 nd Fl. SE Bedroom	Smoke Detector	1
2 nd Fl. SW Bedroom	Smoke Detector	1
Basement	4' Fluorescent Light (Fixture and Ballast Only)	3
Basement	4' Fluorescent Bulb	2

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3122 Sanford St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HM-01A	Fiberboard	Yes	M	Category II	ND	Exterior	NA
SS-HM-01B	Fiberboard	Yes	M	Category II	ND	Exterior	NA
SS-HM-02A	Roofing Shingle	No	M	Category I	ND/ND/ND	Exterior	NA
SS-HM-02B	Roofing Shingle	No	M	Category I	ND/ND/ND/ND	Exterior	NA
SS-HM-03A	White Linoleum	No	M	Category I	ND	Kitchen	NA
SS-HM-03B	White Linoleum	No	M	Category I	ND	Kitchen	NA
SS-HM-04A	Red Linoleum	No	M	Category I	ND	Front Porch	NA
SS-HM-04B	Red Linoleum	No	M	Category I	ND	Front Porch	NA
SS-HM-05A	Drywall and Joint Compound	No	M	Category II	ND/ND	Kitchen Ceiling	NA
SS-HM-05B	Drywall and Joint Compound	No	M	Category II	ND/ND	Living Ceiling	NA
SS-HM-06A	2'x4' White Ceiling Tile	Yes	M	Category II	ND	Front Porch	NA
SS-HM-06B	2'x4' White Ceiling Tile	Yes	M	Category II	ND	Front Porch	NA
SS-HM-07A	Front Porch Glazing	Yes	M	Category II	ND	Front Porch	NA
SS-HM-07B	Front Porch Glazing	Yes	M	Category II	ND	Front Porch	NA
SS-HM-08A	Cream Linoleum	No	M	Category I	ND	2 nd Fl. Bathroom	NA
SS-HM-08B	Cream Linoleum	No	M	Category I	ND	2 nd Fl. Bathroom	NA
SS-HM-09A	House Window Glazing	Yes	M	Category II	ND	Living	NA
SS-HM-09B	House Window Glazing	Yes	M	Category II	ND	Dining	NA
SS-HS-01A	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA
SS-HS-01B	Plaster	No	S	Category II	ND/ND	NE Bedroom Wall	NA
SS-HS-01C	Plaster	No	S	Category II	ND/ND	SW Bedroom Wall	NA
SS-HS-01D	Plaster	No	S	Category II	ND/ND/ND	2 nd Fl. SW Bedroom Ceiling	NA
SS-HS-01E	Plaster	No	S	Category II	ND/ND/ND	2 nd Fl. NE Bedroom Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation

Abbreviations

NQ = Not quantified
 NA = Not applicable

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3122 Sanford St., Muskegon Heights, Michigan

S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 3122 Sanford St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Kitchen (1 register, 10 sq. ft.) Hallway (1 register, 10 sq. ft.) Dining (1 register, 10 sq. ft.) 2 nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	135 sq. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

- lin. ft. = linear feet
- sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 3122 Sanford St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen (1 register, 10 sq. ft.) Hallway (1 register, 10 sq. ft.) Dining (1 register, 10 sq. ft.) 2 nd Fl. Bathroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	135 sq. ft.
2 nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
2 nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
		Total	135 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet
sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
3135 7th St., Muskegon Heights, MI 49444
Parcel ID: 61-26-770-032-0016-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 3135 7th St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .18 acre residential parcel which contains an approximate 652 square foot residential building (the Building) constructed in 1930. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with vinyl over wood and a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, pantry, bathroom and two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 15, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Asphalt Shingle
- Asphalt Roofing
- Vapor Barrier
- Linoleum
- 12"x12" Vinyl Tile
- Linoleum
- 1'x1' Ceiling Tile
- Drywall and Joint Compound
- Window Glazing
- Plaster

Red Cedar staff collected thirty five samples of suspect ACBM separated into sixteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the thirty five samples is included as Attachment A.

Hazardous Materials Inspection

On March 15, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, thirty five samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window glazing sample collected from a window in the Basement was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified three windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Basement (3 windows 32" wide x 14" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Basement (misc. HVAC wrap on Ductwork, 20 sq. ft.)

Category I ACM

One type of resilient floor covering (Gray Pebble Linoleum) located within the Pantry was found to contain up to 30% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 24 sq. ft. of this material within the Building.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Basement (misc. HVAC wrap on Ductwork, 20 sq. ft.)

Friable asbestos containing window glazing was identified on three windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Basement (3 windows 32" wide x 14" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

The Category I resilient floor covering (Gray Pebble Linoleum) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-032-0016-00

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tire (1)
- Smoke Detector (2)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-032-0016-00

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov


DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3135 7th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 01 Cust. #: SS-HM-01A Material: Shingle Roof Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75676 - 02 Cust. #: SS-HM-01B Material: Shingle Roof Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75676 - 03 Cust. #: SS-HM-02A Material: Flat Asphalt Roof/Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Synthetic - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3135 7th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 03a Cust. #: SS-HM-02A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75676 - 04 Cust. #: SS-HM-02B Material: Flat Asphalt Roof Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Synthetic - 30% Other - 70%
Lab ID #: 75676 - 04a Cust. #: SS-HM-02B Material: Underlayment Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3135 7th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 05 Cust. #: SS-HM-03A Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75676 - 06 Cust. #: SS-HM-03B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75676 - 07 Cust. #: SS-HM-04A Material: Brown Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Robert T. Letarte Jr., Laboratory Director

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 08 Cust. #: SS-HM-04B Material: Brown Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75676 - 09 Cust. #: SS-HM-05A Material: 12x12 Cream Layered VFT Location: Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75676 - 09a Cust. #: SS-HM-05A Material: Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Project: 3135 7th St.

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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 10 Cust. #: SS-HM-05B Material: 12x12 Cream Layered VFT Location: Appearance: grey, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75676 - 10a Cust. #: SS-HM-05B Material: Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75676 - 11 Cust. #: SS-HM-06A Material: 12x12 Tan Stone Layered VFT Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3135 7th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 12 Cust. #: SS-HM-06B Material: 12x12 Tan Stone Layered VFT Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75676 - 13 Cust. #: SS-HM-07A Material: Grey Pebble Linoleum Location: Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 30%	Other - 70%
Lab ID #: 75676 - 14 Cust. #: SS-HM-07B Material: Grey Pebble Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3135 7th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 15 Cust. #: SS-HM-08A Material: Wood Grain Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75676 - 16 Cust. #: SS-HM-08B Material: Wood Grain Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75676 - 17 Cust. #: SS-HM-09A Material: Brown/Tan Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Project: 3135 7th St.

Report To:
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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 18 Cust. #: SS-HM-09B Material: Brown/Tan Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75676 - 19 Cust. #: SS-HM-10A Material: 12x12 Wood Grain VFT Location: Appearance: brown, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75676 - 20 Cust. #: SS-HM-10B Material: 12x12 Wood Grain VFT Location: Appearance: brown, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 21 Cust. #: SS-HM-11A Material: 1x1 White Texture Ceiling Tile Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Mineral Wool - 30% Other - 40%
Lab ID #: 75676 - 22 Cust. #: SS-HM-11B Material: 1x1 White Texture Ceiling Tile Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Mineral Wool - 30% Other - 40%
Lab ID #: 75676 - 23 Cust. #: SS-HM-12A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 23a Cust. #: SS-HM-12A Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75676 - 24 Cust. #: SS-HM-12B Material: Joint Compound Location: Appearance: white, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 75676 - 24a Cust. #: SS-HM-12B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 25 Cust. #: SS-HM-13A Material: Window Glazing Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75676 - 26 Cust. #: SS-HM-13B Material: Window Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75676 - 27 Cust. #: SS-HM-14A Material: 1x1 White Ceiling Tile w/ Holes Location: Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%

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ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 28 Cust. #: SS-HM-14B Material: 1x1 White Ceiling Tile w/ Holes Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75676 - 29 Cust. #: SS-HM-15A Material: Window Glazing Basement Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75676 - 30 Cust. #: SS-HM-15B Material: Window Glazing Basement Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 31 Cust. #: SS-HS-01A Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75676 - 31a Cust. #: SS-HS-01A Material: Mortar Location: Appearance: grey, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75676 - 31b Cust. #: SS-HS-01A Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

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ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 32 Cust. #: SS-HS-01B Material: Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75676 - 32a Cust. #: SS-HS-01B Material: Mortar Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75676 - 33 Cust. #: SS-HS-01C Material: Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Lansing, MI 48901

ARI Report # 18-75676
Date Collected: 03/15/18
Date Received: 03/19/18
Date Analyzed: 03/23/18
Date Reported: 03/26/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75676 - 33a Cust. #: SS-HS-01C Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75676 - 34 Cust. #: SS-HS-01D Material: Plaster Location: Appearance: Layer: of	Asbestos Present: NO SAMPLE RECEIVED	
Lab ID #: 75676 - 35 Cust. #: SS-HS-01E Material: Plaster Location: Appearance: Layer: of	Asbestos Present: NO SAMPLE RECEIVED	

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NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting
 Address: PO Box 13216
 City, St., Zip: Lansing, MI 48901
 Phone: (888) 449-4566 Fax: (888) 448-8739

Lab Use Only
 Log-In _____
 Report _____

Date of Survey: 3-15-18
 Project: 3135 7th St
 Project #:

Contact Person: Aaron Paquet
 apaquet@redcedarconsulting.net
 with a detection of <5% ACM.

Turn Around Times: (Circle One)

Rush 24 hour
 48 hour 72 hour
 Other: 5 Day **(TTP)** All Samples

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
 TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	SS-HM-01A	Shingle Roof			
2	SS-HM-01B	" "			
3	SS-HM-02A	Flat Asphalt Roof			
4	SS-HM-02B	" "			
5	SS-HM-03A	Vapor Barrier			
6	SS-HM-03B	" "			
7	SS-HM-04A	Brown Linoleum			
8	SS-HM-04B	" "			
9	SS-HM-05A	12x12 Cream Layered VFT			
10	SS-HM-05B	" "			
11	SS-HM-06A	12x12 Tan Stone Layered VFT			

Relinquished by: Chris J Received by: BTS
 Date: 3-16-18 Date: 3-16-18

RECEIVED
 Received by: Paul 4/4/18
 Date: MAR 19 2018

75676 Pg 1 of 4

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Lab Use Only
Log-In _____
Report _____

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-18
Project: 3125 Seventh St.
Project #:

Contact Person: Aaron Paquet
apaque@redcedarconsulting.net
PC all samples with a detection of <5% ACM.

Turn Around Times: (Circle One)

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Other: SDW All Samples

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	SS-HM-06B	12x12 Tan Stone Kayeard Drift			
13	SS-HM-07A	Grey Pebble Linoleum			
14	SS-HM-07B	" "			
15	SS-HM-08A	Woodgrain Linoleum			
16	SS-HM-08B	" "			
17	SS-HM-09A	Brown & Tan Lin.			
18	SS-HM-09B	" "			
19	SS-HM-10A	12x12 Woodgrain Drift			
20	SS-HM-10B	" "			
21	SS-HM-11A	White Texture CT			
22	SS-HM-11B	" "			

Relinquished by: [Signature] Received by: UPS
Date: 3-16-18 Date: 3-16-18

RECEIVED
Received by: [Signature] 1141
Date: MAR 19 2018
APEX RESEARCH

75676

Pg 3 of 4

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-15-08
Project: 3135 7th St.
Project #: _____
Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
(TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Rush 24 hour
48 hour
Other: 5 Day All Samples

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	SS-HM-12A	Pyramid of Compound			
24	SS-HM-12B	"			
25	SS-HM-13A	Window Glazing			
26	SS-HM-13B	"			
27	SS-HM-14A	1st White CT w. Hubs			
28	SS-HM-14B	"			
29	SS-HM-15A	Window Glazing - Basement			
30	SS-HM-15B	"			
31	SS-HS-01A	Plaster			
32	SS-HS-01B	↓			
33	SS-HS-01C	↓			

Relinquished by: [Signature] Received by: [Signature]
Date: 3-16-08 Date: 3-16-08

Relinquished by: _____ Received by: RECEIVED
Date: _____ Date: MAR 19 2018

Tables

Table 1 - Summary of Hazardous Materials, 3135 7th St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Automobile Tire	1
Dining	Smoke Detector	1
NE Bedroom	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3135 7th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HM-01A	Roofing Materials	No	M	Category I	ND	Exterior	NA
SS-HM-01B	Roofing Materials	No	M	Category I	ND	Exterior	NA
SS-HM-02A	Roofing Materials	No	M	Category I	ND/ND	Exterior	NA
SS-HM-02B	Roofing Materials	No	M	Category I	ND/ND	Exterior	NA
SS-HM-03A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-03B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-04A	Brown Linoleum	No	M	Category I	ND	Living	NA
SS-HM-04B	Brown Linoleum	No	M	Category I	ND	Living	NA
SS-HM-05A	12x12 Cream Layered Vinyl Tile	No	M	Category I	ND/ND	Dining	NA
SS-HM-05B	12x12 Cream Layered Vinyl Tile	No	M	Category I	ND/ND	Dining	NA
SS-HM-06A	12x12 Tan Stone Layered Vinyl Tile	No	M	Category I	ND	Kitchen	NA
SS-HM-06B	12x12 Tan Stone Layered Vinyl Tile	No	M	Category I	ND	Kitchen	NA
SS-HM-07A	Gray Pebble Linoleum	No	M	Category I	30%CH	Pantry	24 sq. ft.
SS-HM-07B	Gray Pebble Linoleum	No	M	Category I	NA	Pantry	NA
SS-HM-08A	Woodgrain Linoleum	No	M	Category I	ND	Bathroom	NA
SS-HM-08B	Woodgrain Linoleum	No	M	Category I	ND	Bathroom	NA
SS-HM-09A	Brown and Tan Linoleum	No	M	Category I	ND	NW Bedroom	NA
SS-HM-09B	Brown and Tan Linoleum	No	M	Category I	ND	NW Bedroom	NA
SS-HM-10A	12x12 Woodgrain Vinyl Tile	No	M	Category I	ND	NE Bedroom	NA
SS-HM-10B	12x12 Woodgrain Vinyl Tile	No	M	Category I	ND	NE Bedroom	NA
SS-HM-11A	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	Bathroom	NA
SS-HM-11B	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	Bathroom	NA
SS-HM-12A	Drywall and Joint Compound	No	M	Category II	ND/ND	NE Bedroom Ceiling	NA
SS-HM-12B	Drywall and Joint Compound	No	M	Category II	ND/ND	Kitchen Ceiling	NA
SS-HM-13A	Window Glazing	Yes	M	Category II	ND	Living	NA
SS-HM-13B	Window Glazing	Yes	M	Category II	ND	Dining	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3135 7th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HM-14A	1'x1' White Ceiling Tile with Holes	Yes	M	Category II	ND	Basement	NA
SS-HM-14B	1'x1' White Ceiling Tile with Holes	Yes	M	Category II	ND	Basement	NA
SS-HM-15A	Window Glazing	Yes	M	Category II	5%CH	Basement	3 Windows
SS-HM-15B	Window Glazing	Yes	M	Category II	NA	Basement	NA
SS-HS-01A	Plaster	No	S	Category II	ND/ND/ND	Living Ceiling	NA
SS-HS-01B	Plaster	No	S	Category II	ND/ND	Living Wall	NA
SS-HS-01C	Plaster	No	S	Category II	ND/ND	Dining Wall	NA
SS-HS-01D	Plaster	No	S	Category II	--	No Sample	NA
SS-HS-01E	Plaster	No	S	Category II	--	No Sample	NA

Notes: Samples SS-HS-01D and SS-HS-01E were not required due to square footage of plaster in building being less than 1,000 sq. ft.

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 3135 7th St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Basement (misc. HVAC wrap on Ductwork, 20 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	20 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 3135 7th St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Pantry	Gray Pebble Linoleum	No	24 sq. ft.
Total			24 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (misc. HVAC wrap on Ductwork, 20 sq. ft.)	HVAC Duct Wrap	Yes	20 sq. ft.
Total			20 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (3 windows 32" wide x 14" tall)	Glazing	Yes	3 Windows
Total			3 Windows

Notes:

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
3205 Sanford St., Muskegon Heights, MI 49444
Parcel ID: 61-26-770-008-0003-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 3205 Sanford St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .12 acre residential parcel which contains a 240 sq. ft. detached garage and approximate 832 square foot residential building (the Building) constructed in 1935. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom and two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-008-0003-00

inspection of the Subject Property on March 14, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Shingle Roofing
- Linoleum
- 12"x12" Vinyl Tile
- 1'x1' Ceiling Tile
- Plaster

Red Cedar staff collected twenty five samples of suspect ACBM separated into eleven distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty five samples is included as Attachment A.

Hazardous Materials Inspection

On March 14, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty five samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Kitchen (1 register, 15 sq. ft.)
- N Bedroom (1 register, 15 sq. ft.)
- S Bedroom (1 register, 15 sq. ft.)
- Living (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Basement Framing, 20 sq. ft.)
- Crawl Space (misc. ACM Wrap Debris, 50 sq. ft.)

- Basement (12 in. dia. HVAC Wrapped Ductwork, 20 lin. ft.)
- Basement (Conduit with HVAC Wrap, 12 lin. ft.)

Category I ACM

One type of resilient floor covering (Woodgrain Linoleum) located within the S Bedroom was found to contain up to 30% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 117 sq. ft. of this material within the Building.

Category II ACM

Plaster samples, collected from the Living Room were found to contain up to 1.75% asbestos following analysis. The assessment to quantify the extent of this material identified approximately 2,811 sq. ft. of plaster within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Kitchen (1 register, 15 sq. ft.)
- N Bedroom (1 register, 15 sq. ft.)
- S Bedroom (1 register, 15 sq. ft.)
- Living (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Basement Framing, 20 sq. ft.)
- Crawl Space (misc. ACM Wrap Debris, 50 sq. ft.)

- Basement (12 in. dia. HVAC Wrapped Ductwork, 20 lin. ft.)
- Basement (Conduit with HVAC Wrap, 12 lin. ft.)

Plaster identified on the interior of the Building must be abated prior to completion of any renovation/demolition activities at the Subject Property. Any Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations must be properly abated.

The Category I resilient floor covering (Woodgrain Linoleum) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tires (4)
- 2' Fluorescent Light (Fixture and Ballast Only) (2)
- 2' Fluorescent Bulb (2)
- Gallon Container Misc. Paint (16)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

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Muskegon County Land Bank
Parcel ID: 61-26-770-008-0003-00

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 01 Cust. #: SS-HM-01A Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75602 - 02 Cust. #: SS-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75602 - 03 Cust. #: SS-HM-02A Material: Shingle Roofing Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 03a Cust. #: SS-HM-02A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75602 - 04 Cust. #: SS-HM-02B Material: Shingle Roofing Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75602 - 04a Cust. #: SS-HM-02B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 05 Cust. #: SS-HM-03A Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75602 - 06 Cust. #: SS-HM-03B Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75602 - 07 Cust. #: SS-HM-04A Material: 12x12 White VFT/Layered Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 07a Cust. #: SS-HM-04A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75602 - 07b Cust. #: SS-HM-04A Material: Linoleum Location: Appearance: beige,fibrous,nonhomogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75602 - 07c Cust. #: SS-HM-04A Material: Beige Brittle Location: Appearance: beige,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Wollastonite - 1% Other - 99%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 08 Cust. #: SS-HM-04B Material: 12x12 White VFT/Layered Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75602 - 08a Cust. #: SS-HM-04B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75602 - 08b Cust. #: SS-HM-04B Material: Linoleum Location: Appearance: beige,fibrous,nonhomogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

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Mr. Aaron Paquet
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P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 08c Cust. #: SS-HM-04B Material: Beige Brittle Location: Appearance: beige, nonfibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75602 - 09 Cust. #: SS-HM-05A Material: Honeycomb Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75602 - 10 Cust. #: SS-HM-05B Material: Honeycomb Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 11 Cust. #: SS-HM-06A Material: Woodgrain Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 30%	Other - 70%
Lab ID #: 75602 - 12 Cust. #: SS-HM-06B Material: Woodgrain Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75602 - 13 Cust. #: SS-HM-07A Material: 1x1 White Textured Ceiling Tile Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 65% Other - 35%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 14 Cust. #: SS-HM-07B Material: 1x1 White Textured Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 75602 - 15 Cust. #: SS-HM-08A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 75602 - 16 Cust. #: SS-HM-08B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 17 Cust. #: SS-HM-09A Material: Tan Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75602 - 18 Cust. #: SS-HM-09B Material: Tan Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75602 - 19 Cust. #: SS-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 19a Cust. #: SS-HS-01A Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 1.75% POINT COUNT RESULT	Other - 98.25%
Lab ID #: 75602 - 20 Cust. #: SS-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75602 - 20a Cust. #: SS-HS-01B Material: Plaster Base Coat Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 21 Cust. #: SS-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75602 - 21a Cust. #: SS-HS-01C Material: Plaster Base Coat Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75602 - 22 Cust. #: SS-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 22a Cust. #: SS-HS-01D Material: Plaster Base Coat Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75602 - 23 Cust. #: SS-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75602 - 23a Cust. #: SS-HS-01E Material: Plaster Base Coat Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3205 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75602
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75602 - 24 Cust. #: SS-HM-10A Material: Window Glaze Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75602 - 25 Cust. #: SS-HM-10B Material: Window Glaze Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - 0.50% POINT COUNT RESULT	Other - 99.50%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3205 Stanford St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaguet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: 5 day All Samples

Lead: Bulk Wipe Air Paint Soil
 Mold: Bulk Tape BioSIS Other Viable
 TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
 Log-In _____
 Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	55-HM-01A	Vapor Barrier			
2	55-HM-01B	..			
3	55-HM-02A	Shingle Roofing			
4	55-HM-02B	..			
5	55-HM-03A	Beige Insulation			
6	55-HM-03B	..			
7	55-HM-04A	RVR White VFT / Layered			
8	55-HM-04B	..			
9	55-HM-05A	Honeycomb Insulation			
10	55-HM-05B	..			
11	55-HM-06A	Woodgrain Insulation			

Relinquished by: A. Paquet Received by: UPS
 Date: 3-14-18 Date: 3-14-18

Relinquished by: _____
 Date: _____

Received by: APR 15 2018
 Date: MAR 15 2018

75602

2073

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Turn Around Times: (Circle One)

Rush 24 hour
48 hour 72 hour
Other: 5 day

PLM EPA 600, PC all samples with a detection of <5% ACM.

Date of Survey: 3-14-18

Project: 3205 Skanska St

Project #: _____

Contact Person: Aaron Paquet

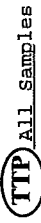
apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____

Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____

Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____

TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____



Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	55-HM-06B	Woodgrain Linoleum			
13	55-HM-07A	(X1) White Textured CT			
14	55-HM-07B	" " " "			
15	55-HM-08A	(X1) White Smooth CT			
16	55-HM-08B	" " " "			
17	55-HM-09A	Tan Linoleum			
18	55-HM-09B	" " " "			
19	55-HS-01A	Plaster			
20	55-HS-01B				
21	55-HS-01C				
22	55-HS-01D				

RECEIVED

Relinquished by: Alexander Received by: UPS
Date: 3-14-18 Date: 3-14-18

Relinquished by: _____ Received by: mb
Date: _____ Date: MAR 15 2018

Tables

Table 1 - Summary of Hazardous Materials, 3205 Sanford St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Automobile Tires	4
N Bedroom	2' Fluorescent Light (Fixture and Ballast Only)	1
N Bedroom	2' Fluorescent Bulb	1
S Bedroom	2' Fluorescent Light (Fixture and Ballast Only)	1
S Bedroom	2' Fluorescent Bulb	1
Kitchen	Gallon Container Misc. Paint	6
Basement	Gallon Container Misc. Paint	10

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3205 Sanford St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-02A	Shingle Roofing	No	M	Category I	ND/ND	Exterior	NA
SS-HM-02B	Shingle Roofing	No	M	Category I	ND/ND	Exterior	NA
SS-HM-03A	Beige Linoleum	No	M	Category I	ND	Front Entry	NA
SS-HM-03B	Beige Linoleum	No	M	Category I	ND	Front Entry	NA
SS-HM-04A	12x12 White Layered Vinyl Tile	No	M	Category I	ND/ND/ND/ND	Kitchen	NA
SS-HM-04B	12x12 White Layered Vinyl Tile	No	M	Category I	ND/ND/ND/ND	Kitchen	NA
SS-HM-05A	Honeycomb Linoleum	No	M	Category I	ND	Bathroom	NA
SS-HM-05B	Honeycomb Linoleum	No	M	Category I	ND	Bathroom	NA
SS-HM-06A	Woodgrain Linoleum	No	M	Category I	30%CH	S Bedroom	117 sq. ft.
SS-HM-06B	Woodgrain Linoleum	No	M	Category I	NA	S Bedroom	NA
SS-HM-07A	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	N Bedroom	NA
SS-HM-07B	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	N Bedroom	NA
SS-HM-08A	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Kitchen	NA
SS-HM-08B	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Kitchen	NA
SS-HM-09A	Tan Linoleum	No	M	Category I	ND	S Bedroom Closet	NA
SS-HM-09B	Tan Linoleum	No	M	Category I	ND	S Bedroom Closet	NA
SS-HM-10A	Window Glazing	Yes	M	Category II	ND	Living	NA
SS-HM-10B	Window Glazing	Yes	M	Category II	0.50%CH-PC	Dining	NA
SS-HS-01A	Plaster	No	S	Category II	ND/1.75%CH	Living Ceiling	2,811 sq. ft.
SS-HS-01B	Plaster	No	S	Category II	ND/NA	Bathroom Ceiling	NA
SS-HS-01C	Plaster	No	S	Category II	ND/NA	S Bedroom Wall	NA
SS-HS-01D	Plaster	No	S	Category II	ND/NA	N Bedroom Wall	NA
SS-HS-01E	Plaster	No	S	Category II	ND/NA	Dining Wall	NA

Notes:

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3205 Sanford St., Muskegon Heights, Michigan

Material Types

M = Miscellaneous building material
TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 3205 Sanford St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Kitchen (1 register, 15 sq. ft.) N Bedroom (1 register, 15 sq. ft.) S Bedroom (1 register, 15 sq. ft.) Living (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Basement Framing, 20 sq. ft.) Crawl Space (misc. ACM Wrap Debris, 50 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	130 sq. ft.
Basement (12 in. dia. HVAC Wrapped Ductwork, 20 lin. ft.) Basement (Conduit with HVAC Wrap, 12 lin. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	32 lin. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 3205 Sanford St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
S Bedroom	Woodgrain Linoleum	No	117 sq. ft.
Total			117 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen (1 register, 15 sq. ft.) N Bedroom (1 register, 15 sq. ft.) S Bedroom (1 register, 15 sq. ft.) Living (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Basement Framing, 20 sq. ft.) Crawl Space (misc. ACM Wrap Debris, 50 sq. ft.)	HVAC Duct Wrap	Yes	130 sq. ft.
Total			130 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (12 in. dia. HVAC Wrapped Ductwork, 20 lin. ft.) Basement (Conduit with HVAC Wrap, 12 lin. ft.)	HVAC Duct Wrap	Yes	32 lin. ft.
Total			32 lin. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
1 st Floor	Wall Plaster	No	2,128 sq. ft.
1 st Floor	Ceiling Plaster	No	683 sq. ft.
Total			2,811 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet
sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Table 4 - Summary of All Asbestos Containing Materials, 3205 Sanford St., Muskegon Heights, Michigan

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
3213 Glendale St., Muskegon Heights, MI 49444
Parcel ID: 61-26-770-018-0007-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 3213 Glendale St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .12 acre residential parcel which contains a 480 sq. ft. detached garage and approximate 780 square foot residential building (the Building) constructed in 1940. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with concrete block while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, kitchen, bathroom, and two bedrooms on the first floor while the second floor contains one bedroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-018-0007-00

inspection of the Subject Property on March 14, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Roofing Shingle
- Asphalt Flat Roofing
- Linoleum
- 9"x9" Vinyl Tile
- Window Glazing
- Drywall and Joint Compound
- Plaster

Red Cedar staff collected twenty five samples of suspect ACBM separated into eleven distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty five samples is included as Attachment A.

Hazardous Materials Inspection

On March 14, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty five samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Window glazing samples collected from windows in the NE Bedroom and Basement were found to contain up to 10% asbestos following analysis. The assessment to quantify the extent of this material identified fifteen windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Kitchen (1 window 30" wide x 36" tall)
- Kitchen (1 window 30" wide x 54" tall)
- NW Bedroom (2 windows 30" wide x 54" tall)
- Bathroom (1 window 30" wide x 38" tall)
- NE Bedroom (1 window 30" wide x 54" tall)
- Living (2 windows 44" wide x 54" tall)
- Garage (2 window 20" wide x 38" tall)
- Basement (5 windows 32" wide x 14" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Basement (misc. HVAC wrap on Ductwork in wall, 25 sq. ft.)

Category I ACM

One type of resilient floor covering (Brown Layered Linoleum) located within the Kitchen/Hallway was found to contain up to 20% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 210 sq. ft. of this material within the Building.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Basement (misc. HVAC wrap on Ductwork in wall, 25 sq. ft.)

Friable asbestos containing window glazing was identified on fifteen windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Kitchen (1 window 30" wide x 36" tall)
- Kitchen (1 window 30" wide x 54" tall)
- NW Bedroom (2 windows 30" wide x 54" tall)
- Bathroom (1 window 30" wide x 38" tall)
- NE Bedroom (1 window 30" wide x 54" tall)
- Living (2 windows 44" wide x 54" tall)
- Garage (2 window 20" wide x 38" tall)
- Basement (5 windows 32" wide x 14" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

The Category I resilient floor covering (Brown Layered Linoleum) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- 4' Fluorescent Light (Fixture and Ballast Only) (3)
- 2' Fluorescent Light (Fixture and Ballast Only) (1)
- 2' Fluorescent Bulb (1)
- Automobile Tires (26)
- Television (13)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-018-0007-00

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3213 Glendale St

Report To:

Mr. Aaron Paquet
 Red Cedar Consulting
 P.O. Box 13216
 Lansing, MI 48901

ARI Report # 18-75603
 Date Collected: 03/14/18
 Date Received: 03/15/18
 Date Analyzed: 03/20/18
 Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 01 Cust. #: GS-HM-01A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75603 - 01a Cust. #: GS-HM-01A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75603 - 02 Cust. #: GS-HM-01B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



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Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 02a Cust. #: GS-HM-01B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75603 - 03 Cust. #: GS-HM-02A Material: Asphalt Flat Roofing Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Fiberglass - 10% Other - 60%
Lab ID #: 75603 - 04 Cust. #: GS-HM-02B Material: Asphalt Flat Roofing Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Fiberglass - 5% Other - 60%

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Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 05 Cust. #: GS-HM-03A Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75603 - 05a Cust. #: GS-HM-03A Material: Filler Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75603 - 06 Cust. #: GS-HM-03B Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

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Robert T. Letarte Jr., Laboratory Director

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Date Collected: 03/14/18
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Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 06a Cust. #: GS-HM-03B Material: Filler Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75603 - 07 Cust. #: GS-HM-04A Material: Brown Layered Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 75603 - 07a Cust. #: GS-HM-04A Material: Linoleum Location: Appearance: red, fibrous, nonhomogenous Layer: 2 of 4	Asbestos Present: YES Chrysotile - 20%	Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 07b Cust. #: GS-HM-04A Material: Floor Tile Location: Appearance: green, fibrous, homogenous Layer: 3 of 4	Asbestos Present: YES Chrysotile - 15%	Other - 85%
Lab ID #: 75603 - 07c Cust. #: GS-HM-04A Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75603 - 08 Cust. #: GS-HM-04B Material: Brown Layered Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%

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Date Received: 03/15/18
Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 08a Cust. #: GS-HM-04B Material: Linoleum Location: Appearance: Layer: 2 of 4	Asbestos Present: NOT ANALYZED	
Lab ID #: 75603 - 08b Cust. #: GS-HM-04B Material: Floor Tile Location: Appearance: Layer: 3 of 4	Asbestos Present: NOT ANALYZED	
Lab ID #: 75603 - 08c Cust. #: GS-HM-04B Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 09 Cust. #: GS-HM-05A Material: Grey Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 75603 - 10 Cust. #: GS-HM-05B Material: Grey Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 75603 - 11 Cust. #: GS-HM-06A Material: 9x9 Brown VFT Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 12 Cust. #: GS-HM-06B Material: 9x9 Brown VFT Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75603 - 13 Cust. #: GS-HM-07A Material: 9x9 Red VFT Location: Appearance: red, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75603 - 14 Cust. #: GS-HM-07B Material: 9x9 Red VFT Location: Appearance: red, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 15 Cust. #: GS-HM-08A Material: House Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 10%	Other - 90%
Lab ID #: 75603 - 16 Cust. #: GS-HM-08B Material: House Window Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75603 - 17 Cust. #: GS-HM-09A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 17a Cust. #: GS-HM-09A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO Chrysotile - 0.75% POINT COUNT RESULT	Other - 99.25%
Lab ID #: 75603 - 18 Cust. #: GS-HM-09B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75603 - 18a Cust. #: GS-HM-09B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO Chrysotile - 0.50% POINT COUNT RESULT	Other - 99.50%

For Layered Samples, each component will be analyzed and reported separately.

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Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 19 Cust. #: GS-HM-10A Material: Basement Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75603 - 20 Cust. #: GS-HM-10B Material: Basement Window Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75603 - 21 Cust. #: GS-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 21a Cust. #: GS-HS-01A Material: Plaster Base Coat Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Vermiculite - 5% Other - 94%
Lab ID #: 75603 - 22 Cust. #: GS-HS-01B Material: Plaster Finish Coat Location: Appearance: pink,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75603 - 22a Cust. #: GS-HS-01B Material: Plaster Base Coat Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Vermiculite - 5% Other - 94%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3213 Glendale St

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75603
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 23 Cust. #: GS-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75603 - 23a Cust. #: GS-HS-01C Material: Plaster Base Coat Location: Appearance: grey, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Vermiculite - 5% Other - 94%
Lab ID #: 75603 - 24 Cust. #: GS-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3213 Glendale St

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75603
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75603 - 24a Cust. #: GS-HS-01D Material: Plaster Base Coat Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75603 - 25 Cust. #: GS-HS-01E Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75603 - 25a Cust. #: GS-HS-01E Material: Plaster Base Coat Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Vermiculite - 5% Other - 94%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

Apex # 75603

1 of 3



APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3213 Glendale St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: 5 day All Samples

Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	G5-HM-01A	Roofing Shingle			
2	G5-HM-01B	"			
3	G5-HM-02A	Asphalt Flat Roofing			
4	G5-HM-02B	"			
5	G5-HM-03A	Beige Siding			
6	G5-HM-03B	"			
7	G5-HM-04A	Brown Layered Siding			
8	G5-HM-04B	"			
9	G5-HM-05A	Grey Siding			
10	G5-HM-05B	"			
11	G5-HM-06A	9x9 Brown VFT			

Relinquished by: Arden Mester Received by: UPS

Date: 3-14-18 Date: 3-14-18

Relinquished by: _____ Received by: Arden Mester

Date: _____ Date: MAR 15 2018

RECEIVED

75603

2 of 3

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888)449-4566 Fax: (888) 448-8739

Turn Around Times: (Circle One)

Rush 24 hour

48 hour 72 hour

Other: Sdehy All Samples

Lab Use Only
Log-In _____
Report _____

Date of Survey: 3-14-18

Project: 3213 Glendale St

Project #: _____

Contact Person: Aaron Paquet

PLM EPA 600, PC all samples with a detection of <5% ACM.
apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	G5-HM-06B	9x9 Brown VFT			
13	G5-HM-07A	9x9 Red VFT			
14	G5-HM-07B	" " "			
15	G5-HM-08A	House Windows Slaying			
16	G5-HM-08B	" " "			
17	G5-HM-09A	Asphalt Joint Compound			
18	G5-HM-09B	" " "			
19	G5-HM-10A	Basement Windows Slaying			
20	G5-HM-10B	" " "			
21	G5-HS-01A	Plaster			
22	G5-HS-01B	" "			

Relinquished by: Aaron Paquet Received by: UPS
Date: 3-14-18 Date: 3-14-18

Relinquished by: _____ Received by: RECEIVED
Date: _____ Date: MAR 15 2018

Tables

Table 1 - Summary of Hazardous Materials, 3213 Glendale St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Garage	4' Fluorescent Light (Fixture and Ballast Only)	3
Exterior	Automobile Tires	4
Exterior	Television	13
Garage	Automobile Tires	22
Living	2' Fluorescent Light (Fixture and Ballast Only)	1
Living	2' Fluorescent Bulb	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3213 Glendale St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
GS-HM-01A	Roofing Shingle	No	M	Category I	ND/ND	Exterior	NA
GS-HM-01B	Roofing Shingle	No	M	Category I	ND/ND	Exterior	NA
GS-HM-02A	Asphalt Flat Roofing	No	M	Category I	ND	Garage Exterior	NA
GS-HM-02B	Asphalt Flat Roofing	No	M	Category I	ND	Garage Exterior	NA
GS-HM-03A	Beige Linoleum	No	M	Category I	ND/ND	Living	NA
GS-HM-03B	Beige Linoleum	No	M	Category I	ND/ND	Living	NA
GS-HM-04A	Brown Layered Linoleum	No	M	Category I	ND/20%CH/15%CH/ND	Kitchen/Hallway	210 sq. ft.
GS-HM-04B	Brown Layered Linoleum	No	M	Category I	ND/NA/NA/ND	Kitchen/Hallway	NA
GS-HM-05A	Gray Linoleum	No	M	Category I	ND	Bathroom	NA
GS-HM-05B	Gray Linoleum	No	M	Category I	ND	Bathroom	NA
GS-HM-06A	9"x9" Brown Vinyl Tile	No	M	Category I	ND	NW Bedroom	NA
GS-HM-06B	9"x9" Brown Vinyl Tile	No	M	Category I	ND	NW Bedroom	NA
GS-HM-07A	9"x9" Red Vinyl Tile	No	M	Category I	ND	NE Bedroom	NA
GS-HM-07B	9"x9" Red Vinyl Tile	No	M	Category I	ND	NE Bedroom	NA
GS-HM-08A	Window Glazing	Yes	M	Category II	10%CH	NE Bedroom	10 Windows
GS-HM-08B	Window Glazing	Yes	M	Category II	NA	NW Bedroom	NA
GS-HM-09A	Drywall and Joint Compound	No	M	Category II	ND/ 0.75%CH-PC	Bathroom Wall	NA
GS-HM-09B	Drywall and Joint Compound	No	M	Category II	ND/ 0.50%CH-PC	Bathroom Wall	NA
GS-HM-10A	Window Glazing	Yes	M	Category II	5%CH	Basement	5 Windows
GS-HM-10B	Window Glazing	Yes	M	Category II	NA	Basement	NA
GS-HS-01A	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA
GS-HS-01B	Plaster	No	S	Category II	ND/ND	NE Bedroom Ceiling	NA
GS-HS-01C	Plaster	No	S	Category II	ND/ND	Kitchen Wall	NA
GS-HS-01D	Plaster	No	S	Category II	ND/ND	NW Bedroom Wall	NA
GS-HS-01E	Plaster	No	S	Category II	ND/ND	Bathroom Wall	NA

Notes:

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3213 Glendale St., Muskegon Heights, Michigan

Material Types

M = Miscellaneous building material
TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 3213 Glendale St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Basement (misc. HVAC wrap on Ductwork in wall, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	25 sq. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

- lin. ft. = linear feet
- sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 3213 Glendale St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen/Hallway	Brown Layered Linoleum	No	210 sq. ft.
Total			210 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (misc. HVAC wrap on Ductwork in wall, 25 sq. ft.)	HVAC Duct Wrap	Yes	25 sq. ft.
Total			25 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen (1 window 30" wide x 36" tall)	Glazing	Yes	1 Window
Kitchen (1 window 30" wide x 54" tall)	Glazing	Yes	1 Window
NW Bedroom (2 windows 30" wide x 54" tall)	Glazing	Yes	2 Windows
Bathroom (1 window 30" wide x 38" tall)	Glazing	Yes	1 Window
NE Bedroom (1 window 30" wide x 54" tall)	Glazing	Yes	1 Window
Living (2 windows 44" wide x 54" tall)	Glazing	Yes	2 Windows
Basement (5 windows 32" wide x 14" tall)	Glazing	Yes	5 Windows
Garage (2 window 20" wide x 38" tall)	Glazing	Yes	2 Windows
Total			15 Windows

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Table 4 - Summary of All Asbestos Containing Materials, 3213 Glendale St., Muskegon Heights, Michigan

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

**RE: *Asbestos Containing Material and Hazardous Materials Inspection
3219 Sanford St., Muskegon Heights, MI 49444
Parcel ID: 61-26-770-008-0008-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 3219 Sanford St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .08 acre residential parcel which contains a 308 sq. ft. detached garage and approximate 756 square foot residential building (the Building) constructed in 1945. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with Transite siding over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room and kitchen on the first floor while the second floor contains two bedrooms and a bathroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-008-0008-00

inspection of the Subject Property on March 14, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Linoleum
- 1'x1' Ceiling Tile
- Drywall and Joint Compound
- Window Glazing
- Plaster

Red Cedar staff collected twenty five samples of suspect ACBM separated into eleven distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty five samples is included as Attachment A.

Hazardous Materials Inspection

On March 14, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty five samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap and Air-O-Cell located in the Building and the Cementitious “Transite” Siding on the Building were classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Duct Wrap and Air-O-Cell Pipe Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Basement (misc. HVAC wrap on Beams and Framing, 25 sq. ft.)
- Basement Water Line (Air-O-Cell 2" to 3") (10 lin. ft.)

Category I ACM

One type of resilient floor covering (Gray Pebble Layered Linoleum) located within the 2nd Fl. Bathroom was found to contain up to 20% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 49 sq. ft. of this material within the Building.

Category II ACM

The cementitious "Transite" siding located on the exterior of the Building was classified as PACM and no samples were collected. The visual assessment to quantify the extent of this material identified 1,114 sq. ft. of cementitious (Transite) siding on the Building.

Drywall Compound samples, collected from the Dining Room were found to contain up to 2.50% asbestos following analysis. The assessment to quantify the extent of this material identified approximately 161 sq. ft. of drywall compound within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Basement (misc. HVAC wrap on Beams and Framing, 25 sq. ft.)
- Basement Water Line (Air-O-Cell 2" to 3") (10 lin. ft.)

Transite siding was identified on the exterior of the Building and must be abated prior to completion of any demolition activities at the Subject Property. In demolition, all cementitious ACM must be removed prior to demolition due to the likelihood of becoming regulated due to the demolition process.

Drywall Compound identified on the interior of the Building must be abated prior to completion of any renovation/demolition activities at the Subject Property. Any Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations must be properly abated.

The Category I resilient floor covering (Gray Pebble layered Linoleum) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- 8' Fluorescent Light (Fixture and Ballast Only) (1)
8' Fluorescent Bulb (1)
- 2' Fluorescent Light (Fixture and Ballast Only) (2)
- 2' Fluorescent Bulb (2)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-008-0008-00

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov


DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3219 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75604
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 01 Cust. #: SS-HM-01A Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75604 - 02 Cust. #: SS-HM-01B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75604 - 03 Cust. #: SS-HM-02A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3219 Sanford St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75604
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 03a Cust. #: SS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75604 - 03b Cust. #: SS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75604 - 03c Cust. #: SS-HM-02A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

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Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 04 Cust. #: SS-HM-02B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75604 - 04a Cust. #: SS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75604 - 04b Cust. #: SS-HM-02B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

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Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 04c Cust. #: SS-HM-02B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75604 - 05 Cust. #: SS-HM-03A Material: Woodgrain Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 75604 - 06 Cust. #: SS-HM-03B Material: Woodgrain Linoleum Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%

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Date Collected: 03/14/18
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Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 07 Cust. #: SS-HM-04A Material: Layered Brown Squared Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75604 - 07a Cust. #: SS-HM-04A Material: Linoleum Location: Appearance: yellow, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75604 - 08 Cust. #: SS-HM-04B Material: Layered Brown Squared Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Date Collected: 03/14/18
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Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 08a Cust. #: SS-HM-04B Material: Linoleum Location: Appearance: yellow, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75604 - 09 Cust. #: SS-HM-05A Material: 1x1 White Texture Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75604 - 10 Cust. #: SS-HM-05B Material: 1x1 White Texture Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 11 Cust. #: SS-HM-06A Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75604 - 11a Cust. #: SS-HM-06A Material: Joint Compound Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 2.50% POINT COUNT RESULT	Other - 97.50%
Lab ID #: 75604 - 12 Cust. #: SS-HM-06B Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 12a Cust. #: SS-HM-06B Material: Joint Compound Location: Appearance: Layer: 2 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 75604 - 13 Cust. #: SS-HM-07A Material: Gray Pebble Layered Linoleum Location: Appearance: black,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75604 - 13a Cust. #: SS-HM-07A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 13b Cust. #: SS-HM-07A Material: Linoleum Location: Appearance: yellow, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 75604 - 14 Cust. #: SS-HM-07B Material: Gray Pebble Layered Linoleum Location: Appearance: black, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75604 - 14a Cust. #: SS-HM-07B Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 14b Cust. #: SS-HM-07B Material: Linoleum Location: Appearance: Layer: 3 of 3	Asbestos Present: NOT ANALYZED	
Lab ID #: 75604 - 15 Cust. #: SS-HM-08A Material: Grey/White Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75604 - 16 Cust. #: SS-HM-08B Material: Grey/White Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 17 Cust. #: SS-HM-09A Material: House Window Glazing Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 75604 - 18 Cust. #: SS-HM-10A Material: Garage Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75604 - 19 Cust. #: SS-HM-10B Material: Garage Window Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 03/21/18
Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 20 Cust. #: SS-HS-01A Material: Plaster Texture Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75604 - 20a Cust. #: SS-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75604 - 20b Cust. #: SS-HS-01A Material: Plaster Base Coat Location: Appearance: grey, nonfibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Perlite - 10% Other - 90%

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Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 21 Cust. #: SS-HS-01B Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75604 - 21a Cust. #: SS-HS-01B Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75604 - 21b Cust. #: SS-HS-01B Material: Plaster Base Coat Location: Appearance: grey,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Perlite - 10% Other - 90%

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Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 22 Cust. #: SS-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75604 - 22a Cust. #: SS-HS-01C Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75604 - 23 Cust. #: SS-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 23a Cust. #: SS-HS-01D Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75604 - 24 Cust. #: SS-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75604 - 24a Cust. #: SS-HS-01E Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Date Reported: 03/22/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75604 - 25 Cust. #: SS-BM-09B Material: House Window Glazing Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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NVLAP Lab Code 102118-0

Apex # 75604

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APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3219 Sanford St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: 5 day

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	SS-HM-01A	Veggie Barrel			
2	SS-HM-01B	..			
3	SS-HM-02A	Roofing Shingle			
4	SS-HM-02B	..			
5	SS-HM-03A	Woodgrain Linoleum			
6	SS-HM-03B	..			
7	SS-HM-04A	Layered Brown Spunbond Linoleum			
8	SS-HM-04B	..			
9	SS-HM-05A	1X1 White Texture CT			
10	SS-HM-05B	..			
11	SS-HM-06A	Aluminum & Spuit Compound			

Relinquished by: *A. Paquet* Received by: *UPS*
Date: 3-14-18 Date: 3-14-18

Relinquished by: _____ Date: _____

RECEIVED
Received by: *APR 12 11 24*
Date: MAR 15 2018

75604

2 of 3

APEX Research, Inc.



11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Client Name: Red Cedar Consulting
Address: PO Box 13216
City, St., Zip: Lansing, MI 48901
Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18
Project: 3219 Sanford St
Project #:

Contact Person: Aaron Paquet
apaquet@redcedarconsulting.net
PC all samples with a detection of <5% ACM.

Turn Around Times: (Circle One)

Rush 24 hour
48 hour 72 hour

Other: 5 day **(TTP)** All Samples

Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	SS-HM-06B	Small Joint Compound			
13	SS-HM-07A	Red Plaster			
14	SS-HM-07B	" "			
15	SS-HM-08A	Grey & White Plaster			
16	SS-HM-08B	" "			
17	SS-HM-09A	House Window Siding			
18	SS-HM-10A	Storage Window Siding			
19	SS-HM-10B	Storage Window Siding			
20	SS-HS-01A	Plaster			
21	SS-HS-01B	Plaster			
22	SS-HS-01C	Plaster			

Relinquished by: *Alexander* Received by: *UPS*
Date: 3-14-18 Date: 3-14-18

Received by: *[Signature]*
Date: MAR 15 2018

75604

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APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3219 Sanford St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: 5 day ALL Samples

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	55-HS-01D	Plaster			
24	55-HS-01E	"			
25	55-HM-09B	House Window Siding			

Relinquished by: [Signature] Received by: UPS
Date: 3-14-18 Date: 3-14-18

RECEIVED
Received by: [Signature]
Date: MAR 15 2018

Tables

Table 1 - Summary of Hazardous Materials, 3219 Sanford St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Garage	8' Fluorescent Light (Fixture and Ballast Only)	1
Garage	8' Fluorescent Bulb	1
Basement	2' Fluorescent Light (Fixture and Ballast Only)	2
Basement	2' Fluorescent Bulb	2

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3219 Sanford St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-02A	Roofing Shingle	No	M	Category I	ND/ND/ ND/ND	House Exterior	NA
SS-HM-02B	Roofing Shingle	No	M	Category I	ND/ND/ ND/ND	Garage Exterior	NA
SS-HM-03A	Woodgrain Linoleum	No	M	Category I	ND	Living	NA
SS-HM-03B	Woodgrain Linoleum	No	M	Category I	ND	Living	NA
SS-HM-04A	Layered Brown Square Linoleum	No	M	Category I	ND/ND	Dining	NA
SS-HM-04B	Layered Brown Square Linoleum	No	M	Category I	ND/ND	Kitchen	NA
SS-HM-05A	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	Kitchen	NA
SS-HM-05B	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	Kitchen	NA
SS-HM-06A	Drywall and Joint Compound	No	M	Category II	ND/ 2.50%CH-PC	Dining Ceiling	161 sq. ft.
SS-HM-06B	Drywall and Joint Compound	No	M	Category II	ND/NA	Dining Ceiling	NA
SS-HM-07A	Gray Pebble Layered Linoleum	No	M	Category I	ND/ND/ 20%CH	2 nd Fl. Bathroom	49 sq. ft.
SS-HM-07B	Gray Pebble Layered Linoleum	No	M	Category I	ND/ND/NA	2 nd Fl. Bathroom	NA
SS-HM-08A	Gray and White Linoleum	No	M	Category I	ND	Basement	NA
SS-HM-08B	Gray and White Linoleum	No	M	Category I	ND	Basement	NA
SS-HM-09A	Window Glazing	Yes	M	Category II	ND	Living	NA
SS-HM-09B	Window Glazing	Yes	M	Category II	ND	Kitchen	NA
SS-HM-10A	Window Glazing	Yes	M	Category II	ND	Garage	NA
SS-HM-10B	Window Glazing	Yes	M	Category II	ND	Garage	NA
SS-HS-01A	Plaster	No	S	Category II	ND/ND/ND	Living Ceiling	NA
SS-HS-01B	Plaster	No	S	Category II	ND/ND/ND	Living Wall	NA
SS-HS-01C	Plaster	No	S	Category II	ND/ND	Basement Stairwell Wall	NA
SS-HS-01D	Plaster	No	S	Category II	ND/ND	2 nd Fl. E Bedroom Ceiling	NA
SS-HS-01E	Plaster	No	S	Category II	ND/ND	2 nd Fl. Bathroom Wall	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3219 Sanford St., Muskegon Heights, Michigan

Notes:

Material Types

M = Miscellaneous building material
TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 3219 Sanford St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Building Exterior	Transite Siding	No	Fair	M	1,114 sq. ft.
Basement Water Line	Air-O-Cell 2” to 3”	Yes	Fair	TSI	10 lin. ft.
Basement (misc. HVAC wrap on Beams and Framing, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	25 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 3219 Sanford St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
2 nd Fl. Bathroom	Gray Pebble Layered Linoleum	No	49 sq. ft.
Total			49 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement Water Line	Air-O-Cell 2" to 3"	Yes	10 lin. ft.
Total			10 lin. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (misc. HVAC wrap on Beams and Framing, 25 sq. ft.)	HVAC Duct Wrap	Yes	25 sq. ft.
Total			25 sq. ft.
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Exterior	Transite Siding	No	1,114 sq. ft.
Total			1,114 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Dining Room (Wall and Ceiling)	Drywall Compound	No	161 sq. ft.
Total			161 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Table 4 - Summary of All Asbestos Containing Materials, 3219 Sanford St., Muskegon Heights, Michigan

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
3301 6th St., Muskegon Heights, MI 49444
Parcel ID: 61-26-770-027-0001-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 3301 6th St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .13 acre residential parcel which contains an approximate 1,078 square foot residential building (the Building) constructed in 1935. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom, three bedrooms and a utility room on the first floor while the second floor contains two bedrooms and a bathroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an

inspection of the Subject Property on March 14, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Shingle
- Flat Roofing Materials
- Linoleum
- Backer Board
- Drywall and Joint Compound
- 12"x12" Vinyl Tile
- 1'x1' Ceiling Tile
- Window Glazing
- Plaster

Red Cedar staff collected thirty one samples of suspect ACBM separated into fourteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the thirty one samples is included as Attachment A.

Hazardous Materials Inspection

On March 14, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, thirty one samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

No PACM was identified during the completion of this inspection. All suspect materials identified were sampled and analyzed for ACM.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

A window glazing sample collected from a window in the 2nd Fl. N. Bedroom was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified eight windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Bathroom (1 window 16" wide x 44" tall)
- W Bedroom (2 windows 28" wide x 36" tall)
- 2nd Fl. E Bedroom (2 windows 22" wide x 62" tall)
- 2nd Fl. W Bedroom (1 windows 26" wide x 62" tall)
- Basement (2 windows 32" wide x 14" tall)

Category I ACM

Two types of resilient floor covering (Square Brown Layered Linoleum and White Layered Linoleum) located within the Building were found to contain up to 30% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 280 sq. ft. of this material within the Building.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

Friable asbestos containing window glazing was identified on eight windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Bathroom (1 window 16" wide x 44" tall)
- W Bedroom (2 windows 28" wide x 36" tall)
- 2nd Fl. E Bedroom (2 windows 22" wide x 62" tall)
- 2nd Fl. W Bedroom (1 windows 26" wide x 62" tall)
- Basement (2 windows 32" wide x 14" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-027-0001-00

The Category I resilient floor coverings (Square Brown Layered Linoleum and White Layered Linoleum) are non-friable ACM's that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Automobile Tire (1)
- Smoke Detector (1)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-770-027-0001-00

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov


DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3301 6th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75599
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 01 Cust. #: SS-HM-01A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 75599 - 02 Cust. #: SS-HM-01B Material: Vapor Barrier Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%
Lab ID #: 75599 - 03 Cust. #: SS-HM-02A Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3301 6th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75599
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 03a Cust. #: SS-HM-02A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 75599 - 03b Cust. #: SS-HM-02A Material: Tar Material Location: Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 75599 - 04 Cust. #: SS-HM-02B Material: Roofing Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3301 6th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75599
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 04a Cust. #: SS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 75599 - 04b Cust. #: SS-HM-02B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 75599 - 04c Cust. #: SS-HM-02B Material: Tar Material Location: Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3301 6th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75599
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 05 Cust. #: SS-HM-03A Material: Flat Roofing Material Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75599 - 05a Cust. #: SS-HM-03A Material: Shingle Location: Appearance: black, fibrous, nonhomogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75599 - 05b Cust. #: SS-HM-03A Material: Shingle Location: Appearance: black, fibrous, nonhomogenous Layer: 3 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3301 6th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75599
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 05c Cust. #: SS-HM-03A Material: Tar Material Location: Appearance: black,nonfibrous,homogenous Layer: 4 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 05d Cust. #: SS-HM-03A Material: Tar Paper Material Location: Appearance: black,fibrous,homogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75599 - 06 Cust. #: SS-HM-03B Material: Flat Roofing Material Location: Appearance: black,fibrous,homogenous Layer: 1 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

Project: 3301 6th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75599
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/21/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 06a Cust. #: SS-HM-03B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75599 - 06b Cust. #: SS-HM-03B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75599 - 06c Cust. #: SS-HM-03B Material: Tar Material Location: Appearance: black, nonfibrous, homogenous Layer: 4 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 06d Cust. #: SS-HM-03B Material: Tar Paper Material Location: Appearance: black, fibrous, homogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75599 - 07 Cust. #: SS-HM-04A Material: Square Brown Layered Linoleum Location: Appearance: green, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 30%	Other - 70%
Lab ID #: 75599 - 07a Cust. #: SS-HM-04A Material: Flooring Location: Appearance: beige, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 1.50% POINT COUNT RESULT	Cellulose - 30% Other - 68.50%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 08 Cust. #: SS-HM-04B Material: Square Brown Layered Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 75599 - 09 Cust. #: SS-HM-05A Material: Floral Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75599 - 10 Cust. #: SS-HM-05B Material: Floral Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 11 Cust. #: SS-HM-06A Material: Backer Board Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75599 - 12 Cust. #: SS-HM-06B Material: Backer Board Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75599 - 13 Cust. #: SS-HM-07A Material: Cream Layered Linoleum Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 13a Cust. #: SS-HM-07A Material: Flooring Location: Appearance: beige, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75599 - 14 Cust. #: SS-HM-07B Material: Cream Layered Linoleum Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 14a Cust. #: SS-HM-07B Material: Flooring Location: Appearance: beige, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 15 Cust. #: SS-HM-08A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75599 - 15a Cust. #: SS-HM-08A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 16 Cust. #: SS-HM-08B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 16a Cust. #: SS-HM-08B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 17 Cust. #: SS-HM-09A Material: Grey 12x12 VFT Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 17a Cust. #: SS-HM-09A Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 18 Cust. #: SS-HM-09B Material: Grey 12x12 VFT Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 18a Cust. #: SS-HM-09B Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 19 Cust. #: SS-HM-10A Material: 1x1 White Textured Ceiling Tile Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 65% Mineral Wool - 30% Other - 5%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 20 Cust. #: SS-HM-10B Material: 1x1 White Textured Ceiling Tile Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 65% Mineral Wool - 30% Other - 5%
Lab ID #: 75599 - 21 Cust. #: SS-HM-11A Material: Multi Colored 1" Square Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 75599 - 22 Cust. #: SS-HM-11B Material: Multi Colored 1" Square Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 23 Cust. #: SS-HM-12A Material: White Layered Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%
Lab ID #: 75599 - 23a Cust. #: SS-HM-12A Material: Adhesive Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 23b Cust. #: SS-HM-12A Material: Floor Filler Location: Appearance: white, nonfibrous, homogenous Layer: 3 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 23c Cust. #: SS-HM-12A Material: Floor Tile Location: Appearance: blue, fibrous, homogenous Layer: 4 of 5	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75599 - 23d Cust. #: SS-HM-12A Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 24 Cust. #: SS-HM-12B Material: White Layered Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 5	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 24a Cust. #: SS-HM-12B Material: Adhesive Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 24b Cust. #: SS-HM-12B Material: Floor Filler Location: Appearance: white,nonfibrous,homogenous Layer: 3 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 24c Cust. #: SS-HM-12B Material: Floor Tile Location: Appearance: Layer: 4 of 5	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 24d Cust. #: SS-HM-12B Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 5 of 5	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 25 Cust. #: SS-HM-13A Material: Window Glazing Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.50% POINT COUNT RESULT	Other - 98.50%
Lab ID #: 75599 - 26 Cust. #: SS-HM-13B Material: Window Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 27 Cust. #: SS-HS-01A Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75599 - 28 Cust. #: SS-HS-01B Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75599 - 29 Cust. #: SS-HS-01C Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75599 - 30 Cust. #: SS-HS-01D Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75599 - 31 Cust. #: SS-HS-01E Material: Plaster Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75599 - 31a Cust. #: SS-HS-01E Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Apex # 75599

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Date of Survey: 3-14-18

Project: 330 / 6th St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Rush 24 hour

48 hour 72 hour

Other: Sdey

Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	SS-HM-01A	Vapor Barrier			
2	SS-HM-01B	..			
3	SS-HM-02A	Roofing Shingle			
4	SS-HM-02B	..			
5	SS-HM-03A	Flat Roofing Material			
6	SS-HM-03B	..			
7	SS-HM-04A	Square Brown Sycamore Lumber			
8	SS-HM-04B	..			
9	SS-HM-05A	Floral Lumber			
10	SS-HM-05B	..			
11	SS-HM-06A	Becker Board			

RECEIVED
Received by: And 1/24
Date: MAR 15 2018

Relinquished by: APR 14 2018 Received by: JPS
Date: 3-14-18 Date: 3-14-18

75599

2 of 3

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3301 6th St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.
apquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5day ALL samples

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	55-HM-06B	Backer Board			
13	55-HM-07A	Cream Dryed Sandstone			
14	55-HM-07B	" "			
15	55-HM-08A	Skypool v Joint Compound			
16	55-HM-08B	" "			
17	55-HM-09A	Grey 12x12 VFT			
18	55-HM-09B	" "			
19	55-HM-10A	1x1 white textured CT			
20	55-HM-10B	" "			
21	55-HM-11A	Multi Colored 1" square Sandstone			
22	55-HM-11B	" "			

RECEIVED

Relinquished by: VP Received by: VP

Date: 3-14-18 Date: 3-14-18

Relinquished by: _____

Date: _____

Received by: VP

Date: MAR 15 2018

75599

3 of 3

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3301 *6th St*

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

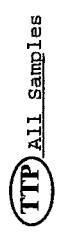
Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Rush 24 hour
48 hour 72 hour
Other: *5 day*



Lab Use Only
Log-In: _____
Report: _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	55-HM-12A	<i>White Layered Linoleum</i>			
24	55-HM-12B	<i>"</i>			
25	55-HM-13A	<i>Window Sill</i>			
26	55-HM-13B	<i>"</i>			
27	55-HS-01A	<i>Plaster</i>			
28	55-HS-01B	<i>"</i>			
29	55-HS-01C	<i>"</i>			
30	55-HS-01D	<i>"</i>			
31	55-HS-01E	<i>"</i>			

RECEIVED

Relinquished by: *Aaron Paquet* Received by: *JTS*
Date: 3-14-18 Date: 3-14-18

Relinquished by: _____
Date: _____

Received by: *AP*
Date: MAR 15 2018

Tables

Table 1 - Summary of Hazardous Materials, 3301 6th St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Automobile Tires	1
Basement	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3301 6th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-02A	Roofing Shingle	No	M	Category I	ND/ND/ND	Exterior	NA
SS-HM-02B	Roofing Shingle	No	M	Category I	ND/ND/ND/ND	Exterior	NA
SS-HM-03A	Flat Roofing Materials	No	M	Category I	ND/ND/ND/ND/ND	Exterior	NA
SS-HM-03B	Flat Roofing Materials	No	M	Category I	ND/ND/ND/ND/ND	Exterior	NA
SS-HM-04A	Square Brown Layered Linoleum	No	M	Category I	30%CH/1.50%CH	Kitchen	244 sq. ft.
SS-HM-04B	Square Brown Layered Linoleum	No	M	Category I	NA	Kitchen	NA
SS-HM-05A	Floral Linoleum	No	M	Category I	ND	NE Bedroom	NA
SS-HM-05B	Floral Linoleum	No	M	Category I	ND	NW Bedroom	NA
SS-HM-06A	Backer Board	No	M	Category II	ND	Dining	NA
SS-HM-06B	Backer Board	No	M	Category II	ND	Dining	NA
SS-HM-07A	Cream Layered Linoleum	No	M	Category I	ND/ND	Utility Room	NA
SS-HM-07B	Cream Layered Linoleum	No	M	Category I	ND/ND	Utility Room	NA
SS-HM-08A	Drywall and Joint Compound	No	M	Category II	ND/ND	W Bedroom Ceiling	NA
SS-HM-08B	Drywall and Joint Compound	No	M	Category II	ND/ND	W Bedroom Ceiling	NA
SS-HM-09A	Gray 12x12 Vinyl Tile	No	M	Category I	ND/ND	Basement	NA
SS-HM-09B	Gray 12x12 Vinyl Tile	No	M	Category I	ND/ND	Basement	NA
SS-HM-10A	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	Bathroom	NA
SS-HM-10B	1'x1' White Textured Ceiling Tile	Yes	M	Category II	ND	Bathroom	NA
SS-HM-11A	Multicolored 1" Square Linoleum	No	M	Category I	ND	NW Bedroom Closet	NA
SS-HM-11B	Multicolored 1" Square Linoleum	No	M	Category I	ND	NW Bedroom Closet	NA
SS-HM-12A	White Layered Linoleum	No	M	Category I	ND/ND/ND/5%CH/ND	2 nd Fl. Bathroom	36 sq. ft.

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3301 6th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HM-12B	White Layered Linoleum	No	M	Category I	ND/ND/ND/N A/ND	2 nd Fl. Bathroom	NA
SS-HM-13A	Window Glazing	Yes	M	Category II	1.50%CH-PC	2 nd Fl. E Bedroom	8 Windows
SS-HM-13B	Window Glazing	Yes	M	Category II	NA	2 nd Fl. W Bedroom	NA
SS-HS-01A	Plaster	No	S	Category II	ND	Living Ceiling	NA
SS-HS-01B	Plaster	No	S	Category II	ND	Living Wall	NA
SS-HS-01C	Plaster	No	S	Category II	ND	NE Bedroom Wall	NA
SS-HS-01D	Plaster	No	S	Category II	ND	2 nd Fl. E Bedroom Ceiling	NA
SS-HS-01E	Plaster	No	S	Category II	ND/ND	2 nd Fl. W Bedroom Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 3301 6th St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
No Presumed Asbestos Containing Materials Identified					

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

- lin. ft. = linear feet
- sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 3301 6th St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen	Square Brown Layered Linoleum	No	154 sq. ft.
Utility Room	Square Brown Layered Linoleum	No	90 sq. ft.
2 nd Fl. Bathroom	White Layered Linoleum	No	36 sq. ft.
Total			280 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Bathroom (1 window 16" wide x 44" tall)	Glazing	Yes	1 Window
W Bedroom (2 windows 28" wide x 36" tall)	Glazing	Yes	2 Windows
2 nd Fl. E Bedroom (2 windows 22" wide x 62" tall)	Glazing	Yes	2 Windows
2 nd Fl. W Bedroom (1 windows 26" wide x 62" tall)	Glazing	Yes	1 Window
Basement (2 windows 32" wide x 14" tall)	Glazing	Yes	2 Windows
Total			8 Windows

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216
Lansing, MI 48901
Phone: 888.449.4566
Fax: 888.448.8739
www.redcedarconsulting.net

March 28, 2018

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
3327 7th St., Muskegon Heights, MI 49444
Parcel ID: 61-26-400-011-0009-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 3327 7th St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .09 acre residential parcel which contains a 352 sq. ft. detached garage and approximate 816 square foot residential building (the Building) constructed in 1935. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with wood over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Aaron Paquet and Darrell DeMasters of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspectors (Accreditation Numbers A30955 and A31159, respectively) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 14, 2018 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Vapor Barrier
- Roofing Materials
- 12"x12" Vinyl Tile
- 1'x1' Ceiling Tile
- Drywall and joint Compound
- Window Glazing
- Textured Surfacing
- Plaster

Red Cedar staff collected twenty eight samples of suspect ACBM separated into twelve distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the twenty eight samples is included as Attachment A.

Hazardous Materials Inspection

On March 14, 2018 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, twenty eight samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

ACM, as defined by the USEPA NESHAP is “any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy”.

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in “visible emissions” which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as “material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM’s are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing’s, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

Presumed Asbestos Containing Material

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be “rebutted” following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

Friable ACM's

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Bathroom (1 register, 10 sq. ft.)
- Living (1 register, 10 sq. ft.)
- Kitchen (1 register, 10 sq. ft.)
- Basement (misc. HVAC Wrap on Framing, 10 sq. ft.)

Category I ACM

One type of resilient floor covering (12"x12" Multilayer Blue Vinyl Tile) located within the kitchen was found to contain up to 5% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 130 sq. ft. of this material within the Building.

Category II ACM

No Category II non-friable ACM was identified during the completion of this inspection.

RECOMMENDATIONS

Asbestos Containing Materials

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Bathroom (1 register, 10 sq. ft.)
- Living (1 register, 10 sq. ft.)
- Kitchen (1 register, 10 sq. ft.)
- Basement (misc. HVAC Wrap on Framing, 10 sq. ft.)

The Category I resilient floor covering (12"x12" Multilayer Blue Vinyl Tile) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

Hazardous Materials

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- 4' Fluorescent Light (Fixture and Ballast Only) (1)
- 4' Fluorescent Bulb (2)
- 2' Fluorescent Light (Fixture and Ballast Only) (1)
- 2' Fluorescent Bulb (2)
- Automobile Tires (18)
- 5 Gallon Container Misc. Paint (1)
- Smoke Detector (5)

REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 18-1100
Muskegon County Land Bank
Parcel ID: 61-26-400-011-0009-00

DISCLAIMER

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Muskegon County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3327 7th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75600
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 01 Cust. #: SS-HM-01A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75600 - 02 Cust. #: SS-HM-01B Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75600 - 03 Cust. #: SS-HM-02A Material: Roofing Material/Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3327 7th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75600
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 03a Cust. #: SS-HM-02A Material: Green Shingle Location: House Appearance: black, fibrous, homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75600 - 03b Cust. #: SS-HM-02A Material: Grey Shingle Location: House Appearance: black, fibrous, homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75600 - 03c Cust. #: SS-HM-02A Material: Grey Shingle Location: House Appearance: black, fibrous, homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3327 7th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75600
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 03d Cust. #: SS-HM-02A Material: Red Shingle Location: House Appearance: black, fibrous, homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75600 - 03e Cust. #: SS-HM-02A Material: Red Shingle Location: House Appearance: black, fibrous, homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75600 - 04 Cust. #: SS-HM-02B Material: Roofing Material/Shingle Location: House Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3327 7th St.

Report To:

Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75600
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 04a Cust. #: SS-HM-02B Material: Grey Shingle Location: House Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75600 - 04b Cust. #: SS-HM-02B Material: Green Shingle Location: House Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75600 - 04c Cust. #: SS-HM-02B Material: Green Shingle Location: House Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3327 7th St.

Report To:
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Lansing, MI 48901

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Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 05 Cust. #: SS-HM-03A Material: Roofing Material/Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 75600 - 05a Cust. #: SS-HM-03A Material: Tar Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 75600 - 06 Cust. #: SS-HM-03B Material: Roofing Material/Shingle Location: Garage Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 06a Cust. #: SS-HM-03B Material: Tar Paper Location: Garage Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 75600 - 07 Cust. #: SS-HM-04A Material: 12x12 Mottle Layers Blue VFT Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 07a Cust. #: SS-HM-04A Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 07b Cust. #: SS-HM-04A Material: Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75600 - 07c Cust. #: SS-HM-04A Material: Blue Floor Tile Location: Appearance: blue, fibrous, homogenous Layer: 4 of 6	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 75600 - 07d Cust. #: SS-HM-04A Material: Glue Location: Appearance: brown, nonfibrous, homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 07e Cust. #: SS-HM-04A Material: Sheet Flooring Location: Appearance: beige, fibrous, nonhomogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75600 - 08 Cust. #: SS-HM-04B Material: 12x12 Mottle Layers Blue VFT Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 08a Cust. #: SS-HM-04B Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 08b Cust. #: SS-HM-04B Material: Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 75600 - 08c Cust. #: SS-HM-04B Material: Blue Floor Tile Location: Appearance: Layer: 4 of 6	Asbestos Present: NOT ANALYZED	
Lab ID #: 75600 - 08d Cust. #: SS-HM-04B Material: Glue Location: Appearance: brown, nonfibrous, homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 08e Cust. #: SS-HM-04B Material: Sheet Flooring Location: Appearance: beige, fibrous, nonhomogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 75600 - 09 Cust. #: SS-HM-05A Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75600 - 10 Cust. #: SS-HM-05B Material: 1x1 White Smooth Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 11 Cust. #: SS-HM-06A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: 75600 - 11a Cust. #: SS-HM-06A Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 12 Cust. #: SS-HM-06B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 12a Cust. #: SS-HM-06B Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 12b Cust. #: SS-HM-06B Material: Plaster Base Coat Location: Appearance: grey,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 13 Cust. #: SS-HM-07A Material: 12x12 Light Blue VFT Location: Appearance: blue,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 13a Cust. #: SS-HM-07A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 14 Cust. #: SS-HM-07B Material: 12x12 Light Blue VFT Location: Appearance: blue,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 14a Cust. #: SS-HM-07B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 15 Cust. #: SS-HM-08A Material: House Windows Glazing Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - 0.50% POINT COUNT RESULT	Other - 99.50%
Lab ID #: 75600 - 16 Cust. #: SS-HM-08B Material: House Windows Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75600 - 17 Cust. #: SS-HM-09A Material: Cream 12x12 VFT Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 17a Cust. #: SS-HM-09A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 18 Cust. #: SS-HM-09B Material: Cream 12x12 VFT Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75600 - 18a Cust. #: SS-HM-09B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 19 Cust. #: SS-HM-10A Material: Garage Window Glazing Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75600 - 20 Cust. #: SS-HM-10B Material: Garage Window Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75600 - 21 Cust. #: SS-HS-01A Material: Textured Surfacing Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 22 Cust. #: SS-HS-01B Material: Textured Surfacing Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75600 - 23 Cust. #: SS-HS-01C Material: Textured Surfacing Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 75600 - 24 Cust. #: SS-HS-02A Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 24a Cust. #: SS-HS-02A Material: Plaster Base Coat Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 25 Cust. #: SS-HS-02B Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 25a Cust. #: SS-HS-02B Material: Plaster Base Coat Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 25b Cust. #: SS-HS-02B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 75600 - 26 Cust. #: SS-HS-02C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 26a Cust. #: SS-HS-02C Material: Plaster Base Coat Location: Appearance: grey, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Project: 3327 7th St.

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75600
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 27 Cust. #: SS-HS-02D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 27a Cust. #: SS-HS-02D Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 75600 - 27b Cust. #: SS-HS-02D Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3327 7th St.

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Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216
Lansing, MI 48901

ARI Report # 18-75600
Date Collected: 03/14/18
Date Received: 03/15/18
Date Analyzed: 03/20/18
Date Reported: 03/21/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75600 - 28 Cust. #: SS-HS-02E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 28a Cust. #: SS-HS-02E Material: Plaster Base Coat Location: Appearance: grey, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75600 - 28b Cust. #: SS-HS-02E Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



NVLAP Lab Code 102118-0

ARCA Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3327 7th St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. epaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 day ALL samples

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab Use Only
 Log-In _____
 Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	55-HM-01A	Vapor Barrier			
2	55-HM-01B	"			
3	55-HM-02A	Roofing Material (House)			
4	55-HM-02B	"			
5	55-HM-03A	Roofing Material (Garage)			
6	55-HM-03B	"			
7	55-HM-04A	12x12 Matte Grey Blue VFT			
8	55-HM-04B	"			
9	55-HM-05A	1x1 white smooth ET			
10	55-HM-05B	"			
11	55-HM-06A	Argonall Joint Compound			

RECEIVED

Relinquished by: *Aaron Paquet* Received by: *UPS*
 Date: 3-14-18 Date: 3-14-18

Relinquished by: _____ Received by: _____
 Date: _____ Date: _____

Received by: *mu* 1124
 Date: MAR 15 2018

75600

2 of 3

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3327 7th St

Project #:

Contact Person: Aaron Paquet

Lab Use Only	Log-In _____
Report	_____

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

Other: 5 day **(TTP) All Samples** TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	55-HM-06B	Apartment Joint Compound			
13	55-HM-07A	12x12 Gels Blue VET			
14	55-HM-07B	" " " "			
15	55-HM-08A	House Window Hazing			
16	55-HM-08B	" " " "			
17	55-HM-09A	Green 12x12 VET			
18	55-HM-09B	" " " "			
19	55-HM-10A	Garage Window Hazing			
20	55-HM-10B	" " " "			
21	55-HS-01A	Textured Surfacing			
22	55-HS-01B	" " " "			

Relinquished by: [Signature] Received by: UPS
 Date: 3-14-18 Date: 3-14-18

Relinquished by: [Signature] Received by: **RECEIVED**
 Date: MAR 15 2018

75600

3 of 3

APEX Research, Inc.

11054 Hi-Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
E-mail: apexresearch@chartermi.net Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 3-14-18

Project: 3327 7th St

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

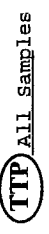
Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Rush 24 hour
48 hour 72 hour
Other: Sday



Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	55-HS-01C	Textured Surfacing			
24	55-HS-02A	Plaster			
25	55-HS-02B				
26	55-HS-02C				
27	55-HS-02D				
28	55-HS-02E				

Relinquished by: Apaquet Received by: UTS Relinquished by: _____ Received by: Full
 Date: 3-14-18 Date: 3-14-18 Date: _____ Date: MAR 15 2018

Tables

Table 1 - Summary of Hazardous Materials, 3327 7th St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Garage	4' Fluorescent Light (Fixture and Ballast Only)	1
Garage	4' Fluorescent Bulb	2
Exterior	Automobile Tires	3
Garage	Automobile Tires	15
Exterior	5 Gallon Container Misc. Paint	1
Dining	Smoke Detector	1
NW Bedroom	Smoke Detector	1
NE Bedroom	Smoke Detector	1
Hallway	Smoke Detector	1
Kitchen	2' Fluorescent Light (Fixture and Ballast Only)	1
Kitchen	2' Fluorescent Bulb	2
Basement	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3327 7th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HM-01A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-01B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
SS-HM-02A	Roofing Materials	No	M	Category I	ND/ND/ND/ ND/ND/ND	House Exterior	NA
SS-HM-02B	Roofing Materials	No	M	Category I	ND/ND/ ND/ND	House Exterior	NA
SS-HM-03A	Roofing Materials	No	M	Category I	ND/ND	Garage Exterior	NA
SS-HM-03B	Roofing Materials	No	M	Category I	ND/ND	Garage Exterior	NA
SS-HM-04A	12x12 Multilayer Blue Vinyl Tile	No	M	Category I	ND/ND/ND/ 5%CH/ND/ND	Kitchen	130 sq. ft.
SS-HM-04B	12x12 Multilayer Blue Vinyl Tile	No	M	Category I	ND/ND/ND/ NA/ND/ND	Kitchen	NA
SS-HM-05A	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Dining	NA
SS-HM-05B	1'x1' White Smooth Ceiling Tile	Yes	M	Category II	ND	Dining	NA
SS-HM-06A	Drywall and Joint Compound	No	M	Category II	ND/ND	Bathroom Ceiling	NA
SS-HM-06B	Drywall and Joint Compound	No	M	Category II	ND/ND/ND	Bathroom Ceiling	NA
SS-HM-07A	12x12 Lite Blue Vinyl Tile	No	M	Category I	ND/ND	Bathroom	NA
SS-HM-07B	12x12 Lite Blue Vinyl Tile	No	M	Category I	ND/ND	Bathroom	NA
SS-HM-08A	Window Glazing	Yes	M	Category II	0.50%CH-PC	Kitchen	NA
SS-HM-08B	Window Glazing	Yes	M	Category II	ND	Living	NA
SS-HM-09A	Cream 12x12 Vinyl Tile	No	M	Category I	ND/ND	Basement Stairwell	NA
SS-HM-09B	Cream 12x12 Vinyl Tile	No	M	Category I	ND/ND	Basement Stairwell	NA
SS-HM-10A	Window Glazing	Yes	M	Category II	ND	Garage	NA
SS-HM-10B	Window Glazing	Yes	M	Category II	ND	Garage	NA
SS-HS-01A	Textured Surfacing	No	S	Category II	ND	Living Ceiling	NA
SS-HS-01B	Textured Surfacing	No	S	Category II	ND	Living Ceiling	NA
SS-HS-01C	Textured Surfacing	No	S	Category II	ND	Living Ceiling	NA
SS-HS-02A	Plaster	No	S	Category II	ND/ND	NE Bedroom Ceiling	NA
SS-HS-02B	Plaster	No	S	Category II	ND/ND/ND	Dining Ceiling	NA
SS-HS-02C	Plaster	No	S	Category II	ND/ND	Kitchen Wall	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3327 7th St., Muskegon Heights, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
SS-HS-02D	Plaster	No	S	Category II	ND/ND/ND	NW Bedroom Wall	NA
SS-HS-02E	Plaster	No	S	Category II	ND/ND/ND	Bathroom Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 3327 7th St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Bathroom (1 register, 10 sq. ft.) Living (1 register, 10 sq. ft.) Kitchen (1 register, 10 sq. ft.) Basement (misc. HVAC Wrap on Framing, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	40 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 3327 7th St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen	12"x12" Multilayer Blue Vinyl Tile	No	130 sq. ft.
Total			130 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Bathroom (1 register, 10 sq. ft.)	HVAC Duct Wrap	Yes	40 sq. ft.
Living (1 register, 10 sq. ft.)			
Kitchen (1 register, 10 sq. ft.)			
Basement (misc. HVAC Wrap on Framing, 10 sq. ft.)			
Total			40 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
RAMEY DELQUIST E	COUNTY OF MUSKEGON TREASURER	0	04/12/2016	JUD	TAX REVERTED	4087/474	DEED	0.0
MUSKEGON COUNTY TREASURER	RAMEY DELQUIST E	600	09/26/2012	QC	QUIT- CLAIM	3928/304	DEED	0.0
TREPTOW GARRY L	MUSKEGON COUNTY TREASURER	0	04/02/2012		FORECLOSURE	3914/226	DEED	0.0
KFJ PROPERTIES LTD LLC	TREPTOW GARRY L	0	03/09/2011	QC	QUIT-CLAIM	3873/539	DEED	100.0

Property Address	Class: 710.EXEMPT LAND BA	Zoning: R1-RES	Building Permit(s)	Date	Number	Status
29 E LINCOLN AVE	School: MUSKEGON HEIGHTS SCHOOLS			04/24/2007	H-59-07	
	P.R.E. 0%			07/23/1998	H-94-98	
Owner's Name/Address	MAP #: 26-000-269-010			06/09/1998	B-160-98	
MUSKEGON COUNTY LAND BANK 173 E APPLE AVE STE 104 MUSKEGON MI 49442	2018 Est TCV 0 TCV/TFA: 0.00					

Tax Description	X Improved	Vacant	Land Value Estimates for Land Table 00009.YELLOW							
HT4300 BLK 269 LOT 1 MUSKEGON IMPROVEMENT CO'S ANNEX #1			* Factors *							
Comments/Influences			Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
			YELLOW	49.00	100.00	1.0000	1.0000	60 100		2,940
			49 Actual Front Feet, 0.11 Total Acres Total Est. Land Value = 2,940							




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Topography of Site	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
X Level	2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Rolling	2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Low	2016	1,500	3,500	5,000			5,000S
High	2015	1,500	4,200	5,700			5,700S
Landscaped							
Swamp							
Wooded							
Pond							
Waterfront							
Ravine							
Wetland							
Flood Plain							
Who	When	What					
CEJ	11/30/1998	REVIEWED					
ROB	09/04/2012	REVIEWED					

*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 128	Type WGEP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling									
Building Style: 1 STY		Trim & Decoration		Central Air Wood Furnace			Stories Exterior Foundation Rate Bsmnt-Adj Heat-Adj Size Cost									
Yr Built 1915	Remodeled 1998	Ex	X	Ord		Min	(12) Electric			Floor Area: 922		CntyMult X 1.380		Bsmnt Garage:		
Condition: Average		Size of Closets		100 Amps Service			No./Qual. of Fixtures			Total Base Cost: 47,176		X 1.380				
		Lg	X	Ord		Small	Ex. X Ord. Min			Total Base New : 65,103		E.C.F.				
		Doors:		Solid	X	H.C.	No. of Elec. Outlets			Total Depr Cost: 14,648		X 0.505		Carport Area:		
Room List		(5) Floors		(13) Plumbing			Many X Ave. Few			Estimated T.C.V: 7,397				Roof:		
	Basement 1 1st Floor 1 2nd Floor 2 Bedrooms	Kitchen: Carpeted Other: Tile Other: Softwood		Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan												
(1) Exterior		X	Plaster	(14) Water/Sewer												
	Wood/Shingle Aluminum/Vinyl Brick			1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic												
X	Composition Insulation	(7) Excavation		Lump Sum Items:												
(2) Windows		Basement: 670 S.F. Crawl: 0 S.F. Slab: 252 S.F. Height to Joists: 0.0														
X	Many Avg. Few		Large Avg. Small													
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(9) Basement Finish														
(3) Roof		Recreation SF Living SF Walkout Doors No Floor SF														
X	Gable Hip Flat	Gambrel Mansard Shed														
X	Asphalt Shingle	(10) Floor Support														
Chimney: Brick		Joists: Unsupported Len: Cntr.Sup:														

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	QUIT- CLAIM	4105/515	DEED	0.0
PROGRESSIVE HOLDING CO LLC	COUNTY OF MUSKEGON TREASUR	0	04/29/2015	WD	TAX REVERTED	4054/44	DEED	0.0
MUSKEGON COUNTY TREASURER	PROGRESSIVE HOLDING CO LLC	700	10/17/2012	QC	QUIT- CLAIM	3928/325	DEED	0.0
CRACKER BOX LLC	MUSKEGON COUNTY TREASURER	0	04/02/2012		FORECLOSURE	3914/255	DEED	0.0
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status
55 W OAKWOOD AVE		School: MUSKEGON HEIGHTS SCHOOLS				02/15/2006	SR-26-06	
Owner's Name/Address		P.R.E. 0%						
MUSKEGON COUNTY LAND BANK AUTHORIT 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-061-007-380		2018 Est TCV 0 TCV/TFA: 0.00				
Tax Description		X Improved		Vacant		Land Value Estimates for Land Table 00010.SOUTHWEST		
HT6890 CHAS M STEELE'S SUB'D BLK 7 E 36 FT OF LOTS 37 38 39 & 40		Public Improvements		* Factors *		Description Frontage Depth Front Depth Rate %Adj. Reason Value		
Comments/Influences		Dirt Road		SOUTHWEST		36.00 100.00 1.0000 1.0000 70 100		
		Gravel Road		36 Actual Front Feet, 0.08 Total Acres		Total Est. Land Value = 2,520		
		X Paved Road						
		X Storm Sewer						
		X Sidewalk						
		X Water						
		X Sewer						
		X Electric						
		X Gas						
		X Curb						
		Street Lights						
		Standard Utilities						
		Underground Utils.						
		Topography of Site						
		X Level						
		Rolling						
		Low						
		High						
		Landscaped						
		Swamp						
		Wooded						
		Pond						
		Waterfront						
		Ravine						
		Wetland						
		Flood Plain						
		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
Who		2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT
When		2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT
What		2016	0	0	0			0
The Equalizer. Copyright (c) 1999 - 2009. Licensed To: County of Muskegon, Michigan		2015	1,300	8,300	9,600			9,600S

*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 98	Type WGEP (1 Story)	Year Built: 1955 Car Capacity: Class: CD Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished?: Auto. Doors: 0 Mech. Doors: 0 Area: 240 % Good: 0 Storage Area: 0 No Conc. Floor: 0
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G											
Building Style: 1 STY		Trim & Decoration		Central Air Wood Furnace			(12) Electric			Stories Exterior Foundation			Rate Bsmnt-Adj Heat-Adj		Size Cost	
Yr Built 1935	Remodeled 0	Ex	X	Ord		Min	No. of Elec. Outlets			Rate			Bsmnt-Adj		Heat-Adj	
Condition: Average		Lg	X	Ord		Small	Many X Ave. Few			Other Additions/Adjustments			Rate		Size Cost	
Room List		(5) Floors		Kitchen: Hardwood Other: Carpeted Other: Tile			100 Amps Service			(14) Water/Sewer			1025.00		1 1,025	
	Basement 1st Floor 2nd Floor 2 Bedrooms	(6) Ceilings		No./Qual. of Fixtures			Average Fixture(s)			(16) Porches			1025.00		1 1,025	
(1) Exterior	X	Plaster					Ex. X Ord. Min			WGEP (1 Story), Standard			43.09		98 4,223	
X	Wood/Shingle Aluminum/Vinyl Brick	(7) Excavation		Basement: 520 S.F. Crawl: 0 S.F. Slab: 162 S.F. Height to Joists: 0.0			1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			(17) Garages			24.80		240 5,952	
(2) Windows	Many Avg. Few		Large Avg. Small	(8) Basement			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/100/45.0,			Base Cost			24.80		240 5,952	
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(9) Basement Finish		Recreation SF Living SF Walkout Doors No Floor SF			ECF (SOUTHWEST)			0.443 => TCV of Bldg: 1 =			14,998		33,855	
(3) Roof	X	Gable Hip Flat	Gambrel Mansard Shed	(10) Floor Support			1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Lump Sum Items:						
X	Asphalt Shingle			Joists: Unsupported Len: Cntr.Sup:												
Chimney: Brick																

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
TRIDENT ASSET MANAGEMENT L	COUNTY OF MUSKEGON TREASUR	0	04/12/2016	JUD	TAX REVERTED	4087/466	DEED	0.0
COUNTY OF MUSKEGON TREASUR	TRIDENT ASSET MANAGEMENT I	100	10/21/2013	QC	QUIT- CLAIM	4003/5	DEED	0.0
BERRY BLOSSOM E	COUNTY OF MUSKEGON TREASUR	0	04/01/2013	QC	FORECLOSURE	3950/212	DEED	0.0
SINGER GERALD E	BERRY BLOSSOM E	0	04/01/2009	LC	LAND CONTRACT	3837/536	DEED	0.0

Property Address	Class: 703.EXEMPT COUNTY	Zoning:	Building Permit(s)	Date	Number	Status
307 E COLUMBIA AVE	School: MUSKEGON HEIGHTS SCHOOLS			02/09/2009	H-16-09	
Owner's Name/Address	P.R.E. 0%					
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442	MAP #: 26-000-257-010					
	2018 Est TCV 0 TCV/TFA: 0.00					

Tax Description	Improved	Vacant	Land Value Estimates for Land Table 00007. SKY BLUE							
HT4015 THAT PART OF LOT 1 BLK 257 BEGIN AT NE CORNER OF SAID LOT 1 THENCE W 67.3 FT THENCE SLY 74.2 FT THEN NELY 102 FT TO PLACE OF BEGINNING & ENTIRE LOT 2 BLK 257 MUSKEGON IMPROVEMENT CO'S ANNEX #1	X		NEIGHBORHOOD #7 102.00 50.00 1.0000 1.0000 70 100 102 Actual Front Feet, 0.12 Total Acres Total Est. Land Value = 7,140							
Comments/Influences	Public Improvements		* Factors *							
ASKING \$39,300 11/08	X		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value

ASKING \$39,300 11/08



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Topography of Site	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
X Level	2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Rolling	2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Low	2016	3,600	6,100	9,700			9,700S
High	2015	3,600	6,400	10,000			10,000S
Landscaped	Who When What						
Swamp	RLJ 09/30/1990 REVIEWED						
Wooded							
Pond							
Waterfront							
Ravine							
Wetland							
Flood Plain							

*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage			
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 144	Type Brzwy, FW	Year Built: 1949 Car Capacity: Class: D Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: 1/2 Wal Foundation: 18 Inch Finished?: Auto. Doors: 0 Mech. Doors: 0 Area: 440 % Good: 0 Storage Area: 0 No Conc. Floor: 0		
X	Wood Frame		Drywall Paneled		Plaster Wood T&G													
Building Style: 1 STY		Trim & Decoration		Central Air Wood Furnace			Stories Exterior			Foundation			Rate Bsmnt-Adj		Heat-Adj		Size Cost	
Yr Built 1930	Remodeled 0	Ex	X	Ord		Min	No. of Elec. Outlets			Rate			Bsmnt-Adj		Heat-Adj		Size Cost	
Condition: Average		Lg	X	Ord		Small	Many	X	Ave.		Few	Other Additions/Adjustments			Rate		Size Cost	
Room List		(5) Floors		(12) Electric			Average Fixture(s)			Rate			Bsmnt-Adj		Heat-Adj		Size Cost	
	Basement 1st Floor 2nd Floor 4 Bedrooms	Kitchen: Other: Other:		100 Amps Service			1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			16) Breezeways Frame Wall, Unfinished			22.25		144		3,204	
(1) Exterior		(6) Ceilings		No./Qual. of Fixtures			Ex. X Ord. Min			Rate			Bsmnt-Adj		Heat-Adj		Size Cost	
X	Wood/Shingle Aluminum/Vinyl Brick						No. of Elec. Outlets			Rate			Bsmnt-Adj		Heat-Adj		Size Cost	
	Insulation	(7) Excavation		(13) Plumbing			Many X Ave. Few			Rate			Bsmnt-Adj		Heat-Adj		Size Cost	
(2) Windows		Basement: 948 S.F. Crawl: 464 S.F. Slab: 0 S.F. Height to Joists: 0.0		Average Fixture(s)			Rate			Rate			Bsmnt-Adj		Heat-Adj		Size Cost	
X	Many Avg. Few	X	Large Avg. Small	1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			16) Breezeways Frame Wall, Unfinished			22.25			144		3,204			
(3) Roof		(8) Basement		(14) Water/Sewer			Rate			Rate			Bsmnt-Adj		Heat-Adj		Size Cost	
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			16) Breezeways Frame Wall, Unfinished			22.25			144		3,204			
(3) Roof		(9) Basement Finish		(14) Water/Sewer			Rate			Rate			Bsmnt-Adj		Heat-Adj		Size Cost	
X	Gable Hip Flat		Recreation SF Living SF Walkout Doors No Floor SF	1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			16) Breezeways Frame Wall, Unfinished			22.25			144		3,204			
X	Asphalt Shingle	(10) Floor Support		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			16) Breezeways Frame Wall, Unfinished			22.25			144		3,204			
Chimney: Brick		Joists: Unsupported Len: Cntr.Sup:		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			16) Breezeways Frame Wall, Unfinished			22.25			144		3,204			
		Lump Sum Items:		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			16) Breezeways Frame Wall, Unfinished			22.25			144		3,204			

*** Information herein deemed reliable but not guaranteed***


Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.		
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	COMMON CONTROL	4105/515	DOC	0.0		
37 EAST MAIN LLC	COUNTY OF MUSKEGON	0	03/31/2015	OT	OTHER	4053/726	DOC	0.0		
COUNTY OF MUSKEGON	37 E MAIN LLC	1,000	10/13/2011	QC	OTHER	3892/505	DOC	100.0		
PARAMOUNT LAND HOLDING LLC	COUNTY OF MUSKEGON	0	03/31/2011	CO	COURT ORDER	3880/462	DOC	0.0		
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R-1	Building Permit(s)	Date	Number	Status		
452 AMITY AVE		School: MUSKEGON SCHOOLS			RES. ADD/ALTER/REPAIR	10/21/2004	PB041183	COMPLETE		
Owner's Name/Address		P.R.E. 0%			RES. ADD/ALTER/REPAIR	10/21/2004	PB-04-1183	COMPLETE		
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE SUITE 104 MUSKEGON MI 49442		MAP #: 24-31-20-457-015			RES. ADD/ALTER/REPAIR	10/01/2003	PB030864	COMPLETE		
Tax Description		2018 Est TCV 0 TCV/TFA: 0.00			ELECTRICAL	07/30/2003	PE030411	COMPLETE		
CITY OF MUSKEGON REVISED PLAT OF 1903 LOTS 12 & 13 BLK 46 Comments/Influences		X Improved	Vacant	Land Value Estimates for Land Table R11.1.R11.1 ANGELL GENERAL RESIDENTIAL						
		Public Improvements		* Factors *						
		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj. Reason	Value
		Gravel Road		<Site Value B>	TYPICAL	.14-.25	3200	100	66*132	3,200
		X Paved Road		66 Actual Front Feet, 0.20 Total Acres Total Est. Land Value = 3,200						
		X Storm Sewer								
		X Sidewalk								
		X Water								
		X Sewer								
		X Electric								
		X Gas								
		X Curb								
		X Street Lights								
		X Standard Utilities								
		Underground Utils.								
		Topography of Site								
		X Level								
		Rolling								
		Low								
		High								
		X Landscaped								
		Swamp								
		Wooded								
		Pond								
		Waterfront								
		Ravine								
		Wetland								
		Flood Plain								
		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value		
		Who	When	What	2018	EXEMPT	EXEMPT	EXEMPT	EXEMPT	
		DWC	09/05/2012	DATA ENTRY	2017	EXEMPT	EXEMPT	EXEMPT	EXEMPT	
		DWC	05/16/2011	DATA ENTRY	2016	0	0	0	0	
		TGS	05/26/2005	DATA ENTRY	2015	1,600	14,700	16,300	12,155C	



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:	
X	Wood Frame			X	Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling									228 40 20 80	WGEP (1 Story) CPP WCP (1 Story) WGEP (1 Story)		
Building Style: 1 STORY		Trim & Decoration		Central Air Wood Furnace			Stories Exterior			Foundation			Rate Bsmnt-Adj Heat-Adj			Size Cost	
Yr Built 0	Remodeled 0	Ex	X Ord		Min	(12) Electric			Rate			Bsmnt-Adj			Size Cost		
Condition: Average		Size of Closets		100 Amps Service			1 Story Siding			Mich Bsmnt.			59.37 -4.38			624 34,314	
Room List		Lg X Ord Small		No./Qual. of Fixtures			1 Story Siding			Crawl Space			59.37 -8.77			352 17,811	
1 Basement	4 1st Floor	Doors:	Solid X	H.C.		1 Story Siding			Crawl Space			59.37 -8.77			20 1,012		
2 2nd Floor	2 Bedrooms	(6) Ceilings		(13) Plumbing			Other Additions/Adjustments			Rate			Size Cost				
(1) Exterior		X Drywall		Average Fixture(s)			(14) Water/Sewer			Public Water			1025.00			1 1,025	
X	Wood/Shingle Aluminum/Vinyl Brick			1 3 Fixture Bath			(16) Porches			Public Sewer			1025.00			1 1,025	
X	Insulation	Basement: 624 S.F. Crawl: 372 S.F. Slab: 0 S.F. Height to Joists: 0.0		2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			WGEP (1 Story), Shallow			25.60			228			5,837	
(2) Windows		X Many Avg. Few Large Avg. Small		(8) Basement			WCP (1 Story), Shallow			44.39			20			888	
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors X Storms & Screens	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		(9) Basement Finish			WGEP (1 Story), Shallow			39.74			80			3,179	
(3) Roof		Recreation SF Living SF Walkout Doors No Floor SF		(14) Water/Sewer			Phy/Ab.Phy/Func/Econ/Comb.%Good= 60/100/100/100/60.0,			Depr.Cost =			54,312				
X	Gable Hip Flat	Gambrel Mansard Shed		(10) Floor Support			ECF (R11.1 ANGELL GENERAL RESIDENTIAL)			0.565 => TCV of Bldg: 1 =			30,687				
X	Asphalt Shingle	Joists: Unsupported Len: Cntr.Sup:		1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Lump Sum Items:										
Chimney: Brick																	

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.							
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	01/20/2017	QC	OTHER	4109/792	DOC	0.0							
PROGRESSIVE HOLDING CO LLC	COUNTY OF MUSKEGON TREASUR	0	03/31/2016	OT	OTHER	4087/287	DOC	0.0							
MUSKEGON COUNTY TREASURER	PROGRESSIVE HOLDING CO LLC	2,000	09/26/2012	QC	OTHER	3928/140	DOC	100.0							
OWENS TRUST	MUSKEGON COUNTY TREASURER	0	04/02/2012	OT	OTHER	3913/758	DOC	0.0							
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R-1	Building Permit(s)		Date	Number	Status						
629 ALLEN AVE		School: MUSKEGON SCHOOLS													
Owner's Name/Address		P.R.E. 0%													
MUSKEGON COUNTY LAND BANK AUTH 173 E APPLE AVE SUITE 104 MUSKEGON MI 49442		MAP #: 24-31-20-480-010		2018 Est TCV 0 TCV/TFA: 0.00											
Tax Description		X Improved		Vacant		Land Value Estimates for Land Table R11.1.R11.1 ANGELL GENERAL RESIDENTIAL									
CITY OF MUSKEGON REVISED PLAT OF 1903 LOT 3 BLK 59 Comments/Influences		X Public Improvements				* Factors *									
CHGND MAILING ADD PER POA FROM FELICIA. (CMSCHAUB 2/4/06) COUNTY FGU TO LAND BANK DIRECT TRANSFER--01/31/2017--TJB		X Dirt Road				Description Frontage Depth Front Depth Rate %Adj. Reason		Value							
		X Gravel Road				<Site Value B> TYPICAL .14-.25		3200 100 54 X 132							
		X Paved Road				54 Actual Front Feet, 0.16 Total Acres		Total Est. Land Value =		3,200					
		X Storm Sewer													
		X Sidewalk													
		X Water													
		X Sewer													
		X Electric													
		X Gas													
		X Curb													
		Street Lights													
		Standard Utilities													
		Underground Utils.													
		Topography of Site													
		X Level													
		Rolling													
		Low													
		High													
		X Landscaped													
		Swamp													
		Wooded													
		Pond													
		Waterfront													
		Ravine													
		Wetland													
		Flood Plain													
		Year		Land Value		Building Value		Assessed Value		Board of Review		Tribunal/Other		Taxable Value	
Who		When		What		2018		EXEMPT		EXEMPT		EXEMPT		EXEMPT	
SAL 04/28/2016		DATA ENTRY				2017		EXEMPT		EXEMPT		EXEMPT		EXEMPT	
CMH 07/19/2000		INSPECTED				2016		1,600		12,900		14,500		14,443C	
DES / /		INSPECTED				2015		1,600		12,800		14,400		14,400S	

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Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.						
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	01/20/2017	QC	OTHER	4109/792	DOC	0.0						
VENPIRE LC	COUNTY OF MUSKEGON TREASUR	0	03/31/2016	OT	OTHER	4087/283	DOC	0.0						
ALLEN CREE C	VENPIRE LC	0	07/09/2014	QC	OTHER	4026/188	DOC	100.0						
MUSKEGON COUNTY TREASURER	ALLEN CREE C	300	10/04/2013	QC	OTHER	4003/349	DOC	100.0						
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R-1		Building Permit(s)		Date	Number	Status				
750 AMITY AVE		School: MUSKEGON SCHOOLS		ELECTRICAL		01/23/2001		EL-01-0046	COMPLETE					
Owner's Name/Address		P.R.E. 0%		MAP #: 24-31-20-478-029		2018 Est TCV 0 TCV/TFA: 0.00								
MUSKEGON COUNTY LAND BANK AUTH 173 E APPLE AVE SUITE 104 MUSKEGON MI 49442		X Improved		Vacant		Land Value Estimates for Land Table R11.1.R11.1 ANGELL GENERAL RESIDENTIAL								
Tax Description		Public Improvements		* Factors *										
CITY OF MUSKEGON REVISED PLAT OF 1903 W 44 FT OF S 132 FT LOT 20 BLK 50		Dirt Road		Description		Frontage		Depth		Rate %Adj. Reason		Value		
Comments/Influences		X Paved Road		<Site Value A> ATYPICAL		.0-.13		2700 100		44*132		2,700		
COUNTY FGU TO LAND BANK DIRECT TRANSFER--01/31/2017--TJB		X Storm Sewer		44 Actual Front Feet, 0.13 Total Acres		Total Est. Land Value =		2,700						
		X Sidewalk												
		X Water												
		X Sewer												
		X Electric												
		X Gas												
		X Curb												
		Street Lights												
		Standard Utilities												
		Underground Utils.												
Topography of Site		X Level		Year		Land Value		Building Value		Assessed Value		Board of Review	Tribunal/Other	Taxable Value
		Rolling		2018		EXEMPT		EXEMPT		EXEMPT				EXEMPT
		Low		SAL 04/28/2016		DATA ENTRY		EXEMPT		EXEMPT				EXEMPT
		High		CMH 07/27/2000		DATA ENTRY		1,400		18,600		20,000		19,959C
		X Landscaped		DES / /		INSPECTED		1,400		18,500		19,900		19,900S
		Swamp												
		Wooded												
		Pond												
		Waterfront												
		Ravine												
		Wetland												
		Flood Plain												



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*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: CD Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished ?: Auto. Doors: 0 Mech. Doors: 0 Area: 440 % Good: 0 Storage Area: 0 No Conc. Floor: 0	
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G									25 208 50	CPP WGEP (1 Story) WGEP (1 Story)		
Building Style: 1 1/2 STORY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling			Central Air Wood Furnace			Class: CD Effec. Age: 49 Floor Area: 1572 Total Base Cost: 97,031 Total Base New : 133,903 Total Depr Cost: 68,290 Estimated T.C.V: 38,584							
Yr Built 1926	Remodeled 0	Size of Closets		100 Amps Service			100 Amps Service			CntryMult X 1.380 E.C.F. X 0.565							
Condition: Average		Lg	X	Ord		Small											
Room List		(5) Floors		Kitchen: Hardwood Other: Tile Other:			(12) Electric			Stories Exterior Foundation Rate Bsmnt-Adj Heat-Adj							
1	Basement						No./Qual. of Fixtures			1.5 Story Siding Basement 75.02 0.00 0.00							
4	1st Floor						Ex. X Ord. Min			1 Story Siding Overhang 33.44 0.00 0.00							
3	2nd Floor						No. of Elec. Outlets			Other Additions/Adjustments Rate							
4	Bedrooms						Many X Ave. Few			(14) Water/Sewer							
(1) Exterior		X	Plaster				(13) Plumbing			Public Water 1025.00 1 1,025							
X	Wood/Shingle Aluminum/Vinyl Brick						Average Fixture(s)			(16) Porches							
X	Insulation						1 3 Fixture Bath			CPP, Shallow 15.00 25 375							
(2) Windows							2 Fixture Bath			WGEP (1 Story), Shallow 26.42 208 5,495							
Many Avg.							Softener, Auto			WGEP (1 Story), Shallow 47.45 50 2,373							
X	Few	X	Small				Softener, Manual			(17) Garages							
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens						Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Class:CD Exterior: Siding Foundation: 18 Inch (Unfinished) Base Cost 18.90 440 8,316 Phy/Ab.Phy/Func/Econ/Comb.%Good= 51/100/100/51.0, Depr.Cost = 68,290 ECF (R11.1 ANGELL GENERAL RESIDENTIAL) 0.565 => TCv of Bldg: 1 = 38,584							
(3) Roof							(14) Water/Sewer										
X	Gable Hip Flat						1 Public Water										
X	Asphalt Shingle						1 Public Sewer										
Chimney: Brick							Water Well										
							1000 Gal Septic										
							2000 Gal Septic										
							Lump Sum Items:										

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	01/20/2017	QC	OTHER	4109/792	DOC	0.0
LAZZARO NICHOLAS A ESTATE	COUNTY OF MUSKEGON TREASUR	0	03/31/2016	OT	OTHER	4087/317	DOC	0.0
LAZZARO NICHOLAS A	LAZZARO NICHOLAS A ESTATE	0	01/13/2010	OT	OTHER	UNRECORDED	DOC	0.0

Property Address	Class: 710.EXEMPT LAND BA	Zoning: R-1	Building Permit(s)	Date	Number	Status
1617 SMITH ST	School: MUSKEGON SCHOOLS					
	P.R.E. 0%					
Owner's Name/Address	MAP #: 24-31-29-378-012					
MUSKEGON COUNTY LAND BANK AUTH 173 E APPLE AVE SUITE 104 MUSKEGON MI 49442	2018 Est TCV 0 TCV/TFA: 0.00					

Tax Description	X Improved		Vacant	Land Value Estimates for Land Table R12.1.R12.1 MCLAUGHLIN GENERAL RES								
	Public Improvements			Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value
CITY OF MUSKEGON REVISED PLAT OF 1903 LOT 11 BLK 294				<Site Value B>	TYPICAL	.14-.25	3000	100				3,000
Comments/Influences				60 Actual Front Feet, 0.18 Total Acres Total Est. Land Value =						3,000		
				Land Improvement Cost Estimates								
				Description			Rate	County	Mult.	Size	%Good	Cash Value
				D/W/P: 3.5 Concrete			3.44	1.38		800	33	1,253
				Total Estimated Land Improvements True Cash Value =						1,253		

COUNTY FGU TO LAND BANK DIRECT TRANSFER--01/31/2017--TJB



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Topography of Site			Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
X	Level		2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT
	Rolling								
	Low								
	High								
X	Landscaped		2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT
	Swamp								
	Wooded		2016	1,500	17,500	19,000			17,083C
	Pond								
	Waterfront		2015	1,500	16,500	18,000			17,032C
	Ravine								
	Wetland								
	Flood Plain								

*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: C Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished ?: Auto. Doors: 0 Mech. Doors: 0 Area: 440 % Good: 0 Storage Area: 0 No Conc. Floor: 0	
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G									35 16 104	WPP CPP WGEP (1 Story)		
Building Style: 2 STORY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling			Central Air Wood Furnace			Class: C Effec. Age: 54 Floor Area: 1560 Total Base Cost: 106,734 Total Base New : 147,293 Total Depr Cost: 67,755 Estimated T.C.V: 34,555							
Yr Built 0	Remodeled 0	Ex	X	Ord		Min	Size of Closets			CntyMult X 1.380 E.C.F. X 0.510							
Condition: Average		Lg	X	Ord		Small	Doors: Solid X H.C.			Bsmnt-Adj Rate Heat-Adj							
Room List		(5) Floors		Kitchen: Carpeted Other: Tile Other:			(12) Electric 100 Amps Service			Stories Exterior 2 Story Siding 1 Story Siding Other Additions/Adjustments			Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
1	Basement	Kitchen: Carpeted		No./Qual. of Fixtures			Ex. X Ord. Min			Foundation			107.09	0.00	0.00	600	64,254
6	1st Floor	Other: Tile		No. of Elec. Outlets			Many X Ave. Few			Basement			67.78	0.00	0.00	360	24,401
6	2nd Floor	Other:		(7) Excavation			(13) Plumbing			Basement			Rate			Size	Cost
6	Bedrooms			Basement: 960 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0			Average Fixture(s) 2 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water Public Sewer Public Sewer			Rate			Size	Cost
(1) Exterior		X	Plaster							Other Additions/Adjustments			Rate			Size	Cost
X	Wood/Shingle Aluminum/Vinyl Brick	(8) Basement								WPP, Shallow CPP, Shallow WGEP (1 Story), Shallow			Rate			Size	Cost
X	Insulation	Basement: 960 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0								WPP, Shallow CPP, Shallow WGEP (1 Story), Shallow			Rate			Size	Cost
(2) Windows		X	Many Avg. Few		X	Large Avg. Small				WPP, Shallow CPP, Shallow WGEP (1 Story), Shallow			Rate			Size	Cost
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(9) Basement Finish		Recreation SF Living SF Walkout Doors No Floor SF						WPP, Shallow CPP, Shallow WGEP (1 Story), Shallow			Rate			Size	Cost
(3) Roof		(10) Floor Support		Joists: Unsupported Len: Cntr.Sup:						WPP, Shallow CPP, Shallow WGEP (1 Story), Shallow			Rate			Size	Cost
X	Gable Hip Flat		Gambrel Mansard Shed							WPP, Shallow CPP, Shallow WGEP (1 Story), Shallow			Rate			Size	Cost
X	Asphalt Shingle									WPP, Shallow CPP, Shallow WGEP (1 Story), Shallow			Rate			Size	Cost
Chimney: Brick										WPP, Shallow CPP, Shallow WGEP (1 Story), Shallow			Rate			Size	Cost

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	COMMON CONTROL	4105/515	DOC	0.0
HOFFMAN SHIRLEY L	COUNTY OF MUSKEGON	0	04/30/2015	OT	OTHER	4053/775	DOC	0.0

Property Address	Class: 710.EXEMPT LAND BA	Zoning: R-1	Building Permit(s)	Date	Number	Status
1699 PINE ST	School: MUSKEGON SCHOOLS		RES. ADD/ALTER/REPAIR	02/11/2003	PM030052	COMPLETE
Owner's Name/Address	P.R.E. 0%		ELECTRICAL	02/07/2003	PE030047	COMPLETE
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE STE 104 MUSKEGON MI 49442	MAP #: 24-31-29-380-014		RES. SINGLE FAMILY	01/31/2003	PF030016	COMPLETE
	2018 Est TCV 0 TCV/TFA: 0.00		RES. ADD/ALTER/REPAIR	01/17/2003	PB030054	COMPLETE

Tax Description	Improved	Vacant	Land Value Estimates for Land Table R12.1.R12.1 MCLAUGHLIN GENERAL RES								
CITY OF MUSKEGON REVISED PLAT OF 1903 N 7 1/2 FT LOT 22 & ALL LOT 23 BLK 298	X		* Factors *								
Comments/Influences			Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value
			<Site Value A>	ATYPICAL	.0-.13			2500	100		2,500
			38 Actual Front Feet, 0.12 Total Acres Total Est. Land Value = 2,500								
			Land Improvement Cost Estimates								
			Description	Rate	CountyMult.	Size	%Good	Cash Value			
			D/W/P: 3.5 Concrete	3.44	1.38	800	38	1,443			
			Fencing: Wd, Solid, 5 ft.	14.87	1.38	140	0	0			
			Total Estimated Land Improvements True Cash Value = 1,443								



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Topography of Site	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
X Level	2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Rolling	2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Low	2016	0	0	0			0
High	2015	1,300	14,100	15,400			14,657C
X Landscaped							
Swamp							
Wooded							
Pond							
Waterfront							
Ravine							
Wetland							
Flood Plain							
Who	When	What					
APH	07/25/2003	INSPECTED					
SKB	01/08/2001	DATA ENTRY					

*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage							
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: 1988 Car Capacity: Class: C Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished?: Auto. Doors: 1 Mech. Doors: 0 Area: 432 % Good: 71 Storage Area: 0 No Conc. Floor: 0							
X	Wood Frame			X	Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling								48	WCP	(1 Story)								
Building Style: 1 STORY		Trim & Decoration		Central Air Wood Furnace			Stories Exterior			Foundation			Rate			Bsmnt-Adj		Heat-Adj		Size		Cost	
Yr Built 0	Remodeled 0	Ex	X	Ord		Min	No. of Elec. Outlets			Rate			Bsmnt-Adj			Heat-Adj		Size		Cost			
Condition: Average		Lg	X	Ord		Small	Many			Rate			Bsmnt-Adj			Heat-Adj		Size		Cost			
Room List		(5) Floors		(12) Electric			Exterior			Foundation			Rate			Bsmnt-Adj		Heat-Adj		Size		Cost	
1	Basement	Kitchen: Carpeted Other: Tile Other:		100			1			Crawl Space			67.46			-9.83		0.00		84		4,841	
5	1st Floor			Amps Service			1			Crawl Space			67.46			-9.83		0.00		84		4,841	
	2nd Floor						1			Basement			67.46			0.00		0.00		814		54,912	
3	Bedrooms									Other Additions/Adjustments			Rate					Size		Cost			
(1) Exterior		(7) Excavation		(13) Plumbing			(16) Porches			Rate			Bsmnt-Adj		Heat-Adj		Size		Cost				
X	Wood/Shingle Aluminum/Vinyl Brick	Basement: 814 S.F. Crawl: 168 S.F. Slab: 0 S.F. Height to Joists: 0.0		Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			WCP (1 Story), Shallow			1162.00			1162.00				1		1,162				
X	Insulation	(8) Basement		(14) Water/Sewer			Phy/Ab.Phy/Func/Econ/Comb.%Good= 51/100/100/100/51.0,			29.64			29.64				48		1,423				
(2) Windows				Lump Sum Items:			Separately Depreciated Items:			Rate			Bsmnt-Adj		Heat-Adj		Size		Cost				
X	Many Avg. Few			1			Class:C Exterior: Siding Foundation: 18 Inch (Unfinished)			19.88			19.88				432		8,588				
	Large Avg. Small			1			County Multiplier = 1.38 =>			375.00			375.00				1		375				
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(9) Basement Finish		1			Phy/Ab.Phy/Func/Econ/Comb.%Good= 71/100/100/100/71.0,			Total Depreciated Cost =			Total Depreciated Cost =				56,880		56,880				
(3) Roof		Recreation SF Living SF Walkout Doors No Floor SF		1			ECF (R12.1 MCLAUGHLIN GENERAL RES)			0.510 =>			TCV of Bldg: 1 =				29,009		29,009				
X	Gable Hip Flat	Gambrel Mansard Shed		1			Public Water																
X	Asphalt Shingle	Joists: Unsupported Len: Cntr.Sup:		1			Public Sewer																
Chimney: Brick							Water Well																
							1000 Gal Septic																
							2000 Gal Septic																

*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 30 140	Type CPP WCP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G											
Building Style: 1 STORY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling												
Yr Built 0	Remodeled 0	Ex	X	Ord		Min	Size of Closets			Class: CD Effec. Age: 49 Floor Area: 872 Total Base Cost: 58,281 Total Base New : 80,427 Total Depr Cost: 41,018 Estimated T.C.V: 20,919						
Condition: Average		Lg	X	Ord		Small	Doors: Solid X H.C.			CntyMult X 1.380 E.C.F. X 0.510						
Room List		(5) Floors		Central Air Wood Furnace			(12) Electric			Stories Exterior Foundation Rate Bsmnt-Adj Heat-Adj Size Cost						
1	Basement	Kitchen: Tile		No./Qual. of Fixtures			100 Amps Service			1 Story Siding Basement 61.18 0.00 0.00 864 52,860						
5	1st Floor	Other:		Ex. X Ord. Min						1 Story Siding Overhang 34.75 0.00 0.00 8 278						
1	2nd Floor	Other:		No. of Elec. Outlets						Other Additions/Adjustments Rate Size Cost						
2	Bedrooms			Many X Ave. Few						(14) Water/Sewer Public Water 1025.00 1 1,025 Public Sewer 1025.00 1 1,025						
(1) Exterior		X	Plaster	(13) Plumbing						(16) Porches CPP, Shallow 14.20 30 426 WCP (1 Story), Shallow 19.05 140 2,667 Phy/Ab.Phy/Func/Econ/Comb.%Good= 51/100/100/100/51.0, Depr.Cost = 41,018 ECF (R12.1 MCLAUGHLIN GENERAL RES) 0.510 => TCV of Bldg: 1 = 20,919						
X	Wood/Shingle Aluminum/Vinyl Brick			Average Fixture(s)												
X	Insulation	(7) Excavation		1 3 Fixture Bath												
(2) Windows		Basement: 864 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0		2 Fixture Bath												
X	Many Avg. Few		Large Avg. Small	Softener, Auto												
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(8) Basement		Softener, Manual												
(3) Roof		Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		Solar Water Heat												
X	Gable Hip Flat		Gambrel Mansard Shed	No Plumbing												
X	Asphalt Shingle	(9) Basement Finish		Extra Toilet												
Chimney: Brick		Recreation SF Living SF Walkout Doors No Floor SF		Extra Sink												
		(10) Floor Support		Separate Shower												
		Joists: Unsupported Len: Cntr.Sup:		Ceramic Tile Floor												
				Ceramic Tile Wains												
				Ceramic Tub Alcove												
				Vent Fan												
				(14) Water/Sewer												
				1 Public Water												
				1 Public Sewer												
				Water Well												
				1000 Gal Septic												
				2000 Gal Septic												
				Lump Sum Items:												

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	COMMON CONTROL	4105/515	DOC	0.0
37 EAST MAIN LLC	COUNTY OF MUSKEGON	0	03/31/2015	OT	OTHER	4053/689	DOC	0.0
COUNTY OF MUSKEGON	37 E MAIN LLC	900	10/13/2011	QC	OTHER	3892/500	DOC	100.0
WAYSTE INC	COUNTY OF MUSKEGON	0	03/31/2011	CO	COURT ORDER	3880/337	DOC	0.0

Property Address	Class: 710.EXEMPT LAND BA	Zoning: R-1	Building Permit(s)	Date	Number	Status
1773 SUPERIOR ST	School: MUSKEGON SCHOOLS					
	P.R.E. 0%					
Owner's Name/Address	MAP #: 24-31-29-484-011					
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE SUITE 104 MUSKEGON MI 49442	2018 Est TCV 0 TCV/TFA: 0.00					

Tax Description	Improved	Vacant	Land Value Estimates for Land Table R08.1.R08.01 MARSH FIELD GENERAL RES							
CITY OF MUSKEGON CASTENHOLZ SUB DIV OF BLKS 100 101 & 103 TO 120 INCL LOT 10 BLK 115	X		Public Improvements							
Comments/Influences	X		* Factors *							
	X		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
	X		<Site Value B>	TYPICAL	.11-.29	4600	100	40*125		4,600
	X		40 Actual Front Feet, 0.12 Total Acres Total Est. Land Value = 4,600							
	X		Land Improvement Cost Estimates							
	X		Description	Rate	CountyMult.	Size	%Good	Cash Value		
	X		D/W/P: Asphalt Paving	1.51	1.38	400	33	275		
	X		Total Estimated Land Improvements True Cash Value =							275



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Topography of Site	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
X Level	2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Rolling	2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Low	2016	0	0	0			0
High	2015	2,300	12,200	14,500			9,301C
X Landscaped							
Swamp							
Wooded							
Pond							
Waterfront							
Ravine							
Wetland							
Flood Plain							
Who	When	What					
RMM	05/23/2011	DATA ENTRY					
AH	09/28/2001	DATA ENTRY					
HMS	01/24/2001	DATA ENTRY					

*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage		
X Single Family Mobile Home Town Home Duplex A-Frame	Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X Gas Wood	Oil Coal	Elec. Steam	X Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling	Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System	Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 176	Type CCP (1 Story)	Year Built: Car Capacity: Class: CD Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished ?: Auto. Doors: 0 Mech. Doors: 0 Area: 192 % Good: 0 Storage Area: 0 No Conc. Floor: 0	Bsmnt Garage:	Carpport Area: Roof:						
													(4) Interior		(12) Electric			Class: CD Effec. Age: 59 Floor Area: 1056 Total Base Cost: 65,608 Total Base New : 90,539 Total Depr Cost: 40,743 Estimated T.C.V: 23,427
X Wood Frame	Drywall Paneled	X Plaster Wood T&G	Trim & Decoration			Central Air Wood Furnace			Foundation Crawl Space Crawl Space Basement			Rate 58.72 -8.64 -0.71 58.72 -8.64 -0.71 58.72 0.00 -0.71			Size 264 13,034 396 19,551 396 22,972			
Building Style: 1 STORY	Ex X Ord Min		Size of Closets			100 Amps Service			Other Additions/Adjustments			Rate			Size Cost			
Yr Built 0	Remodeled 0	Lg X Ord Small	Doors: Solid X H.C.			No./Qual. of Fixtures			(14) Water/Sewer			Rate			Size Cost			
Condition: Average	(5) Floors		Kitchen: Other: Other:			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			(16) Porches CCP (1 Story), Shallow			Rate			Size Cost			
Room List	1 Basement 5 1st Floor 2nd Floor 2 Bedrooms		(6) Ceilings			Public Water Public Sewer			(17) Garages			Rate			Size Cost			
(1) Exterior		X Plaster	Ex. X Ord. Min			13 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Class:CD Exterior: Siding Foundation: 18 Inch (Unfinished) Base Cost Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/100/45.0, ECF (R08.1 MARSH FIELD GENERAL RES)			Rate			Size Cost			
X Wood/Shingle Aluminum/Vinyl Brick	(7) Excavation		Basement: 396 S.F. Crawl: 660 S.F. Slab: 0 S.F. Height to Joists: 0.0			Public Water Public Sewer			18.41			Rate			Size Cost			
X Insulation	(2) Windows		Many Avg. X Large Avg. X Few Small			13 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			18.41			Rate			Size Cost			
(3) Roof		Gable X Gambrel Hip Mansard Flat Shed			100 Amps Service			13 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			18.41			Rate			Size Cost	
X Asphalt Shingle	(8) Basement		Conc. Block Poured Conc. Stone Treated Wood Concrete Floor			13 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			18.41			Rate			Size Cost			
Chimney: Brick	(9) Basement Finish		Recreation SF Living SF Walkout Doors No Floor SF			13 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			18.41			Rate			Size Cost			
(10) Floor Support		Joists: Unsupported Len: Cntr.Sup:			13 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			18.41			Rate			Size Cost				
Lump Sum Items:		1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			13 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			18.41			Rate			Size Cost				

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	QUIT- CLAIM	4105/515	DEED	0.0			
BROWN TERRANCE L	COUNTY OF MUSKEGON TREASUR	0	03/31/2015	QC	TAX REVERTED	4053/885	DEED	0.0			
MUSKEGON COUNTY TREASURER	BROWN TERRANCE L	650	10/17/2012	QC	QUIT- CLAIM	3928/228	DEED	0.0			
PARKER ALMA	MUSKEGON COUNTY TREASURER	650	04/02/2012	QC	QUIT- CLAIM	3913/862	DEED	0.0			
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status			
2204 HOYT ST		School: MUSKEGON HEIGHTS SCHOOLS									
Owner's Name/Address		P.R.E. 0%									
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-066-230									
Tax Description		2018 Est TCV 0 TCV/TFA: 0.00									
HT0495 BLK 66 LOT 23		X Improved		Vacant	Land Value Estimates for Land Table 00001.NORTHEAST						
Comments/Influences		Public Improvements		* Factors *							
NO ADDRESS LISTED ON QC DEED		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		NORTHEAST	50.00	125.00	1.0000	1.0000	80	100	4,000
		X Paved Road		50 Actual Front Feet, 0.14 Total Acres				Total Est. Land Value =		4,000	
		X Storm Sewer									
		X Sidewalk									
		X Water									
		X Sewer									
		X Electric									
		X Gas									
		X Curb									
		Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X Level		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Rolling		2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		Low		2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		High		2016	0	0	0			0	
		Landscaped		2015	2,000	10,200	12,200			12,200S	
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain									
		Who		When		What					
		CEJ 06/30/1999		REVIEWED							



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*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage			
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 140	Type WGEP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:		
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G													
Building Style: 1 1/2 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling														
Yr Built 1915	Remodeled 0	Ex	X	Ord		Min	Size of Closets			Class: CD Effec. Age: 56 Floor Area: 1038 Total Base Cost: 63,387 Total Base New : 87,474 Total Depr Cost: 39,363 Estimated T.C.V: 18,973								
Condition: Average		Lg	X	Ord		Small	Doors: Solid X H.C.			CntyMult X 1.380 E.C.F. X 0.482								
Room List		(5) Floors		Central Air Wood Furnace			(12) Electric 100 Amps Service			Stories Exterior 1.5 Story Siding 1 Story Siding Other Additions/Adjustments			Foundation Basement Crawl Space	Rate 81.40 63.77	Bsmnt-Adj 0.00 -9.54	Heat-Adj 0.00 0.00	Size 624 102	Cost 50,794 5,531
	Basement 1 1st Floor 2 2nd Floor 3 Bedrooms	Kitchen: Hardwood Other: Softwood Other: Tile		No./Qual. of Fixtures Ex. X Ord. Min			No. of Elec. Outlets Many X Ave. Few			(14) Water/Sewer Public Water Public Sewer (16) Porches WGEP (1 Story), Standard Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/45.0, ECF (NORTHEAST)								
(1) Exterior		X	Plaster	(6) Ceilings			(13) Plumbing Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Rate 81.40 63.77			Bsmnt-Adj 0.00 -9.54	Heat-Adj 0.00 0.00	Size 624 102	Cost 50,794 5,531		
X	Wood/Shingle Aluminum/Vinyl Brick Insulation	(7) Excavation Basement: 624 S.F. Crawl: 102 S.F. Slab: 0 S.F. Height to Joists: 0.0		(8) Basement Conc. Block Poured Conc. Stone Treated Wood Concrete Floor			(9) Basement Finish Recreation SF Living SF Walkout Doors No Floor SF			Rate 81.40 63.77			Bsmnt-Adj 0.00 -9.54	Heat-Adj 0.00 0.00	Size 624 102	Cost 50,794 5,531		
(2) Windows		Many Avg. Few	X	Large Avg. Small	(10) Floor Support Joists: Unsupported Len: Cntr.Sup:			(14) Water/Sewer 1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic Lump Sum Items:			Rate 81.40 63.77			Bsmnt-Adj 0.00 -9.54	Heat-Adj 0.00 0.00	Size 624 102	Cost 50,794 5,531	
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement	(9) Basement		(10) Floor Support			(14) Water/Sewer			Rate 81.40 63.77			Bsmnt-Adj 0.00 -9.54	Heat-Adj 0.00 0.00	Size 624 102	Cost 50,794 5,531		
X	Double Glass Patio Doors Storms & Screens	(9) Basement		(10) Floor Support			(14) Water/Sewer			Rate 81.40 63.77			Bsmnt-Adj 0.00 -9.54	Heat-Adj 0.00 0.00	Size 624 102	Cost 50,794 5,531		
(3) Roof		(9) Basement		(10) Floor Support			(14) Water/Sewer			Rate 81.40 63.77			Bsmnt-Adj 0.00 -9.54	Heat-Adj 0.00 0.00	Size 624 102	Cost 50,794 5,531		
X	Gable Hip Flat	(9) Basement		(10) Floor Support			(14) Water/Sewer			Rate 81.40 63.77			Bsmnt-Adj 0.00 -9.54	Heat-Adj 0.00 0.00	Size 624 102	Cost 50,794 5,531		
X	Asphalt Shingle	(9) Basement		(10) Floor Support			(14) Water/Sewer			Rate 81.40 63.77			Bsmnt-Adj 0.00 -9.54	Heat-Adj 0.00 0.00	Size 624 102	Cost 50,794 5,531		
Chimney: Brick		(9) Basement		(10) Floor Support			(14) Water/Sewer			Rate 81.40 63.77			Bsmnt-Adj 0.00 -9.54	Heat-Adj 0.00 0.00	Size 624 102	Cost 50,794 5,531		

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
ADRIANSE KATHY DENNISON	MUSKEGON COUNTY LAND BANK	0	07/17/2017	QC	QUIT- CLAIM	4130/107	DEED	100.0
COUNTY OF MUSKEGON TREASUR	ADRIANSE KATHY DENNISON	4,100	09/19/2016	QC	QUIT- CLAIM	4099/807	DEED	100.0
POTTS HALEY	COUNTY OF MUSKEGON TREASUR	0	04/12/2016	JUD	TAX REVERTED	4087/396	DEED	0.0

Property Address	Class: 420.RES LAND BANK	Zoning:	Building Permit(s)	Date	Number	Status
2216 5TH ST	School: MUSKEGON HEIGHTS SCHOOLS		Demolish	09/12/2016	PB16-0270	
	P.R.E. 0%		Res. Add/Alter/Repair	06/04/2015	PB15-0098	
Owner's Name/Address	MAP #: 26-000-073-200			03/05/2007	B-36-07	
MUSKEGON COUNTY LAND BANK 173 E APPLE AVE MUSKEGON MI 49442	2018 Est TCV 28,200 (Value Overridden)					

X Improved		Vacant	Land Value Estimates for Land Table 00013.ORANGE						
Public Improvements			* Factors *						
Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value	
NEIGHBORHOOD	13	50.00	125.00	1.0000	1.0000	80	100	4,000	
50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value =								4,000	

Tax Description
 Property exempt from Ad Valorem taxes and assessed on the Special Act Roll pursuant to PA 261 of 2003 expiring 12/31/2021.
 HT0594 BLK 73 LOT 20
 Comments/Influences

X Dirt Road
 X Gravel Road
 X Paved Road
 X Storm Sewer
 X Sidewalk
 X Water
 X Sewer
 X Electric
 X Gas
 X Curb
 X Street Lights
 Standard Utilities
 Underground Utils.

Topography of Site



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X	Level	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
	Rolling	2018	2,000	12,100	14,100			14,100C
	Low	2017	2,000	12,100	14,100			14,100S
	High	2016	2,000	11,200	13,200			13,200S
	Landscaped	2015	2,000	14,100	16,100			16,100S
	Swamp							
	Wooded							
	Pond							
	Waterfront							
	Ravine							
	Wetland							
	Flood Plain							

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
COOK MARSHALL D	COUNTY OF MUSKEGON TREASURER	0	04/12/2016	JUD	TAX REVERTED	4087/415	DEED	0.0			
MUSKEGON COUNTY TREASURER	COOK MARSHALL D	2,200	10/17/2012	QC	QUIT- CLAIM	3928/245	DEED	0.0			
WILDERNESS DEVELOPMENT	MUSKEGON COUNTY TREASURER	0	04/02/2012		FORECLOSURE	3914/36	DEED	0.0			
JOLDERSMA PAUL	WILDERNESS DEVELOPMENT CO	0	02/24/2009	QC	QUIT-CLAIM	3804/624	DEED	0.0			
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status			
2332 RIORDAN ST		School: MUSKEGON HEIGHTS SCHOOLS				06/28/2007	B-177A-07				
Owner's Name/Address		P.R.E. 0%				09/21/1999	B-322-99				
MUSKEGON COUNTY LAND BANK 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-102-160		2018 Est TCV 0 TCV/TFA: 0.00							
Tax Description		X Improved	Vacant	Land Value Estimates for Land Table 00001.NORTHEAST							
HT1256 BLK 102 LOT 16		Public Improvements		* Factors *							
Comments/Influences		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		NORTHEAST	50.00	125.00	1.0000	1.0000	80	100	4,000
		X Paved Road		50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value = 4,000							
		X Storm Sewer									
		X Sidewalk									
		X Water									
		X Sewer									
		X Electric									
		X Gas									
		X Curb									
		Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X Level		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Rolling		2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		Low		2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		High		2016	2,000	11,300	13,300			13,300S	
		Landscaped		2015	2,000	11,700	13,700			13,700S	
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain									
		Who	When	What							
		CED	08/30/1999	REVIEWED							



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 140	Type WGEP (1 Story)	Year Built: 1920 Car Capacity: Class: CD Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished?: Auto. Doors: 0 Mech. Doors: 0 Area: 440 % Good: 0 Storage Area: 0 No Conc. Floor: 0
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G											
Building Style: 1 1/4 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling			Central Air Wood Furnace			Class: CD Effec. Age: 55 Floor Area: 1066 Total Base Cost: 71,115 Total Base New : 98,139 Total Depr Cost: 45,131 Estimated T.C.V: 21,753			CntyMult X 1.380 E.C.F. X 0.482		Bsmnt Garage:	
Yr Built 1920	Remodeled 0	Size of Closets		No. Heating/Cooling			100 Amps Service			Total Base Cost: 71,115 Total Base New : 98,139 Total Depr Cost: 45,131 Estimated T.C.V: 21,753			CntyMult X 1.380 E.C.F. X 0.482		Carport Area: Roof:	
Condition: Average		Lg	X Ord	Small	No. Heating/Cooling			100 Amps Service			Total Base Cost: 71,115 Total Base New : 98,139 Total Depr Cost: 45,131 Estimated T.C.V: 21,753			CntyMult X 1.380 E.C.F. X 0.482		Carport Area: Roof:
Room List		(5) Floors		Kitchen: Hardwood Other: Carpeted Other: Tile			(12) Electric			Stories Exterior Foundation Rate Bsmnt-Adj Heat-Adj Size Cost						
	Basement 1 1st Floor 2 2nd Floor 3 Bedrooms	Kitchen: Hardwood Other: Carpeted Other: Tile		(12) Electric			100 Amps Service			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost						
(1) Exterior		X	Plaster				No./Qual. of Fixtures			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost						
X	Wood/Shingle Aluminum/Vinyl Brick						No. of Elec. Outlets			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost						
X	Insulation						(7) Excavation			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost						
(2) Windows		Basement: 624 S.F. Crawl: 286 S.F. Slab: 0 S.F. Height to Joists: 0.0		(13) Plumbing			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost						
X	Many Avg. Few	X	Large Avg. Small	(8) Basement			(14) Water/Sewer			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost						
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		(9) Basement Finish			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost						
X	Double Glass Patio Doors Storms & Screens	Recreation SF Living SF Walkout Doors No Floor SF		(10) Floor Support			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost						
(3) Roof		Joists: Unsupported Len: Cntr.Sup:		1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost						
X	Gable Hip Flat	Gambrel Mansard Shed	1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost							
X	Asphalt Shingle	Lump Sum Items:			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost								
Chimney: Brick		Lump Sum Items:			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			1.25 Story Siding Mich Bsmnt. 70.19 -4.49 0.00 624 40,997 1 Story Siding Crawl Space 60.52 -8.98 0.00 286 14,740 Other Additions/Adjustments Rate Size Cost								

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
RICHARDSON WILBURT JR ET A	COUNTY OF MUSKEGON TREASUR	0	04/12/2016	JUD	TAX REVERTED	4087/401	DEED	0.0			
RICHARDSON WILBURT JR	RICHARDSON, JR WILBURT ET	0	02/05/1994	QC	QUIT-CLAIM	1753/237	DEED	0.0			
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status			
2340 6TH ST		School: MUSKEGON HEIGHTS SCHOOLS				09/25/2002	B-295-02	COMPLETE			
Owner's Name/Address		P.R.E. 0%									
MUSKEGON COUNTY LAND BANK 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-091-140		2018 Est TCV 0 TCV/TFA: 0.00							
Tax Description		X Improved	Vacant	Land Value Estimates for Land Table 00013.ORANGE							
HT0984 BLK 91 LOT 14		Public Improvements		* Factors *							
Comments/Influences		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		NEIGHBORHOOD	13	50.00	125.00	1.0000	1.0000	80 100	4,000
		X Paved Road		50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value = 4,000							
		X Storm Sewer									
		X Sidewalk									
		X Water									
		X Sewer									
		X Electric									
		X Gas									
		X Curb									
		X Street Lights									
		X Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X Level		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Rolling		2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		Low		2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		High		2016	2,000	9,400	11,400			11,138C	
		Landscaped		2015	2,000	11,700	13,700			11,105C	
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain									
		Who	When	What							
		CEJ 12/31/1992	REVIEWED								



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Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
METROPOLIS CENTRE LLC	COUNTY OF MUSKEGON TREASURY	0	04/12/2016	JUD	TAX REVERTED	4087/429	DEED	0.0
STONECREST INCOME & OPPORT	METROPOLIS CENTRE LLC	2,560	08/14/2015	QC	QUIT- CLAIM	4064/418	DEED	100.0
FEDERAL NATIONAL MORTGAGE	STONECREST INCOME & OPPORT	0	07/26/2011	CD	COVENANT DEED	3890/107	DEED	0.0
SHERIFF	BAC HOME LOANS SERVICING	77,977	03/19/2010	PR	SHERIFF DEED	3840/585	DEED	0.0

Property Address	Class: 710.EXEMPT LAND BA	Zoning: R1-RES	Building Permit(s)	Date	Number	Status
2521 BAKER ST	School: MUSKEGON HEIGHTS SCHOOLS			07/18/2006	B-203-06	
	P.R.E. 0%			01/06/1998	B-1-98	
Owner's Name/Address	MAP #: 26-000-146-050					
	2018 Est TCV 0 TCV/TFA: 0.00					

MUSKEGON COUNTY LAND BANK 173 E APPLE AVE STE 104 MUSKEGON MI 49442	X Improved	Vacant	Land Value Estimates for Land Table 00001.NORTHEAST							
			* Factors *							
	Public Improvements		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
			NORTHEAST	100.00	125.00	1.0000	1.0000	80	100	8,000
			100 Actual Front Feet, 0.29 Total Acres Total Est. Land Value = 8,000							

Tax Description	HT2220 BLK 146 LOTS 5 & 6	Comments/Influences

Topography of Site
X Level
Rolling
Low
High
Landscaped
Swamp
Wooded
Pond
Waterfront
Ravine
Wetland
Flood Plain



Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT
2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT
2016	4,000	16,800	20,800			20,800S
2015	4,000	17,500	21,500			21,500S

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*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage	
X	Single Family	Eavestrough Insulation	0	X	Gas Wood	Oil Coal	Elec. Steam	Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System	Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 288	Type Treated Wood	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:	288	Type	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:	
	Town Home Duplex A-Frame															0
X	Wood Frame	(4) Interior		X	Drywall Paneled		Plaster Wood T&G									
Building Style: 1 STY		Trim & Decoration		Ex		X	Ord		Min							
Yr Built 1997	Remodeled 0	Size of Closets		Lg		X	Ord		Small							
Condition: Average		Doors:			Solid	X	H.C.									
Room List		(5) Floors		Central Air Wood Furnace												
	Basement 3 1st Floor 2nd Floor Bedrooms	Kitchen: Hardwood Other: Carpeted Other: Tile		(12) Electric			100 Amps Service									
(1) Exterior		X Drywall		Ex.			X	Ord.		Min						
X	Wood/Shingle Aluminum/Vinyl Brick	No. of Elec. Outlets		Many		X	Ave.		Few							
	Insulation	(7) Excavation		(13) Plumbing			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan									
(2) Windows		Basement: 1809 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0														
X	Many Avg. Few	X	Large Avg. Small	(8) Basement												
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor														
	(9) Basement Finish		Recreation SF Living SF Walkout Doors No Floor SF													
(3) Roof		(10) Floor Support		1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic												
X	Gable Hip Flat	Gambrel Mansard Shed	Joists: Unsupported Len: Cntr.Sup:		Lump Sum Items:											
Chimney: Brick																

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
ALT HOLDINGS LLC	COUNTY OF MUSKEGON TREASURER	0	04/12/2016	JUD	TAX REVERTED	4087/451	DEED	0.0
COUNTY OF MUSKEGON TREASURER	ALT HOLDINGS LLC	700	10/21/2013	QC	QUIT- CLAIM	4002/991	DEED	0.0
GRABLE EARL/MARISSA GRABLE	COUNTY OF MUSKEGON TREASURER	0	04/01/2013	QC	FORECLOSURE	3950/169	DEED	0.0
MUSKEGON COUNTY TREASURER	GRABLE EARL/MARISSA GRABLE	400	10/04/2010	QC	QUIT-CLAIM	3860/621	DEED	100.0

Property Address	Class: 710.EXEMPT LAND BA	Zoning: R1-RES	Building Permit(s)	Date	Number	Status
2905 9TH ST	School: MUSKEGON HEIGHTS SCHOOLS					
	P.R.E. 0%					
Owner's Name/Address	MAP #: 26-000-220-020					
MUSKEGON COUNTY LAND BANK 173 E APPLE AVE STE 104 MUSKEGON MI 49442	2018 Est TCV 0 TCV/TFA: 0.00					

Tax Description	X	Improved	Vacant	Land Value Estimates for Land Table 00011.DK GREEN
HT3320 BLK 220 LOT 2				
Comments/Influences				
MOVED, NO FWD ADD				

Public Improvements	Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value
Dirt Road	NEIGHBORHOOD	11	50.00	125.00	1.0000	1.0000	60	100	3,000
Gravel Road	50 Actual Front Feet, 0.14 Total Acres								3,000
Paved Road	Total Est. Land Value =								
Storm Sewer									
Sidewalk									
Water Sewer									
Electric									
Gas									
Curb									
Street Lights									
Standard Utilities									
Underground Utils.									



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Topography of Site	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
Level	2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Rolling	2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Low	2016	1,500	6,000	7,500			7,500S
High	2015	1,500	6,700	8,200			8,200S
Landscaped	CEJ 12/31/1997 REVIEWED						
Swamp							
Wooded							
Pond							
Waterfront							
Ravine							
Wetland							
Flood Plain							

*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided 1 Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: CD Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished?: Auto. Doors: 0 Mech. Doors: 0 Area: 440 % Good: 20 Storage Area: 0 No Conc. Floor: 0	
X	Wood Frame		Drywall Paneled				Plaster Wood T&G							36	CCP (1 Story)		
Building Style: 1 1/4 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling			Central Air Wood Furnace			Class: CD Effec. Age: 55 Floor Area: 1315 Total Base Cost: 86,044 Total Base New : 118,740 Total Depr Cost: 25,282 Estimated T.C.V: 16,838			CntyMult X 1.380 E.C.F. X 0.666			Bsmnt Garage:	
Yr Built 1940	Remodeled 0	Size of Closets		100 Amps Service			100 Amps Service			Total Depreciated Cost = 25,282			Total Depreciated Cost = 25,282			Roof:	
Condition: Average		Doors: Lg X Ord Small		No./Qual. of Fixtures			No./Qual. of Fixtures			Rate			Rate				
Room List		(5) Floors		Kitchen: Other: Other:			(12) Electric			Exterior			Foundation			Size	Cost
	Basement 1st Floor 2nd Floor Bedrooms	Kitchen: Other: Other:		Ex. X Ord Min			Ex. X Ord Min			1.25 Story Siding			Basement			927	62,841
(1) Exterior		(6) Ceilings		No. of Elec. Outlets			No. of Elec. Outlets			Other Additions/Adjustments			Rate			Size	Cost
X	Wood/Shingle Aluminum/Vinyl Brick	(7) Excavation		Many X Ave. Few			Many X Ave. Few			(14) Water/Sewer			Rate			Size	Cost
	Insulation	Basement: 927 S.F. Crawl: 156 S.F. Slab: 0 S.F. Height to Joists: 0.0		(13) Plumbing			(13) Plumbing			Public Water			1025.00			1	1,025
(2) Windows		(8) Basement		Average Fixture(s)			Average Fixture(s)			(15) Built-Ins & Fireplaces			Rate			Size	Cost
X	Many Avg. Few	X	Large Avg. Small	1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Fireplace: Exterior 1 Story			3450.00			1	3,450
Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens		Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		(14) Water/Sewer			(14) Water/Sewer			CCP (1 Story), Standard			44.63			36	1,607
(3) Roof		(9) Basement Finish		Public Water			Public Water			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 50/22.5,			Depr.Cost =				
X	Gable Hip Flat		Gambrel Mansard Shed	1 Public Water			1 Public Water			Economic Depreciation because of: OBSERVED			Separately Depreciated Items:				
X	Asphalt Shingle	Recreation SF Living SF Walkout Doors No Floor SF		1 Public Sewer			1 Public Sewer			Class:CD Exterior: Siding Foundation: 18 Inch (Unfinished)			Base Cost			440	8,316
Chimney: Brick		Joists: Unsupported Len: Cntr.Sup:		Water Well			Water Well			County Multiplier = 1.38 =>			Cost New =				11,476
				1000 Gal Septic			1000 Gal Septic			Phy/Ab.Phy/Func/Econ/Comb.%Good= 20/100/100/ 50/10.0,			Depr.Cost =				1,148
				2000 Gal Septic			2000 Gal Septic			Total Depreciated Cost =			25,282				
				Lump Sum Items:			Lump Sum Items:			0.666 => TCV of Bldg: 1 =			16,838				

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	QUIT- CLAIM	4105/515	DEED	0.0			
WINDELER CHRIS/ANGELA	COUNTY OF MUSKEGON TREASUR	0	04/29/2015	WD	TAX REVERTED	4053/979	DEED	0.0			
MUSKEGON COUNTY TREASURER	WINDELER CHRIS/ANGELA	650	10/13/2011	QC	QUIT- CLAIM	3892/786	DEED	100.0			
HULKA WILLIAM	MUSKEGON COUNTY TREASURER	0	04/01/2011	QC	QUIT- CLAIM	3880/780	DEED	0.0			
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status			
2933 JEFFERSON ST		School: MUSKEGON HEIGHTS SCHOOLS				12/20/2006	B-361-06				
Owner's Name/Address		P.R.E. 0%				09/22/1999	H-94-99				
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-225-090				09/08/1999	B-295-99				
Tax Description		2018 Est TCV 0 TCV/TFA: 0.00				08/15/1999	B-269-99				
HT3430 BLK 225 LOT 9		X Improved		Vacant	Land Value Estimates for Land Table 00011.DK GREEN						
Comments/Influences		Public Improvements		* Factors *							
REMODELING IN PROGRESS 10/99		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		NEIGHBORHOOD	11	50.00	125.00	1.0000	1.0000	60 100	3,000
		X Paved Road		50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value = 3,000							
		X Storm Sewer									
		X Sidewalk									
		X Water									
		X Sewer									
		X Electric									
		X Gas									
		X Curb									
		X Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X Level		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Rolling		2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		Low		2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		High		2016	0	0	0			0	
		Landscaped		2015	1,500	9,300	10,800			10,800S	
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain									
		Who	When	What							
		RJ	10/25/1999	REVIEWED							
		CED	11/28/2001	REVIEWED							
		ROB	01/02/2014	FIELD REVI							



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*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage	
X Single Family Mobile Home Town Home Duplex A-Frame	X Eavestrough X Insulation 0 Front Overhang 0 Other Overhang	X Gas Wood	Oil Coal	Elec. Steam	X Forced Air w/o Ducts X Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling	Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System	Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 232	Type WCP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:	CnlyMult X 1.380	Bsmnt-Adj Rate 0.00	Heat-Adj Rate 0.00	Size 728	Cost 66,634	Bsmnt Garage:	
																	Building Style: 1 1/2 STY
Yr Built 1920	Remodeled 1999	Condition: Average	Room List Basement 1st Floor 2nd Floor 3 Bedrooms	(6) Ceilings Kitchen: Vinyl Other: Carpeted Other:	(1) Exterior X Drywall X Plaster	(8) Basement Conc. Block Poured Conc. Stone Treated Wood X Concrete Floor	(9) Basement Finish Recreation SF Living SF Walkout Doors No Floor SF	(3) Roof X Gable Hip Flat	Gambrel Mansard Shed	(10) Floor Support Joists: Unsupported Len: Cntr.Sup:	Chimney: Brick						
												Basement 1st Floor 2nd Floor 3 Bedrooms	(1) Exterior Wood/Shingle Aluminum/Vinyl Brick X Stucco X Insulation	(2) Windows Many Avg. Few X Avg. Few Large Avg. Small	(8) Basement Conc. Block Poured Conc. Stone Treated Wood X Concrete Floor	(9) Basement Finish Recreation SF Living SF Walkout Doors No Floor SF	(3) Roof X Gable Hip Flat

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/26/2016	QC	QUIT- CLAIM	4105/515	DEED	0.0
DELAPAZ ROGELIO/DAWN	COUNTY OF MUSKEGON TREASUR	0	04/29/2015	WD	TAX REVERTED	4054/40	DEED	0.0
BRININSTOOL JERRY	DELAPAZ ROGELIO/DAWN	0	03/23/2011	QC	QUIT-CLAIM	3872/923	DEED	0.0
BRININSTOOL JERRY D/MARIA	DELAPAZ DAWN C/ROGELIO	34,500	01/02/2004	WD	LAND CONTRACT	9999/99	DEED	100.0

Property Address	Class: 710.EXEMPT LAND BA	Zoning: R1-RES	Building Permit(s)	Date	Number	Status
3019 PECK ST	School: MUSKEGON HEIGHTS SCHOOLS			10/25/2011	B-174-11	
Owner's Name/Address	P.R.E. 0%					
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE STE 104 MUSKEGON MI 49442	MAP #: 26-061-001-100					
	2018 Est TCV 0 TCV/TFA: 0.00					

Tax Description	X Improved	Vacant	Land Value Estimates for Land Table 00010.SOUTHWEST							
HT6638 CHAS M STEELE'S SUB'D BLK 1 LOTS 10 & 11			* Factors *							
			Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
			SOUTHWEST	50.00	104.00	1.0000	1.0000	70 100		3,500
			50 Actual Front Feet, 0.12 Total Acres Total Est. Land Value =							3,500

Comments/Influences

- X Sidewalk
- X Water
- X Sewer
- X Electric
- X Gas
- X Curb
- Street Lights
- Standard Utilities
- Underground Utils.



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Topography of Site	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
X Level	2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Rolling	2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Low	2016	0	0	0			0
High	2015	1,800	11,500	13,300			13,300S
Landscaped							
Swamp							
Wooded							
Pond							
Waterfront							
Ravine							
Wetland							
Flood Plain							
Who	When	What					
CEJ	10/31/1998	REVIEWED					
RJ	08/24/2009	REVIEWED					
ROB	02/18/2016	FIELD REVI					

*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage	
X Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation		X Gas	Oil	Elec.	Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: 1935 Car Capacity: Class: CD Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished ?: Auto. Doors: 0 Mech. Doors: 0 Area: 288 % Good: 0 Storage Area: 0 No Conc. Floor: 0	98 WGEF (1 Story) 36 WCP (1 Story)			
		0 Front Overhang 0 Other Overhang	X	Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling												
X Wood Frame		Drywall Paneled	X Plaster Wood T&G	(4) Interior			Central Air Wood Furnace			Class: CD Effec. Age: 57 Floor Area: 1040 Total Base Cost: 75,702 Total Base New : 104,469 Total Depr Cost: 47,011 Estimated T.C.V: 20,826			CntyMult X 1.380 E.C.F. X 0.443		Bsmnt Garage: Carport Area: Roof:	
Building Style: 1 STY		Trim & Decoration		Ex X Ord Min			(12) Electric			Stories Exterior Foundation Rate Bsmnt-Adj Heat-Adj			Size Cost		Size Cost	
Yr Built 1935	Remodeled 1987	Size of Closets		Lg X Ord Small			100 Amps Service			Other Additions/Adjustments			Rate		Rate	
Condition: Average		Doors: Solid X H.C.		(6) Ceilings			No./Qual. of Fixtures			Public Water			1025.00		1 1,025	
Room List		(5) Floors		Kitchen: Softwood Other: Tile Other: Carpeted			Ex. X Ord. Min			Public Sewer			1025.00		1 1,025	
Basement 1 1st Floor 1 2nd Floor 2 Bedrooms				(7) Excavation			No. of Elec. Outlets			WGEF (1 Story), Standard			43.09		98 4,223	
(1) Exterior		X Plaster		Basement: 1040 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0			Many X Ave. Few			WCP (1 Story), Standard			43.88		36 1,580	
X Wood/Shingle Aluminum/Vinyl Brick				(8) Basement			(13) Plumbing			(16) Porches			22.93		288 6,604	
(2) Windows		Many Avg. Few X Large Avg. Small		Conc. Block Poured Conc. Stone Treated Wood Concrete Floor			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			(17) Garages			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/100/45.0, Depr.Cost =		47,011	
X Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens				(9) Basement Finish			(14) Water/Sewer			Base Cost			22.93		288 6,604	
(3) Roof				Recreation SF Living SF Walkout Doors No Floor SF			1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Class:CD Exterior: Siding Foundation: 18 Inch (Unfinished)			22.93		288 6,604	
X Gable Hip Flat	Gambrel Mansard Shed			(10) Floor Support			Lump Sum Items:			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/100/45.0, Depr.Cost =			0.443 => TCV of Bldg: 1 =		20,826	
X Asphalt Shingle				Joists: Unsupported Len: Cntr.Sup:						ECF (SOUTHWEST)						
Chimney: Brick																

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	QUIT- CLAIM	4105/515	DEED	0.0			
KISNER DOUGLAS	COUNTY OF MUSKEGON TREASUR	0	04/29/2015	WD	TAX REVERTED	4054/42	DEED	0.0			
EH POOLED 412 P	KISNER DOUGLAS	2,500	04/18/2013	QC	QUIT- CLAIM	3949/569	DEED	100.0			
HARBOUR PORTFOLIO VI LP	EH POOLED 412 P	2,640	05/16/2012	QC	QUIT- CLAIM	3915/63	DEED	100.0			
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status			
3122 SANFORD ST		School: MUSKEGON HEIGHTS SCHOOLS				09/09/2008	B-220-08				
Owner's Name/Address		P.R.E. 0%				05/31/2006	B-152-06				
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-061-002-290				04/27/2006	E-43-06				
Tax Description		2018 Est TCV 0 TCV/TFA: 0.00				10/19/2005	B-277-05				
HT6695A CHAS M STEELE'S SUB'D BLK 2 N 1/2 OF LOT 28 & ENTIRE LOT 29 & S 1/2 OF LOT 30		X Improved		Vacant	Land Value Estimates for Land Table 00010.SOUTHWEST						
Comments/Influences		Public Improvements		* Factors *							
		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		SOUTHWEST	50.00	104.00	1.0000	1.0000	70	100	3,500
		X Paved Road		50 Actual Front Feet, 0.12 Total Acres Total Est. Land Value = 3,500							
		X Storm Sewer									
		X Sidewalk									
		X Water									
		X Sewer									
		X Electric									
		X Gas									
		X Curb									
		Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X Level		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Rolling		2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		Low		2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		High		2016	0	0	0			0	
		Landscaped		2015	1,800	7,700	9,500			9,500S	
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain									
		Who	When	What							
		CEJ	10/30/1998	REVIEWED							
		ROB	09/18/2012	REVIEWED							



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage			
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 176	Type WGEP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:		
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G													
Building Style: 2 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling														
Yr Built 1940	Remodeled 0	Ex	X	Ord		Min	Size of Closets			Class: CD Effec. Age: 55 Floor Area: 1352 Total Base Cost: 77,879 Total Base New : 107,473 Total Depr Cost: 31,436 Estimated T.C.V: 13,926								
Condition: Average		Lg	X	Ord		Small	Doors: Solid X H.C.			CnlyMult X 1.380 E.C.F. X 0.443								
Room List		(5) Floors		Central Air Wood Furnace			(12) Electric 100 Amps Service			Stories Exterior 2 Story Siding			Foundation Basement	Rate 101.72	Bsmnt-Adj 0.00	Heat-Adj 0.00	Size 676	Cost 68,763
	Basement 1 1st Floor 2 2nd Floor 3 Bedrooms	Kitchen: Hardwood Other: Tile Other: Carpeted		No./Qual. of Fixtures Ex. X Ord. Min			No. of Elec. Outlets Many X Ave. Few			Other Additions/Adjustments (13) Plumbing 2 Fixture Bath (14) Water/Sewer Public Water Public Sewer			Rate 1325.00				Size 1	Cost 1,325
(1) Exterior	X Wood/Shingle X Aluminum/Vinyl Brick Insulation	X	Plaster	(7) Excavation Basement: 676 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0			(13) Plumbing Average Fixture(s) 1 3 Fixture Bath 1 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			(16) Porches WGEP (1 Story), Standard Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 65/29.3, Economic Depreciation because of: OBSERVATION ECF (SOUTHWEST)			Rate 1025.00 1025.00				Size 1 1	Cost 1,025 1,025
(2) Windows	X Many Avg. Few			(8) Basement Conc. Block Poured Conc. Stone Treated Wood Concrete Floor			(14) Water/Sewer 1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Rate 32.62							Size 176	Cost 5,741
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens			(9) Basement Finish Recreation SF Living SF Walkout Doors No Floor SF			Lump Sum Items:			Rate 0.443 => TCV of Bldg: 1 =							Size 1	Cost 13,926
(3) Roof	X Gable Hip Flat			(10) Floor Support Joists: Unsupported Len: Cntr.Sup:														
X	Asphalt Shingle																	
Chimney: Brick																		

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.				
COUNTY OF MUSKEGON TREASURER	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	QUIT- CLAIM	4105/515	DEED	0.0				
COOK MARSHALL/SONYA	COUNTY OF MUSKEGON TREASURER	0	04/29/2015	WD	TAX REVERTED	4054/68	DEED	0.0				
MUSKEGON COUNTY TREASURER	COOK MARSHALL/SONYA	20	10/13/2011	QC	QUIT- CLAIM	3892/843	DEED	100.0				
HUTCHISON JAMES H	MUSKEGON COUNTY TREASURER	0	04/01/2011	QC	QUIT- CLAIM	3880/874	DEED	0.0				
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status				
3135 7TH ST		School: MUSKEGON HEIGHTS SCHOOLS										
Owner's Name/Address		P.R.E. 0%										
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-061-032-160										
Tax Description		2018 Est TCV 0 TCV/TFA: 0.00										
HT7788 CHAS M STEELE'S SUB'D BLK 32 LOTS 16 17 & 18		X	Improved		Vacant	Land Value Estimates for Land Table 00010.SOUTHWEST						
Comments/Influences		Public Improvements		* Factors *								
7/31/2013:VACANT/DISREPAIR		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value
		Gravel Road		SOUTHWEST	75.00	104.00	1.0000	1.0000	70	100		5,250
		Paved Road		75 Actual Front Feet, 0.18 Total Acres Total Est. Land Value = 5,250								
		Storm Sewer		Land Improvement Cost Estimates								
		Sidewalk		Description	Rate	CountyMult.	Size	%Good	Cash Value			
		Water		Shed: Metal Prefab	7.34	1.37	120	43	519			
		Sewer		Total Estimated Land Improvements True Cash Value = 519								
		Electric										
		Gas										
		Curb										
		Street Lights										
		Standard Utilities										
		Underground Utils.										
		Topography of Site										
		X	Level	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value		
			Rolling	2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT		
			Low	2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT		
			High	2016	0	0	0			0		
			Landscaped	2015	2,600	5,100	7,700			7,700S		
			Swamp									
			Wooded									
			Pond									
			Waterfront									
			Ravine									
			Wetland									
			Flood Plain									
		Who	When	What								
		CEJ	12/31/1998	REVIEWED								
		DG	01/07/1999	DATA ENTER								
		RJ	04/22/2009	REVIEWED								



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage			
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 112 128	Type WSEP (1 Story) Treated Wood	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:		
X	Wood Frame		Drywall Paneled		Plaster Wood T&G		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling											
Building Style: 1 STY		Trim & Decoration		Central Air Wood Furnace			Stories Exterior 1 Story Siding			Foundation Basement			Rate Bsmnt-Adj 53.90 0.00		Heat-Adj 0.66		Size Cost 652 35,573	
Yr Built 1930	Remodeled 0	Ex	X	Ord		Min	No. of Elec. Outlets			Other Additions/Adjustments			Rate		Size Cost			
Condition: Average		Lg	X	Ord		Small	(14) Water/Sewer			(16) Porches			912.00		1		912	
Room List		Doors: Solid X H.C.		(5) Floors			Average Fixture(s)			WSEP (1 Story), Standard			30.23		112		3,386	
	Basement 1st Floor 2nd Floor Bedrooms	Kitchen: Other: Other:		(6) Ceilings			1 3 Fixture Bath			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/ 75/100/100/33.8,			Depr.Cost =		18,995			
(1) Exterior		Basement: 652 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0		(7) Excavation			2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			(16) Deck/Balcony			7.11		128		910	
	Wood/Shingle X Aluminum/Vinyl Brick	Insulation		(8) Basement			(13) Plumbing			County Multiplier = 1.38 =>			Cost New =		1,256			
(2) Windows		Many Avg. Few		X Avg. Small		(9) Basement Finish			Phy/Ab.Phy/Func/Econ/Comb.%Good= 48/ 75/100/100/36.0,			Total Depreciated Cost =		19,447				
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		(10) Floor Support			(14) Water/Sewer			ECF (SOUTHWEST)			0.443 => TCV of Bldg: 1 =		8,615			
(3) Roof		Recreation SF Living SF Walkout Doors No Floor SF		1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Lump Sum Items:											
X	Gable Hip Flat		Gambrel Mansard Shed	Joists: Unsupported Len: Cntr.Sup:														
X	Asphalt Shingle																	
Chimney: Brick																		

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	QUIT- CLAIM	4105/515	DEED	0.0			
ZHU RONGLI	COUNTY OF MUSKEGON TREASUR	0	04/29/2015	WD	TAX REVERTED	4054/45	DEED	0.0			
MUSKEGON COUNTY TREASURER	ZHU RONGLI	600	10/17/2012	QC	QUIT- CLAIM	3928/326	DEED	0.0			
BERGHUIS JUANTITA/RYAN COR	MUSKEGON COUNTY TREASURER	0	04/02/2012		FORECLOSURE	3914/256	DEED	0.0			
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status			
3205 SANFORD ST		School: MUSKEGON HEIGHTS SCHOOLS									
Owner's Name/Address		P.R.E. 0%									
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-061-008-030									
Tax Description		2018 Est TCV 0 TCV/TFA: 0.00									
HT6895 CHAS M STEELE'S SUB'D BLK 8 LOTS 3 & 4		X Improved		Vacant	Land Value Estimates for Land Table 00010.SOUTHWEST						
Comments/Influences		Public Improvements		* Factors *							
		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		SOUTHWEST	50.00	104.00	1.0000	1.0000	70	100	3,500
		X Paved Road		50 Actual Front Feet, 0.12 Total Acres				Total Est. Land Value =	3,500		
		X Storm Sewer									
		X Sidewalk									
		X Water									
		X Sewer									
		X Electric									
		X Gas									
		X Curb									
		Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X Level		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Rolling		2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		Low		2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		High		2016	0	0	0			0	
		Landscaped		2015	1,800	3,900	5,700			5,700S	
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain									
		Who	When	What							
		CEJ	12/31/1998	REVIEWED							
		DG	12/09/1998	DATA ENTER							
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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage		
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 119 32	Type CPP WSEP (1 Story)	Year Built: Car Capacity: Class: C Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished ?: Auto. Doors: 0 Mech. Doors: 0 Area: 240 % Good: 20 Storage Area: 0 No Conc. Floor: 0		
X	Wood Frame		Drywall Paneled		Plaster Wood T&G													
Building Style: 1+ STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling														
Yr Built 1935	Remodeled 0	Ex	X	Ord		Min	Size of Closets			Class: D Effec. Age: 55 Floor Area: 832 Total Base Cost: 55,721 Total Base New : 76,895 Total Depr Cost: 16,231 Estimated T.C.V: 7,190			CntyMult X 1.380 E.C.F. X 0.443			Bsmnt Garage:		
Condition: Average		Lg	X	Ord		Small	Doors: Solid X H.C.			Total Base Cost: 55,721 Total Base New : 76,895 Total Depr Cost: 16,231 Estimated T.C.V: 7,190			CntyMult X 1.380 E.C.F. X 0.443			Roof:		
Room List		(5) Floors		Central Air Wood Furnace			(12) Electric 100 Amps Service			Stories Exterior Foundation Rate Bsmnt-Adj Heat-Adj 1+ Story Siding Basement 52.72 0.00 0.66 Other Additions/Adjustments Rate Size Cost (14) Water/Sewer Public Water 912.00 1 912 Public Sewer 912.00 1 912 (16) Porches CPP, Standard 13.00 119 1,547 WSEP (1 Story), Standard 54.18 32 1,734 Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/ 50/100/100/22.5, Depr.Cost = 15,375 Separately Depreciated Items: (17) Garages Class:C Exterior: Siding Foundation: 18 Inch (Unfinished) Base Cost 25.85 240 6,204 County Multiplier = 1.38 => Cost New = 8,562 Phy/Ab.Phy/Func/Econ/Comb.%Good= 20/ 50/100/100/10.0, Depr.Cost = 856 Total Depreciated Cost = 16,231 ECF (SOUTHWEST) 0.443 => TCV of Bldg: 1 = 7,190								
(1) Exterior		(6) Ceilings		No./Qual. of Fixtures Ex. X Ord. Min			No. of Elec. Outlets Many X Ave. Few			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Rate Bsmnt-Adj Heat-Adj 52.72 0.00 0.66 Rate Size Cost 912.00 1 912 912.00 1 912 13.00 119 1,547 54.18 32 1,734 25.85 240 6,204			Size Cost 832 44,412 Size Cost 1 912 1 912		
X	Wood/Shingle Aluminum/Vinyl Brick	(7) Excavation		Basement: 832 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0			(13) Plumbing			Public Water Public Sewer			Rate Bsmnt-Adj Heat-Adj 912.00 1 912 912.00 1 912			Size Cost 1 912 1 912		
(2) Windows		(8) Basement		Conc. Block Poured Conc. Stone Treated Wood Concrete Floor			(14) Water/Sewer			CPP, Standard 13.00 119 1,547 WSEP (1 Story), Standard 54.18 32 1,734 Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/ 50/100/100/22.5, Depr.Cost = 15,375 Separately Depreciated Items: (17) Garages Class:C Exterior: Siding Foundation: 18 Inch (Unfinished) Base Cost 25.85 240 6,204 County Multiplier = 1.38 => Cost New = 8,562 Phy/Ab.Phy/Func/Econ/Comb.%Good= 20/ 50/100/100/10.0, Depr.Cost = 856 Total Depreciated Cost = 16,231 ECF (SOUTHWEST) 0.443 => TCV of Bldg: 1 = 7,190			Rate Bsmnt-Adj Heat-Adj 912.00 1 912 912.00 1 912 13.00 119 1,547 54.18 32 1,734 25.85 240 6,204			Size Cost 1 912 1 912		
X	Many Avg. Few	X	Large Avg. Small	(9) Basement Finish		Recreation SF Living SF Walkout Doors No Floor SF			Public Water Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Rate Bsmnt-Adj Heat-Adj 912.00 1 912 912.00 1 912 13.00 119 1,547 54.18 32 1,734 25.85 240 6,204			Size Cost 1 912 1 912			
(3) Roof		(10) Floor Support		Joists: Unsupported Len: Cntr.Sup:			Lump Sum Items:			Public Water Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Rate Bsmnt-Adj Heat-Adj 912.00 1 912 912.00 1 912 13.00 119 1,547 54.18 32 1,734 25.85 240 6,204			Size Cost 1 912 1 912		
X	Gable Hip Flat		Gambrel Mansard Shed	Chimney: Brick														

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
COOK MARSHALL D	COUNTY OF MUSKEGON TREASUR	0	04/12/2016	JUD	TAX REVERTED	4087/495	DEED	0.0			
US BANK NATIONAL ASSOCIATI	COOK MARSHALL	3,000	07/30/2008		FORECLOSURE PURCHASE	3788/963	DEED	100.0			
SHERIFF	US BANK NATIONAL ASSOCIATI	55,140	12/07/2007	PR	SHERIFF DEED	3764/35	DEED	0.0			
LAGUIRE MARK	HICKS SR MARK/PEGGY SUE	0	12/02/2002	WD	LC PAYOFF	3528/364	DEED	0.0			
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status			
3213 GLENDALE ST		School: MUSKEGON HEIGHTS SCHOOLS		Mechanical		10/08/2014	PM14-0105				
Owner's Name/Address		P.R.E. 0%				11/12/2004	B-425-04				
MUSKEGON COUNTY LAND BANK 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-061-018-070		2018 Est TCV 0 TCV/TFA: 0.00							
Tax Description		X Improved	Vacant	Land Value Estimates for Land Table 00010.SOUTHWEST							
HT7283 CHAS M STEELE'S SUB'D BLK 18 LOTS 7 & 8		Public Improvements		* Factors *							
Comments/Influences		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
BOARDED UP - SUBSTANDARD 11/07		Gravel Road		SOUTHWEST	50.00	104.00	1.0000	1.0000	70	100	3,500
		X	Paved Road	50 Actual Front Feet, 0.12 Total Acres Total Est. Land Value = 3,500							
		X	Storm Sewer								
		X	Sidewalk								
		X	Water								
		X	Sewer								
		X	Electric								
		X	Gas								
		X	Curb								
		Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X	Level	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
			Rolling	2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
			Low	2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
			High	2016	1,800	8,500	10,300			10,300S	
			Landscaped	2015	1,800	8,900	10,700			10,700S	
			Swamp								
			Wooded								
			Pond								
			Waterfront								
			Ravine								
			Wetland								
			Flood Plain								
		Who	When	What							
		CEJ	12/31/1998	REVIEWED							
		DG	12/18/1998	DATA ENTER							
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02-28-2009 10:45:00

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage		
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 450	Type WSEP (1 Story)	Year Built: Car Capacity: Class: D Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished ?: Auto. Doors: 0 Mech. Doors: 0 Area: 480 % Good: 20 Storage Area: 0 No Conc. Floor: 0	
X	Wood Frame		Drywall Paneled				Plaster Wood T&G										
Building Style: 1 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling			Central Air Wood Furnace			Class: D +10 Effec. Age: 55 Floor Area: 780 Total Base Cost: 63,083 Total Base New : 87,054 Total Depr Cost: 36,293 Estimated T.C.V: 16,078			CntyMult X 1.380 E.C.F. X 0.443		Bsmnt Garage:		
Yr Built 1940	Remodeled 0	Ex	X	Ord		Min	Size of Closets		100 Amps Service			Total Base Cost: 63,083 Total Base New : 87,054 Total Depr Cost: 36,293 Estimated T.C.V: 16,078		No Conc. Floor: 0			
Condition: Average		Lg	X	Ord		Small	Doors: Solid X H.C.		No Heating/Cooling			Total Base Cost: 63,083 Total Base New : 87,054 Total Depr Cost: 36,293 Estimated T.C.V: 16,078		No Conc. Floor: 0			
Room List		(5) Floors		Kitchen: Other: Other:			(12) Electric			Stories Exterior Foundation Rate Bsmnt-Adj Heat-Adj Size Cost			Carpport Area: Roof:				
	Basement 1st Floor 2nd Floor Bedrooms	Kitchen: Other: Other:		(12) Electric			100 Amps Service			1 Story Siding Basement 56.58 0.00 0.72 780 44,694			Bsmnt Garage:				
(1) Exterior		(6) Ceilings		No./Qual. of Fixtures			No. of Elec. Outlets			Other Additions/Adjustments			Rate		Size Cost		
X	Wood/Shingle Aluminum/Vinyl Brick				Ex.	X	Ord.		Min	(14) Water/Sewer			Rate		Size Cost		
	Insulation	(7) Excavation		Many			X	Ave.	Few	(14) Water/Sewer			Rate		Size Cost		
(2) Windows		Basement: 780 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0		(13) Plumbing			Average Fixture(s)			(16) Porches			Rate		Size Cost		
X	Many Avg. Few	X	Large Avg. Small	1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			WSEP (1 Story), Standard			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/100/45.0,			18.25		450 8,213		
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water			Phy/Ab.Phy/Func/Econ/Comb.%Good= 20/100/100/100/20.0,			17.40		480 8,352		
(3) Roof		(9) Basement Finish		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water			Phy/Ab.Phy/Func/Econ/Comb.%Good= 20/100/100/100/20.0,			17.40		480 8,352		
X	Gable Hip Flat	Gambrel Mansard Shed	Recreation SF Living SF Walkout Doors No Floor SF		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water			Phy/Ab.Phy/Func/Econ/Comb.%Good= 20/100/100/100/20.0,			17.40		480 8,352	
X	Asphalt Shingle	(10) Floor Support		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water			Phy/Ab.Phy/Func/Econ/Comb.%Good= 20/100/100/100/20.0,			17.40		480 8,352		
Chimney: Brick		Joists: Unsupported Len: Cntr.Sup:		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water			Phy/Ab.Phy/Func/Econ/Comb.%Good= 20/100/100/100/20.0,			17.40		480 8,352		
		Lump Sum Items:		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water			Phy/Ab.Phy/Func/Econ/Comb.%Good= 20/100/100/100/20.0,			17.40		480 8,352		

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
RYAN LARRY	COUNTY OF MUSKEGON TREASURY	0	04/12/2016	JUD	TAX REVERTED	4087/491	DEED	0.0			
		0	02/12/1991	LC	QUIT-CLAIM	1554:0401	DEED	0.0			
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status			
3219 SANFORD ST		School: MUSKEGON HEIGHTS SCHOOLS				02/05/2009	H-12-09				
Owner's Name/Address		P.R.E. 0%				01/30/2009	H-10-09				
MUSKEGON COUNTY LAND BANK 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-061-008-100		2018 Est TCV 0 TCV/TFA: 0.00							
Tax Description		X	Improved	Vacant	Land Value Estimates for Land Table 00010.SOUTHWEST						
HT6901 CHAS M STEELE'S SUB'D BLK 8 LOT 10 & S 10 FT OF LOT 9		Public Improvements		* Factors *							
Comments/Influences		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		SOUTHWEST	35.00	104.00	1.0000	1.0000	70	100	2,450
		X Paved Road		35 Actual Front Feet, 0.08 Total Acres Total Est. Land Value = 2,450							
		X Storm Sewer									
		X Sidewalk									
		X Water									
		X Sewer									
		X Electric									
		X Gas									
		X Curb									
		Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X	Level	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
			Rolling	2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
			Low	2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
			High	2016	1,200	8,900	10,100			10,100S	
			Landscaped	2015	1,200	9,300	10,500			10,500S	
			Swamp								
			Wooded								
			Pond								
			Waterfront								
			Ravine								
			Wetland								
			Flood Plain								
The Equalizer. Copyright (c) 1999 - 2009. Licensed To: County of Muskegon, Michigan		Who	When	What	2018	EXEMPT	EXEMPT	EXEMPT		EXEMPT	
		CEJ	12/31/1998	REVIEWED	2017	EXEMPT	EXEMPT	EXEMPT		EXEMPT	
		DG	12/09/1998	DATA ENTER	2016	1,200	8,900	10,100		10,100S	
					2015	1,200	9,300	10,500		10,500S	



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Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	QUIT- CLAIM	4105/515	DEED	0.0			
HOPE LIGHTHOUSE CHURCH	COUNTY OF MUSKEGON TREASUR	0	04/29/2015	WD	TAX REVERTED	4054/63	DEED	0.0			
RT REAL ESTATE DEVELOPMENT	HOPE LIGHTHOUSE CHURCH	17,000	03/22/2005	WD	WARRANTY DEED	3643/603	DEED	100.0			
GREEN MOUNTAIN PROPERTIES	RT REAL ESTATE DEVELOPMENT	0	10/18/2002	QC	QUIT-CLAIM	3505/189	DEED	0.0			
Property Address		Class: 710.EXEMPT LAND BA		Zoning: R1-RES	Building Permit(s)	Date	Number	Status			
3301 6TH ST		School: MUSKEGON HEIGHTS SCHOOLS				08/30/2006	B-281-06				
Owner's Name/Address		P.R.E. 0%				05/22/2006	B-140-06				
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-061-027-010		2018 Est TCV 0 TCV/TFA: 0.00							
Tax Description		X Improved	Vacant	Land Value Estimates for Land Table 00010.SOUTHWEST							
HT7604 CHAS M STEELE'S SUB'D BLK 27 LOTS 1 & 2		Public Improvements		* Factors *							
Comments/Influences		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		SOUTHWEST	50.00	110.00	1.0000	1.0000	70	100	3,500
		Paved Road		50 Actual Front Feet, 0.13 Total Acres Total Est. Land Value = 3,500							
		Storm Sewer									
		Sidewalk									
		Water									
		Sewer									
		Electric									
		Gas									
		Curb									
		Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X Level		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Rolling		2018	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		Low		2017	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		High		2016	0	0	0			0	
		Landscaped		2015	1,800	7,500	9,300			9,300S	
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain									
		Who	When	What							
		CEJ	08/31/1998	REVIEWED							
		RJ	10/27/2009	REVIEWED							
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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage												
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 280	Type WGEP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:												
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G																							
Building Style: 1 1/4 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling																								
Yr Built 1935	Remodeled 1997	Ex	X	Ord		Min	Size of Closets			Class: CD Effec. Age: 57 Floor Area: 1078 Total Base Cost: 65,839 Total Base New : 90,857 Total Depr Cost: 30,664 Estimated T.C.V: 13,584			CntyMult X 1.380 E.C.F. X 0.443			Bsmnt Garage: Carport Area: Roof:												
Condition: Average		Lg	X	Ord		Small	Doors: Solid X H.C.			Total Base Cost: 65,839 Total Base New : 90,857 Total Depr Cost: 30,664 Estimated T.C.V: 13,584			CntyMult X 1.380 E.C.F. X 0.443			Bsmnt Garage: Carport Area: Roof:												
Room List		(5) Floors		Central Air Wood Furnace			(12) Electric 100 Amps Service			Stories Exterior 1.25 Story Siding 1 Story Siding Other Additions/Adjustments			Foundation Crawl Space Basement			Rate 69.97 60.33			Bsmnt-Adj -8.95 0.00			Heat-Adj 0.00 0.00			Size 616 308		Cost 37,588 18,582	
	Basement 1 1st Floor 2 2nd Floor 3 Bedrooms	Kitchen: Hardwood Other: Carpeted Other: Tile		No./Qual. of Fixtures Ex. X Ord. Min			No. of Elec. Outlets Many X Ave. Few			(14) Water/Sewer Public Water Public Sewer			Rate 1025.00 1025.00			Bsmnt-Adj 27.21			Heat-Adj 280			Size 1 1		Cost 1,025 1,025				
(1) Exterior	X Wood/Shingle Aluminum/Vinyl Brick Insulation	X	Plaster	(7) Excavation Basement: 308 S.F. Crawl: 616 S.F. Slab: 0 S.F. Height to Joists: 0.0			(13) Plumbing Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			(16) Porches WGEP (1 Story), Standard Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 75/33.8, Economic Depreciation because of: OBSERVATION ECF (SOUTHWEST)			Rate 27.21			Bsmnt-Adj 27.21			Heat-Adj 280			Size 1 1		Cost 7,619 30,664				
(2) Windows	X Many Avg. Few	X	Large Avg. Small	(8) Basement Conc. Block Poured Conc. Stone Treated Wood Concrete Floor			(14) Water/Sewer Public Water Public Sewer			Rate 1025.00 1025.00			Bsmnt-Adj 27.21			Heat-Adj 280			Size 1 1		Cost 1,025 1,025							
(3) Roof	X Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens		Recreation SF Living SF Walkout Doors No Floor SF	(9) Basement Finish			(14) Water/Sewer Public Water Public Sewer			Rate 1025.00 1025.00			Bsmnt-Adj 27.21			Heat-Adj 280			Size 1 1		Cost 1,025 1,025							
(3) Roof	X Gable Hip Flat	Gambrel Mansard Shed	(10) Floor Support Joists: Unsupported Len: Cntr.Sup:			(14) Water/Sewer Public Water Public Sewer			Rate 1025.00 1025.00			Bsmnt-Adj 27.21			Heat-Adj 280			Size 1 1		Cost 1,025 1,025								
X	Asphalt Shingle			Lump Sum Items:			Water/Sewer 1000 Gal Septic 2000 Gal Septic			Rate 1025.00 1025.00			Bsmnt-Adj 27.21			Heat-Adj 280			Size 1 1		Cost 1,025 1,025							
Chimney: Brick																												

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Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.		
COUNTY OF MUSKEGON TREASUR	MUSKEGON COUNTY LAND BANK	0	11/29/2016	QC	QUIT- CLAIM	4105/515	DEED	0.0		
PICKERING MYRON	COUNTY OF MUSKEGON TREASUR	0	02/09/2015	JUD	FORECLOSURE	4053/995	DEED	0.0		
KIANROKH HAMIDREZA	PICKERING MYRON	0	08/05/2014	QC	QUIT- CLAIM	4029/78	DEED	100.0		
PLNIROS EQUITIES LLC	KIANROKH HAMIDREZA	0	11/18/2013	QC	QUIT- CLAIM	4008/923	DEED	100.0		
Property Address		Class: 710.EXEMPT LAND BA		Zoning:		Building Permit(s)		Date	Number	Status
3327 7TH ST		School: MUSKEGON HEIGHTS SCHOOLS						01/10/2006	SR-7-06	
Owner's Name/Address		P.R.E. 0%								
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-031-011-090		2018 Est TCV 0 TCV/TFA: 0.00						
Tax Description		X Improved		Vacant		Land Value Estimates for Land Table 00010.SOUTHWEST				
HT5092 HOME LAWN ADD'N BLK 11 LOT 9		Public Improvements		Description		* Factors *		Rate %Adj. Reason		Value
Comments/Influences		Dirt Road		SOUTHWEST		40.00 100.00 1.0000 1.0000		70 100		2,800
		Gravel Road		40 Actual Front Feet, 0.09 Total Acres		Total Est. Land Value =				2,800
		Paved Road								
		Storm Sewer								
		Sidewalk								
		Water								
		Sewer								
		Electric								
		Gas								
		Curb								
		Street Lights								
		Standard Utilities								
		Underground Utils.								
		Topography of Site								
		Level								
		Rolling								
		Low								
		High								
		Landscaped								
		Swamp								
		Wooded								
		Pond								
		Waterfront								
		Ravine								
		Wetland								
		Flood Plain								
		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value		
Who		When	What	2018	EXEMPT	EXEMPT	EXEMPT	EXEMPT		
BKS 12/31/1989 REVIEWED				2017	EXEMPT	EXEMPT	EXEMPT	EXEMPT		
ROB 10/05/2011 REVIEWED				2016	0	0	0	0		
				2015	1,400	6,200	7,600	7,600S		



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: CD Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished?: Auto. Doors: 0 Mech. Doors: 0 Area: 352 % Good: 10 Storage Area: 0 No Conc. Floor: 0	
X	Wood Frame		Drywall Paneled				Plaster Wood T&G										
Building Style: 1 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling													
Yr Built 1935	Remodeled 0	Ex	X	Ord		Min	Size of Closets		Lg		X	Ord		Small	Doors: Solid X H.C.		
Condition: Average		(5) Floors		Central Air Wood Furnace													
Room List		Kitchen: Other: Other:		(12) Electric 100 Amps Service													
	Basement 1st Floor 2nd Floor Bedrooms	(6) Ceilings		No./Qual. of Fixtures													
(1) Exterior		Ex.	X	Ord.		Min	No. of Elec. Outlets		Many		X	Ave.		Few			
X	Wood/Shingle Aluminum/Vinyl Brick	(7) Excavation		(13) Plumbing													
	Insulation	Basement: 816 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0		Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan													
(2) Windows		(8) Basement		(14) Water/Sewer													
X	Many Avg. Few	X	Large Avg. Small	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic											
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(9) Basement Finish		Lump Sum Items:													
(3) Roof		Recreation SF Living SF Walkout Doors No Floor SF															
X	Gable Hip Flat	Gambrel Mansard Shed		(10) Floor Support													
X	Asphalt Shingle	Joists: Unsupported Len: Cntr.Sup:															
Chimney: Brick																	

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