



**THE VILLAGE OF HILLMAN
ADVERTISEMENT FOR BIDS**

The Village of Hillman will accept Bids until 9:00 a.m. local time on January 29, 2024 at: 24220 Veterans Memorial Hwy, Hillman, MI 49746.

ALL BIDS WILL BE SEALED AND PLAINLY MARKED AS TO THE PROJECT.

The bidder has examined the plans, specification, special provisions and related materials in the proposal, as well as the location of the work described in the proposal for this project, and is fully informed as to the nature of the work and conditions relating to its performance and understands that the quantities shown are approximate only and are subject to wither increase or decrease.

The bidder hereby proposes to furnish all necessary machinery, tools, apparatus and other means of construction, do all the work, furnish all the materials to complete the work in strict conformity with the plans therefore and the entire proposal which is incorporated by reference in these pages, and in strict conformity with the requirements of the 2020 Standard Specifications for Construction, Michigan Department of Transportation and such other special provisions and supplemental specifications as may be part of the proposal for this project.

THE BIDDER UNDERSTANDS AND AGREES THAT THE VILLAGE OF HILLMAN RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS AND NO CONTRACTUAL RELATIONSHIP SHALL EXIST BETWEEN THE BIDDER AND THE VILLAGE OF HILLMAN FOR THE WORK DESCRIBED HEREINUNTIL SUCH TIME AS THE CONTRACT HAS BEEN FORMALLY EXECUTED BY BOTH THE BIDDER AND THE VILLAGE OF HILLMAN.

**THE VILLAGE OF HILLMAN
STATE LAND BANK DEMOLITION PROJECT**

DESCRIPTION OF WORK

The project includes complete demolition of two properties thru a State Land Bank Grant located at the following locations in the Village of Hillman:

15775 Pine Street
15774 Pine Street

An Asbestos and Potentially Hazardous Material Assessment Report has been completed for each property listed above and is included in this Bid Package.

Upon award of the project, the awarded Contractor will meet with Village officials prior to beginning work on the project. The purpose of this meeting is to coordinate anticipated time lines of the work and review reporting requirements for the State Land Bank Grant administration.

Contractor must be properly certified for removal of asbestos containing materials and copies of proper certifications provided to the Owner.

All work must be completed and invoiced to the Owner no later than August 5, 2024.

The Contractor shall be responsible for the following:

1. Obtaining all required permitting, including NESHAP Abatement and Demolition Notices.

All debris shall go to a licensed Type I or Type II landfill as required based on the existing materials.
2. Proper removal of items containing hazardous material.
3. Demolition of and removal of all materials at the above noted properties.
4. After demolition activities the site will be graded to meet surrounding grades and restored with 6" of topsoil, THV seeding, fertilizer, and mulch. Seeding, fertilizer, and mulch will be applied in accordance with the manufacturer's recommendations.
5. Hazardous Materials must be removed prior to demolition and disposed of properly.
6. 15775 Pine – Asbestos, including vermiculite, that must be abated prior to demo. Including ACM NESHAP, abatement services, hazardous materials removed, asbestos clearance, and ACM waste manifest prior to demo. All paperwork will be provided to the Owner indicating proper disposal.
7. Each site has a village water lead and sewer lead hookup available that will be capped at the property line and its location witnessed for use by future development.
8. The existing septic fields and tanks for each site will be removed and backfilled with MDOT Class II material.
9. The existing water well for each site will be plugged by a licensed well driller properly licensed to perform such activities. Proof of licensure will be provided to the Owner.

The Contractor shall provide the following paperwork to the Owner:

1. Copies of NESHAP notices and all other required permits.
2. Copies of all landfill receipts for every load removed from the project site maintained for each day.
3. Signed Abatement Clearances and signed Waste Manifests.
4. A copy of the State of Michigan Certified Licensure from the Contractor and subcontractors.
5. Photos of the project site after demolition is complete and prior to site restoration activities.
6. A lien Waiver from the Contractor and subcontractors after payment for construction activities is received from the owner.

Bid Form

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

The Village of Hillman

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2)

Bid Form

the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

Bid Form

ARTICLE 5 – BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Lump Sum Bid Price	\$
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ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before August 5, 2024.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. List of Proposed Subcontractors;
 - B. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - C. Contractor's License No.:

Bid Form

ARTICLE 8 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:

[Signature]

[Printed name]

Title:

Submittal Date:

Address for giving notices:

Telephone Number:

Fax Number:

Contact Name and e-mail address:

Bidder's License No.:

(where applicable)

CONTRACT FOR CONSTRUCTION OF A SMALL PROJECT

This Contract is by and between The Village of Hillman (Owner) and
_____ (Contractor).

Owner and Contractor hereby agree as follows:

ARTICLE 1 - THE WORK

1.01 Work

- A. Work includes all labor, materials, equipment, services, and documentation necessary to construct the Project defined herein. The Work may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
- B. The Contractor shall complete all Work as specified or indicated in the Contract Documents. The Project is generally described as follows:
 - 1. **State Land Bank Site Demolition** which includes **site demolition services at 15775 & 15774 Pine Street.**
 - 2. The Site of the Work includes property, easements, and designated work areas described in greater detail in the Contract Documents but generally located **at 15775 & 15774 Pine Street.**

ARTICLE 2 - CONTRACT DOCUMENTS

2.01 Intent of Contract Documents

- A. It is the intent of the Contract Documents to describe a functionally complete project. The Contract Documents do not indicate or describe all of the Work required to complete the Project. Additional details required for the correct installation of selected products are to be provided by the Contractor and coordinated with the Owner and Engineer. This Contract supersedes prior negotiations, representations, and agreements, whether written or oral. The Contract Documents are complementary; what is required by one part of the Contract Documents is as binding as if required by other parts of the Contract Documents.
- B. During the performance of the Work and until final payment, Contractor and Owner shall submit all matters in question concerning the requirements of the Contract Documents, or relating to the acceptability of the Work under the Contract Documents to the Engineer. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- C. Engineer will render a written clarification, interpretation, or decision on the issue submitted, or initiate a modification to the Contract Documents.
- D. Contractor, and its subcontractors and suppliers, shall not have or acquire any title to or ownership rights to any of the Drawings, Specifications, or other documents (including copies or electronic media editions) prepared by Engineer or its consultants.

2.02 Contract Documents Defined

A. The Contract Documents consist of the following documents:

1. This Contract.
2. Performance bond.
3. Payment bond.
4. Project Log and Specifications
5. Addenda.
6. Exhibits to this Contract (enumerated as follows):
 - a. Asbestos and Potentially Hazardous Materials Assessment for 15774 Pine Street
 - b. Asbestos and Potentially Hazardous Materials Assessment for 15775 Pine Street
7. The following which may be delivered or issued on or after the Effective Date of the Contract:
 - a. Work Change Directives (EJCDC C-940).
 - b. Change Orders (EJCDC C-941).
 - c. Field Orders.

ARTICLE 3 - ENGINEER

3.01 Engineer

- A. The Engineer for this Project is **Huron Engineering and Surveying, Inc., Rebecca Rivard, P.E.**

ARTICLE 4 - CONTRACT TIMES

4.01 Contract Times

- A. The Work will be completed and ready for final payment on or before **August 5, 2024**.

4.02 Liquidated Damages

- A. Contractor and Owner recognize that time is of the essence in the performance of the Contract, and that Owner will incur damages if Contractor does not complete the Work according to the requirements of Paragraph 4.01. Because such damages for delay would be difficult and costly to determine, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner \$500 for each day that expires after the Contract Time for substantial completion.

4.03 Delays in Contractor's Progress

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor or their subcontractors or suppliers.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times.
- D. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor or Contractor's subcontractors or suppliers.

4.04 Progress Schedules

- A. Contractor shall develop a progress schedule and submit to the Engineer for review and comment before starting Work on the Site. The Contractor shall modify the schedule in accordance with the comments provided by the Engineer.
- B. The Contractor shall update and submit the progress schedule to the Engineer each month. The Owner may withhold payment if the Contractor fails to submit the schedule.

ARTICLE 5 - CONTRACT PRICE

5.01 Payment

- A. Owner shall pay Contractor in accordance with the Contract Documents, the lump sum amount of \$_____ for all Work.

ARTICLE 6 - BONDS AND INSURANCE

6.01 Bonds

- A. Before starting Work, Contractor shall furnish a performance bond and a payment bond from surety companies that are duly licensed or authorized to issue bonds in the required amounts in the jurisdiction in which the Project is located. Each bond shall be in an amount equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until the completion of the correction period specified in Paragraph 7.12 but, in any case, not less than one year after the date when final payment becomes due.

6.02 Insurance

- A. Before starting Work, Contractor shall furnish evidence of insurance from companies that are duly licensed or authorized in the jurisdiction in which the Project is located with a

minimum AM Best rating of A-VII or better. Contractor shall provide insurance in accordance with the following:

1. Contractor shall provide coverage for not less than the following amounts, or greater where required by Laws and Regulations:

- a. Workers' Compensation:

State:	<u>Statutory</u>
Employer's Liability:	
Bodily Injury, each Accident	\$ <u>1,000,000</u>
Bodily Injury By Disease, each Employee	\$ <u>1,000,000</u>
Bodily Injury/Disease Aggregate	\$ <u>1,000,000</u>

- b. Commercial General Liability:

General Aggregate	\$ <u>1,000,000</u>
Each Occurrence (Bodily Injury and Property Damage)	\$ <u>1,000,000</u>

- B. All insurance policies required to be purchased and maintained will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the insured and additional insured.
- C. Automobile liability insurance provided by Contractor shall provide coverage against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- D. Contractor's commercial general liability policy shall be written on a 1996 or later ISO commercial general liability occurrence form and include the following coverages and endorsements:
 1. Products and completed operations coverage maintained for three years after final payment;
 2. Blanket contractual liability coverage to the extent permitted by law;
 3. Broad form property damage coverage; and
 4. Severability of interest; underground, explosion, and collapse coverage; personal injury coverage.
- E. The Contractor's commercial general liability and automobile liability, umbrella or excess, and pollution liability policies shall include and list Owner and Engineer and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each as additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis.
 1. Additional insured endorsements will include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG

20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.

2. Contractor shall provide ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent for design professional additional insureds.
- F. Umbrella or excess liability insurance shall be written over the underlying employer's liability, commercial general liability, and automobile liability insurance. Subject to industry-standard exclusions, the coverage afforded shall be procured on a "follow the form" basis as to each of the underlying policies. Contractor may demonstrate to Owner that Contractor has met the combined limits of insurance (underlying policy plus applicable umbrella) specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policies and an umbrella or excess liability policy.
- G. The Contractor shall provide property insurance covering physical loss or damage during construction to structures, materials, fixtures, and equipment, including those materials, fixtures, or equipment in storage or transit.
- H. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 15.

ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES

7.01 Supervision and Superintendence

- A. Contractor shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, safety, and procedures of construction.
- B. Contractor shall assign a competent resident superintendent who is to be present at all times during the execution of the Work. This resident superintendent shall not be replaced without written notice to and approval by the Owner and Engineer except under extraordinary circumstances.
- C. Contractor shall at all times maintain good discipline and order at the Site.
- D. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday.

7.02 Other Work at the Site

- A. In addition to and apart from the Work of the Contractor, other work may occur at or adjacent to the Site. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.

7.03 Services, Materials, and Equipment

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be new, of good quality and shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable supplier, except as otherwise may be provided in the Contract Documents.

7.04 Subcontractors and Suppliers

- A. Contractor may retain subcontractors and suppliers for the performance of parts of the Work. Such subcontractors and suppliers must be acceptable to Owner.

7.05 Quality Management

- A. Contractor is fully responsible for the managing quality to ensure Work is completed in accordance with the Contract Documents.

7.06 Licenses, Fees and Permits

- A. Contractor shall pay all license fees and royalties and assume all costs incident to performing the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others.
- B. Contractor shall obtain and pay for all construction permits and licenses unless otherwise provided in the Contract Documents.

7.07 Laws and Regulations; Taxes

- A. Contractor shall give all notices required by and shall comply with all local, state, and federal Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages if Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations.
- C. Contractor shall pay all applicable sales, consumer, use, and other similar taxes Contractor is required to pay in accordance with Laws and Regulations.

7.08 Record Documents

- A. Contractor shall maintain one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved shop drawings in a safe place at the Site. Contractor shall annotate them to show changes made during construction. Contractor shall deliver these record documents to Engineer upon completion of the Work.

7.09 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work.
- B. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. All persons on the Site or who may be affected by the Work;
 - 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.
- C. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, or anyone for whose acts the Contractor may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Contract Documents or to the acts or omissions of Owner or Engineer and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor).
- D. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.
- E. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor shall act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.10 Shop Drawings, Samples, and Other Submittals

- A. Contractor shall review and coordinate the shop drawing and samples with the requirements of the Work and the Contract Documents and shall verify all related field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information.
- B. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
- C. With each submittal, Contractor shall give Engineer specific written notice, in a communication separate from the submittal, of any variations that the shop drawing or sample may have from the requirements of the Contract Documents.
- D. Engineer will provide timely review of shop drawings and samples.
- E. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs.

- F. Engineer's review and approval of a separate item does not indicate approval of the assembly in which the item functions.
- G. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of shop drawings and submit, as required, new samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
- H. Shop drawings are not Contract Documents.

7.11 Warranties and Guarantees

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

7.12 Correction Period

- A. If within one year after the date of substantial completion, any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly and without cost to Owner, correct such defective Work.

7.13 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any subcontractor, any supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts they may be liable.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 Owner's Responsibilities

- A. Except as otherwise provided in the Contract Documents, Owner shall issue all communications to Contractor through Engineer.
- B. Owner shall make payments to Contractor as provided in this Contract.
- C. Owner shall provide Site and easements required to construct the Project.
- D. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, unless stated elsewhere in the Contract Documents, Owner shall have sole authority and responsibility for such coordination.

- E. The Owner shall be responsible for performing inspections and tests required by applicable codes.
- F. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- G. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- H. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 Engineer's Status

- A. Engineer will be Owner's representative during construction. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in this Contract.
- B. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any subcontractor, any supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- C. Engineer will make visits to the Site at intervals appropriate to the various stages of construction. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work.
- D. Engineer has the authority to reject Work if Contractor fails to perform Work in accordance with the Contract Documents.
- E. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work.
- F. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

ARTICLE 10 - CHANGES IN THE WORK

10.01 Authority to Change the Work

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work.

10.02 Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in the Work which are: (a) ordered by Owner or (b) agreed to by the parties or (c) resulting from the Engineer's decision, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 - 3. Changes in the Contract Price or Contract Times or other changes which embody the substance of any final binding results under Article 12.
- B. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 11 - DIFFERING SUBSURFACE OR PHYSICAL CONDITIONS

11.01 Differing Conditions Process

- A. If Contractor believes that any subsurface or physical condition including but not limited to utilities or other underground facilities that are uncovered or revealed at the Site either differs materially from that shown or indicated in the Contract Documents or is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.
- B. After receipt of written notice, Engineer will promptly:
 - 1. Review the subsurface or physical condition in question;
 - 2. Determine necessity for Owner obtaining additional exploration or tests with respect to the condition;
 - 3. Determine whether the condition falls within the differing site condition as stated herein;
 - 4. Obtain any pertinent cost or schedule information from Contractor;
 - 5. Prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and
 - 6. Advise Owner in writing of Engineer's findings, conclusions, and recommendations.

- C. After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

ARTICLE 12 - CLAIMS AND DISPUTE RESOLUTION

12.01 Claims Process

- A. The party submitting a claim shall deliver it directly to the other party to the Contract and the Engineer promptly (but in no event later than 10 days) after the start of the event giving rise thereto.
- B. The party receiving a claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the claim through the exchange of information and direct negotiations. All actions taken on a claim shall be stated in writing and submitted to the other party.
- C. If efforts to resolve a claim are not successful, the party receiving the claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the claim within 45 days, the claim is deemed denied.
- D. If the dispute is not resolved to the satisfaction of the parties, Owner or Contractor shall give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction unless the Owner and Contractor both agree to an alternative dispute resolution process.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION OF DEFECTIVE WORK

13.01 Tests and Inspections

- A. Owner and Engineer will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access.
- B. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- C. If any Work that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense.

13.02 Defective Work

- A. Contractor shall ensure that the Work is not defective.
- B. Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. The Contractor shall promptly correct all such defective Work.

- E. When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. If the Work is defective or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

ARTICLE 14 - PAYMENTS TO CONTRACTOR

14.01 Progress Payments

- A. The Contractor shall prepare a schedule of values that will serve as the basis for progress payments. The schedule of values will be in a form of application for payment acceptable to Engineer. The unit price breakdown submitted with the bid will be used for unit price work. Break lump sum items into units that will allow for measurement of Work in progress.

14.02 Applications for Payments:

- A. Contractor shall submit an application for payment in a form acceptable to the Engineer, no more frequently than monthly, to Engineer. Applications for payment will be prepared and signed by Contractor. Contractor shall provide supporting documentation required by the Contract Documents. Payment will be paid for Work completed as of the date of the application for payment.
- B. Beginning with the second application for payment, each application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior applications for payment.

14.03 Retainage

- A. The Owner shall retain **0.0%** of each progress payment until the Work is substantially complete.

14.04 Review of Applications

- A. Within 10 days after receipt of each application for payment, the Engineer will either indicate in writing a recommendation for payment and present the application for payment to Owner or return the application for payment to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. The Contractor will make the necessary corrections and resubmit the application for payment.
- B. Engineer will recommend reductions in payment (set-offs) which, in the opinion of the Engineer, are necessary to protect Owner from loss because the Work is defective and requires correction or replacement.
- C. The Owner is entitled to impose set-offs against payment based on any claims that have been made against Owner on account of Contractor's conduct in the performance of the Work, incurred costs, losses, or damages on account of Contractor's conduct in the performance of the Work, or liquidated damages that have accrued as a result of Contractor's failure to complete the Work.

14.05 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

14.06 Substantial Completion

- A. The Contractor shall notify Owner and Engineer in writing that the Work is substantially complete and request the Engineer issue a certificate of substantial completion when Contractor considers the Work ready for its intended use. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Engineer will make an inspection of the Work with the Owner and Contractor to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor and Owner in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete or upon resolution of all reasons for non-issuance of a certificate identified in 14.06.B, Engineer will deliver to Owner a certificate of substantial completion which shall fix the date of substantial completion and include a punch list of items to be completed or corrected before final payment.

14.07 Final Inspection

- A. Upon written notice from Contractor that the entire Work is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.08 Final Payment

- A. Contractor may make application for final payment after Contractor has satisfactorily completed all Work defined in the Contract, including providing all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents and other documents.
- B. The final application for payment shall be accompanied (except as previously delivered) by:
 - 1. All documentation called for in the Contract Documents;
 - 2. Consent of the surety to final payment;
 - 3. Satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any liens or other title defects, or will so pass upon final payment;
 - 4. A list of all disputes that Contractor believes are unsettled; and
 - 5. Complete and legally effective releases or waivers (satisfactory to Owner) of all lien rights arising out of the Work, and of liens filed in connection with the Work.
- C. The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

14.09 Waiver of Claims

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 60 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension.

15.02 Owner May Terminate for Cause

- A. Contractor's failure to perform the Work in accordance with the Contract Documents or other failure to comply with a material term of the Contract Documents will constitute a default by Contractor and justify termination for cause.
- B. If Contractor defaults in its obligations, then after giving Contractor and any surety ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. Declare Contractor to be in default, and give Contractor and any surety notice that the Contract is terminated; and
 - 2. Enforce the rights available to Owner under any applicable performance bond.
- C. Owner may not proceed with termination of the Contract under Paragraph 15.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- D. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- E. In the case of a termination for cause, if the cost to complete the Work, including related claims, costs, losses, and damages, exceeds the unpaid contract balance, Contractor shall pay the difference to Owner.

15.03 Owner May Terminate for Convenience

- A. Upon seven days written notice to Contractor, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for, without duplication of any items:
 - 1. Completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. Other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner, and provided Owner does not remedy such suspension or failure within that time, either stop the Work until payment is received, or terminate the Contract and recover payment from the Owner.

ARTICLE 16 - CONTRACTOR'S REPRESENTATIONS

16.01 Contractor Representations

- A. Contractor makes the following representations when entering into this Contract:
 - 1. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - 2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - 3. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - 4. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on:
 - a. The cost, progress, and performance of the Work;
 - b. The means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and

- c. Contractor's safety precautions and programs.
- 5. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- 6. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- 7. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- 8. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- 9. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that, without exception, all prices in the Contract are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 17 - MISCELLANEOUS

17.01 Cumulative Remedies

- A. The duties and obligations imposed by this Contract and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.02 Limitation of Damages

- A. Neither Owner, Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

17.03 No Waiver

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

17.04 Survival of Obligations

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract.

17.06 Controlling Law

- A. This Contract is to be governed by the law of the state in which the Project is located.

IN WITNESS WHEREOF, Owner and Contractor have signed this Contract.

This Contract will be effective on _____ (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

By: _____

By: _____

Title: _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

License No.: _____
(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Contract.)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

**ASBESTOS AND POTENTIALLY HAZARDOUS MATERIALS ASSESSMENT
FOR**

**15774 PINE STREET
HILLMAN, MICHIGAN**

Prepared for:

**Huron Engineering & Surveying
3205 US-23 South
Alpena, MI 49707**

Prepared by:

**Environmental & Asbestos Services, Inc.
3343 US-23 South
Alpena, Michigan 49707**

December 12, 2023

Project No. EAS2023-028

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Figure 2	Sample Location Diagram

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Table 1	Homogeneous Area Summary
Table 2	Potentially Hazardous Material/ Universal Waste Summary
Table 3	Crawl Space Inspection Summary

APPENDICES

Appendix A	SanAir Technologies Laboratories Analysis Reports
	Raymond Brege Inspector Certification
	Richard Brege Inspector Certification
Appendix B	Hazardous Materials Disposal and Handling Information

**ASBESTOS BUILDING INSPECTION
AND POTENTIALLY HAZARDOUS MATERIALS ASSESSMENT
15774 PINE STREET, HILLMAN, MICHIGAN**

1.0 INTRODUCTION

Environmental & Asbestos Services, Inc. (EAS) was contracted to perform an Asbestos Building Inspection and Potentially Hazardous Materials Assessment of the above referenced site. The asbestos building inspection was conducted in accordance with accepted industry practices in order to meet the requirements under the OSHA 29 CFR 1910.1001 "Asbestos Standard for General Industry", OSHA 29 CFR 1910.1101 "Asbestos Standard for Construction" and National Emissions Standard for Hazardous Air Pollutants (NESHAP) for identification of asbestos containing materials prior to renovation and demolition activities. These practices included the protocols and guidelines described below that are generally based on the Asbestos Hazard Emergency Response Act (AHERA) standards for asbestos building surveys.

2.0 ASBESTOS BUILDING INSPECTION

The objective of the Asbestos Building Inspection is to determine the extent and location of asbestos containing material (ACM) present in the survey area. The purpose of the asbestos building inspection is to identify regulated asbestos containing material (RACM) in order to meet the requirements for NESHAP and to determine the location and estimate the quantity of all ACM for worker protection under the OSHA Standards. The asbestos inspection was completed on November 21, and 22, 2023 by Raymond Brege, State of Michigan Accredited Asbestos Inspector-Accreditation Number A52433 and Richard Brege, State of Michigan Accredited Asbestos Inspector-Accreditation Number A4112. See Appendix A for a copy of the inspector certifications.

The building is currently a vacant residence. The inspection was completed as part of a Blight Elimination Program, prior the planned demolition of the building. The survey area included the interior and exterior of an approximately 800 square foot one story building with an attic and crawlspace. The building was constructed at an unknown date. See Figure 1 for a diagram showing the location of the property. Figure 2 is a sketch of the building featuring the sample locations that was prepared based on observations made of the accessible areas during the inspection.

2.1 ASBESTOS BULK SAMPLING PROTOCOL

The survey is qualitative and quantitative in that it attempts to locate friable and non-friable suspect ACM, as well as estimate the amount of such ACM throughout the survey area. *Suspect asbestos containing material that is discovered in areas that were inaccessible or concealed during the course of this investigation must be assumed asbestos containing, unless the material is tested to determine its asbestos content.* Destructive sampling to gain access to suspect ACM was conducted as part of this assessment to the extent practical within the scope.

2.1.1 Homogeneous Areas

A homogeneous area is defined as an application of suspect ACM which appears uniform throughout the building in color, texture, and apparent or known date of installation. Suspect ACMs are placed into one of the three homogeneous area categories for surfacing materials (SM), thermal system insulation (TSI) and miscellaneous materials (MM). The number of bulk samples collected and tested for asbestos from each homogeneous area followed standard industry practices and protocols. Figure 2 identifies the number and location of the asbestos bulk samples collected from the building.

The inspection identified twenty (20) distinct homogeneous areas of suspect building materials. The attached Table 1-Homogeneous Area Summary lists the type of homogeneous areas, description of the material, locations, and laboratory findings as to whether the material does or does not contain asbestos. Asbestos containing material (ACM) is defined as any material which contains more than 1% asbestos.

2.1.2 Crawl Space Inspection

EAS inspected the crawl space below the building to determine if any suspect materials were present. The inspector accessed the crawl space through an entrance on the south side of the building, however because of the deteriorated condition of the structure creating a hazardous condition to enter, the inspector only had limited access to the space. Therefore, the inspector remotely operated a camera with an extension to document the conditions and materials within the crawl space. A yellow fiberglass insulation was observed on what appeared to be water lines, however, no other suspect materials were observed. No suspect debris or pipe insulation was observed on the dirt floor of the crawl space. See Table 3 for photograph documentation of the crawl space inspection.

2.2 LABORATORY RESULTS OF BULK SAMPLE ANALYSES

Representative samples were collected of each homogeneous area and submitted to SanAir Technologies Laboratory for polarized light microscopy (PLM) analysis of bulk material by EPA 600/R-93/116. SanAir is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for the analysis of asbestos in bulk samples using PLM. (NVLAP Lab Code 101048-4). The analysis reports and chain of custody records are attached in Appendix A. The sample locations are identified on Figure 2 and sample descriptions are included in the attached Table 1.

PLM laboratory testing did not detect asbestos in any of the samples submitted for analysis.

2.3 PRESUMED ASBESTOS CONTAINING MATERIALS (PACM)

The OSHA Construction Asbestos Standards define PACM as thermal system insulation (TSI) and surfacing material found in a building constructed no later than 1980. OSHA requires that building owners identify PACM in their buildings and treat the PACM as ACM until the materials are proven not to contain asbestos.

There is no known untested TSI or SM present in the accessible portions of the building. If suspect building material that meets the definition of PACM is encountered during demolition activities, it should be treated as asbestos containing until testing determines otherwise.

3.0 POTENTIALLY HAZARDOUS MATERIALS INSPECTION

The objective of the Hazardous Material Inspection is to identify appliances, switches, containers, and other equipment that may contain refrigerants, mercury, polychlorinated biphenyls (PCBs), petroleum products, and/or other hazardous materials. These materials should be properly disposed of in accordance with all Federal, State, and Local regulations and requirements prior to demolition. In addition, the disposal facility should be contacted regarding any other waste materials that may be regulated and require special disposal protocols or that are prohibited by the landfill, such as liquids in containers. Certain appliances, including but not limited to refrigerators, freezers, and air conditions, require that the refrigerant be removed by a technician prior to disposal. Other appliances and furnaces should be inspected by a qualified contractor or electrician to determine if they contain mercury switches; and/or have the appliances removed and properly recycled prior to demolition. Table 2 provides a list and photographs of the appliances and other potentially hazardous materials identified during the inspection.

3.1 IDENTIFICATION OF POTENTIALLY HAZARDOUS MATERIAL

A visual inspection within the building was conducted for any potentially hazardous materials on November 21 and 22, 2023. No fluorescent light bulbs and light ballasts were observed in the building.

- One refrigerator and one air conditioner were observed in the building. These should be removed prior to demolition and any refrigerant properly recovered prior to recycling.

- One thermostat that appeared to contain a mercury switch was observed. One oven and a wall furnace that may contain mercury containing gauges and/or switches were also present.
- Several containers of liquids including bleach, ammonia, and other cleaners were located in the building. Containers with free liquids should be removed and taken to a recycling center prior to demolition.

Copies of an EPA guidance document on disposal of universal waste is provided in Appendix B.

4.0 SUMMARY AND CONCLUSIONS

Based on the findings of the inspections and the results of the sample analysis performed at the 15774 Pine St., Hillman, Michigan, the following conclusions were drawn.

Asbestos

Laboratory testing did not detect any asbestos in the samples collected during the asbestos survey. Therefore, no ACMs or RACM were identified in the sampled homogeneous areas collected from the above referenced site. No suspect materials were identified in the crawl space of the building.

Hazardous Materials

Several potentially hazardous materials were identified during the inspection of the subject building. These included a refrigerator, air conditions, thermoset, other appliances, and potentially hazardous liquids listed on Table 2. It is recommended that a qualified contractor remove and dispose of any hazardous or universal waste at a licensed facility prior to demolition.

5.0 ASBESTOS REGULATORY REQUIREMENTS

Federal and State regulations require notification to be submitted 10 days prior to renovation or demolition activities. Other Federal, State and Local regulations may apply. NESHAP guidance documents regarding proper notification and handling of RACM and Category I or II material are listed below.

Demolition Practices under Asbestos NESHAP, Environmental Protection Agency (EPA)
Asbestos/NESHAP Regulated Asbestos Containing Materials Guidance, EPA
Asbestos NESHAP Guidelines, Michigan Department of Environmental Quality

Additionally, MIOSHA program regulates worker protection with regards to asbestos including renovation and demolition projects. The primary function of the program is to assure that the people working with asbestos are properly trained and the individuals performing asbestos removal comply with rules governing the work activity. These rules are designed to protect not only the individual employee performing asbestos abatement work, but also the general public that occupy the area or building in which the work occurs. All workers that are involved in the removal of asbestos must be properly trained and certified in accordance with the following regulations.

Asbestos Worker Accreditation Act - Act 440 of 1988, as amended.

Asbestos Abatement Contractors Licensing Act - Act 135 of 1986, as amended

Michigan Occupational Safety and Health Act - Act 154 of 1974, as amended

Asbestos Construction Standard, Part 602/29 CFR 1926.1101

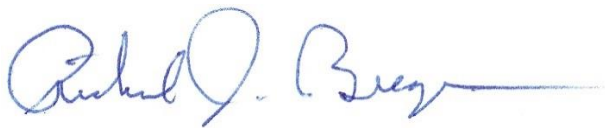
6.0 LIMITATIONS

Project design, asbestos abatement specifications and/or air monitoring services were not included in Environmental & Asbestos Services, Inc. scope of services. Since project design services are not a part of this survey, our assessment provides the material condition, location and approximate quantity and assumes that proper handling of the asbestos containing materials will occur during the demolition/renovation project in accordance with the applicable regulations. It is the sole responsibility of the owner to contract properly trained and certified personnel to remove (and if asbestos is to be left in place) to complete the demolition/renovation activities in accordance with the above regulations. Please note that while no underground storage tanks (USTs) were observed during the hazardous materials assessment, there is no guarantees that USTs are not currently or historically been located on the property.

If you have any questions, please contact me at 989-356-8764.

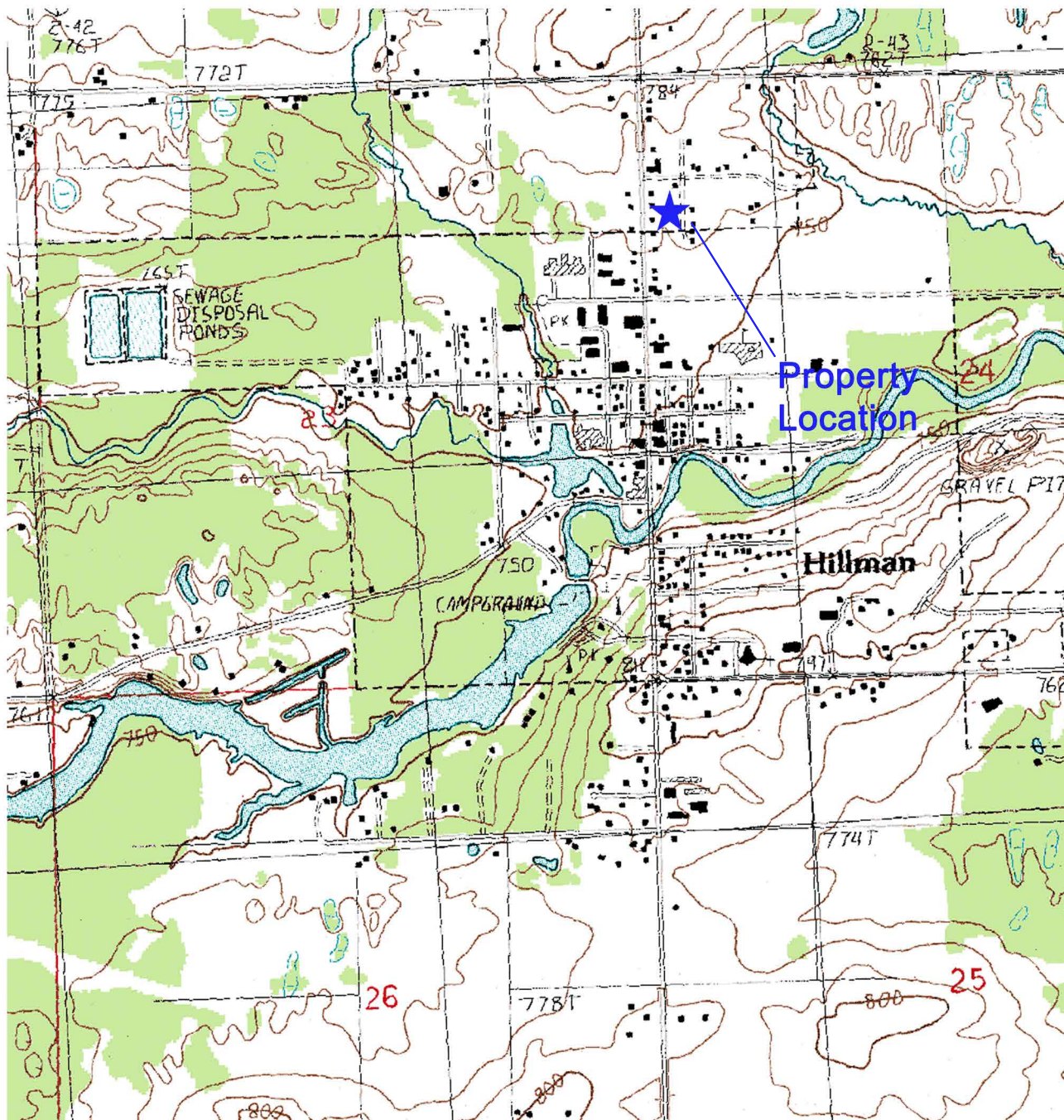
Sincerely,

Environmental & Asbestos Services, Inc.

A handwritten signature in blue ink, appearing to read "Richard J. Brege", with a long horizontal flourish extending to the right.

Richard J. Brege, PG
Asbestos Inspector/Project Manager

FIGURES



↑
N

No Scale

Client: Huron Engineering and Surveying

Site: Residence

EAS2023-028

Location: 15774 Pine St., Hillman, MI

DRN: RJB

CHK: RJB

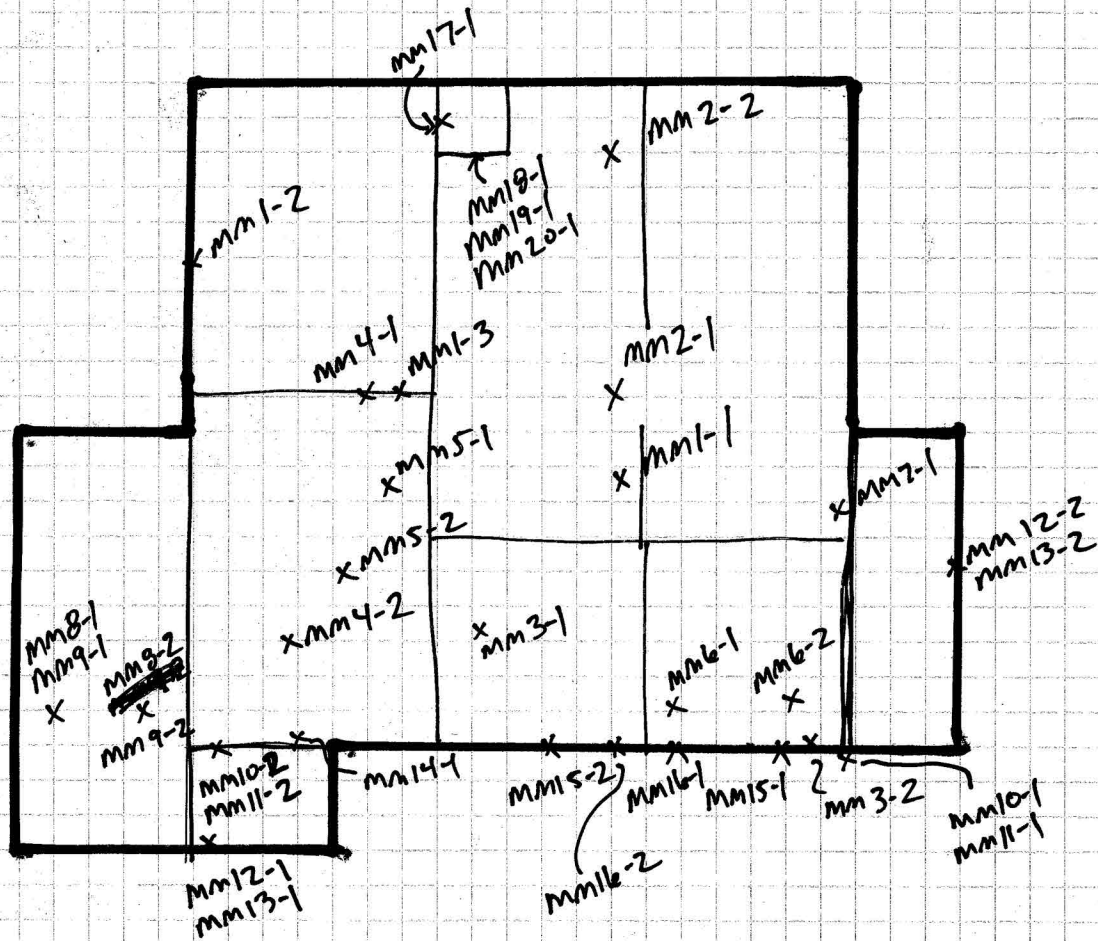
12/3/2023

ENVIRONMENTAL
& ASBESTOS
SERVICES, INC.

P.O. Box 6
Alpena, MI 49707
Telephone (989) 356-8764

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X - Sample Location



No Scale

Client: Huron Engineering and Surveying

Site: Residence

EAS2023-028

Location: 15774 Pine St., Hillman, MI

DRN: RJB

CHK: RJB

12/3/2023

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TABLES

Table 1	Homogeneous Area Summary
Table 2	Potentially Hazardous Material/ Universal Waste Summary
Table 3	Crawl Space Inspection Summary



Date: 12/1/2023


Building Name/Address: 15774 Pine St., Hillman, MI





Project Number: EAS2023-028





Inspectors: Richard Brege (Accreditation Number A4112), Raymond Brege (Accreditation Number A52433)





Table 1
Homogeneous Area Summary


Photograph	Homogeneous Area Number	Sample Description Condition/Total Quantities ACM	Asbestos Containing? Friable/Non- friable
	15774-MM1	Drywall	No
	15774-MM2	White Clip-On Ceiling Tile- Living Room	No

	15774-MM3	Drywall Tape and Mud	No
	15774-MM4	Troweled Ceiling Plaster- Kitchen	No
	15774-MM5	Wood Design Floor Tile- Kitchen	No
	15774-MM6	White and Tan Bathroom Linoleum	No

	15774-MM7	Carpet Mastic	No
	15774-MM8	Yellow and Brown Linoleum	No
	15774-MM9	Moisture Barrier Below MM8	No
	15774-MM10	Exterior White and Green Siding	No

	15774-MM11	Moisture Barrier Below MM10	No
	15774-MM12	Roof Shingles	No
	15774-MM13	Moisture Barrier-Roof	No
	15774-MM14	Yellow Insulation	No

	15774-MM15	Window Glazing	No
	15774-MM16	Exterior Siding Caulk	No
	15774-MM17	Chimney Brick	No
	15774-MM18	Chimney Mortar	No

	15774-MM19	Chimney Grout	No
No Image	15774-MM20	Chimney Flue	No

Notes

-PLM Analysis- (All Samples Submitted) EPA 600/R-93/116 Method using Polarized Light Microscopy

-NA- Not Available

Note: OSHA and MIOSHA standards regulating worker protection includes materials containing any amount of asbestos.



Date: 12/1/2023





Building Name/Address: 15774 Pine St., Hillman, MI


Project Number: EAS2023-028

Inspectors: Richard Brege (Accreditation Number A4112), Raymond Brege (Accreditation Number A52433)

Table 2
Potentially Hazardous Material (HM)/Universal Waste (UW) Summary

Photograph	Material Description	Approximate Quantities	Location
	Various Containers/ Paints, Bleach, Ammonia liquids	8 Units	Living Room
	Various Containers/ Bleach, Cleaners, Medications Water Heater	4 Units 1 Unit	Bathroom

	Refrigerator/ Refrigerant	1 Unit	Kitchen
	Air Conditioner/ Refrigerant	1 Unit	Bedroom
	Thermostat/Mercury switch	1 unit	Living room
	Possible Electrical Mercury Containing Switch Appliances	Stove-1unit	Kitchen

			Wall Furnace- 1 unit	Living Room
-----------------------------------------------------------------------------------	--	--	-------------------------	----------------

**ENVIRONMENTAL
& ASBESTOS
SERVICES, INC**



Date: 12/1/2023

Building Name/Address: 15774 Pine St., Hillman, MI

Project Number: EAS2023-028

Inspectors: Richard Brege (Accreditation Number A4112), Raymond Brege (A52433)

Table 3
Crawl Space Inspection Summary

Photograph	Description
	Looking west from the entrance, a yellow fiberglass insulation wrap and PVC pipe in the background. No suspect materials were observed.
	Looking north from the entrance, no suspect materials observed.



Looking east from the entrance, several
PVC lines observed and no suspect
materials identified.

APPENDIX A
LABORATORY REPORTS AND CHAIN OF CUSTODY
INSPECTOR CERTIFICATION



The Identification Specialists

Analysis Report
prepared for
Environmental & Asbestos Services, Inc

Report Date: 11/30/2023

Project Name: 15774 Pine St., Hillman, MI

Project #: EAS2023-028

SanAir ID#: 23065357



NVLAP LAB CODE 200870-0

10501 Trade Court | North Chesterfield, Virginia 23236
888.895.1177 | 804.897.1177 | fax: 804.897.0070 | IAQ@SanAir.com | SanAir.com



SanAir ID Number

23065357

FINAL REPORT

11/30/2023 10:33:21 AM

Name: Environmental & Asbestos Services, Inc
Address: 3343 US-23 South
Alpena, MI 49707
Phone: 989-356-8764

Project Number: EAS2023-028
P.O. Number:
Project Name: 15774 Pine St., Hillman, MI
Collected Date: 11/21/2023 - 11/22/2023
Received Date: 11/28/2023 10:15:00 AM

Dear Rich Brege,

We at SanAir would like to thank you for the work you recently submitted. The 35 sample(s) were received on Tuesday, November 28, 2023 via UPS. The final report(s) is enclosed for the following sample(s): 15774 -MM1-1, 15774 -MM1-2, 15774 -MM1-3, 15774 -MM2-1, 15774 -MM2-2, 15774 -MM3-1, 15774 -MM3-2, 15774 -MM4-1, 15774 -MM4-2, 15774 -MM5-1, 15774 -MM5-2, 15774 -MM6-1, 15774 -MM6-2, 15774 -MM7-1, 15774 -MM8-1, 15774 -MM8-2, 15774 -MM9-1, 15774 -MM9-2, 15774 -MM10-1, 15774 -MM10-2, 15774 -MM11-1, 15774 -MM11-2, 15774 -MM12-1, 15774 -MM12-2, 15774 -MM13-1, 15774 -MM13-2, 15774 -MM14-1, 15774 -MM15-1, 15774 -MM15-2, 15774 -MM16-1, 15774 -MM16-2, 15774 -MM17-1, 15774 -MM18-1, 15774 -MM19-1, 15774 -MM20-1.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

A handwritten signature in black ink that reads "Sandra Sobrino". The signature is written in a cursive, flowing style.

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:

- 35 samples in Good condition.



SanAir ID Number
23065357
FINAL REPORT
11/30/2023 10:33:21 AM

Name: Environmental & Asbestos Services, Inc
Address: 3343 US-23 South
Alpena, MI 49707
Phone: 989-356-8764

Project Number: EAS2023-028
P.O. Number:
Project Name: 15774 Pine St., Hillman, MI
Collected Date: 11/21/2023 - 11/22/2023
Received Date: 11/28/2023 10:15:00 AM

Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
15774 -MM1-1 / 23065357-001 Drywall	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected
15774 -MM1-2 / 23065357-002 Drywall	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected
15774 -MM1-3 / 23065357-003 Drywall, Drywall	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected
15774 -MM1-3 / 23065357-003 Drywall, Texture	White Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM2-1 / 23065357-004 Clip-On CT- Living Room	Tan Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
15774 -MM2-2 / 23065357-005 Clip-On CT- Living Room	Tan Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
15774 -MM3-1 / 23065357-006 Drywall Tape And Mud, Drywall	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected
15774 -MM3-1 / 23065357-006 Drywall Tape And Mud, Tape	White Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
15774 -MM3-1 / 23065357-006 Drywall Tape And Mud, Mud	White Non-Fibrous Heterogeneous		100% Other	None Detected
15774 -MM3-2 / 23065357-007 Drywall Tape And Mud, Drywall	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected

Analyst:

Approved Signatory:

Analysis Date: 11/30/2023

Date: 11/30/2023



SanAir ID Number
23065357
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Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
15774 -MM3-2 / 23065357-007 Drywall Tape And Mud, Tape	White Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
15774 -MM3-2 / 23065357-007 Drywall Tape And Mud, Mud	White Non-Fibrous Heterogeneous		100% Other	None Detected
15774 -MM4-1 / 23065357-008 Troweled Ceiling Plaster- Kitchen	White Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM4-2 / 23065357-009 Troweled Ceiling Plaster- Kitchen	White Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM5-1 / 23065357-010 Wood Design FT- Kitchen, Tile	Brown Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM5-1 / 23065357-010 Wood Design FT- Kitchen, Mastic	Various Non-Fibrous Heterogeneous		100% Other	None Detected
15774 -MM5-2 / 23065357-011 Wood Design FT- Kitchen, Tile	Brown Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM5-2 / 23065357-011 Wood Design FT- Kitchen, Mastic	Various Non-Fibrous Heterogeneous		100% Other	None Detected
15774 -MM6-1 / 23065357-012 Bathroom Linoleum, Linoleum	White Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM6-1 / 23065357-012 Bathroom Linoleum, Mastic	Yellow Non-Fibrous Homogeneous		100% Other	None Detected

Analyst: 

Approved Signatory: 

Analysis Date: 11/30/2023

Date: 11/30/2023



SanAir ID Number
23065357
FINAL REPORT
11/30/2023 10:33:21 AM

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Project Number: EAS2023-028
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Project Name: 15774 Pine St., Hillman, MI
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Received Date: 11/28/2023 10:15:00 AM

Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
15774 -MM6-2 / 23065357-013 Bathroom Linoleum, Linoleum	White Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM6-2 / 23065357-013 Bathroom Linoleum, Mastic	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM7-1 / 23065357-014 Carpet Mastic	Yellow Non-Fibrous Heterogeneous		100% Other	None Detected
15774 -MM8-1 / 23065357-015 Linoleum	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM8-2 / 23065357-016 Linoleum	Yellow Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM9-1 / 23065357-017 Moisture Barrier Below MM8	Tan Fibrous Heterogeneous	60% Cellulose	40% Other	None Detected
15774 -MM9-2 / 23065357-018 Moisture Barrier Below MM8	Tan Fibrous Heterogeneous	60% Cellulose	40% Other	None Detected
15774 -MM10-1 / 23065357-019 Exterior Siding	Various Non-Fibrous Heterogeneous	20% Cellulose	80% Other	None Detected
15774 -MM10-2 / 23065357-020 Exterior Siding	Various Non-Fibrous Heterogeneous	20% Cellulose	80% Other	None Detected
15774 -MM11-1 / 23065357-021 Moisture Barrier Below MM10	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected

Analyst: 

Approved Signatory: 

Analysis Date: 11/30/2023

Date: 11/30/2023



SanAir ID Number
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11/30/2023 10:33:21 AM

Name: Environmental & Asbestos Services, Inc
Address: 3343 US-23 South
Alpena, MI 49707
Phone: 989-356-8764

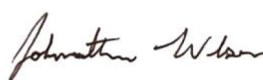
Project Number: EAS2023-028
P.O. Number:
Project Name: 15774 Pine St., Hillman, MI
Collected Date: 11/21/2023 - 11/22/2023
Received Date: 11/28/2023 10:15:00 AM

Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
15774 -MM11-2 / 23065357-022 Moisture Barrier Below MM10	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
15774 -MM12-1 / 23065357-023 Roof Shingles, Shingle	Grey Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
15774 -MM12-1 / 23065357-023 Roof Shingles, Shingle	Various Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
15774 -MM12-1 / 23065357-023 Roof Shingles, Shingle	Black Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
15774 -MM12-2 / 23065357-024 Roof Shingles, Shingle	Grey Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
15774 -MM12-2 / 23065357-024 Roof Shingles, Shingle	Various Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
15774 -MM12-2 / 23065357-024 Roof Shingles, Shingle	Black Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
15774 -MM13-1 / 23065357-025 Moisture Barrier - Roof	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
15774 -MM13-2 / 23065357-026 Moisture Barrier - Roof	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
15774 -MM14-1 / 23065357-027 Insulation, Insulation	Yellow Fibrous Homogeneous	95% Glass	5% Other	None Detected

Analyst: 

Approved Signatory: 

Analysis Date: 11/30/2023

Date: 11/30/2023



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Received Date: 11/28/2023 10:15:00 AM

Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
15774 -MM14-1 / 23065357-027 Insulation, Wrap	Various Fibrous Heterogeneous	80% Cellulose	20% Other	None Detected
15774 -MM15-1 / 23065357-028 Window Glazing	Grey Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM15-2 / 23065357-029 Window Glazing	Grey Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM16-1 / 23065357-030 Exterior Siding Caulk	White Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM16-2 / 23065357-031 Exterior Siding Caulk	White Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM17-1 / 23065357-032 Chimney Brick	Red Non-Fibrous Homogeneous		100% Other	None Detected
15774 -MM18-1 / 23065357-033 Chimney Mortar	Grey Non-Fibrous Heterogeneous		100% Other	None Detected
15774 -MM19-1 / 23065357-034 Chimney Grout	Grey Non-Fibrous Heterogeneous		100% Other	None Detected
15774 -MM20-1 / 23065357-035 Chimney Flue	Red Non-Fibrous Heterogeneous		100% Other	None Detected

Analyst:

Approved Signatory:

Analysis Date: 11/30/2023

Date: 11/30/2023

Disclaimer

This report is the sole property of the client named on the SanAir Technologies Laboratory chain-of-custody (COC). Results in the report are confidential information intended only for the use by the customer listed on the COC. Neither results nor reports will be discussed with or released to any third party without our client's written permission. The final report shall not be reproduced except in full without written approval of the laboratory to assure that parts of the report are not taken out of context. This report and any information contained within shall not be edited, altered, or modified in any way by any persons or agencies receiving, viewing, distributing, or otherwise possessing a copy of this final report. The laboratory reserves the right to perform amendments to any finalized report, of which shall supersede and make obsolete any previous editions. Such changes, modifications, additions, or deletions shall be effective immediately upon notice thereof, which may be given by means including but not limited to posting on the SanAir client portal website, electronic or conventional mail, or by any other means. The information provided in this report applies only to the samples submitted and is relevant only for the date, time, and location of sampling. The accuracy of the results is dependent upon the client's sampling procedure and information provided to the laboratory by the client on the COC. SanAir assumes no responsibility for the sampling procedure and will provide evaluation reports based solely on the sample(s) in the condition in which they arrived at the laboratory and information provided by the client on the COC, such as: project number, project name, collection dates, po number, special instructions, samples collected by, sample numbers, sample identifications, sample type, selected analysis type, flow rate, total volume or area, and start stop times that may affect the validity of the results in this report. Samples were received in good condition unless otherwise noted on the report. SanAir assumes no responsibility or liability for the manner in which the results are used or interpreted. This report does not constitute nor shall not be used by the client to claim product, process, system, or person certification, approval, or endorsement by NVLAP, NIST, NELAC, AIHA LAP, LLC or any other U.S. governmental agencies and may not be accredited by every local, state, and federal regulatory agencies. Samples are held for a period of 60 days. Fibers smaller than 5 microns cannot be seen with this method due to scope limitations. For NY state samples, method EPA 600/M4-82-020 is performed.

NYELAP Disclaimer:

Polarized- light microscopy is not consistently reliable in detecting asbestos in floor covering and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Asbestos Accreditations

National Voluntary Laboratory Accreditation Program (NVLAP) Lab Code 200870-0
City of Philadelphia Department of Public Health Air Management Services, Certification#ALL-460
Commonwealth of Pennsylvania Department of Environmental Protection Number 68-05397
California State Environmental Laboratory Accreditation Program Certificate Number 2915
Colorado Department of Public Health and Environment Registration Number AL-23143
Connecticut Department of Public Health Environmental Laboratory Registration Number PH-0105
Massachusetts Department of Labor Standards Asbestos Analytical Services License Number: AA000222
State of Maine Department of Environmental Protection License Number: LB-0075, LA-0084
New York State Department of Health Laboratory ID: 11983
State of Rhode Island Department of Health Certification No.: PCM00126, PLM00126, TEM00126
Texas Department of State Health Services License Number: 300440
Commonwealth of Virginia Department of Professional and Occupational Regulation Number: 3333000323
State of Washington Department of Ecology Laboratory ID: C989
State of West Virginia Bureau for Public Health Analytical Laboratory Number: LT000616
Vermont Department of Health License Number: Asb-Co-An-000006
Louisiana Department of Environmental Quality AI Number 212253, Certificate #05088



10501 Trade Ct., Suite 100
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804.897.1177 / 888.895.1177
Fax 804.897.0070
sanair.com

Asbestos
Chain of Custody
Form 140, Rev 7, 10/20/2022

SanAir ID Number

23065357

Company: Environmental & Asbestos Services		Project #: EAS2023-028		Collected by: Rich Brege	
Address: P.O. Box 6		Project Name: 15774 Pine St., Hillman, MI		Phone #: 989-356-8764	
City, St., Zip: Alpena, MI 49707		Date Collected: 11/21/2023, 11/22/2023		Fax #:	
State of Collection: MI Account#: 2801		P.O. Number:		Email: easllc@live.com	

Bulk			Air			Soil		
ABB	PLM EPA 600/R-93/116	<input checked="" type="checkbox"/>	ABA	PCM NIOSH 7400	<input type="checkbox"/>	ABSE	PLM EPA 600/R-93/116 (Qual.)	<input type="checkbox"/>
	Positive Stop	<input checked="" type="checkbox"/>	ABA-2	OSHA w/ TWA*	<input type="checkbox"/>	Vermiculite		
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>	ABTEM	TEM AHERA	<input type="checkbox"/>	ABB	PLM EPA 600/R-93/116	<input type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count	<input type="checkbox"/>	ABATN	TEM NIOSH 7402	<input type="checkbox"/>	ABEPA3	PLM EPA 400 Point Count	<input type="checkbox"/>
ABBEN	PLM EPA NOB**	<input type="checkbox"/>	ABT2	TEM Level II	<input type="checkbox"/>	ABCM	Cincinnati Method	<input type="checkbox"/>
ABBCH	TEM Chatfield**	<input type="checkbox"/>	Other:		<input type="checkbox"/>	Dust		
ABBTM	TEM EPA NOB**	<input type="checkbox"/>	New York ELAP			ABWA	TEM Wipe ASTM D-6480	<input type="checkbox"/>
ABQ	PLM Qualitative	<input type="checkbox"/>	ABEPA2	NY ELAP 198.1	<input type="checkbox"/>	ABDMV	TEM Microvac ASTM D-5755	<input type="checkbox"/>
			ABENY	NY ELAP 198.6 PLM NOB	<input type="checkbox"/>			
			ABBNY	NY ELAP 198.4 TEM NOB	<input type="checkbox"/>			
						Matrix	Other	<input type="checkbox"/>
Water								
ABHE	EPA 100.2	<input type="checkbox"/>	Positive Stop			<input type="checkbox"/>		

** Available on 24-hr. to 5-day TAT

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	1 Day <input type="checkbox"/>
	<input checked="" type="checkbox"/> 2 Days	<input type="checkbox"/> 3 Days	<input type="checkbox"/> 4 Days	<input type="checkbox"/> 5 Days

Special Instructions

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start - Stop Time*
15774 -MM1-1	Drywall				
15774 -MM1-2	Drywall				
15774 -MM1-3	Drywall				
15774 -MM2-1	White Clip-on CT- Living Room				
15774 -MM2-2	White Clip-on CT- Living Room				
15774 -MM3-1	Drywall Tape and Mud				
15774 -MM3-2	Drywall Tape and Mud				
15774 -MM4-1	Troweled Ceiling Plaster- Kitchen				
15774 -MM4-2	Troweled Ceiling Plaster- Kitchen				
15774 -MM5-1	Wood Design FT- Kitchen				
15774 -MM5-2	Wood Design FT- Kitchen				
15774 -MM6-1	White and Tan Bathroom Linoleum				

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	11/27/23	12:05 pm	UPS Store	11/27/23	12:05 pm
			EDR	11/28/23	10:15 am

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of \$150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

[illegible]

Special Instructions	
----------------------	--

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	11/27/23	12:05p	WPS Stone EDR	11/27/23 11/28/23	12:05p 10:15 a.m.

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of \$150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges. Page of 2 2

State of Michigan
Department of Labor and Economic Opportunity
Michigan Occupational Safety & Health Administration - Asbestos Program



Asbestos Inspector





Raymond J. Brege
1322 Andrea Street
Ypsilanti, MI 48198

Accreditation Number
A52433

Expiration Date
09/03/2024

DOB: 09/13/1988

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1988, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered.

166494

State of Michigan

Department of Labor and Economic Opportunity
Michigan Occupational Safety & Health Administration - Asbestos Program



Asbestos Inspector



Richard J. Brege

9970 West Long Lake Road
Alpena, MI 49707

Accreditation Number

A4112

Expiration Date

03/02/2024



DOB: 12/13/1962

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1989, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered.

162759

APPENDIX B
HAZARDOUS MATERIALS DISPOSAL AND HANDLING INFORMATION

UNIVERSAL WASTE

GUIDANCE

INTRODUCTION

The universal waste rules were designed to promote recycling and simplify disposal for certain types of commonly generated hazardous waste. The universal waste rules reduce the regulatory burden in managing certain types of hazardous wastes without compromising human health and environmental protections. When managing waste under the universal waste rules, a generator can presume the waste is a hazardous waste and manage it to meet all of the universal waste requirements.

UNIVERSAL WASTE DEFINITION

All facilities, including manufacturing industries, commercial businesses, governmental agencies, health care providers, administrative offices, and other non-household waste generators, are required to determine if they generate hazardous waste (see the [Waste Characterization](#) guidance). Michigan facilities may choose to handle the following hazardous waste types as universal waste under the streamlined universal waste standards:

- **Aerosol cans:** A container in which gas under pressure is used to aerate and dispense any material through a valve in the form of a spray or foam.
- **Antifreeze:** A mixture containing ethylene glycol or propylene glycol used as a heat transfer or dehydration fluid.
- **Batteries:** A device which consists of one or more electrically connected electrochemical cells and which is designed to receive, store, and deliver electric energy. This category includes hazardous waste batteries such as nickel-cadmium, spent lead-acid, and lithium batteries.
- **Consumer electronics:** A device containing an electronic circuit board, liquid crystal display, or plasma display which is commonly found in homes and offices and these devices when used in other settings.
- **Devices containing elemental mercury:** A device or part of a device (excluding batteries and lamps) that contains elemental mercury integral to its function. Some commonly recognized devices are thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches, such as light switches in automobiles.

- **Lamps:** The bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Lamps can exhibit the toxicity characteristic for some heavy metals (i.e., mercury, lead, cadmium). Examples of universal waste lamps include incandescent, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium and metal halide lamps.
- **Pesticides:** Certain suspended, canceled, or unused pesticides.
- **Pharmaceuticals:** Drugs for both human and veterinary use.

Universal waste has alternative management standards found in Rule 228 of the [Part 111 hazardous waste rules](#). Generators may elect to manage universal waste types following these standards instead of managing it as a fully regulated hazardous waste. The designation of consumer electronics, antifreeze, and pharmaceuticals as a universal waste type is unique to Michigan. Moreover, by February 22, 2022, EGLE is required to adopt new federal hazardous waste regulations for handling hazardous waste pharmaceuticals from healthcare and rescind the designation of pharmaceuticals as a universal waste type.

When households generate these types of wastes, they are not regulated in the same way unless the household waste is mixed with universal waste from a non-household. If mixed, the mixture must all be managed to meet the universal waste standards.

If generators choose not to handle these waste streams as universal waste, they need to manage them to meet the requirements that apply to their generator category. Those requirements vary depending on the weight of hazardous waste generated at the site each month. This information is used to determine the site's hazardous waste generator category — large quantity generator (LQG), small quantity generator (SQG), or very small quantity generator (VSQG) of hazardous waste. The more hazardous waste a site generates, the greater the hazard associated with the waste, and the more regulation the site must meet. To understand the generator categories and requirements that apply, see the [Hazardous Waste Generator Category and Summary of Accumulation Requirements](#).

Universal waste spill and cleanup materials are not eligible for management as a universal waste. The weight of the spill and clean-up materials must be included when making a site's monthly generator category determination. SQGs and VSQGs may consider using the episodic generator requirements found under Rule 316 of the [Part 111 hazardous waste rules](#) to maintain their existing generator category. For a summary of the episodic generator requirements, see the [SQG Requirements](#) and [VSQG Requirements](#) guides.

UNIVERSAL WASTE BENEFITS

Some of the biggest benefits to managing wastes under the universal waste standards include:

- The generator does not need to maintain elaborate waste characterization data, as the waste is being managed as a hazardous waste under the most stringent environmental standards for recycling or disposal.
- The generator does not include the weight of the waste when determining the site's monthly generator category. This can decrease a site's generator category, minimize the regulatory requirements the site must meet, and eliminate some of the recordkeeping needed for generator category determinations.
- The generator may accumulate universal waste on-site for up to one year, much longer than the 90 or 180 days allowed for LQGs and SQGs, respectively. This generally reduces cost by minimizing the number of pick-ups needed for recycling or disposal.
- The generator has greater flexibility in locating accumulation containers. Containers can be placed in areas convenient for staff. Universal waste containers do not have to be located at the point of generation under the control of an operator or in an accumulation area with secondary containment as is required when managing the waste under the SQG and LQG regulations.

MANAGING UNIVERSAL WASTE

A business or government agency that generates or stores universal waste is a universal waste handler. Sites that recycle, treat, or dispose of universal waste are universal waste destination facilities. Destination facilities must comply with the state and federal requirements for recycling, treating, or disposing of hazardous waste.

Universal waste handlers are classified as Small Quantity Handlers (SQH) or Large Quantity Handlers (LQH) depending on the amount of universal waste accumulated at any one time. SQHs accumulate less than 5,000 kilograms(kg) (11,000 pounds) total of all universal waste types combined at any time. LQHs accumulate 5,000 kg (11,000 pounds) or more of all universal waste types combined at any time. This designation as a LQH is retained through the end of the calendar year in which this amount of universal waste accumulated exceeds the SQH limit.

The following table describes the requirements for both categories of universal waste handlers:

REQUIREMENTS FOR SMALL AND LARGE QUANTITY HANDLERS OF UNIVERSAL WASTE

Topic	Requirement
Site ID Number	SQH: Not required LQH: Required before meeting or exceeding 5,000 kg of universal waste
Prohibitions	Must not dispose, dilute, or treat universal waste except when responding to releases. Some limited activities are allowed and highlighted below.
Universal waste accumulation time limit	One year from the date the waste was generated or received from another handler. The time limit must be tracked. Mark the universal waste with the generated or received date or keep records to verify how long you have accumulated it.
Labeling	Required, see below.
Accumulation	Containers and tanks must be in good condition, structurally sound, and compatible with the type of universal waste accumulated in them. Containers and tanks must be accumulated in a manner that prevents any spills or releases. Tanks must meet all requirement found under Title 40 of the Code of Federal Regulations, Part 256, Subpart J.*
Employee training	SQH: Employees must be informed of proper universal waste handling and emergency procedures. Training records are not required. LQH: Employees must be thoroughly familiar with proper universal waste handling and emergency procedures. Training records are not required.
Releases from universal waste	Must prevent releases of universal waste to the environment; must immediately contain, clean up and properly characterize any such releases. Depending on the type of universal waste and release, there may be release reporting requirements under various regulations. Learn more at Michigan.gov/ChemRelease .
Hazardous waste manifests/Land Disposal Restriction (LDR) notification forms for off-site shipments	Hazardous waste manifests and LDR notices are not required for shipments within Michigan. If receiving state does not recognize the universal waste designation, use a hazardous waste manifest to meet other state's requirements. Note in Box 14 waste was managed as a universal waste when in Michigan. If waste is liquid, a permitted, registered and insured liquid industrial by-products transporter is required and the shipment must be documented on a liquid industrial by-products shipping document . If shipment is a hazardous materials, US DOT packaging, labeling, marking, placarding, shipping papers and training rules apply.

REQUIREMENTS FOR SMALL AND LARGE QUANTITY HANDLERS OF UNIVERSAL WASTE - Continued

Topic	Requirement
Off-site shipments	Ship only to a site that has agreed to accept the universal waste. Confirm the universal waste destination facility receiving the shipment is an authorized destination facility. If hauling own liquid waste generated from equipment which you own, maintain required insurance for liquid industrial by-products transport.
Recordkeeping	<p>SQH: Not specifically required but is recommended to:</p> <ul style="list-style-type: none"> ✓ demonstrate SQH category is maintained, and ✓ universal waste is accumulated for no more than 1 year. <p>Labeling and signage may be used for demonstrating compliance as well as records.</p> <p>LQH: Must keep a record of each shipment received at, or sent from, the facility for three years from the shipment date (e.g., logs, manifests, bills of lading). The following must be recorded:</p> <ul style="list-style-type: none"> ✓ Name and address where the waste came from if received from handler or where was shipped to another ✓ Quantity of each waste type (e.g. batteries, electric lamps, pesticides, or mercury containing devices) received or shipped out. ✓ Date when shipment was received or sent out
Reporting	Required for universal waste handlers and destination facilities accepting universal waste liquids from another universal waste handler.

* Depending on the type and amount of universal waste being accumulated, secondary containment and surveillance may be required under the water regulations. To learn more, go to [Michigan.gov/Part5](https://www.michigan.gov/Part5).

AEROSOL CANS

Aerosol cans are a common waste generated by most businesses. Aerosol cans contain a product and propellant under pressure. The product is released from the aerosol can (the container) in the form of a spray or mist when the nozzle is pressed to apply the product. As the product is used, the propellant is also used. An aerosol can is specifically defined under the hazardous waste regulations as a non-refillable container that:

- contains a gas compressed, liquified, or dissolved under pressure, for which the sole purpose is to spray a liquid, paste, or powder, and
- is fitted with a self-closing release device which allows the contents to be ejected by the gas.

Examples of products commonly dispensed using aerosol cans include:

- maintenance products (degreasers and cleansers)
- beauty products (hair sprays and perfumes)
- surface coating products (paints and varnishes)
- personal care products
- pharmaceutical products (inhalers), and
- pesticides (ant or wasp sprays)

Although EGLE does not consider empty aerosol cans a reactive hazardous waste, some states do and most solid waste vendors require special waste approvals for aerosols due to the explosion hazard they present when compacted.

Unused aerosol cans become a waste on the date the universal waste handler decides to discard it. Used aerosol cans become a waste when discarded and not empty. Non-empty aerosol cans that contain pesticides may be managed as universal waste.

When managed as universal waste, the universal waste handler regulations require handlers to manage aerosol cans in a way that prevents a release of any component of universal waste to the environment. Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, and lacks evidence of leakage, spillage, or damage that could cause leakage. Containers must be protected from heat sources (e.g., open flames; lightning; smoking; cutting and welding; hot surfaces; frictional heat; and static, electrical, and mechanical sparks).

Leaking or damaged aerosol cans must be either packaged in a separate closed container, overpacked with absorbents, or immediately punctured and drained.

Individual aerosol cans or aerosol can storage containers must be labeled with the words “Universal Waste—Aerosol Cans,” “Waste Aerosol Cans,” or “Used Aerosol Cans.”

Handlers may sort aerosol cans by type, mix intact cans into one container, remove nozzles to reduce risk of accidental release, and puncture and drain empty aerosol cans if the cans are recycled and residual liquids are properly characterized and managed.

Handlers that puncture universal waste aerosol cans must also meet the following requirements specified under the universal waste regulations:

- ✓ Puncturing and draining must be conducted using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions.
- ✓ Handlers must develop and follow a written procedure detailing how to safely puncture and drain aerosol cans. This procedure must address proper assembly, operation, and maintenance of the puncturing unit, segregation of incompatible wastes, and proper waste management practices to prevent fires and releases. Handlers must maintain a copy of the puncturing device manufacturer’s instructions onsite and ensure employees operating the device are trained in the proper procedures.

- ✓ Puncturing must be performed in a manner designed to prevent fires and releases into the environment. This includes, but is not limited to, locating the equipment on a solid, flat surface in a well-ventilated area.
- ✓ The contents from the waste aerosol can or puncturing device are immediately transferred to a container or tank that meets requirements of [hazardous waste rules that apply to the site's generator status](#) or the [liquid industrial by-products generator requirements](#).
- ✓ Handlers must determine if the contents from the emptied aerosol cans are hazardous waste. Any hazardous waste generated from puncturing the cans is subject to all hazardous waste regulations, and the handler is considered the generator of the hazardous waste.
- ✓ Handlers must have a written procedure for cleaning up spills or leaks of the contents of the aerosol cans. A spill cleanup kit must be provided, and all spills or leaks must be cleaned up promptly.

Universal waste generators may also puncture and drain non-empty universal waste aerosol cans, but secondary universal waste handlers cannot unless they are a universal waste destination facilities licensed under the hazardous waste regulations. Air permitting and hazardous waste licensing is required in some cases prior to installing aerosol can puncturing process equipment. For details on additional regulations that apply to puncturing beyond the universal waste rules, please see the [aerosol can puncture guide](#).

ANTIFREEZE

Antifreeze is a mixture of water, coolant, and additives. It is used to protect engines and other equipment against overheating and corrosion and also from freezing in low temperatures. It is also used as a deicing agent for airplanes. The two most common coolants used in antifreeze are ethylene glycol and propylene glycol. Most antifreeze is nonhazardous and may be managed as a [liquid industrial by-product](#). However, sometimes antifreeze becomes a hazardous waste because it contains:

- Regulated concentrations of lead or cadmium that leached from a radiator.
- Regulated concentrations of benzene from gasoline that leaked into the antifreeze.
- Listed solvents from over-spraying aerosol products such as brake and carburetor cleaners that get into the antifreeze.
- Other hazardous wastes that were missed with the antifreeze.

If a company assumes or specifically knows its antifreeze is hazardous and manages it as a universal waste, it must be managed to meet the universal waste handler requirements, in addition to the requirements for managing [liquid industrial byproducts](#). Containers and tanks must be labeled with words "Universal Waste Antifreeze," "Waste Antifreeze," or "Used Antifreeze." The containers must be kept closed, except to add or remove universal waste. The containers must be structurally sound,

compatible with the antifreeze, and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. Storage tanks must meet additional requirements in [40 C.F.R. part 265, subpart J](#), except for 40 C.F.R. §§265.197(c), 265.200, and 265.201, which includes, but not limited to:

- Professional engineer certifications required for new tank systems and integrity assessments of existing tank systems.
- Inspections at least once each operating day.
- Secondary containment.
- General operating requirements.

Any spills must be immediately clean up, properly characterized and disposed.

BATTERIES

A battery is a device with one or more electrically connected electrochemical cells that is designed to receive, store, and deliver electric energy. An electrochemical cell is a system that consists of an anode, a cathode, an electrolyte, and any connections that are needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

A *used* battery becomes a waste when it is discarded. An *unused* battery becomes a waste when the handler decides to discard it. Batteries must be managed in a way that prevents releases to the environment. Batteries that show evidence of leakage, spillage or damage that could cause a leakage must be placed in a container that is closed, structurally sound, compatible with the contents of the battery, and lacks evidence of leakage, spillage or damage that could cause a leakage.

Handlers are allowed to conduct the following activities with batteries that are intact:

- Sort batteries by type.
- Mix battery types in one containers.
- Discharge batteries to remove the electric charge.
- Regenerate used batteries.
- Disassemble batteries or battery packs into individual batteries.
- Remove electrolyte.
- Remove batteries from discarded consumer products.

If a handler removes electrolytes from universal waste batteries, the handler must determine if the electrolyte exhibits a characteristic of hazardous waste. If it exhibits a characteristic of hazardous waste, it is a newly generated waste and not a universal waste and must be managed as a hazardous waste.

Universal waste batteries (e.g., each battery) or a container in which the batteries are contained must be labeled with any of the following: “Universal Waste-Battery(ies)” or “Waste Battery(ies)” or “Used Battery(ies).”

Lead acid batteries are banned from disposal in Michigan’s landfills and incinerators and are normally handled under Rule 804 of the Part 111 rules, instead of the universal waste rule. Under Rule 804, the company must characterize the waste batteries and meet [LDRs](#) including having the one-time notice/certification on file. The LDR does not apply to VSQGs. When being recycled, the battery volume is not included when determining generator category. It is not necessary to use hazardous waste manifests when shipping the used lead acid batteries to a recycler, nor hire a permitted and registered hazardous waste transporter. In addition, there is no time limit in the state regulations on how long you may store the lead acid batteries before shipping. There may be local ordinances that have time limits or other requirements. Shipments need to meet the US DOT transportation requirements unless it meets an exception in 49 CFR 173.159.

CONSUMER ELECTRONICS

Consumer electronics are devices run by electricity containing circuit boards commonly found in offices and homes such as computers, printers, fax machines, telephones, printers, televisions, etc. Cathode ray tubes (CRTs) from equipment like computers and televisions may be handled as either consumer electronics or electric lamps universal waste. Consumer electronics include intact devices. Dismantled electronics do not qualify for management as a universal waste.

Consumer electronics must be managed in a manner that prevents breakage or a release by containing the consumer electronics in packaging that will prevent breakage during normal handling conditions. Handlers must properly contain, classify, and dispose of releases of consumer electronics and their residues.

The outer packaging or a container must be labeled with the words “Universal Waste Electronics” or “Universal Waste Consumer Electronics.”

Handlers may do any of the following under the universal waste regulation:

- Repair electronics for potential redirect reuse.
- Remove other universal waste, e.g., batteries from the electronics.
- Remove individual modular components for direct reuse.
- Wipe hard drives to destroy data.

To find recyclers, search the [Recycled Materials Market Directory](#) for electronics or see the EGLE list of registered electronic recyclers at Michigan.gov/EGLEEWaste. Many electronic waste ‘recyclers’ are actually universal waste handlers that resell refurbished equipment and components. However, if a recycler is processing electronic waste, please contact the Materials Management Division [District Office](#) to discuss operations to determine if additional permits are needed.

DEVICES CONTAINING ELEMENTAL MERCURY

A thermostat is a temperature control device that contains elemental mercury in an ampule attached to a bimetal sensing element and includes mercury-containing ampules that have been removed from the temperature control device. Other device containing elemental mercury include mercury thermometers, vehicle switches, and sphygmomanometers.

A *used* thermostat, mercury switch, or other device containing only elemental mercury as its hazardous waste constituent becomes a waste on the date it is discarded. An *unused* device becomes a waste on the date the handler decides to discard it.

The universal waste regulations do not apply to mercury that was removed from devices or ampules (e.g., mercury collected in a container). Facilities will need to manage that mercury under the hazardous waste rules that apply to their generator status.

Mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage must be placed in a container that is closed, structurally sound, compatible with the contents of the device, lacks evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment, and reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

Handlers may remove mercury-containing ampules from if the following conditions are met:

- ✓ Ampules are removed and managed in a manner designed to prevent breakage.
- ✓ Removed the ampules only over or in a containment device.
- ✓ A mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks to a container.
- ✓ Any mercury resulting from spills or leaks from broken ampules are immediately transferred from the containment device to a container.
- ✓ The area in which ampules are removed is well ventilated and monitored to ensure compliance with OSHA exposure levels for mercury.
- ✓ Employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures.
- ✓ Removed ampules are stored in closed, non-leaking containers that are in good condition.
- ✓ Removed ampules are packed in the container with packing materials adequate to prevent breakage during storage, handling, and transportation.

If the handler removes the original housing that holds mercury in devices that do not contain ampules, the handler must immediately seal the original housing to prevent a mercury release and follow the ampule management requirements discussed above.

Handlers must determine if mercury clean-up residues resulting from spills or leaks or any solid waste generated as a result of the removal of mercury-containing ampules or housings exhibit characteristics of hazardous waste. If these materials exhibit a characteristic of hazardous waste, they must be managed in compliance with all [hazardous waste rules that apply to their generator status](#). The handler is considered the generator of the mercury residues, and/or other spill clean-up waste.

Universal waste mercury-containing equipment (i.e., each device), or a container in which the equipment is contained, must be labeled, or marked clearly with “Universal Waste - Mercury-Containing Equipment”, or “Waste Mercury-Containing Equipment”, or “Used Mercury-Containing Equipment”.

A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats, must be labeled, or marked clearly with “Universal Waste - Mercury Thermostat(s),” or “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s).”

LAMPS

A lamp is the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Common lamps include fluorescent, high intensity discharge, sodium vapor, mercury vapor, neon, and incandescent lamps, light emitting diode, and cathode ray tubes (CRTs) from computers and televisions. A company may choose to handle CRTs as consumer electronics or electric lamp universal waste in Michigan.

Used lamps become waste on the date the handler permanently removes it from its fixture. *Unused lamps* become waste on the date the handler decides to discard it.

Lamps must be managed in manner that prevents releases to the environments and must be stored in packages that are structurally sound, adequate to prevent breakage, compatible with the contents of the of the lamps, closed, and lack evidence of leakage, spillage, or damage that leakage or releases of mercury or other hazardous constituents to the environment.

Handlers must immediately clean up and place any lamp that is broken in packaging and place any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment in packaging that is structurally sound, adequate to prevent breakage, compatible with the contents of the of the lamps, closed, and lack evidence of leakage, spillage or damage that leakage or releases of mercury or other hazardous constituents to the environment. Broken lamps generally cannot be handled as universal waste in Michigan. Additionally, many recyclers only want to handle unbroken/uncrushed lamps. If you are managing lamps as a universal waste and experience incidental breakage while handling, if the container remains intact and closed, preventing any release, contact your universal waste handler to determine whether they can accept your waste and any additional requirements you must take to ensure proper handling upon receipt.

Individual lamps or storage containers must be labeled with the words “Universal Waste Lamp(s)” or “Waste Lamp(s)” or “Used Lamp(s).”

Do not crush or break the lamps. Operating a lamp crushing device (sometimes called drum top crusher) requires a permit from the Air Quality Division and there are additional hazardous waste requirements. Once the lamps are broken, they cannot be managed as universal waste.

PESTICIDES

A pesticide is a substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant.

Recalled, suspended, and cancelled pesticides, and unused pesticides that have not been recalled but are collected and managed as part of a waste pesticide collection program may be managed as a universal waste. *Recalled, suspended, and cancelled* pesticides become a waste on the first date on which the generator agrees to participate in the voluntary or mandatory recall and the person conducting the recall decides to discard it. An *unused* pesticide becomes a waste on the date the generator decides to discard it.

When managed as universal waste, handlers must manage pesticides in a way that prevents a release or any component of universal waste to the environment. Universal waste pesticides must be contained in one or more of the following:

- A container that is closed, structurally sound, compatible with the pesticide, and lacking evidence of leakage, spillage or damage that could cause leakage.
- An overpacked container that is closed, structurally sound, compatible with the pesticide, and lacking evidence of leakage, spillage or damage that could cause leakage.
- A tank that meets the requirements of [40 CFR part 265 subpart J](#).
- A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide; and lacking evidence of leakage, spillage or damage that could cause leakage.

A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides are contained is labeled or marked clearly with the label that was on or accompanied the product as sold or distributed and the words “Universal Waste—Pesticide(s)” or “Waste Pesticide(s).”

PHARMACEUTICALS

Pharmaceuticals are chemical formulations used in the diagnosis, cure, mitigation, treatment, therapy, or prevention of disease in humans or animals. A pharmaceutical becomes a waste when it can no longer be administered to a patient and must be discarded.

Universal waste pharmaceuticals must be accumulated in a manner that prevents release. They must be placed in containers that remain closed, except to add or remove waste and the containers are to be labeled with the words “Universal Waste Pharmaceuticals.” The container must be

structurally sound, compatible with the waste, and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable circumstances. If a container does not meet these conditions, it is to be overpacked in a container that does meet these conditions. Incompatible pharmaceuticals must be segregated by adequate distance to prevent the contact of incompatible materials. If a release of pharmaceuticals or component of pharmaceuticals occurs, the release must be immediately cleaned up and properly characterized for disposal. Spill and clean-up waste cannot be managed as a universal waste pharmaceutical.

Universal waste pharmaceutical handlers can disassemble packaging and sort pharmaceuticals.

Michigan is the only state with pharmaceuticals designated as a universal waste type. Consequently, when managing universal waste pharmaceuticals in Michigan, they can be documented on a shipping document and transported within Michigan by an authorized liquid industrial by-products transporter to another universal waste handler. If the shipping only contains *solid* pharmaceuticals, no documentation is required and an EGLE permitted and registered transporter is not required. However, when shipping universal waste pharmaceuticals out of state, both solids and liquids, the shipment must be documented on a uniform hazardous waste manifest and transported by a permitted and registered hazardous waste transporter to a licensed hazardous waste disposal facility. Michigan recommends noting in Box 14 of the manifest that the shipment was managed as a universal waste when managed in Michigan. This helps verify that the weight of the shipment is not included when making a generator category determination.

On February 22, 2019, the United States Environmental Protection Act issued new federal hazardous waste rules for managing hazardous waste pharmaceuticals in healthcare. The federal rulemaking prohibits healthcare providers nationally from sewerage hazardous waste pharmaceuticals for disposal as of August 18, 2020. Michigan has until February 22, 2022, to adopt the other mandatory provisions in the rules into Michigan's hazardous waste rules and abandon the designation of pharmaceuticals as a universal waste. Until the federal rules are formally adopted and become effective, pharmaceuticals may be managed as a universal waste in Michigan.

For additional information on handling pharmaceuticals now, and after Michigan adopts the new federal rulemaking, please see the following resources:

- [Handling Unwanted Pharmaceuticals and their Containers in Healthcare](#)
- [Recorded Webinar on Existing and Proposed Pharmaceutical Waste Regulations](#)
- [UPDATED Webinar Notes Reflecting Proposed and Final Federal Rules for Pharmaceutical Waste](#)
- [Notice on Sewer Ban for Hazardous Waste Pharmaceuticals under New National Rules for Healthcare](#)
- [MHA Healthcare Pharmaceutical Waste Management Guide](#)
- [MHA Guide Example Pharmaceutical Posting](#)

ADDITIONAL ASSISTANCE

For additional assistance, contact the Environmental Assistance Center at 800-662-9278 or EGLE-Assist@Michigan.gov and ask to for the hazardous waste program staff in your county.

This publication is intended for guidance only and may be impacted by changes in legislation, rules, policies, and procedures adopted after the date of publication. Although this publication makes every effort to teach users how to meet applicable compliance obligations, use of this publication does not constitute the rendering of legal advice.

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**ASBESTOS AND POTENTIALLY HAZARDOUS MATERIALS ASSESSMENT
FOR**

**15775 PINE STREET
HILLMAN, MICHIGAN**

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FIGURES

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Figure 3	Sample Location Diagram- Out Buildings

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Table 1	Homogeneous Area Summary
Table 2	Potentially Hazardous Material/ Universal Waste Summary
Table 3	Crawl Space Inspection Summary

APPENDICES

Appendix A	SanAir Technologies Laboratories Analysis Reports
	Raymond Brege Inspector Certification
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Appendix B	Hazardous Materials Disposal and Handling Information

**ASBESTOS BUILDING INSPECTION
AND POTENTIALLY HAZARDOUS MATERIALS ASSESSMENT
15775 PINE STREET, HILLMAN, MICHIGAN**

1.0 INTRODUCTION

Environmental & Asbestos Services, Inc. (EAS) was contracted to perform an Asbestos Building Inspection and Potentially Hazardous Materials Assessment of the above referenced site. The asbestos building inspection was conducted in accordance with accepted industry practices in order to meet the requirements under the OSHA 29 CFR 1910.1001 "Asbestos Standard for General Industry", OSHA 29 CFR 1910.1101 "Asbestos Standard for Construction" and National Emissions Standard for Hazardous Air Pollutants (NESHAP) for identification of asbestos containing materials prior to renovation and demolition activities. These practices included the protocols and guidelines described below that are generally based on the Asbestos Hazard Emergency Response Act (AHERA) standards for asbestos building surveys.

The survey area comprises residential house and several outbuildings buildings commonly addressed as 15775 Pine Street. These buildings include an approximately 840 square foot one story building with a crawlspace formally used as the main house (residence). Samples collected from this building have been abbreviated with MH for sample identification. Additionally, a 40 square foot well house, presented with the abbreviation WH for sample identification, a 320 square foot guest house, presented with the abbreviation GH for sample identification, an 80 square foot camper, presented with the abbreviation C for sample identification and a 100 square foot shed, used for tool and equipment storage, are located on the site. Suspect materials observed on the shed were homogenous with other materials found in onsite buildings, therefore no samples of suspect materials were collected from this building.

2.0 ASBESTOS BUILDING INSPECTION

The objective of the Asbestos Building Inspection is to identify regulated asbestos containing material (RACM) in order to meet the requirements for NESHAP and to determine the location and estimate the quantity of all asbestos containing material (ACM) for worker protection under the OSHA Standards. The asbestos inspection was completed on November 21 and 22, 2023 by Raymond Brege, State of Michigan Accredited Asbestos Inspector-Accreditation Number A52433 and Richard Brege, State of Michigan Accredited Asbestos Inspector-Accreditation Number A4112. See Appendix A for a copy of the inspector certifications. See Figure 1 for a diagram showing the location of the property. The attached Figures 2 and 3 are sketches of the buildings featuring the sample locations prepared by EAS based on observations made of accessible areas of the buildings during the inspection.

2.1 ASBESTOS BULK SAMPLING PROTOCOL

The survey is qualitative and quantitative in that it attempts to locate friable and non-friable suspect ACM, as well as estimate the amount of such ACM throughout the survey area. *Suspect asbestos containing material discovered during demolition activities in areas that are inaccessible or concealed must be assumed asbestos containing, unless testing of the material determines otherwise.* Destructive sampling to gain access to suspect ACM was conducted as part of this assessment to the extent practical within the scope. No inaccessible areas were encountered during the inspection, however the crawlspace beneath the main house had limited access.

2.1.1 Homogeneous Areas

A homogeneous area is defined as an application of suspect ACM which appears uniform throughout the facility in color, texture, and apparent or known date of installation. Suspect ACMs are placed into one of the three homogeneous area categories for surfacing materials (SM), thermal system insulation (TSI), and miscellaneous materials (MM). The number of bulk samples collected and tested for asbestos from each homogeneous area followed standard industry practices and protocols. Figure 2 and 3 identifies the number and location of the asbestos bulk samples collected from the buildings.

The inspection identified thirty-one (31) distinct homogeneous areas of suspect building materials. The attached Table 1-Homogeneous Area Summary lists the type of homogeneous areas, description of the material, locations, and laboratory findings as to whether the material does or does not contain asbestos. Asbestos containing material (ACM) is any material which contains more than 1% asbestos.

2.1.2 Crawl Space Inspection

The crawl space below the main house was inspected to determine if any suspect materials were present. The inspector accessed the crawl space from two separate locations, which included the floor of the bathroom after removing a floorboard and through a small exterior access panel on the east side of the building. The building condition was deteriorated creating a potentially hazardous environment within the crawl space, so the inspector only had limited access to the space. Therefore, the inspector remotely operated a camera with an extension to document any suspect materials within the crawl space. Several pipes were observed which appeared to be associated with the buildings water and sanitary sewer system. No suspect materials were observed on any of the pipes or the dirt floor of the crawl space. See Table 3 for photograph documentation of the crawl space inspection.

2.2 LABORATORY RESULTS OF BULK SAMPLE ANALYSES

Representative samples were collected of each homogeneous area and submitted to SanAir Technologies Laboratory for polarized light microscopy (PLM) analysis of bulk material by EPA 600/R-93/116. SanAir is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for the analysis of asbestos in bulk samples using PLM. (NVLAP Lab Code 101048-4). The analysis reports and chain of custody records are attached in Appendix A. The sample locations are identified on Figure 2 and 3 and sample descriptions are included in the attached Table 1.

Standard PLM laboratory testing detected greater than one percent asbestos in three (3) homogeneous areas. Additionally, less than one percent asbestos was detected in two (2) homogenous areas. This asbestos containing homogeneous area is listed below:

PLM EPA 600/R-93/116 EVALUATION OF ACM

Homogeneous Area	Description	ACM	Asbestos % and Type
MH-15775MM4	Dark Brown Floor Tile	YES	<i>PLM Analysis:</i> Floor Tile- 2% Chrysotile Mastic- Not Detected
MH-15775MM5	Crawlspace Cover	YES	<i>PLM Analysis:</i> 20% Chrysotile
MH-15775MM9	Main House: Window Glazing	YES	<i>PLM Analysis:</i> <1% Chrysotile <i>400 Point Count Analysis:</i> 0.25% Chrysotile
GH-15775MM4	Guest House: Window Glazing	YES	<i>PLM Analysis:</i> 2% Chrysotile <i>400 Point Count Analysis:</i> <0.25% Chrysotile
GH-15775MM5	Vermiculite Ceiling Insulation	YES	<i>PLM Analysis:</i> <1% Actinolite <i>400 Point Count Analysis:</i> GH-15775MM5-1- 0.25 Actinolite GH-15775MM5-2, <0.25% Actinolite GH-15775MM5-3- <0.25% Actinolite

Homogenous areas, GH-15775MM4 and MH-15775MM9 appeared to be similar window glazing material, therefore both of these samples were re-analyzed using the 400 Point Count Method to confirm the standard PLM analysis test results. Additionally, the vermiculite ceiling insulation samples from homogenous area GH-15775MM5, were re-analyzed by the 400 Point Count cryo-milled vermiculite method. The re-analysis verified the detected levels of asbestos below one percent in GH-15775MM5 and MH-15775MM9. Additionally, the analysis detected less than one percent asbestos in GH-15775MM4, rebutting the standard PLM analysis. Therefore, these are not asbestos containing building materials as defined by NESHAP, however Federal Occupational Safety and Health Administration (OSHA) and MIOSHA standards may require worker protection and monitoring if these materials are disturbed.

2.3 LOCATION AND CONDITION OF ACM

Table 1 lists the location, condition, whether the material is friable or non-friable, and quantity of ACM identified in this survey. The table also lists other non-asbestos containing materials tested.

2.4 PRESUMED ASBESTOS CONTAINING MATERIALS (PACM)

The OSHA Construction Asbestos Standard (29 CFR 1926.1101) and the General Industry Asbestos Standard (29 CFR 1910.1001) defines PACM as thermal system insulation (TSI) and surfacing material found in a building constructed no later than 1980. OSHA requires that building owners identify PACM in their buildings and treat the PACM as ACM until the materials are proven not to contain asbestos.

There is no known untested TSI or SM present in the accessible portions of the building. If suspect building material that meets the definition of PACM is encountered during demolition activities, it should be treated as asbestos containing until testing determines otherwise.

3.0 POTENTIAL HAZARDOUS MATERIALS INSPECTION

The objective of the Hazardous Material Inspection is to identify appliances, switches, containers, and other equipment that may contain refrigerants, mercury, polychlorinated biphenyls (PCBs), petroleum products, and/or other hazardous materials. These materials should be properly disposed of in accordance with all Federal, State, and Local regulations and requirements prior to demolition. In addition, the disposal facility should be contacted regarding any other waste materials that may be regulated and require special disposal protocols or that are prohibited by the landfill, such as liquids in containers. Certain appliances, including but not limited to refrigerators, freezers, and air conditions, require that the refrigerant be removed by a technician prior to disposal. Other appliances and furnaces should be inspected by a qualified contractor or electrician

to determine if they contain mercury switches; and/or have the appliances removed and properly recycled prior to demolition. Table 2 provides a list and photographs of the appliances and other potentially hazardous materials identified during the inspection.

3.1 IDENTIFICATION OF POTENTIALLY HAZARDOUS MATERIAL

A visual inspection within the onsite buildings was conducted for any potentially hazardous materials on November 21 and 22, 2023. No fluorescent light bulbs and light ballasts were present throughout the buildings.

- Inspection of the shed located on the property identified the presence of several containers of oils, paints, enamels, body fillers and compressed gases.
- One refrigerator was identified in the main house and one in the guest house buildings. These should be removed prior to demolition and any refrigerant properly recovered prior to recycling.
- Inspection of the main house located on the property indicated the presence of several appliances that could contain mercury switches. These included a stove, wall furnace, water heater and dryer.

These have been documented on the attached Table 2. Any work should be conducted by a licensed contractor capable of identifying and completing the proper handling and disposal of the universal wastes. A copy of a guidance document on disposal of mercury lamps, incandescent lights, and other universal waste has been included in Appendix B.

3.2 ABANDONED POTABLE WELL

A well house containing an abandoned potable well was identified at the 15775 Pine Street address. The well appeared to be poor condition and meets the definition of an “abandoned well” pursuant to the Groundwater Quality Control Act, Part 127, 1978 PA 368. The well was located in a pit approximately 5-6 feet below ground surface. The well must be properly plugged by a registered well driller in accordance with all State and local regulations. Documentation of the potable water well has been included in Table 3.

4.0 SUMMARY AND CONCLUSIONS

The following conclusions are provided based on the findings of the inspections and the results of the sample analysis performed at 15775 Pine St., Hillman, Michigan.

Asbestos

The Asbestos Inspection of the above reference property identified suspect building materials consisting of thirty-one (31) homogeneous areas. Laboratory analysis of bulk samples collected from each homogeneous area were submitted for PLM EPA 600 analysis. Analytical results detected greater than one percent asbestos in three (3) homogeneous areas and less than one percent asbestos was detected in two (2) homogenous areas.

The 400 Point Count Analysis rebutted the reported detected concentration above one percent in homogenous area GH-15775MM4 to less than one percent asbestos containing and confirmed the concentration of asbestos was less than one percent in two homogenous areas. These materials are considered non-asbestos containing under NESHAP; however, OSHA and MIOSHA requirements may require worker protection and monitoring if the materials are disturbed.

Hazardous Materials

Several potentially hazardous materials were identified during the inspection of the subject buildings. These included two refrigerators, stove, dryer, wall furnace, and potentially hazardous liquids listed on Table 2. It is recommended that a qualified contractor remove and dispose of any hazardous or universal waste at a licensed facility prior to demolition. Additionally, one abandoned potable water well was documented onsite. This well should be properly plugged following State and local regulations by a registered well driller if it determined that the potable well will not be utilized in the future.

5.0 ASBESTOS REGULATORY REQUIREMENTS

Federal and State regulations require notification to be submitted 10 days prior to renovation or demolition activities. Other Federal, State and Local regulations may apply. NESHAP guidance documents regarding proper notification and handling of RACM and Category I or II material are listed below.

Demolition Practices under Asbestos NESHAP, Environmental Protection Agency (EPA)
Asbestos NESHAP Guidelines, Michigan Department of Environmental Quality

Additionally, Michigan Occupational Safety and Health Administration (MIOSHA) program regulates worker protection with regards to asbestos including renovation and demolition projects. The primary function of the program is to assure that the people working with asbestos are properly trained and the individuals performing asbestos removal comply with rules governing the work activity. These rules are designed to protect not only the individual employee performing asbestos abatement work, but also the general public that occupy the area or building in which the work

occurs. All workers that are involved in the removal of asbestos must be properly trained and certified in accordance with the following regulations.

Asbestos Worker Accreditation Act - Act 440 of 1988, as amended.

Asbestos Abatement Contractors Licensing Act - Act 135 of 1986, as amended

Michigan Occupational Safety and Health Act - Act 154 of 1974, as amended

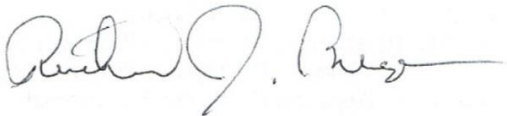
6.0 LIMITATIONS

Project design, asbestos abatement specifications and/or air monitoring services were not included in Environmental & Asbestos Services, Inc. scope of services. Since project design services are not a part of this survey, our assessment provides the material condition, location and approximate quantity and assumes that proper handling of the asbestos containing materials will occur during the demolition/renovation project in accordance with the applicable regulations. It is the sole responsibility of the owner to contract properly trained and certified personnel to remove (and if asbestos is to be left in place) to complete the demolition/renovation activities in accordance with the above regulations. Please note that while no underground storage tanks (USTs) were observed during the hazardous materials assessment, there is no guarantees that USTs are not currently or have historically been located on the property.

If you have any questions, please feel free to contact me at 989-356-8764.

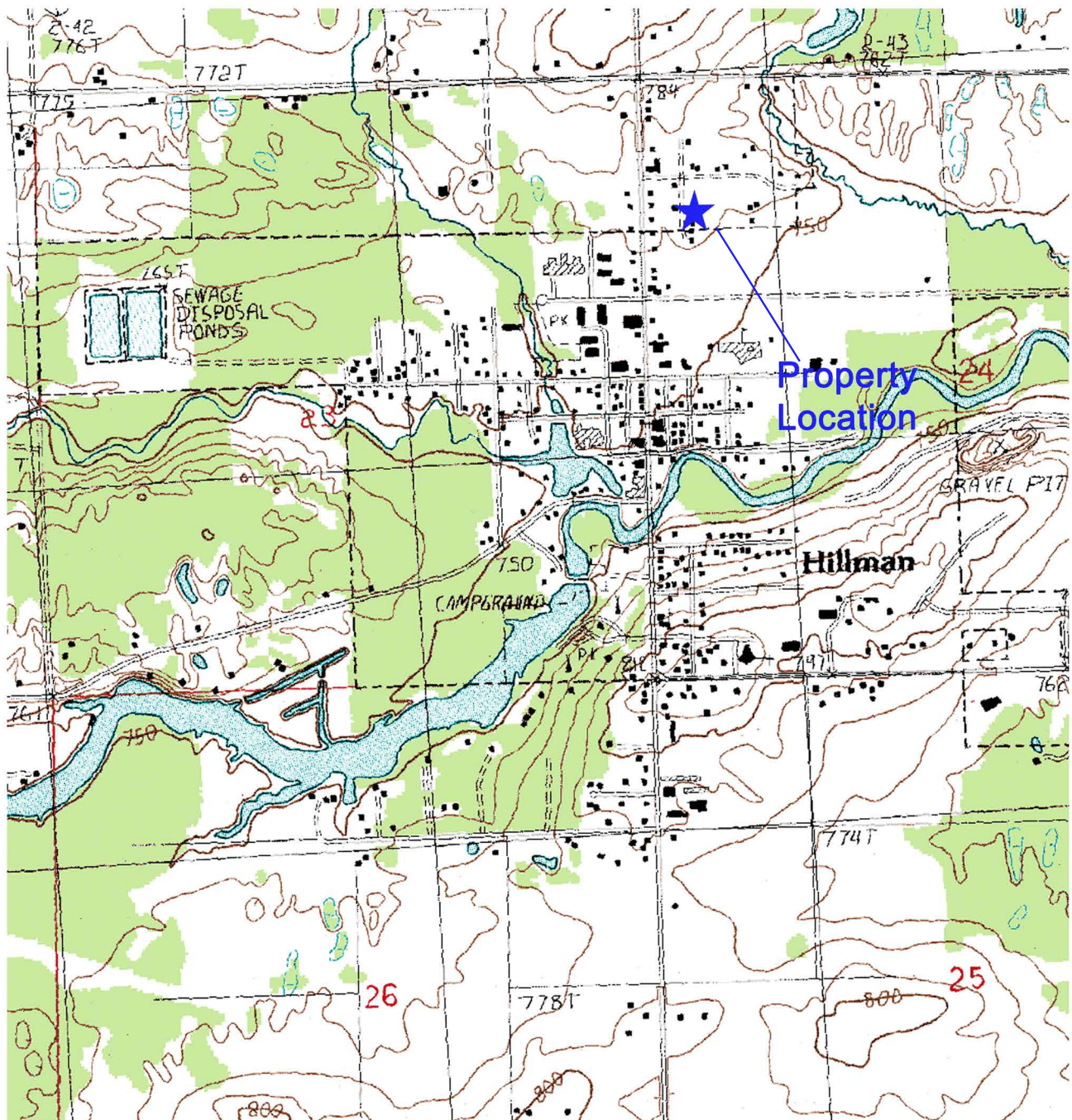
Sincerely,

Environmental & Asbestos Services, Inc.

A handwritten signature in dark ink, appearing to read "Richard J. Brege", with a long horizontal flourish extending to the right.

Richard J. Brege, PG
Asbestos Inspector/Project Manager

FIGURES



↑ N

No Scale

Client: Huron Engineering and Surveying

Site: Residence

EAS2023-028

Location: 15775 Pine St., Hillman, MI

DRN: RJB

CHK: RJB

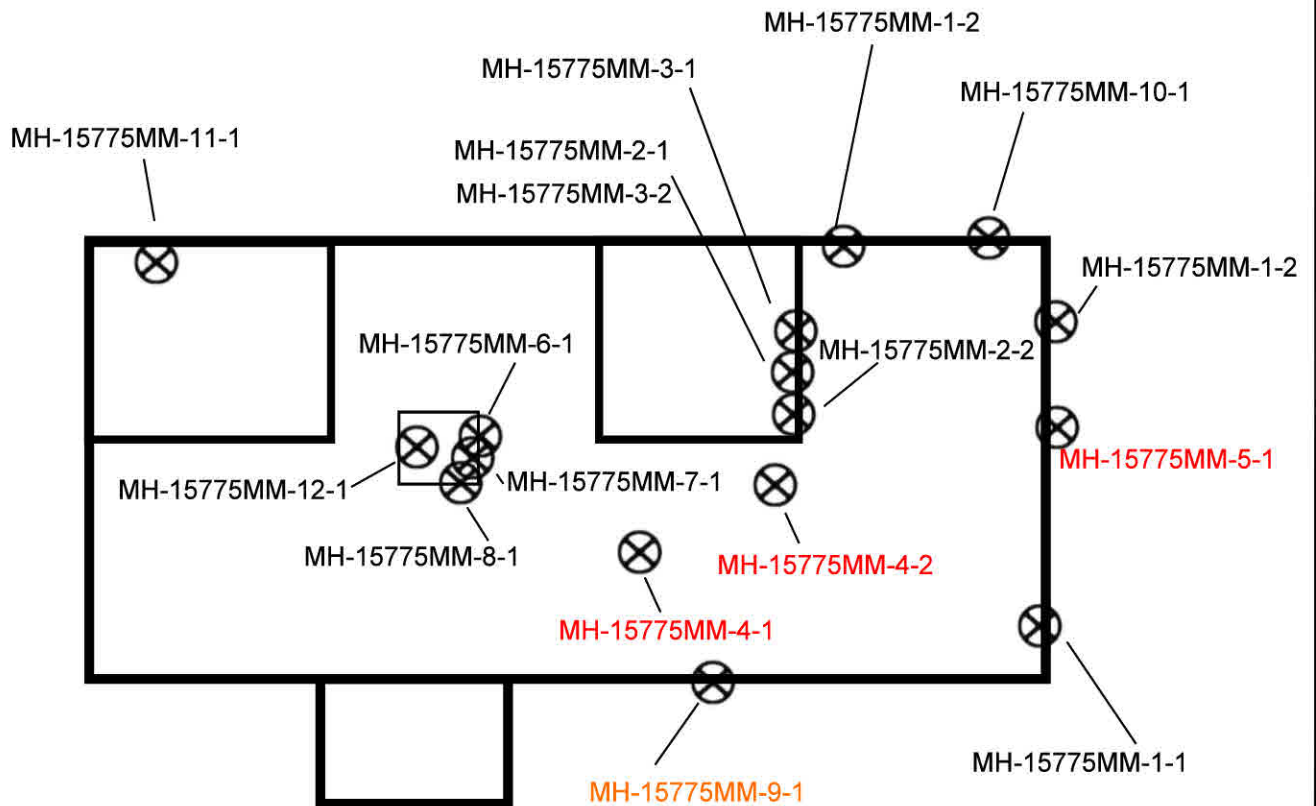
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ENVIRONMENTAL
& ASBESTOS
SERVICES, INC.

P.O. Box 6
Alpena, MI 49707
Telephone (989) 356-8764



LEGEND

 -Sample Location

MH-15775MM## -Sample Less Than 1% Asbestos

MH-15775MM## -Sample Above 1% Asbestos

1N

No Scale

Client:Huron Engineering and Surveying

Site:Main House

EAS2023-028

Location: 15775 Pine St., Hillman, MI

DRN: RJB

CHK: RJB

12/12/2023

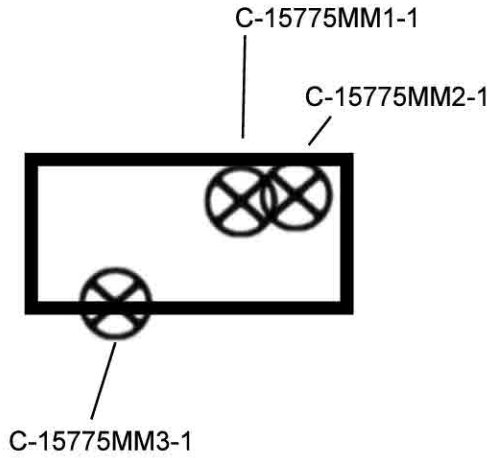
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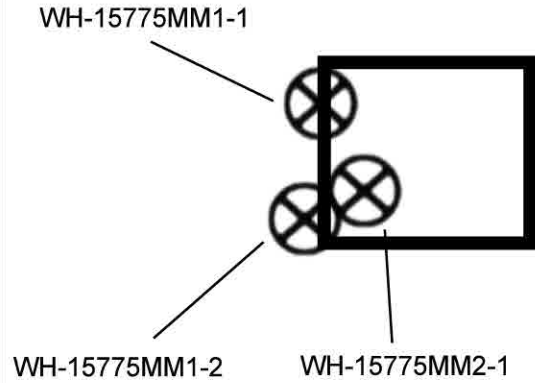
ENVIRONMENTAL
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SERVICES, INC

P.O. Box 6
Alpena, MI 49707
Telephone (989) 356-8764

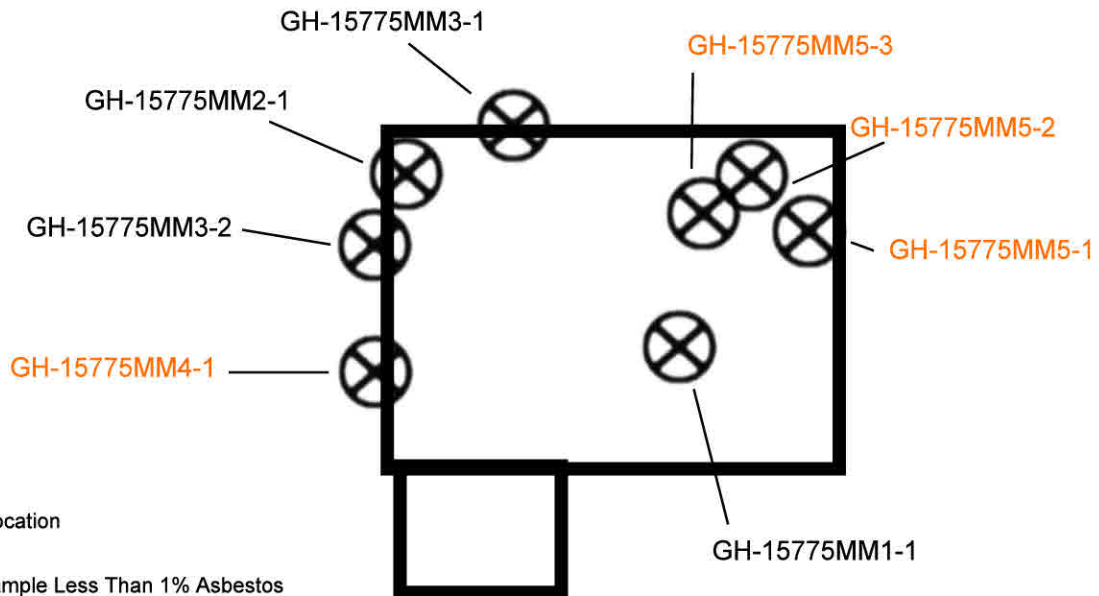
CAMPER



WELL HOUSE



GUEST HOUSE



LEGEND



-Sample Location

MH-15775MM## -Sample Less Than 1% Asbestos

MH-15775MM## -Sample Above 1% Asbestos

No Scale

Client: Huron Engineering and Surveying

Site: Out buildings

EAS2023-028

Location: 15775 Pine St., Hillman, MI

DRN: RJB

CHK: RJB

12/12/2023

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ENVIRONMENTAL
& ASBESTOS
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Telephone (989) 356-8764

TABLES

Table 1	Homogeneous Area Summary
Table 2	Potentially Hazardous Material/ Universal Waste Summary
Table 3	Crawl Space Inspection Summary



Date: 12/13/2023

Building Name/Address: 15775 Pine St., Hillman, MI




Project Number: EAS2023-028



Inspectors: Richard Brege (Accreditation Number A4112), Raymond Brege (Accreditation Number A52433)




Table 1
Homogeneous Area Summary




Photograph	Homogeneous Area Number	Sample Description Condition/Total Quantities of ACM	Asbestos Containing? Friable/Non-friable
	MH-15775MM1	Drywall	No
	MH-15775MM2	Bathroom Tile Glazing	No




	MH-15775MM3	Fiberboard-Bathroom	No
	MH-15775MM4	Dark Brown Floor Tile <i>240 sq. ft.</i>	Yes PLM Analysis: Floor Tile- 2% Chrysotile Mastic- Not Detected Nonfriable Category I
	MH-15775MM5	Crawlspace Cover <i>4 sq. ft.</i>	Yes PLM Analysis: 20% Chrysotile Nonfriable Category II
	MH-15775MM6	Chimney Brick	No


	MH-15775MM7	Chimney Mortar	No
	MH-15775MM8	Chimney Access Grout	No
	MH-15775MM9	Window Glazing <i>3 sq. ft.</i>	Yes PLM Analysis: <1% Chrysotile 400 Point Count: 0.25% Chrysotile Friable

	MH-15775MM10	Grey Exterior Siding and Vapor Barrier	No
	MH-15775MM11	Shingles and Roofing Felt	No
No photo	MH-15775MM12	Chimney Flue	No

	WH- 15775MM1	Red Exterior Siding and Vapor Barrier	No
	WH- 15775MM2	Shingles and Roofing Felt	No
	GH- 15775MM1	Tan Ceiling Insulation	No

	GH-15775MM2	Shingles and Roofing Felt	No
	GH-15775MM3	Red Asphalt Siding	No
	GH-15775MM4	Window Glazing <i>2 sq. ft.</i>	Yes PLM analysis: 2% Chrysotile 400 Point Count: <0.25% Chrysotile Friable

	GH-15775MM5	Vermiculite Ceiling Insulation <i>320 sq. ft.</i>	Yes PLM Analysis: <1% Actinolite 400 Point Count: GH-15775MM5-1- 0.25% Actinolite GH-15775MM5-2, GH-15775MM5-3- <0.25% Actinolite Friable
	C-15775MM1	Camper Ceiling Board	No
	C-15775MM2	Camper Insulation	No

	C-15775MM3	Camper Wallboard	No
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Notes

-PLM Analysis- *(All Samples Submitted)* EPA 600/R-93/116 Method using Polarized Light Microscopy

-NA- Not Available

-**MH-MM, GH-MM**- ACM- Contains More Than 1% asbestos

-**MH-MM, GH-MM**- ACM- Contains Less Than 1% asbestos

Note: OSHA and MIOSHA standards regulating worker protection includes materials containing any amount of asbestos.




Date: 12/13/2023





Building Name/Address: 15775 Pine St., Hillman, MI



Project Number: EAS2023-028

Inspectors: Richard Brege (Accreditation Number A4112), Raymond Brege (Accreditation Number A52433)

Table 2
Potentially Hazardous Material/ Universal Waste Summary

Photograph	Material Description	Approximate Quantities	Location
	Various Containers- Paints, Stains, Oils, Compressed Gas Tanks and Auto Body Fillers	18-25 Units	Shed
	Gum Turpentine (partially full)	1 Unit	Shed
	Several Containers- Oils, Compressed Gas Tanks	5 Units	Shed

	Refrigerator/ Refrigerant	1-Unit	Guest House
	Refrigerator/ Refrigerant	1-Unit	Main House Kitchen
 	Possible Electrical Mercury Containing Switch Appliances	Stove 1-Unit Washer/Dryer 1-Unit	Main House

 		<p>Wall Furnace 1-Unit</p>	<p>Water Heater 1-Unit</p>
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**ENVIRONMENTAL
& ASBESTOS
SERVICES, INC**

Date: 12/13/2023



Building Name/Address: 15775 Pine St., Hillman, MI

Project Number: EAS2023-028

Inspectors: Richard Brege (Accreditation Number A4112), Raymond Brege (Accreditation Number A52433)

Table 3

Crawl Space and Well House Inspection Summary

Photograph	Description
	Photograph shows an access area to the crawlspace in the bathroom and what appears to be the water and sanitary sewer lines.
	A close up of the sanitary sewer lines.

 A close-up photograph showing a section of a sanitary sewer line. The pipe is made of dark, possibly cast iron or heavy plastic, and has a flange or coupling visible. It is surrounded by wooden debris, including planks and beams, and other unidentifiable debris in a dark, confined space.	<p>A close up of what appears to be a sanitary sewer line.</p>
 A photograph taken from a crawlspace looking south. The view shows wooden joists and beams above. On the floor, there is a white plastic container, a blue bucket, and various pieces of debris. The lighting is dim, and the space appears cluttered with construction or demolition materials.	<p>Photograph looking south in the crawlspace. No suspect material.</p>
 A photograph taken from a crawlspace looking southwest. The scene shows a large, light-colored plastic container (possibly a bucket or tub) on the left, surrounded by wooden debris and other materials. The floor is covered with dirt and wood shavings. The walls and ceiling are made of wood.	<p>Photograph looking southwest in the crawlspace. No suspect materials found.</p>



Photograph looking northeast in the crawlspace. No suspect materials found.



Photograph looking northwest in the crawlspace and the two sanitary lines. No suspect materials found.



Photograph shows a closeup of one of the sanitary lines. No suspect materials found.



Photograph shows the interior of the crawlspace from the access from the exterior east side of the building. No suspect materials observed.



Photograph shows the potable water well in the well house on the property.



Photographs shows a closeup of the well.

APPENDIX A
LABORATORY REPORTS AND CHAIN OF CUSTODY
INSPECTOR CERTIFICATION



The Identification Specialists

Analysis Report
prepared for
Environmental & Asbestos Services, Inc

Report Date: 11/29/2023

Project Name: 15775 Pine St, Hillman, MI

Project #: EAS2023-028

SanAir ID#: 23065315



NVLAP LAB CODE 200870-0

10501 Trade Court | North Chesterfield, Virginia 23236
888.895.1177 | 804.897.1177 | fax: 804.897.0070 | IAQ@SanAir.com | SanAir.com



SanAir ID Number
23065315
FINAL REPORT
11/29/2023 10:12:30 AM

Name: Environmental & Asbestos Services, Inc
Address: 3343 US-23 South
Alpena, MI 49707
Phone: 989-356-8764

Project Number: EAS2023-028
P.O. Number:
Project Name: 15775 Pine St, Hillman, MI
Collected Date: 11/21/2023
Received Date: 11/28/2023 10:15:00 AM

Dear Richard Brege,

We at SanAir would like to thank you for the work you recently submitted. The 31 sample(s) were received on Tuesday, November 28, 2023 via UPS. The final report(s) is enclosed for the following sample(s): MH-15775MM1-1, MH-15775MM1-2, MH-15775MM2-1, MH-15775MM2-2, MH-15775MM3-1, MH-15775MM3-2, MH-15775MM4-1, MH-15775MM4-2, MH-15775MM5-1, MH-15775MM6-1, MH-15775MM7-1, MH-15775MM8-1, MH-15775MM9-1, MH-15775MM10-1, MH-15775MM10-2, MH-15775MM11-1, MH-15775MM12-1, WH-15775MM1-1, WH-15775MM1-2, WH-15775MM2-1, GH-15775MM1-1, GH-15775MM2-1, GH-15775MM3-1, GH-15775MM3-2, GH-15775MM4-1, GH-15775MM5-1, GH-15775MM5-2, GH-15775MM5-3, C-15775MM1-1, C-15775MM2-1, C-15775MM3-1.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

A handwritten signature in black ink that reads "Sandra Sobrino".

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:

- 31 samples in Good condition.



SanAir ID Number
23065315
FINAL REPORT
11/29/2023 10:12:30 AM

Name: Environmental & Asbestos Services, Inc
Address: 3343 US-23 South
Alpena, MI 49707
Phone: 989-356-8764

Project Number: EAS2023-028
P.O. Number:
Project Name: 15775 Pine St, Hillman, MI
Collected Date: 11/21/2023
Received Date: 11/28/2023 10:15:00 AM

Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
MH-15775MM1-1 / 23065315-001 Drywall	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected
MH-15775MM1-2 / 23065315-002 Drywall	Grey Non-Fibrous Homogeneous	5% Cellulose	95% Other	None Detected
MH-15775MM2-1 / 23065315-003 Bathroom Tile Glazing	Tan Non-Fibrous Homogeneous		100% Other	None Detected
MH-15775MM2-2 / 23065315-004 Bathroom Tile Glazing	Tan Non-Fibrous Homogeneous		100% Other	None Detected
MH-15775MM3-1 / 23065315-005 Fiberboard-Bathroom	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
MH-15775MM3-2 / 23065315-006 Fiberboard-Bathroom	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
MH-15775MM4-1 / 23065315-007 Floor Tile, Tile	Brown Non-Fibrous Homogeneous		98% Other	2% Chrysotile
MH-15775MM4-1 / 23065315-007 Floor Tile, Mastic	Black Non-Fibrous Heterogeneous		100% Other	None Detected
MH-15775MM4-1 / 23065315-007 Floor Tile, Fiberboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
MH-15775MM4-2 / 23065315-008 Floor Tile, Tile				Not Analyzed

Analyst: 

Approved Signatory: 

Analysis Date: 11/29/2023

Date: 11/29/2023



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Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
MH-15775MM4-2 / 23065315-008 Floor Tile, Mastic	Black Non-Fibrous Heterogeneous		100% Other	None Detected
MH-15775MM4-2 / 23065315-008 Floor Tile, Fiberboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
MH-15775MM5-1 / 23065315-009 Crawl Space Cover	Grey Non-Fibrous Heterogeneous		80% Other	20% Chrysotile
MH-15775MM6-1 / 23065315-010 Chimney Brick	Various Non-Fibrous Heterogeneous		100% Other	None Detected
MH-15775MM7-1 / 23065315-011 Chimney Mortar	Grey Non-Fibrous Heterogeneous		100% Other	None Detected
MH-15775MM8-1 / 23065315-012 Chimney Access Grout	Brown Non-Fibrous Heterogeneous		100% Other	None Detected
MH-15775MM9-1 / 23065315-013 Window Glazing	Tan Non-Fibrous Homogeneous		100% Other	< 1% Chrysotile
MH-15775MM10-1 / 23065315-014 Exterior Siding And Vapor Barrier, Siding	Grey Non-Fibrous Homogeneous		100% Other	None Detected
MH-15775MM10-1 / 23065315-014 Exterior Siding And Vapor Barrier, Vapor Barrier	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
MH-15775MM10-1 / 23065315-014 Exterior Siding And Vapor Barrier, Fiberboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

Analyst:

Approved Signatory:

Analysis Date: 11/29/2023

Date: 11/29/2023



SanAir ID Number
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Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
MH-15775MM10-2 / 23065315-015 Exterior Siding And Vapor Barrier, Siding	Grey Non-Fibrous Homogeneous		100% Other	None Detected
MH-15775MM10-2 / 23065315-015 Exterior Siding And Vapor Barrier, Vapor Barrier	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
MH-15775MM10-2 / 23065315-015 Exterior Siding And Vapor Barrier, Fiberboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
MH-15775MM11-1 / 23065315-016 Shingles And Roofing Felt, Shingle	Grey Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
MH-15775MM11-1 / 23065315-016 Shingles And Roofing Felt, Shingle	Black Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
MH-15775MM11-1 / 23065315-016 Shingles And Roofing Felt, Felt	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
MH-15775MM12-1 / 23065315-017 Chimney Flue	Red Non-Fibrous Homogeneous		100% Other	None Detected
WH-15775MM1-1 / 23065315-018 Exterior Siding And Vapor Barrier, Siding	Red Non-Fibrous Homogeneous		100% Other	None Detected
WH-15775MM1-1 / 23065315-018 Exterior Siding And Vapor Barrier, Vapor Barrier	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected

Analyst:

Approved Signatory:

Analysis Date: 11/29/2023

Date: 11/29/2023



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Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
WH-15775MM1-1 / 23065315-018 Exterior Siding And Vapor Barrier, Fiberboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
WH-15775MM1-2 / 23065315-019 Exterior Siding And Vapor Barrier, Siding	Red Non-Fibrous Homogeneous		100% Other	None Detected
WH-15775MM1-2 / 23065315-019 Exterior Siding And Vapor Barrier, Vapor Barrier	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
WH-15775MM1-2 / 23065315-019 Exterior Siding And Vapor Barrier, Fiberboard	Brown Fibrous Homogeneous	95% Cellulose	5% Other	None Detected
WH-15775MM2-1 / 23065315-020 Shingles And Roofing Felt, Shingle	Grey Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
WH-15775MM2-1 / 23065315-020 Shingles And Roofing Felt, Shingle	Black Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
WH-15775MM2-1 / 23065315-020 Shingles And Roofing Felt, Felt	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
GH-15775MM1-1 / 23065315-021 Ceiling Insulation	Tan Fibrous Homogeneous	95% Glass	5% Other	None Detected
GH-15775MM2-1 / 23065315-022 Shingles And Roofing Felt, Shingle	Grey Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected

Analyst:

Approved Signatory:

Analysis Date: 11/29/2023

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Received Date: 11/28/2023 10:15:00 AM

Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
GH-15775MM2-1 / 23065315-022 Shingles And Roofing Felt, Shingle	Black Non-Fibrous Heterogeneous	10% Glass	90% Other	None Detected
GH-15775MM2-1 / 23065315-022 Shingles And Roofing Felt, Felt	Black Fibrous Homogeneous	80% Cellulose	20% Other	None Detected
GH-15775MM3-1 / 23065315-023 Asphalt Siding	Red Non-Fibrous Heterogeneous	15% Cellulose	85% Other	None Detected
GH-15775MM3-2 / 23065315-024 Asphalt Siding	Red Non-Fibrous Heterogeneous	15% Cellulose	85% Other	None Detected
GH-15775MM4-1 / 23065315-025 Window Glazing	White Non-Fibrous Homogeneous		98% Other	2% Chrysotile
GH-15775MM5-1 / 23065315-026 Vermiculite Ceiling Insulation	Various Non-Fibrous Heterogeneous		100% Other	< 1% Actinolite
GH-15775MM5-2 / 23065315-027 Vermiculite Ceiling Insulation	Various Non-Fibrous Heterogeneous		100% Other	< 1% Actinolite
GH-15775MM5-3 / 23065315-028 Vermiculite Ceiling Insulation	Various Non-Fibrous Heterogeneous		100% Other	< 1% Actinolite
C-15775MM1-1 / 23065315-029 Camper Ceiling Board	White Fibrous Homogeneous	90% Cellulose	10% Other	None Detected
C-15775MM2-1 / 23065315-030 Camper Insulation	Yellow Fibrous Homogeneous	95% Glass	5% Other	None Detected

Analyst: 

Approved Signatory: 

Analysis Date: 11/29/2023

Date: 11/29/2023



SanAir ID Number
23065315
FINAL REPORT
11/29/2023 10:12:30 AM

Name: Environmental & Asbestos Services, Inc
Address: 3343 US-23 South
Alpena, MI 49707
Phone: 989-356-8764

Project Number: EAS2023-028
P.O. Number:
Project Name: 15775 Pine St, Hillman, MI
Collected Date: 11/21/2023
Received Date: 11/28/2023 10:15:00 AM

Analyst: Magalis, Lane

Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
C-15775MM3-1 / 23065315-031 Camper Wallboard	White Fibrous Homogeneous	95% Cellulose	5% Other	None Detected

Analyst:

Approved Signatory:

Analysis Date: 11/29/2023

Date: 11/29/2023

Disclaimer

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NYELAP Disclaimer:

Polarized- light microscopy is not consistently reliable in detecting asbestos in floor covering and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Asbestos Accreditations

National Voluntary Laboratory Accreditation Program (NVLAP) Lab Code 200870-0
City of Philadelphia Department of Public Health Air Management Services, Certification#ALL-460
Commonwealth of Pennsylvania Department of Environmental Protection Number 68-05397
California State Environmental Laboratory Accreditation Program Certificate Number 2915
Colorado Department of Public Health and Environment Registration Number AL-23143
Connecticut Department of Public Health Environmental Laboratory Registration Number PH-0105
Massachusetts Department of Labor Standards Asbestos Analytical Services License Number: AA000222
State of Maine Department of Environmental Protection License Number: LB-0075, LA-0084
New York State Department of Health Laboratory ID: 11983
State of Rhode Island Department of Health Certification No.: PCM00126, PLM00126, TEM00126
Texas Department of State Health Services License Number: 300440
Commonwealth of Virginia Department of Professional and Occupational Regulation Number: 3333000323
State of Washington Department of Ecology Laboratory ID: C989
State of West Virginia Bureau for Public Health Analytical Laboratory Number: LT000616
Vermont Department of Health License Number: Asb-Co-An-000006
Louisiana Department of Environmental Quality AI Number 212253, Certificate #05088



10501 Trade Ct., Suite 100
N. Chesterfield, VA 23236
804.897.1177 / 888.895.1177
Fax 804.897.0070
sanair.com

Asbestos
Chain of Custody
Form 140, Rev 7, 10/20/2022

SanAir ID Number

13065315

Company: Environmental & Asbestos Services, Inc.	Project #: EAS2023-028	Collected by: Ray Brege
Address: PO Box 6	Project Name: 15775 Pine St, Hillman, MI	Phone #: 989-356-8764
City, St., Zip: Alpena, MI 49707	Date Collected: 11/21/2023	Fax #:
State of Collection: MI Account#: 2801	P.O. Number:	Email: easllc@live.com

Bulk			Air			Soil		
ABB	PLM EPA 600/R-93/116	<input checked="" type="checkbox"/>	ABA	PCM NIOSH 7400	<input type="checkbox"/>	ABSE	PLM EPA 600/R-93/116 (Qual.)	<input type="checkbox"/>
	Positive Stop	<input checked="" type="checkbox"/>	ABA-2	OSHA w/ TWA*	<input type="checkbox"/>	Vermiculite		
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>	ABTEM	TEM AHERA	<input type="checkbox"/>	ABB	PLM EPA 600/R-93/116	<input type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count	<input type="checkbox"/>	ABATN	TEM NIOSH 7402	<input type="checkbox"/>	ABEPA3	PLM EPA 400 Point Count	<input type="checkbox"/>
ABBN	PLM EPA NOB**	<input type="checkbox"/>	ABT2	TEM Level II	<input type="checkbox"/>	ABCM	Cincinnati Method	<input type="checkbox"/>
ABBCH	TEM Chatfield**	<input type="checkbox"/>	Other:		<input type="checkbox"/>	Dust		
ABBTM	TEM EPA NOB**	<input type="checkbox"/>	New York ELAP			ABWA	TEM Wipe ASTM D-6480	<input type="checkbox"/>
ABQ	PLM Qualitative	<input type="checkbox"/>	ABEPA2	NY ELAP 198.1	<input type="checkbox"/>	ABDMV	TEM Microvac ASTM D-5755	<input type="checkbox"/>
			ABENY	NY ELAP 198.6 PLM NOB	<input type="checkbox"/>			
			ABBNY	NY ELAP 198.4 TEM NOB	<input type="checkbox"/>			
			Positive Stop			Matrix	Other	<input type="checkbox"/>

** Available on 24-hr. to 5-day TAT

Water	
ABHE	EPA 100.2 <input type="checkbox"/>

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	1 Day <input checked="" type="checkbox"/> RSR
	<input type="checkbox"/> 2 Days	<input checked="" type="checkbox"/> 3 Days	<input type="checkbox"/> 4 Days	<input type="checkbox"/> 5 Days

Special Instructions	
----------------------	--

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start - Stop Time*
MH-15775MM1-1	Drywall				
MH-15775MM1-2	Drywall				
MH-15775MM2-1	Bathroom tile glazing				
MH-15775MM2-2	Bathroom tile glazing				
MH-15775MM3-1	Fiber board-bathroom				
MH-15775MM3-2	Fiber board-bathroom				
MH-15775MM4-1	Dark brown floor tile				
MH-15775MM4-2	Dark brown floor tile				
MH-15775MM5-1	Crawl space cover				
MH-15775MM6-1	Chimney brick				
MH-15775MM7-1	Chimney mortar				
MH-15775MM8-1	Chimney access grout				

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	11/27/23	12:05 p	UPS Store 11/27/23	11/27/23	12:30 p

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of \$150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.



The Identification Specialists

Analysis Report
prepared for
Environmental & Asbestos Services, Inc

Report Date: 12/11/2023

Project Name: 15775 Pine St, Hillman, MI

Project #: EAS2023-028

SanAir ID#: 23066482



NVLAP LAB CODE 200870-0

10501 Trade Court | North Chesterfield, Virginia 23236
888.895.1177 | 804.897.1177 | fax: 804.897.0070 | IAQ@SanAir.com | SanAir.com



SanAir ID Number
23066482
FINAL REPORT
12/11/2023 12:47:59 PM

Name: Environmental & Asbestos Services, Inc
Address: 3343 US-23 South
Alpena, MI 49707
Phone: 989-356-8764

Project Number: EAS2023-028
P.O. Number:
Project Name: 15775 Pine St, Hillman, MI
Collected Date: 11/21/2023
Received Date: 12/5/2023 9:45:00 AM

Dear Richard Brege,

We at SanAir would like to thank you for the work you recently submitted. The 2 sample(s) were received on Tuesday, December 05, 2023 via Fax or Email request. The final report(s) is enclosed for the following sample(s): MH-15775MM9-1, GH-15775MM4-1.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

A handwritten signature in black ink that reads "Sandra Sobrino".

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:

- 2 samples in Good condition.



SanAir ID Number
23066482
FINAL REPORT
12/11/2023 12:47:59 PM

Name: Environmental & Asbestos Services, Inc
Address: 3343 US-23 South
Alpena, MI 49707
Phone: 989-356-8764

Project Number: EAS2023-028
P.O. Number:
Project Name: 15775 Pine St, Hillman, MI
Collected Date: 11/21/2023
Received Date: 12/5/2023 9:45:00 AM

Analyst: Moore, Brandi

Asbestos Bulk EPA PLM 400 Point Count

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
MH-15775MM9-1 / 23066482-001 Window Glazing	Tan Non-Fibrous Homogeneous		99.75% Other	0.25% Chrysotile
GH-15775MM4-1 / 23066482-002 Window Glazing	White Non-Fibrous Homogeneous		100% Other	< 0.25% Chrysotile

Analyst:

Brandi Moore

Approved Signatory:

Jonathan Wilson

Analysis Date: 12/11/2023

Date: 12/11/2023

Disclaimer and Additional Information

400 Point Count Method EPA 600/R-93/116

EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples

EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

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Asbestos Accreditations

National Voluntary Laboratory Accreditation Program (NVLAP) Lab Code 200870-0
City of Philadelphia Department of Public Health Air Management Services, Certification#ALL-460
Commonwealth of Pennsylvania Department of Environmental Protection Number 68-05397
California State Environmental Laboratory Accreditation Program Certificate Number 2915
Colorado Department of Public Health and Environment Registration Number AL-23143
Connecticut Department of Public Health Environmental Laboratory Registration Number PH-0105
Massachusetts Department of Labor Standards Asbestos Analytical Services License Number: AA000222
State of Maine Department of Environmental Protection License Number: LB-0075, LA-0084
New York State Department of Health Laboratory ID: 11983
State of Rhode Island Department of Health Certification No.: PCM00126, PLM00126, TEM00126
Texas Department of State Health Services License Number: 300440
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State of Washington Department of Ecology Laboratory ID: C989
State of West Virginia Bureau for Public Health Analytical Laboratory Number: LT000616
Vermont Department of Health License Number: Asb-Co-An-000006
Louisiana Department of Environmental Quality AI Number 212253, Certificate #05088

Revision Date: 5/10/2023

23066482

From: Richard Brege <easllc@live.com>
Sent: Tuesday, December 5, 2023 9:40 AM
To: IAQ Forward <iaq@sanair.com>
Cc: Jonathan G. Tallert <jtallert@sanair.com>
Subject: Re: Analysis Report for Job 23065315 is complete.

EXTERNAL EMAIL: DO NOT CLICK
on links or attachments unless you
recognize the sender and know the
content is safe.

Hello Jamiel;

That was my error, I meant to include the second window
glazing sample for the ABEPA analysis and not the floor tile
sample.

That would be 23065315-025 and the -013 samples.

Thank you
Rich

Richard Brege PG
Senior Project Manager

Environmental & Asbestos Services, Inc.
P.O. Box 6
Alpena, Michigan 49707
telephone 989-356-8764

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From: IAQ Forward <iaq@sanair.com>
Sent: Tuesday, December 5, 2023 9:32 AM
To: Richard Brege <EASLLC@live.com>
Cc: Jonathan G. Tallert <jtallert@sanair.com>
Subject: Re: Analysis Report for Job 23065315 is complete.

Good Morning Richard,

For this request, sample 23065315-007 cannot be analyzed using ABEPA. This sample will need to be analyzed using ABBEN (PLM EPA NOB) which requires your approval. Please let us know if this is acceptable so we can proceed.

Respectfully,

Jamie Dannouf
Customer Service Representative
SanAir Technologies Laboratory, Inc.
10501 Trade Court
N. Chesterfield, VA 23236
Phone 804-897-1177 Ext 206
Fax 804-897-0070

RMB DEC 05 2023 9:45am

~~DEC 04 2023~~

23066482

www.SanAir.com**The Identification Specialists**

Asbestos, Lead & Metals, Microbiology, Legionella, Materials Science Testing

View my profile on
LinkedIn**2018, 2019, 2020, and 2021 Winner of Top work places in Richmond**

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From: Richard Brege <easllc@live.com>**Sent:** Tuesday, December 5, 2023 9:22 AM**To:** Jonathan G. Tallert <jtallert@sanair.com>**Subject:** Re: Analysis Report for Job 23065315 is complete.

EXTERNAL EMAIL: DO NOT CLICK
on links or attachments unless you
recognize the sender and know the
content is safe.

Good Morning Jonathan

Proceed with the ABEP3 analysis for a 4-day TAT on the 3
vermiculite samples, first positive stop.

I would like would like to run 23065315-007 and 23065315-013 for ABEP3 analysis 4 day TAT, 1st positive stop.

Please let me know if you have any questions.

Thank you
RichRichard Brege PG
Senior Project Manager**Environmental & Asbestos Services, Inc.**
P.O. Box 6
Alpena, Michigan 49707
telephone 989-356-8764

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From: Jonathan G. Tallert <jtallert@sanair.com>**Sent:** Tuesday, December 5, 2023 8:49 AM

RMB DEC 05 2023 9:45am

23066482

To: Richard Brege <EASLLC@live.com>

Cc: IAQ Forward <iaq@sanair.com>; AsbestosVA <AsbestosVA@sanair.com>

Subject: Re: Analysis Report for Job 23065315 is complete.

Good morning Richard,

Our team does have enough material remaining for further testing. Please let us know if you'd like to proceed with ABEPA3 testing and what turn around time you need. Thank you!

Jonathan Tallert
Asbestos Laboratory Supervisor
SanAir Technologies Laboratory
10501 Trade Court
N. Chesterfield, VA 23236

804.897.1177

www.sanair.com



Full-service asbestos testing laboratory offering PCM, TEM, and PLM analysis. Analytical and consulting services for environmental microbial testing, which includes analysis of mold and bacteria for indoor air quality (IAQ) investigations and DNA sequencing for the identification of Legionella in water.

From: Richard Brege <easllc@live.com>

Sent: Monday, December 4, 2023 4:41 PM

To: IAQ Forward <iaq@sanair.com>

Subject: Re: Analysis Report for Job 23065315 is complete.

EXTERNAL EMAIL: DO NOT CLICK on links or attachments unless you recognize the sender and know the content is safe.

Good Afternoon;

I would like some information regarding analysis of the vermiculate samples from this batch 23065315-026,027,028 and whether there is sufficient sample left for reanalysis. I am

particularly interested in ABEPA-3 or other suitable method. Please contact me at your earliest convenience.

Rich

Richard Brege PG
Senior Project Manager

Environmental & Asbestos Services, Inc.
P.O. Box 6
Alpena, Michigan 49707
telephone 989-356-8764

RMB DEC 05 2023 9:45am

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Fax 804.897.0070
sanair.com

Asbestos
Chain of Custody
Form 140, Rev 7, 10/20/2022

SanAir ID Number

23066482
~~12065315~~

Company: Environmental & Asbestos Services, Inc.		Project #: EAS2023-028	Collected by: Ray Brege
Address: PO Box 6		Project Name: 15775 Pine St, Hillman, MI	Phone #: 989-356-8764
City, St., Zip: Alpena, MI 49707		Date Collected: 11/21/2023	Fax #:
State of Collection: MI	Account#: 2801	P.O. Number:	Email: easllc@live.com

Bulk		Air		Soil	
ABB	PLM EPA 600/R-93/116 <input checked="" type="checkbox"/>	ABA	PCM NIOSH 7400 <input type="checkbox"/>	ABSE	PLM EPA 600/R-93/116 (Qual.) <input type="checkbox"/>
	Positive Stop <input checked="" type="checkbox"/>	ABA-2	OSHA w/ TWA* <input type="checkbox"/>	Vermiculite	
ABEPA	PLM EPA 400 Point Count <input type="checkbox"/>	ABTEM	TEM AHERA <input type="checkbox"/>	ABB	PLM EPA 600/R-93/116 <input type="checkbox"/>
ABBIK	PLM EPA 1000 Point Count <input type="checkbox"/>	ABATN	TEM NIOSH 7402 <input type="checkbox"/>	ABEPA3	PLM EPA 400 Point Count <input type="checkbox"/>
ABBEN	PLM EPA NOB** <input type="checkbox"/>	ABT2	TEM Level II <input type="checkbox"/>	ABCM	Cincinnati Method <input type="checkbox"/>
ABBCH	TEM Chatfield** <input type="checkbox"/>	Other:	<input type="checkbox"/>	Dust	
ABBTM	TEM EPA NOB** <input type="checkbox"/>	New York ELAP		ABWA	TEM Wipe ASTM D-6480 <input type="checkbox"/>
ABQ	PLM Qualitative <input type="checkbox"/>	ABEPA2	NY ELAP 198.1 <input type="checkbox"/>	ABDMV	TEM Microvac ASTM D-5755 <input type="checkbox"/>
		ABENY	NY ELAP 198.6 PLM NOB <input type="checkbox"/>		
		ABBNY	NY ELAP 198.4 TEM NOB <input type="checkbox"/>		
		Positive Stop <input type="checkbox"/>		Matrix	Other <input type="checkbox"/>

** Available on 24-hr. to 5-day TAT

Water	
ABHE	EPA 100.2 <input type="checkbox"/>

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	1 Day <input checked="" type="checkbox"/> RFR
	<input type="checkbox"/> 2 Days	<input checked="" type="checkbox"/> 3 Days	<input type="checkbox"/> 4 Days	<input type="checkbox"/> 5 Days

Special Instructions	
----------------------	--

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start - Stop Time*
MH-15775MM1-1	Drywall				
MH-15775MM1-2	Drywall				
MH-15775MM2-1	Bathroom tile glazing				
MH-15775MM2-2	Bathroom tile glazing				
MH-15775MM3-1	Fiber board-bathroom				
MH-15775MM3-2	Fiber board-bathroom				
MH-15775MM4-1	Dark brown floor tile				
MH-15775MM4-2	Dark brown floor tile				
MH-15775MM5-1	Crawl space cover				
MH-15775MM6-1	Chimney brick				
MH-15775MM7-1	Chimney mortar				
MH-15775MM8-1	Chimney access grout				

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	11/27/23	12:05 p	<i>[Signature]</i>	11/27/23	12:30 p
			<i>[Signature]</i>	11/28/23	10:15 a

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of \$150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

[illegible]

Special Instructions	
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Relinquished by	Date	Time	Received by	Date	Time
RWD/Bey	11/27/23	12:05p	UPS Store 12m	11/27/23	12:05p
				11/28/23	10:17a

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of \$150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges. Page of



The Identification Specialists

Analysis Report
prepared for
Environmental & Asbestos Services, Inc

Report Date: 12/11/2023

Project Name: 15775 Pine St, Hillman, MI

Project #: EAS2023-028

SanAir ID#: 23066483



NVLAP LAB CODE 200870-0

10501 Trade Court | North Chesterfield, Virginia 23236
888.895.1177 | 804.897.1177 | fax: 804.897.0070 | IAQ@SanAir.com | SanAir.com



SanAir ID Number
23066483
FINAL REPORT
12/11/2023 12:31:35 PM

Name: Environmental & Asbestos Services, Inc
Address: 3343 US-23 South
Alpena, MI 49707
Phone: 989-356-8764

Project Number: EAS2023-028
P.O. Number:
Project Name: 15775 Pine St, Hillman, MI
Collected Date: 11/21/2023
Received Date: 12/5/2023 9:45:00 AM

Dear Richard Brege,

We at SanAir would like to thank you for the work you recently submitted. The 3 sample(s) were received on Tuesday, December 05, 2023 via Fax or Email request. The final report(s) is enclosed for the following sample(s): GH-15775MM5-1, GH-15775MM5-2, GH-15775MM5-3.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

A handwritten signature in black ink that reads "Sandra Sobrino". The signature is written in a cursive, flowing style.

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:

- 3 samples in Good condition.



SanAir ID Number
23066483
FINAL REPORT
12/11/2023 12:31:35 PM

Name: Environmental & Asbestos Services, Inc
Address: 3343 US-23 South
Alpena, MI 49707
Phone: 989-356-8764

Project Number: EAS2023-028
P.O. Number:
Project Name: 15775 Pine St, Hillman, MI
Collected Date: 11/21/2023
Received Date: 12/5/2023 9:45:00 AM

Analyst: Moore, Brandi

Asbestos EPA PLM 400 Point Count - Vermiculite

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
GH-15775MM5-1 / 23066483-001 Vermiculite Ceiling Insulation	Various Non-Fibrous Heterogeneous		99.75% Other	0.25% Actinolite
GH-15775MM5-2 / 23066483-002 Vermiculite Ceiling Insulation	Various Non-Fibrous Heterogeneous		100% Other	< 0.25% Actinolite
GH-15775MM5-3 / 23066483-003 Vermiculite Ceiling Insulation	Various Non-Fibrous Heterogeneous		100% Other	< 0.25% Actinolite

Analyst: *Brandi Moore*

Approved Signatory: *Johnathan Wilson*

Analysis Date: 12/11/2023

Date: 12/11/2023

Disclaimer and Additional Information

400 Point Count Method EPA 600/R-93/116, Section 2.4.5.2.2.: Milling. Samples are cryo-milled prior to analysis.

EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples

EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

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Asbestos Accreditations

National Voluntary Laboratory Accreditation Program (NVLAP) Lab Code 200870-0
City of Philadelphia Department of Public Health Air Management Services, Certification#ALL-460
Commonwealth of Pennsylvania Department of Environmental Protection Number 68-05397
California State Environmental Laboratory Accreditation Program Certificate Number 2915
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Connecticut Department of Public Health Environmental Laboratory Registration Number PH-0105
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State of Maine Department of Environmental Protection License Number: LB-0075, LA-0084
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Texas Department of State Health Services License Number: 300440
Commonwealth of Virginia Department of Professional and Occupational Regulation Number: 3333000323
State of Washington Department of Ecology Laboratory ID: C989
State of West Virginia Bureau for Public Health Analytical Laboratory Number: LT000616
Vermont Department of Health License Number: Asb-Co-An-000006
Louisiana Department of Environmental Quality AI Number 212253, Certificate #05088

23066483

From: Richard Brege <easllc@live.com>
Sent: Tuesday, December 5, 2023 9:40 AM
To: IAQ Forward <iaq@sanair.com>
Cc: Jonathan G. Tallert <jtallert@sanair.com>
Subject: Re: Analysis Report for Job 23065315 is complete.

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content is safe.

Hello Jamiel;

That was my error, I meant to include the second window
glazing sample for the ABEPA analysis and not the floor tile
sample.

That would be 23065315-025 and the -013 samples.

Thank you
Rich

Richard Brege PG
Senior Project Manager

Environmental & Asbestos Services, Inc.
P.O. Box 6
Alpena, Michigan 49707
telephone 989-356-8764

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From: IAQ Forward <iaq@sanair.com>
Sent: Tuesday, December 5, 2023 9:32 AM
To: Richard Brege <EASLLC@live.com>
Cc: Jonathan G. Tallert <jtallert@sanair.com>
Subject: Re: Analysis Report for Job 23065315 is complete.

Good Morning Richard,

For this request, sample 23065315-007 cannot be analyzed using ABEPA. This sample will need to be analyzed using ABBEN (PLM EPA NOB) which requires your approval. Please let us know if this is acceptable so we can proceed.

Respectfully,

Jamiel Dannouf
Customer Service Representative
SanAir Technologies Laboratory, Inc.
10501 Trade Court
N. Chesterfield, VA 23236
Phone 804-897-1177 Ext 206
Fax 804-897-0070

RMB DEC 05 2023 9:45am

23066483

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From: Richard Brege <easllc@live.com>**Sent:** Tuesday, December 5, 2023 9:22 AM**To:** Jonathan G. Tallert <jtallert@sanair.com>**Subject:** Re: Analysis Report for Job 23065315 is complete.

EXTERNAL EMAIL: DO NOT CLICK on links or attachments unless you recognize the sender and know the content is safe.

Good Morning Jonathan

Proceed with the ABEP3 analysis for a 4-day TAT on the 3 vermiculite samples, first positive stop.

I would like would like to run 23065315-007 and 23065315-013 for ABEP3 analysis 4 day TAT, 1st positive stop.

Please let me know if you have any questions.

Thank you
Rich

Richard Brege PG
Senior Project Manager

Environmental & Asbestos Services, Inc.

P.O. Box 6
Alpena, Michigan 49707
telephone 989-356-8764

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From: Jonathan G. Tallert <jtallert@sanair.com>**Sent:** Tuesday, December 5, 2023 8:49 AM

RUB DEC 05 2023 9:45am

23066483

To: Richard Brege <EASLLC@live.com>

Cc: IAQ Forward <iaq@sanair.com>; AsbestosVA <AsbestosVA@sanair.com>

Subject: Re: Analysis Report for Job 23065315 is complete.

Good morning Richard,

Our team does have enough material remaining for further testing. Please let us know if you'd like to proceed with ABEPA3 testing and what turn around time you need. Thank you!

Jonathan Tallert
Asbestos Laboratory Supervisor
SanAir Technologies Laboratory
10501 Trade Court
N. Chesterfield, VA 23236

804.897.1177
www.sanair.com



Full-service asbestos testing laboratory offering PCM, TEM, and PLM analysis. Analytical and consulting services for environmental microbial testing, which includes analysis of mold and bacteria for indoor air quality (IAQ) investigations and DNA sequencing for the identification of Legionella in water.

From: Richard Brege <easllc@live.com>

Sent: Monday, December 4, 2023 4:41 PM

To: IAQ Forward <iaq@sanair.com>

Subject: Re: Analysis Report for Job 23065315 is complete.

EXTERNAL EMAIL: DO NOT CLICK on links or attachments unless you recognize the sender and know the content is safe.

Good Afternoon;

I would like some information regarding analysis of the vermiculate samples from this batch 23065315-026,027,028 and whether there is sufficient sample left for reanalysis. I am

particularly interested in ABEPA-3 or other suitable method. Please contact me at your earliest convenience.

Rich

Richard Brege PG
Senior Project Manager

Environmental & Asbestos Services, Inc.
P.O. Box 6
Alpena, Michigan 49707
telephone 989-356-8764

RMB DEC 05 2023 9:45am

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Fax 804.897.0070
sanair.com

Asbestos
Chain of Custody
Form 140, Rev 7, 10/20/2022

SanAir ID Number

23066483

13065315

Company: Environmental & Asbestos Services, Inc.		Project #: EAS2023-028	Collected by: Ray Brege
Address: PO Box 6		Project Name: 15775 Pine St, Hillman, MI	Phone #: 989-356-8764
City, St., Zip: Alpena, MI 49707		Date Collected: 11/21/2023	Fax #:
State of Collection: MI	Account#: 2801	P.O. Number:	Email: easllc@live.com

Bulk		Air		Soil	
ABB	PLM EPA 600/R-93/116 <input checked="" type="checkbox"/>	ABA	PCM NIOSH 7400 <input type="checkbox"/>	ABSE	PLM EPA 600/R-93/116 (Qual.) <input type="checkbox"/>
	Positive Stop <input checked="" type="checkbox"/>	ABA-2	OSHA w/ TWA* <input type="checkbox"/>	Vermiculite	
ABEPA	PLM EPA 400 Point Count <input type="checkbox"/>	ABTEM	TEM AHERA <input type="checkbox"/>	ABB	PLM EPA 600/R-93/116 <input type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count <input type="checkbox"/>	ABATN	TEM NIOSH 7402 <input type="checkbox"/>	ABEPA3	PLM EPA 400 Point Count <input type="checkbox"/>
ABBEN	PLM EPA NOB** <input type="checkbox"/>	ABT2	TEM Level II <input type="checkbox"/>	ABCM	Cincinnati Method <input type="checkbox"/>
ABBCH	TEM Chatfield** <input type="checkbox"/>	Other:	<input type="checkbox"/>	Dust	
ABBTM	TEM EPA NOB** <input type="checkbox"/>	New York ELAP		ABWA	TEM Wipe ASTM D-6480 <input type="checkbox"/>
ABQ	PLM Qualitative <input type="checkbox"/>	ABEPA2	NY ELAP 198.1 <input type="checkbox"/>	ABDMV	TEM Microvac ASTM D-5755 <input type="checkbox"/>
		ABENY	NY ELAP 198.6 PLM NOB <input type="checkbox"/>	Matrix	
		ABBNY	NY ELAP 198.4 TEM NOB <input type="checkbox"/>	Other	
Water		Positive Stop <input type="checkbox"/>			
ABHE	EPA 100.2 <input type="checkbox"/>				

** Available on 24-hr. to 5-day TAT

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	1 Day <input checked="" type="checkbox"/> RRR
	<input type="checkbox"/> 2 Days	<input checked="" type="checkbox"/> 3 Days	<input type="checkbox"/> 4 Days	<input type="checkbox"/> 5 Days

Special Instructions	
----------------------	--

Sample #	Sample Identification/Location	Volume or Area	Sample Date	Flow Rate*	Start - Stop Time*
MH-15775MM1-1	Drywall				
MH-15775MM1-2	Drywall				
MH-15775MM2-1	Bathroom tile glazing				
MH-15775MM2-2	Bathroom tile glazing				
MH-15775MM3-1	Fiber board-bathroom				
MH-15775MM3-2	Fiber board-bathroom				
MH-15775MM4-1	Dark brown floor tile				
MH-15775MM4-2	Dark brown floor tile				
MH-15775MM5-1	Crawl space cover				
MH-15775MM6-1	Chimney brick				
MH-15775MM7-1	Chimney mortar				
MH-15775MM8-1	Chimney access grout				

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	11/27/23	12:05 p	<i>[Signature]</i>	11/27/23	12:05 p
			<i>[Signature]</i>	11/28/23	10:15 a

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of \$150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.

[illegible]

Special Instructions	
-----------------------------	--

Relinquished by	Date	Time	Received by	Date	Time
RWD/Bey	11/27/23	12:05p	UPS Store 12m	11/27/23 11/28/23	12:05p 10:48a

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of \$150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges. Page of

State of Michigan

Department of Labor and Economic Opportunity

Michigan Occupational Safety & Health Administration - Asbestos Program

Asbestos Inspector



Raymond J. Brege

1322 Andrea Street
Ypsilanti, MI 48198

Accreditation Number

A52433

Expiration Date

09/03/2023

DOB: 09/13/1988

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1988, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not
valid if altered.

158954

State of Michigan

Department of Labor and Economic Opportunity
Michigan Occupational Safety & Health Administration - Asbestos Program



Asbestos Inspector



Richard J. Brege

9970 West Long Lake Road
Alpena, MI 49707

Accreditation Number

A4112

Expiration Date

03/02/2024



DOB: 12/13/1962

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1989, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered.

162759

APPENDIX B
HAZARDOUS MATERIALS DISPOSAL AND HANDLING INFORMATION

UNIVERSAL WASTE

GUIDANCE

INTRODUCTION

The universal waste rules were designed to promote recycling and simplify disposal for certain types of commonly generated hazardous waste. The universal waste rules reduce the regulatory burden in managing certain types of hazardous wastes without compromising human health and environmental protections. When managing waste under the universal waste rules, a generator can presume the waste is a hazardous waste and manage it to meet all of the universal waste requirements.

UNIVERSAL WASTE DEFINITION

All facilities, including manufacturing industries, commercial businesses, governmental agencies, health care providers, administrative offices, and other non-household waste generators, are required to determine if they generate hazardous waste (see the [Waste Characterization](#) guidance). Michigan facilities may choose to handle the following hazardous waste types as universal waste under the streamlined universal waste standards:

- **Aerosol cans:** A container in which gas under pressure is used to aerate and dispense any material through a valve in the form of a spray or foam.
- **Antifreeze:** A mixture containing ethylene glycol or propylene glycol used as a heat transfer or dehydration fluid.
- **Batteries:** A device which consists of one or more electrically connected electrochemical cells and which is designed to receive, store, and deliver electric energy. This category includes hazardous waste batteries such as nickel-cadmium, spent lead-acid, and lithium batteries.
- **Consumer electronics:** A device containing an electronic circuit board, liquid crystal display, or plasma display which is commonly found in homes and offices and these devices when used in other settings.
- **Devices containing elemental mercury:** A device or part of a device (excluding batteries and lamps) that contains elemental mercury integral to its function. Some commonly recognized devices are thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches, such as light switches in automobiles.

- **Lamps:** The bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Lamps can exhibit the toxicity characteristic for some heavy metals (i.e., mercury, lead, cadmium). Examples of universal waste lamps include incandescent, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium and metal halide lamps.
- **Pesticides:** Certain suspended, canceled, or unused pesticides.
- **Pharmaceuticals:** Drugs for both human and veterinary use.

Universal waste has alternative management standards found in Rule 228 of the [Part 111 hazardous waste rules](#). Generators may elect to manage universal waste types following these standards instead of managing it as a fully regulated hazardous waste. The designation of consumer electronics, antifreeze, and pharmaceuticals as a universal waste type is unique to Michigan. Moreover, by February 22, 2022, EGLE is required to adopt new federal hazardous waste regulations for handling hazardous waste pharmaceuticals from healthcare and rescind the designation of pharmaceuticals as a universal waste type.

When households generate these types of wastes, they are not regulated in the same way unless the household waste is mixed with universal waste from a non-household. If mixed, the mixture must all be managed to meet the universal waste standards.

If generators choose not to handle these waste streams as universal waste, they need to manage them to meet the requirements that apply to their generator category. Those requirements vary depending on the weight of hazardous waste generated at the site each month. This information is used to determine the site's hazardous waste generator category — large quantity generator (LQG), small quantity generator (SQG), or very small quantity generator (VSQG) of hazardous waste. The more hazardous waste a site generates, the greater the hazard associated with the waste, and the more regulation the site must meet. To understand the generator categories and requirements that apply, see the [Hazardous Waste Generator Category and Summary of Accumulation Requirements](#).

Universal waste spill and cleanup materials are not eligible for management as a universal waste. The weight of the spill and clean-up materials must be included when making a site's monthly generator category determination. SQGs and VSQGs may consider using the episodic generator requirements found under Rule 316 of the [Part 111 hazardous waste rules](#) to maintain their existing generator category. For a summary of the episodic generator requirements, see the [SQG Requirements](#) and [VSQG Requirements](#) guides.

UNIVERSAL WASTE BENEFITS

Some of the biggest benefits to managing wastes under the universal waste standards include:

- The generator does not need to maintain elaborate waste characterization data, as the waste is being managed as a hazardous waste under the most stringent environmental standards for recycling or disposal.
- The generator does not include the weight of the waste when determining the site's monthly generator category. This can decrease a site's generator category, minimize the regulatory requirements the site must meet, and eliminate some of the recordkeeping needed for generator category determinations.
- The generator may accumulate universal waste on-site for up to one year, much longer than the 90 or 180 days allowed for LQGs and SQGs, respectively. This generally reduces cost by minimizing the number of pick-ups needed for recycling or disposal.
- The generator has greater flexibility in locating accumulation containers. Containers can be placed in areas convenient for staff. Universal waste containers do not have to be located at the point of generation under the control of an operator or in an accumulation area with secondary containment as is required when managing the waste under the SQG and LQG regulations.

MANAGING UNIVERSAL WASTE

A business or government agency that generates or stores universal waste is a universal waste handler. Sites that recycle, treat, or dispose of universal waste are universal waste destination facilities. Destination facilities must comply with the state and federal requirements for recycling, treating, or disposing of hazardous waste.

Universal waste handlers are classified as Small Quantity Handlers (SQH) or Large Quantity Handlers (LQH) depending on the amount of universal waste accumulated at any one time. SQHs accumulate less than 5,000 kilograms(kg) (11,000 pounds) total of all universal waste types combined at any time. LQHs accumulate 5,000 kg (11,000 pounds) or more of all universal waste types combined at any time. This designation as a LQH is retained through the end of the calendar year in which this amount of universal waste accumulated exceeds the SQH limit.

The following table describes the requirements for both categories of universal waste handlers:

REQUIREMENTS FOR SMALL AND LARGE QUANTITY HANDLERS OF UNIVERSAL WASTE

Topic	Requirement
Site ID Number	SQH: Not required LQH: Required before meeting or exceeding 5,000 kg of universal waste
Prohibitions	Must not dispose, dilute, or treat universal waste except when responding to releases. Some limited activities are allowed and highlighted below.
Universal waste accumulation time limit	One year from the date the waste was generated or received from another handler. The time limit must be tracked. Mark the universal waste with the generated or received date or keep records to verify how long you have accumulated it.
Labeling	Required, see below.
Accumulation	Containers and tanks must be in good condition, structurally sound, and compatible with the type of universal waste accumulated in them. Containers and tanks must be accumulated in a manner that prevents any spills or releases. Tanks must meet all requirement found under Title 40 of the Code of Federal Regulations, Part 256, Subpart J.*
Employee training	SQH: Employees must be informed of proper universal waste handling and emergency procedures. Training records are not required. LQH: Employees must be thoroughly familiar with proper universal waste handling and emergency procedures. Training records are not required.
Releases from universal waste	Must prevent releases of universal waste to the environment; must immediately contain, clean up and properly characterize any such releases. Depending on the type of universal waste and release, there may be release reporting requirements under various regulations. Learn more at Michigan.gov/ChemRelease .
Hazardous waste manifests/Land Disposal Restriction (LDR) notification forms for off-site shipments	Hazardous waste manifests and LDR notices are not required for shipments within Michigan. If receiving state does not recognize the universal waste designation, use a hazardous waste manifest to meet other state's requirements. Note in Box 14 waste was managed as a universal waste when in Michigan. If waste is liquid, a permitted, registered and insured liquid industrial by-products transporter is required and the shipment must be documented on a liquid industrial by-products shipping document . If shipment is a hazardous materials, US DOT packaging, labeling, marking, placarding, shipping papers and training rules apply.

REQUIREMENTS FOR SMALL AND LARGE QUANTITY HANDLERS OF UNIVERSAL WASTE - Continued

Topic	Requirement
Off-site shipments	Ship only to a site that has agreed to accept the universal waste. Confirm the universal waste destination facility receiving the shipment is an authorized destination facility. If hauling own liquid waste generated from equipment which you own, maintain required insurance for liquid industrial by-products transport.
Recordkeeping	<p>SQH: Not specifically required but is recommended to:</p> <ul style="list-style-type: none"> ✓ demonstrate SQH category is maintained, and ✓ universal waste is accumulated for no more than 1 year. <p>Labeling and signage may be used for demonstrating compliance as well as records.</p> <p>LQH: Must keep a record of each shipment received at, or sent from, the facility for three years from the shipment date (e.g., logs, manifests, bills of lading). The following must be recorded:</p> <ul style="list-style-type: none"> ✓ Name and address where the waste came from if received from handler or where was shipped to another ✓ Quantity of each waste type (e.g. batteries, electric lamps, pesticides, or mercury containing devices) received or shipped out. ✓ Date when shipment was received or sent out
Reporting	Required for universal waste handlers and destination facilities accepting universal waste liquids from another universal waste handler.

* Depending on the type and amount of universal waste being accumulated, secondary containment and surveillance may be required under the water regulations. To learn more, go to [Michigan.gov/Part5](https://www.michigan.gov/Part5).

AEROSOL CANS

Aerosol cans are a common waste generated by most businesses. Aerosol cans contain a product and propellant under pressure. The product is released from the aerosol can (the container) in the form of a spray or mist when the nozzle is pressed to apply the product. As the product is used, the propellant is also used. An aerosol can is specifically defined under the hazardous waste regulations as a non-refillable container that:

- contains a gas compressed, liquified, or dissolved under pressure, for which the sole purpose is to spray a liquid, paste, or powder, and
- is fitted with a self-closing release device which allows the contents to be ejected by the gas.

Examples of products commonly dispensed using aerosol cans include:

- maintenance products (degreasers and cleansers)
- beauty products (hair sprays and perfumes)
- surface coating products (paints and varnishes)
- personal care products
- pharmaceutical products (inhalers), and
- pesticides (ant or wasp sprays)

Although EGLE does not consider empty aerosol cans a reactive hazardous waste, some states do and most solid waste vendors require special waste approvals for aerosols due to the explosion hazard they present when compacted.

Unused aerosol cans become a waste on the date the universal waste handler decides to discard it. Used aerosol cans become a waste when discarded and not empty. Non-empty aerosol cans that contain pesticides may be managed as universal waste.

When managed as universal waste, the universal waste handler regulations require handlers to manage aerosol cans in a way that prevents a release of any component of universal waste to the environment. Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, and lacks evidence of leakage, spillage, or damage that could cause leakage. Containers must be protected from heat sources (e.g., open flames; lightning; smoking; cutting and welding; hot surfaces; frictional heat; and static, electrical, and mechanical sparks).

Leaking or damaged aerosol cans must be either packaged in a separate closed container, overpacked with absorbents, or immediately punctured and drained.

Individual aerosol cans or aerosol can storage containers must be labeled with the words “Universal Waste—Aerosol Cans,” “Waste Aerosol Cans,” or “Used Aerosol Cans.”

Handlers may sort aerosol cans by type, mix intact cans into one container, remove nozzles to reduce risk of accidental release, and puncture and drain empty aerosol cans if the cans are recycled and residual liquids are properly characterized and managed.

Handlers that puncture universal waste aerosol cans must also meet the following requirements specified under the universal waste regulations:

- ✓ Puncturing and draining must be conducted using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions.
- ✓ Handlers must develop and follow a written procedure detailing how to safely puncture and drain aerosol cans. This procedure must address proper assembly, operation, and maintenance of the puncturing unit, segregation of incompatible wastes, and proper waste management practices to prevent fires and releases. Handlers must maintain a copy of the puncturing device manufacturer’s instructions onsite and ensure employees operating the device are trained in the proper procedures.

- ✓ Puncturing must be performed in a manner designed to prevent fires and releases into the environment. This includes, but is not limited to, locating the equipment on a solid, flat surface in a well-ventilated area.
- ✓ The contents from the waste aerosol can or puncturing device are immediately transferred to a container or tank that meets requirements of [hazardous waste rules that apply to the site's generator status](#) or the [liquid industrial by-products generator requirements](#).
- ✓ Handlers must determine if the contents from the emptied aerosol cans are hazardous waste. Any hazardous waste generated from puncturing the cans is subject to all hazardous waste regulations, and the handler is considered the generator of the hazardous waste.
- ✓ Handlers must have a written procedure for cleaning up spills or leaks of the contents of the aerosol cans. A spill cleanup kit must be provided, and all spills or leaks must be cleaned up promptly.

Universal waste generators may also puncture and drain non-empty universal waste aerosol cans, but secondary universal waste handlers cannot unless they are a universal waste destination facilities licensed under the hazardous waste regulations. Air permitting and hazardous waste licensing is required in some cases prior to installing aerosol can puncturing process equipment. For details on additional regulations that apply to puncturing beyond the universal waste rules, please see the [aerosol can puncture guide](#).

ANTIFREEZE

Antifreeze is a mixture of water, coolant, and additives. It is used to protect engines and other equipment against overheating and corrosion and also from freezing in low temperatures. It is also used as a deicing agent for airplanes. The two most common coolants used in antifreeze are ethylene glycol and propylene glycol. Most antifreeze is nonhazardous and may be managed as a [liquid industrial by-product](#). However, sometimes antifreeze becomes a hazardous waste because it contains:

- Regulated concentrations of lead or cadmium that leached from a radiator.
- Regulated concentrations of benzene from gasoline that leaked into the antifreeze.
- Listed solvents from over-spraying aerosol products such as brake and carburetor cleaners that get into the antifreeze.
- Other hazardous wastes that were missed with the antifreeze.

If a company assumes or specifically knows its antifreeze is hazardous and manages it as a universal waste, it must be managed to meet the universal waste handler requirements, in addition to the requirements for managing [liquid industrial byproducts](#). Containers and tanks must be labeled with words "Universal Waste Antifreeze," "Waste Antifreeze," or "Used Antifreeze." The containers must be kept closed, except to add or remove universal waste. The containers must be structurally sound,

compatible with the antifreeze, and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. Storage tanks must meet additional requirements in [40 C.F.R. part 265, subpart J](#), except for 40 C.F.R. §§265.197(c), 265.200, and 265.201, which includes, but not limited to:

- Professional engineer certifications required for new tank systems and integrity assessments of existing tank systems.
- Inspections at least once each operating day.
- Secondary containment.
- General operating requirements.

Any spills must be immediately clean up, properly characterized and disposed.

BATTERIES

A battery is a device with one or more electrically connected electrochemical cells that is designed to receive, store, and deliver electric energy. An electrochemical cell is a system that consists of an anode, a cathode, an electrolyte, and any connections that are needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

A *used* battery becomes a waste when it is discarded. An *unused* battery becomes a waste when the handler decides to discard it. Batteries must be managed in a way that prevents releases to the environment. Batteries that show evidence of leakage, spillage or damage that could cause a leakage must be placed in a container that is closed, structurally sound, compatible with the contents of the battery, and lacks evidence of leakage, spillage or damage that could cause a leakage.

Handlers are allowed to conduct the following activities with batteries that are intact:

- Sort batteries by type.
- Mix battery types in one containers.
- Discharge batteries to remove the electric charge.
- Regenerate used batteries.
- Disassemble batteries or battery packs into individual batteries.
- Remove electrolyte.
- Remove batteries from discarded consumer products.

If a handler removes electrolytes from universal waste batteries, the handler must determine if the electrolyte exhibits a characteristic of hazardous waste. If it exhibits a characteristic of hazardous waste, it is a newly generated waste and not a universal waste and must be managed as a hazardous waste.

Universal waste batteries (e.g., each battery) or a container in which the batteries are contained must be labeled with any of the following: “Universal Waste-Battery(ies)” or “Waste Battery(ies)” or “Used Battery(ies).”

Lead acid batteries are banned from disposal in Michigan’s landfills and incinerators and are normally handled under Rule 804 of the Part 111 rules, instead of the universal waste rule. Under Rule 804, the company must characterize the waste batteries and meet [LDRs](#) including having the one-time notice/certification on file. The LDR does not apply to VSQGs. When being recycled, the battery volume is not included when determining generator category. It is not necessary to use hazardous waste manifests when shipping the used lead acid batteries to a recycler, nor hire a permitted and registered hazardous waste transporter. In addition, there is no time limit in the state regulations on how long you may store the lead acid batteries before shipping. There may be local ordinances that have time limits or other requirements. Shipments need to meet the US DOT transportation requirements unless it meets an exception in 49 CFR 173.159.

CONSUMER ELECTRONICS

Consumer electronics are devices run by electricity containing circuit boards commonly found in offices and homes such as computers, printers, fax machines, telephones, printers, televisions, etc. Cathode ray tubes (CRTs) from equipment like computers and televisions may be handled as either consumer electronics or electric lamps universal waste. Consumer electronics include intact devices. Dismantled electronics do not qualify for management as a universal waste.

Consumer electronics must be managed in a manner that prevents breakage or a release by containing the consumer electronics in packaging that will prevent breakage during normal handling conditions. Handlers must properly contain, classify, and dispose of releases of consumer electronics and their residues.

The outer packaging or a container must be labeled with the words “Universal Waste Electronics” or “Universal Waste Consumer Electronics.”

Handlers may do any of the following under the universal waste regulation:

- Repair electronics for potential redirect reuse.
- Remove other universal waste, e.g., batteries from the electronics.
- Remove individual modular components for direct reuse.
- Wipe hard drives to destroy data.

To find recyclers, search the [Recycled Materials Market Directory](#) for electronics or see the EGLE list of registered electronic recyclers at Michigan.gov/EGLEEWaste. Many electronic waste ‘recyclers’ are actually universal waste handlers that resell refurbished equipment and components. However, if a recycler is processing electronic waste, please contact the Materials Management Division [District Office](#) to discuss operations to determine if additional permits are needed.

DEVICES CONTAINING ELEMENTAL MERCURY

A thermostat is a temperature control device that contains elemental mercury in an ampule attached to a bimetal sensing element and includes mercury-containing ampules that have been removed from the temperature control device. Other device containing elemental mercury include mercury thermometers, vehicle switches, and sphygmomanometers.

A *used* thermostat, mercury switch, or other device containing only elemental mercury as its hazardous waste constituent becomes a waste on the date it is discarded. An *unused* device becomes a waste on the date the handler decides to discard it.

The universal waste regulations do not apply to mercury that was removed from devices or ampules (e.g., mercury collected in a container). Facilities will need to manage that mercury under the hazardous waste rules that apply to their generator status.

Mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage must be placed in a container that is closed, structurally sound, compatible with the contents of the device, lacks evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment, and reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

Handlers may remove mercury-containing ampules from if the following conditions are met:

- ✓ Ampules are removed and managed in a manner designed to prevent breakage.
- ✓ Removed the ampules only over or in a containment device.
- ✓ A mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks to a container.
- ✓ Any mercury resulting from spills or leaks from broken ampules are immediately transferred from the containment device to a container.
- ✓ The area in which ampules are removed is well ventilated and monitored to ensure compliance with OSHA exposure levels for mercury.
- ✓ Employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures.
- ✓ Removed ampules are stored in closed, non-leaking containers that are in good condition.
- ✓ Removed ampules are packed in the container with packing materials adequate to prevent breakage during storage, handling, and transportation.

If the handler removes the original housing that holds mercury in devices that do not contain ampules, the handler must immediately seal the original housing to prevent a mercury release and follow the ampule management requirements discussed above.

Handlers must determine if mercury clean-up residues resulting from spills or leaks or any solid waste generated as a result of the removal of mercury-containing ampules or housings exhibit characteristics of hazardous waste. If these materials exhibit a characteristic of hazardous waste, they must be managed in compliance with all [hazardous waste rules that apply to their generator status](#). The handler is considered the generator of the mercury residues, and/or other spill clean-up waste.

Universal waste mercury-containing equipment (i.e., each device), or a container in which the equipment is contained, must be labeled, or marked clearly with “Universal Waste - Mercury-Containing Equipment”, or “Waste Mercury-Containing Equipment”, or “Used Mercury-Containing Equipment”.

A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats, must be labeled, or marked clearly with “Universal Waste - Mercury Thermostat(s),” or “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s).”

LAMPS

A lamp is the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Common lamps include fluorescent, high intensity discharge, sodium vapor, mercury vapor, neon, and incandescent lamps, light emitting diode, and cathode ray tubes (CRTs) from computers and televisions. A company may choose to handle CRTs as consumer electronics or electric lamp universal waste in Michigan.

Used lamps become waste on the date the handler permanently removes it from its fixture. *Unused lamps* become waste on the date the handler decides to discard it.

Lamps must be managed in manner that prevents releases to the environments and must be stored in packages that are structurally sound, adequate to prevent breakage, compatible with the contents of the of the lamps, closed, and lack evidence of leakage, spillage, or damage that leakage or releases of mercury or other hazardous constituents to the environment.

Handlers must immediately clean up and place any lamp that is broken in packaging and place any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment in packaging that is structurally sound, adequate to prevent breakage, compatible with the contents of the of the lamps, closed, and lack evidence of leakage, spillage or damage that leakage or releases of mercury or other hazardous constituents to the environment. Broken lamps generally cannot be handled as universal waste in Michigan. Additionally, many recyclers only want to handle unbroken/uncrushed lamps. If you are managing lamps as a universal waste and experience incidental breakage while handling, if the container remains intact and closed, preventing any release, contact your universal waste handler to determine whether they can accept your waste and any additional requirements you must take to ensure proper handling upon receipt.

Individual lamps or storage containers must be labeled with the words “Universal Waste Lamp(s)” or “Waste Lamp(s)” or “Used Lamp(s).”

Do not crush or break the lamps. Operating a lamp crushing device (sometimes called drum top crusher) requires a permit from the Air Quality Division and there are additional hazardous waste requirements. Once the lamps are broken, they cannot be managed as universal waste.

PESTICIDES

A pesticide is a substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant.

Recalled, suspended, and cancelled pesticides, and unused pesticides that have not been recalled but are collected and managed as part of a waste pesticide collection program may be managed as a universal waste. *Recalled, suspended, and cancelled* pesticides become a waste on the first date on which the generator agrees to participate in the voluntary or mandatory recall and the person conducting the recall decides to discard it. An *unused* pesticide becomes a waste on the date the generator decides to discard it.

When managed as universal waste, handlers must manage pesticides in a way that prevents a release or any component of universal waste to the environment. Universal waste pesticides must be contained in one or more of the following:

- A container that is closed, structurally sound, compatible with the pesticide, and lacking evidence of leakage, spillage or damage that could cause leakage.
- An overpacked container that is closed, structurally sound, compatible with the pesticide, and lacking evidence of leakage, spillage or damage that could cause leakage.
- A tank that meets the requirements of [40 CFR part 265 subpart J](#).
- A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide; and lacking evidence of leakage, spillage or damage that could cause leakage.

A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides are contained is labeled or marked clearly with the label that was on or accompanied the product as sold or distributed and the words “Universal Waste—Pesticide(s)” or “Waste Pesticide(s).”

PHARMACEUTICALS

Pharmaceuticals are chemical formulations used in the diagnosis, cure, mitigation, treatment, therapy, or prevention of disease in humans or animals. A pharmaceutical becomes a waste when it can no longer be administered to a patient and must be discarded.

Universal waste pharmaceuticals must be accumulated in a manner that prevents release. They must be placed in containers that remain closed, except to add or remove waste and the containers are to be labeled with the words “Universal Waste Pharmaceuticals.” The container must be

structurally sound, compatible with the waste, and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable circumstances. If a container does not meet these conditions, it is to be overpacked in a container that does meet these conditions. Incompatible pharmaceuticals must be segregated by adequate distance to prevent the contact of incompatible materials. If a release of pharmaceuticals or component of pharmaceuticals occurs, the release must be immediately cleaned up and properly characterized for disposal. Spill and clean-up waste cannot be managed as a universal waste pharmaceutical.

Universal waste pharmaceutical handlers can disassemble packaging and sort pharmaceuticals.

Michigan is the only state with pharmaceuticals designated as a universal waste type. Consequently, when managing universal waste pharmaceuticals in Michigan, they can be documented on a shipping document and transported within Michigan by an authorized liquid industrial by-products transporter to another universal waste handler. If the shipping only contains *solid* pharmaceuticals, no documentation is required and an EGLE permitted and registered transporter is not required. However, when shipping universal waste pharmaceuticals out of state, both solids and liquids, the shipment must be documented on a uniform hazardous waste manifest and transported by a permitted and registered hazardous waste transporter to a licensed hazardous waste disposal facility. Michigan recommends noting in Box 14 of the manifest that the shipment was managed as a universal waste when managed in Michigan. This helps verify that the weight of the shipment is not included when making a generator category determination.

On February 22, 2019, the United States Environmental Protection Act issued new federal hazardous waste rules for managing hazardous waste pharmaceuticals in healthcare. The federal rulemaking prohibits healthcare providers nationally from sewerage hazardous waste pharmaceuticals for disposal as of August 18, 2020. Michigan has until February 22, 2022, to adopt the other mandatory provisions in the rules into Michigan's hazardous waste rules and abandon the designation of pharmaceuticals as a universal waste. Until the federal rules are formally adopted and become effective, pharmaceuticals may be managed as a universal waste in Michigan.

For additional information on handling pharmaceuticals now, and after Michigan adopts the new federal rulemaking, please see the following resources:

- [Handling Unwanted Pharmaceuticals and their Containers in Healthcare](#)
- [Recorded Webinar on Existing and Proposed Pharmaceutical Waste Regulations](#)
- [UPDATED Webinar Notes Reflecting Proposed and Final Federal Rules for Pharmaceutical Waste](#)
- [Notice on Sewer Ban for Hazardous Waste Pharmaceuticals under New National Rules for Healthcare](#)
- [MHA Healthcare Pharmaceutical Waste Management Guide](#)
- [MHA Guide Example Pharmaceutical Posting](#)

ADDITIONAL ASSISTANCE

For additional assistance, contact the Environmental Assistance Center at 800-662-9278 or EGLE-Assist@Michigan.gov and ask to for the hazardous waste program staff in your county.

This publication is intended for guidance only and may be impacted by changes in legislation, rules, policies, and procedures adopted after the date of publication. Although this publication makes every effort to teach users how to meet applicable compliance obligations, use of this publication does not constitute the rendering of legal advice.

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