Analysis of Brownfield Cleanup Alternatives

480 S. 3rd Street
Clinton, Clinton County, Iowa 52732
April 24, 2023

Terracon Project No. 07207086; Task 22/32.4

Prepared for:
East Central Intergovernmental Association (E.C.I.A.)
Dubuque, Iowa

Prepared by:
Terracon Consultants, Inc.
Bettendorf, Iowa

April 24, 2023

East Central Intergovernmental Association (ECIA)
7600 Commerce Park
Dubuque, Iowa 52002-9673

Attn: Ms. Dawn Danielson
P: (563) 690-5772
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Re: Analysis of Brownfield Cleanup Alternatives
Clinton YMCA - 480 S. 3rd Street
Clinton, Clinton County, Iowa 52732
Terracon Project No. 07207086 T22/32.4
Brownfields Assessment Grant: BF97782001

Dear Ms. Danielson:

Terracon Consultants, Inc. (Terracon) is pleased to submit the attached Analysis of Brownfield Cleanup Alternatives (ABCA) for the above referenced site to East Central Intergovernmental Association (ECIA). The attached ABCA was prepared under Brownfields Assessment Grant BF97782001 and in general accordance with the United States Environmental Protection Agency (USEPA or EPA) cooperative agreement awarded 9/18/2020 as grant Number: BF97782001; the ECIA Standard Consultant Contract f*or Qualified Environmental Professional (QEP)* dated December 3, 2020; Terracon's proposal dated February 24, 2022, and the ECIA Notice to Proceed dated February 28, 2022.

The purpose of this ABCA is to assess cleanup alternatives of known asbestos containing materials and asbestos contaminated debris, lead-containing paint, and microbial growth identified during Terracon's services conducted the site during 2021 and 2022.

Terracon appreciates the opportunity to provide this service to ECIA. If you have questions regarding this report, please contact us at 563-355-0702.

Sincerely,
Terracon Consultants, Inc.

James R. Baxter
Environmental Group Manager

Dennis R. Sensenbrenner, PG
Senior Associate/Project Reviewer

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480 S. 3rd Street
Clinton, Iowa 52732
Cooperative Agreement No. # BF97782001
Terracon Project No. 07207086

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1.0 INTRODUCTION

This Analysis of Brownfield Cleanup Alternatives (ABCA) is in support of evaluating cleanup alternatives and establishing the costs related to the cleanup necessary to support redevelopment of the property at 480 S. 3rd Street Clinton, Clinton County, Iowa (the site). Based on information provided by the City of Clinton, Iowa (the City), the general intent of the project is to clean up the site to make the property more attractive to contractors and/or developers that might be interested in redeveloping the site. A topographic map with the general site location is provided as **Exhibit 1** located in **Appendix A**. A Site Diagram is provided as **Exhibit 2** located in **Appendix A**.

This ABCA is intended to briefly summarize information about the site and contamination issues, cleanup standards, applicable laws, cleanup alternatives considered, and the proposed cleanup, and includes information on the effectiveness, the ability of the grantee to implement each alternative, the cost of each proposed cleanup alternative, an evaluation of how commonly accepted climate change conditions might impact proposed cleanup alternatives, and an analysis of the reasonableness of the various cleanup alternatives considered, including the best available option based on the current understanding of the site. The ABCA is intended as a brief preliminary document summarizing the larger and more detailed technical and financial evaluations performed in addressing each of these areas.

Cleanup alternatives were evaluated in general accordance with United States Environmental Protection Agency (USEPA or EPA) Region 7 protocols and general guidance required prior to implementation of a cleanup design using EPA Brownfields Grant funding. More specifically, this ABCA summarizes viable cleanup alternatives based on site-specific conditions, technical feasibility, resiliency to climate change conditions, and preliminary cost/benefit analyses. Specific cleanup alternatives and associated recommendations are presented in the applicable sections of this report.

1.1 Background

Based on information obtained from the Clinton County Assessor's Office[1], the site is an approximate 0.96-acre commercially zoned property located at 480 S. 3rd Street, Clinton, Clinton County, Iowa. The property is improved with an approximate 27,000 square-feet vacant structure (original portion constructed in 1905, with reported additions in 1960 and 1978) and associated paved parking and drives areas. The structure was historically used as a Young Men's Christian Association (YMCA) recreational facility. The site is currently unoccupied and has been observed to be in generally poor condition.

[1] Posted at: https://clintoncity.iowaassessors.com/parcel.php?gid=260951.

1.2 Site Assessment History

1.2.1 Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) was conducted at the site in September 2021 in general accordance with ASTM E1527-13 to identify recognized environmental conditions associated with the property. The following recognized environmental conditions (RECs) were identified during the Phase I ESA:

- A historical petroleum filling station adjoined the site to the northeast during the 1950s and 1960s. The petroleum filling station operated prior to the period of regulatory oversight of the state.

1.2.2 Asbestos and Lead-Based Paint Survey

In conjunction with the Phase I ESA, Terracon completed an Asbestos and Lead-Based Paint Survey of the onsite buildings. Laboratory analysis of bulk samples confirmed the presence of asbestos in samples collected from the structure(s). Asbestos containing materials (ACMs) and materials containing less than 1% asbestos are summarized in Tables 1 and 2 in Terracon's Asbestos and Lead-Based Paint Survey Report (the Survey Report), dated January 21, 2022, which is provided in **Appendix B**.

The ACM is considered regulated asbestos containing materials (RACM) and, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 Code of Federal Regulations (CFR) Part 61, Subpart M, must be removed by a licensed asbestos abatement contractor prior to or in coordination with demolition/renovation of the buildings and disposed at an approved landfill. RACM includes friable ACM and non-friable ACM that will be or has been subjected to sanding, grinding, cutting abrading or has crumbled, pulverized or reduced to power in the course of demolition or renovation. The Survey Report, dated January 21, 2022, recommended that that identified ACMs be managed by an Iowa-permitted asbestos abatement contractor prior to demolition or remodeling of the structure. Preparation of an asbestos removal work plan was also recommended.

As indicated in the Survey Report, lead-based paint (LBP) was also identified on building component surface coatings. The lead paint survey is presented in Table 5 in Appendix A of the Survey Report, which is attached as **Appendix B** of this document. The EPA regulates lead use, removal, and disposal, while the Occupational Safety and Health Administration (OSHA) regulates workers exposures to lead. Further, OSHA lead standards apply regardless of the concentration of lead in paints/materials.

1.2.3 Phase II Environmental Site Assessment

The Phase II Environmental Site Assessment (the Phase II ESA) was completed in accordance the EPA approved Property Specific Sampling and Analysis Plan (PSAP) dated December 13, 2021, and the Generic Quality Assurance Project Plan (QAPP), dated April 7, 2021. The objective of the Phase II Environmental Site Assessment was to determine whether petroleum contaminated soil and/or groundwater were of concern for the site in regard to potential human or environment exposure and/or specific waste handling and disposal needs during redevelopment activities.

Lead in soil samples collected from the site exceeded the Iowa Department of Natural Resource's (IDNR) statewide standards (SWS) for soils. Groundwater could not be assessed due to the presence of shallow limestone bedrock. Therefore, lead in soil was determined to be a contaminant of concern and represented the following exposure concerns:

1. Occupant dermal/ingestion exposure (surface contamination)
2. Contractor dermal/ingestion exposure (during excavation)

Copies of the ESA and Phase II ESA reports were provided to the IDNR for review and comment regarding the need for additional investigation. Per a letter from the IDNR dated March 10, 2022; lead was identified in soil in excess of screening standards, however the IDNR did not find evidence suggesting the existence of a hazardous condition, and therefore did not require further assessment. The IDNR deferred the need for additional environmental assessment. A copy of the Phase II ESA report is provided in **Appendix C**. A copy of the IDNR letter is provided as **Appendix E**.

1.2.4 Moisture and Microbial Assessment Services

Terracon also completed moisture and microbial assessment services at the site in August 2022. These services were requested to identify moisture and microbial growth in the 1905 building of the structure.

Based on Terracon's visual assessment of the site, musty odors were generally present throughout the 1905 building and were noted to be strongest throughout the basement and on the main level. In addition, a significant portion of the miscellaneous materials, debris, and trash located throughout the building appeared to be impacted by either moisture or microbial growth. Relative humidity levels in the building generally exceeded the recommended guidelines of 60% humidity; several locations in the basement exceeded 80% relative humidity.

Terracon conducted a moisture assessment of building materials in the 1905 portion of the building. The results of the moisture evaluation were varied, with results (primarily on the second and third floors) in the dry range; a significant portion of the results in the at risk or caution range, and several materials in the basement and select first floor areas were considered to be wet.

Terracon also collected thirty-five air samples (spore traps) for total fungal structures and six surface samples (tape lifts) for fungal growth from the site to evaluate microbial growth in the building(s). The fungal spore trap sampling results were varied; indoor air total spore concentrations ranged from less than (<) 13 spores per cubic meter (m^3) to 210,000 spores/m^3. The total outdoor fungal spore concentrations were 5,800 spores/m^3 and 6,000 spores/m^3; the types of outdoor fungal spores identified were considered by the analytical laboratory as typical for the outdoor environment and were in the low to high concentration ranges for the month of August in Iowa. Elevated interior air spore concentrations were generally reported in the basement of the building, the stairwells, and in several locations on the second floor (where the 1905 Building is generally open to the adjoining 1961 structure). Surface fungal growth was also identified in samples collected from surfaces in the 1905 portion of the building.

Terracon's Moisture and Microbial Investigation Report dated September 26, 2022 (the Moisture and Microbial Report) is included in **Appendix D.** The Moisture and Microbial Report recommends that moisture- and microbial-impacted materials (porous and semi-porous materials, such as drywall, wood, plaster, ceiling tiles, and wood) be removed from the structure during planned renovation activities. As both asbestos-containing materials and lead-containing paints and coatings are also present in the building, it is presumed that the remediation efforts will be combined and the work will be performed concurrently using appropriate work methods, within the establishment of contained work areas for asbestos-containing materials and lead-containing paints and coatings mitigation. These areas would use negative air machines equipped with High Efficiency Particulate Air (HEPA) filters for remediation, where appropriate. It should be noted that removal of select moisture- and microbial-impacted materials may be required in order to access the asbestos and lead materials.

1.2.5 Structural Assessment

Select Structural Engineering was retained through Terracon's subcontractor (YTT Design Solutions) to inspect and report on the structural condition of the building(s). As presented in their letter dated October 20, 2022, Select Structural Engineering determined the following:

- Building A, the original, 1905 Building is salvageable but does have some structural notations.
- Building B1, the two-story addition which houses the women's locker room, boiler room and office areas is not salvageable. The structural framing is a complete loss and the addition has been significantly impacted by moisture intrusion.
- Building B2, which houses the pool and basketball courts, is salvageable but will require some repairs.
- Building C1, the entrance vestibule/hallway, is in good condition.
- Building C2/C3; hallway, racquetball courts, pool, and men's locker room basketball court, track and office area – would require repair or maintenance of flooring, web joists, and steel skeleton; suspended track is recommended to be deconstructed.

A copy of the letter from Select Structural Engineering is provided as **Appendix F.**

1.3 Summary of Hazardous Substances for Remedy

Regulated hazardous substances for remedy are asbestos containing building materials (ACBMs)/RACM, lead, and moisture- and microbial-impacted building materials.

Asbestos

Asbestos is the name given to a group of six different fibrous minerals that occur naturally in the environment. Asbestos minerals have separable long fibers that are strong and flexible enough to be spun and woven and are heat resistant. Because of these characteristics, asbestos has been used for a wide range of manufactured goods, mostly in building, friction products, heat-resistant fabrics, packaging, gaskets, and coatings. Asbestos fibers can enter the air or water from the breakdown of natural deposits and manufactured asbestos products. Asbestos fibers do not evaporate into air or dissolve in water. Small diameter fibers and particles may remain suspended in air for a long time and be carried long distances by wind or water before settling down. Larger diameter fibers and particles tend to settle more quickly. Asbestos fibers are not able to move through soil. Asbestos fibers are generally not broken down to other compounds and will remain virtually unchanged over long periods. Exposure to asbestos usually occurs by breathing contaminated air in workplaces that make or use asbestos. Asbestos is also found in the air of buildings containing asbestos that are being torn down or renovated. Asbestos exposure can cause serious lung problems and cancer. More detailed information on asbestos is attached as the Agency for Toxic Substance and Disease Registry's ToxFAQ™ for Asbestos (**Appendix G**).

Lead

Lead is a toxic metal historically used in fossil fuels, used in metal alloys, used as a component in various manufactured goods, including paints, and building materials. Lead can also exist naturally in soil. Exposure to lead can occur through inhalation, ingestion, or direct dermal contact. Lead exposure can cause anemia, damage to the central nervous system, kidneys, other health concerns. More detailed information on asbestos is attached as the Agency for Toxic Substance and Disease Registry's ToxFAQTM for Asbestos, (**Appendix G**).

Microbial Growth

Molds include an abundant number of species of microscopic fungi that grow in the form of multicellular filaments, called hyphae. Molds can thrive on any organic matter, including clothing, leather, paper, and the ceilings, walls and floors of structures with moisture management problems. Building materials or building surfaces commonly have resident fungal spores that have settled out of the air or have been filtered out of the air with other particles. Fungal structures, such as hyphae and conidiophores (or other fruiting bodies) seen microscopically in surface samples, typically indicate fungal growth on surfaces, and are associated with the presence of

moisture. When moisture intrusion becomes chronic or involves sewage contamination, potentially toxigenic (toxin producing) molds may become pervasive.

Mildew is a term that is often generically used to describe suspect mold growth with a flat growth habit/appearance and is often associated with areas such as shower walls, windowsills, and other places with routine high moisture levels. In untempered structures and areas without sufficient air exchange such as basements, a strong musty odor is often noted associated with mildew.

There are no State or Federal limits established for fungal growth in, or contamination of building materials. There are currently no regulatory standards, medically based threshold limits, or dose-response relationships for exposure to airborne or surface concentrations of fungal spores. Individuals who are sensitive to fungi may have adverse health effects such as allergic responses and asthma attacks. The OSHA Factsheet for Fungi Hazards and Flood Cleanup is included in **Appendix G** and includes additional information.

2.0 PROJECT GOAL AND RE-USE PLAN

The City currently owns the site and intends to utilize Revolving Loan Fund (RLF) grant dollars to conduct the initial environmental remediation activities at the site, in order to make the site more attractive to developers that have interest in redeveloping the site. It is believed that the City will sell the property, and that the purchaser will make the final determination of the site redevelopment activities. Future redevelopment activities could include partial demolition and renovation of the building(s), complete demolition of the onsite structures, or complete renovation of the site building(s). Based on information provided to the City and ECIA by the State Historic Preservation Office (SHPO), historic tax credits may be available for the redevelopment, as the building is considered historic under Criteria A, which is based on social and cultural aspects of the site.

It is anticipated that EPA brownfield cleanup funding will be used for ACM abatement and incidental LBP/LCP and moisture- and microbial-impacted materials removal from the site structure prior to redevelopment. The cleanup activities allow for immediate and definitive resolution of the public health issues, while final renovations can then proceed on a schedule that time and resources allow without worry or expense of maintaining and isolating damaged materials from public exposure.

3.0 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

3.1 Cleanup Responsibility

The City will be the cooperative agreement recipient and will responsible for hiring qualified contractors to complete the cleanup activities at the site. The City will use a qualified Environmental Professional to assist with contracting documents, cleanup contractor oversight

and final documentation. Asbestos abatement activities, including RACM demo (as required) will need to be conducted by an asbestos abatement contractor permitted in the State of Iowa. The contractor will be responsible for the submittals, all necessary work, labor, services, transportation, equipment, materials, apparatus, subcontract services, investigation and information/data gathering information, permits, data, to complete the project in accordance with the Extent of Work established in the contract documents. Work associated with any lead-based paint/lead containing paint will need to be completed by lead professionals certified by the Iowa Department of Public Health (IDPH). Specific licenses and/or certifications are not required for cleanup or remediation of microbial-impacted materials, however handling of building materials impacted by moisture or fungi should be completed by experienced and qualified firms.

3.2 Cleanup Standards

Asbestos

The asbestos NESHAP (40 CFR Part 61, Subpart M) regulates asbestos fiber emissions and asbestos waste disposal practices. It also requires the identification and classification of existing building materials prior to demolition or renovation activity. Under NESHAP, asbestos-containing building materials are classified as either friable, Category I non-friable, or Category II non-friable ACM. Friable materials are those that, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. Category I non-friable ACM includes packing materials, gaskets, resilient floor coverings and asphalt roofing products containing more than 1 percent (%) asbestos. Category II nonfriable ACM are nonfriable materials other than Category I nonfriable materials that contain more than 1% asbestos.

Regulated ACM (RACM) must be removed before renovation or demolition activities that will disturb the materials. RACM includes:

- Friable ACM;
- Category I nonfriable ACM that has become friable or will be subjected to drilling, sanding, grinding, cutting, or abrading; and
- Category II nonfriable ACM that could be crumbled, pulverized, or reduced to powder during renovation or demolition activities.

In Iowa, asbestos activities are regulated by the IDNR and Iowa Workforce Development (IWD), IDOL. IDNR regulates asbestos fiber emissions under Iowa Administrative Code 567 Chapter 23 (IAC 567-23) and asbestos-containing waste disposal under IAC 567-109. IWD regulates occupational exposure to asbestos under IAC 875-10 and asbestos removal and encapsulation activities under IAC 875-155.

IAC 875-155 Asbestos Removal and Encapsulation requires that any asbestos-related activity conducted in a public building be performed by personnel licensed or permitted by the IWD. The owner or operator must provide the IDNR and IWD with written notification of planned removal

activities at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by an Iowa-permitted asbestos abatement contractor. An IDW-licensed Project Designer should prepare a written abatement design for each abatement project involving the removal of RACM. The IDW asbestos regulations can be found at https://www.iowadivisionoflabor.gov/asbestos-licenses.

The asbestos standard for construction (29 CFR 1926.1101) established by OSHA requires that employee exposure to airborne asbestos fibers be maintained below the permissible exposure limits (PEL). The occupational exposure limits are as follows:

- Asbestos Excursion Limit (excursion limit of 30 minutes): 1.0 f/cc (fibers per cubic centimeter as detected using phase contrast microscopy).
- Asbestos PEL (8-hour time-weighted average permissible exposure level): 0.1 f/cc.

The OSHA standard classifies construction and maintenance activities that could disturb ACM and specifies work practices and precautions that employers must follow when engaging in each class of regulated work. The OSHA asbestos standards may be found at http://www.osha.gov.

Lead in Soil

The Iowa Land Recycling Program (LRP) is a voluntary, risk-based cleanup program for properties with environmental impacts. The LRP is designed to meet the dual objectives of addressing contaminated sites and promoting the redevelopment of these sites. The primary means of meeting these objectives are by encouraging voluntary participation to address contamination by establishing a set of risk-based response action standards, and by providing a measure of liability protection to participants and future property owners. Iowa has finalized a Memorandum of Agreement (MOA) with the EPA. Under the MOA, the EPA agrees not to act at sites enrolled in the LRP.

The IDNR has established a statewide standard of 400 mg/kg and a non-residential, site-specific standard of 1,100 mg/kg for soil less than two feet in depth for lead in soil. For non-residential site-specific standards for soil deeper than two feet and residential site-specific standards for soil deeper than ten feet, the IDNR standard is based on EPA's Exposure Model for Assessing Risk Associated with Adult Exposures to Lead in Soil. Per IAC 567 Chapter 137, if the non-residential land use classification is used, it must be supported by an environmental protection easement that prevents a change in land use to residential.

Lead-Based Paint and Lead-Containing Surface Coatings

IAC 875-10 adopts the OSHA lead standard for construction (29 CFR 1926.62) by reference. The OSHA standard does not define the amount of lead in materials, and it applies to all construction work where an employee may be occupationally exposed to lead. All work related to construction, alteration, or repair (including painting and decorating) is included. The standard applies to any detectable concentration of lead in paint, as even small concentrations of lead can result in

unacceptable employee exposures depending upon on the method of removal and other workplace conditions. Under this standard, construction includes, but is not limited to, the following:

- Demolition or salvage of structures where lead or materials containing lead are present
- Removal or encapsulation of materials containing lead
- New construction, alteration, repair, or renovation of structures, substrates, or portions containing lead, or materials containing lead
- Installation of products containing lead
- Lead contamination/emergency clean-up
- Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed
- Maintenance operations associated with construction activities described above

Employers must assure that no employee will be exposed to lead at concentrations greater than the PEL of 50 $\mu g/m^3$ averaged over an eight-hour period without adequate protection. The OSHA standard also establishes an action level (AL) of 30 $\mu g/m^3$, which if exceeded, triggers certain requirements, including periodic exposure monitoring and medical monitoring.

The Lead Renovation, Repair and Painting (RRP) Rule establishes requirements for firms and individuals performing renovations, and affects contractors, property managers and others who disturb painted surfaces. It applies to work in houses, apartments and child-occupied facilities (such as schools and childcare centers) built before 1978. It includes pre-renovation education requirements as well as training, firm certification and work practice requirements. Additionally, EPA health standards and clearance levels for lead in paint, dust and soil (TSCA Section 402 and 403) include clearance levels that reduce lead dust-related risks to children in child occupied facilities following abatement activities. The clearance levels of lead in dust for floors is 10 micrograms (µg) per square foot (ft^2) and 100 µg/ ft^2 for windowsill dust. At this time, the future use of the facility is unknown. As a result, it is unknown if the facility would meet the definition of child-occupied facility or other activities that may be covered by the RRP.

Microbial Growth

Regulatory standards or medically based threshold limit or dose-response relationships currently do not exist for exposure to airborne or surface concentrations of fungal growth. Experience, professional judgment, current scientific literature, guidelines, recommendations made by professional organizations and experts, and statistical methods are utilized in interpreting fungal sampling results and developing approaches to removal.

Based on the information available for the site, it is assumed that specific microbial remediation activities will be focused in areas of the building that are slated for renovation. Should any portion of the overall structure ultimately be demolished as part of the redevelopment activities at the site,

it is assumed that any microbial remediation efforts in those portions of the building will only be associated with the removal of the asbestos and/or lead hazards. The final decision on the end use of the site will be a key factor in determining the most appropriate methods and anticipated costs for removal of moisture- and microbial-impacted materials.

3.3 Laws & Regulations Applicable to the Cleanup

Laws and regulations applicable to the remediation of the hazardous substances in this cleanup include Federal (Code of Federal Regulations) and State (IAC) regulations. Also applicable to this cleanup are the Brownfields Revitalization Act and the Federal Davis-Bacon Act. In addition, for all City projects that receive funding, state and local laws regarding procurement of contractors, equal opportunity, and the participation of small, women, and minority-owned businesses will be applied.

Asbestos

Applicable asbestos related rules/regulations generally include, but are not limited to the following:

1. Federal Requirements: Federal requirements that govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:
   A. U.S. Department of Labor, OSHA:
      - Asbestos – 29 CFR 1910.1001 (general industry) and 1926.1101 (construction).
      - Respiratory protection – 29 CFR 1910.134.
      - Specifications for accident prevention signs and tags – 29 CFR 1910.145.
      - Medical and first aid – 29 CFR 1910.151.
      - Access to employee exposure and medical records – 29 CFR 1910.1020.
      - Hazard Communication – 29 CFR 1910.1200.
      - Construction industry standards – 29 CFR 1926.

   B. USEPA:
      - Asbestos – 40 CFR 763, Subpart E–Asbestos-Containing Materials in Schools.
      - National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR 61, Subpart A–General Provisions.
      - NESHAP – 40 CFR 61, Subpart M–National Emission Standard for Asbestos.
      - The Clean Water Act - National Pollutant Discharge Elimination System (NPDES).

C. U.S. Department of Transportation 49 CFR 171-180

- Part 171 – Hazardous Substances
- Part 172 – Hazardous Materials Tables, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans
- Part 173 – Shippers – General Requirements for Shipments and Packaging's

2. Applicable Iowa state regulations, Iowa Administrative Code (IAC): All state requirements that govern asbestos abatement work or hauling and disposal of asbestos waste materials shall apply.

   A. IAC 567-23 – Asbestos Fiber Emissions

   B. IAC 567-109 – Asbestos-Containing Waste Disposal

   C. IAC 875-10 – Occupational Exposure to Asbestos

   D. IAC 875-155 – Asbestos Removal and Encapsulation Activities

3. Other considerations for asbestos abatement projects:

- Preparation of abatement specifications by an IWD licensed Project Designer, when required.
- The owner or operator must provide the IDNR and IWD with written notification of planned removal activities at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by an Iowa-permitted asbestos abatement contractor.
- Submittals and associated reviews.
- Conduct asbestos abatement oversight and complete asbestos monitoring, as required.
- Preparation of an asbestos abatement and air monitoring report at the conclusion of the project.

Lead in Soil

The user of this document must understand the limited applicability of the standards adopted under the authority of the LRP. The standards were developed within the narrow focus and constraints of the LRP. While the standards are based on a consideration of risk, they are different from other "risk-based" approaches.

The LRP does not contain standards that are established based on the migration of contaminants from one medium to another, which then becomes the basis for subsequent exposure. This does not mean the IDNR has no concern for these cross-media transfers. IDNR chooses to address them through direct measurement of the medium in which the exposure takes place or through

the calculation of such cross-media transfer standards only when it is determined that such an approach is appropriate in a site-specific context. The intent is to avoid the application of needlessly restrictive standards to situations where they are not a relevant concern. Implicit in the final application of the standards is IDNR concurrence that the standards applied in any given situation address all exposure pathways that are deemed to be of concern. This can only take place when the IDNR is adequately informed of the particulars of a situation. Without IDNR concurrence there should be no presumption that a standard is sufficiently protective or that it will meet the requirements of the LRP.

Most of the standards entail very specific exposure assumptions. Site-specific standards assume that institutional controls will be put in place in order to preserve those exposure assumptions (e.g., a prohibition of residential use or well installation). Implicit in the use of such standards is the assumption that the IDNR has evaluated the exposure assumptions, along with necessary institutional controls, and determined that they are appropriate to the situation.

As a result of the integral role of IDNR in determining and approving the appropriate use of the standards, they should not routinely be used for purposes outside of the LRP, including screening to determine whether a situation is a significant problem or whether it is reportable. Exceptions to this are the statewide standards for a Protected Groundwater Source. These standards may be used in lieu of action levels set by 567 IAC Chapter 133: Rules for Determining Cleanup Actions and Responsible Parties. This does not prevent IDNR from making use of the standards outside of the LRP when applicable and appropriate to projects under their supervision.

Lead-Based Paint and Lead-Containing Surface Coatings

Applicable lead related rules/regulations generally include, but are not limited to the following:

1. Federal Requirements: Federal requirements that govern lead work, transport and lead waste materials include but are not limited to the following:

    A. U.S. Department of Labor, OSHA:

        - 29 CFR Part 1910.1025 Occupational Safety and Health Standards.
        - 29 CFR Part 1926.62 Safety and Health Regulations for Construction.

    B. USEPA:

        - 40 CFR Part 260 Hazardous Waste Management System: General.
        - 40 CFR Part 261 Identification and Listing of Hazardous Waste.
        - 40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste.
        - 40 CFR Part 263 Standards Applicable to Transporters of Hazardous Waste.
        - 40 CFR Part 264 Standards for Owners and Operations of Hazardous Waste Treatment, Storage, and Disposal Facilities.

- 40 CFR Part 265 Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
- 40 CFR Part 268 Land Disposal Restrictions.
- 40 CFR 745 Lead-Based Paint Poisoning in Certain Residential Structures
- 49 CFR Part 172 Hazardous Material Table, Special Provisions, Hazardous Material Communications, Emergency Response Information, and Training Requirements, and Security Plans.
- 49 CFR Part 178 Specifications for Packaging.

C. U.S. Department of Transportation 49 CFR 171-180

2. Applicable Iowa state regulations, IAC:
   A. IAC 641 – Chapter 70 Lead-Based Paint Activities
   B. IAC 641 – Chapter 69 Renovation, Remodeling, and Repainting – Lead Hazard Notification Process.

Microbial Growth

There are no State or Federal limits established for fungal growth in, or contamination of building materials. There are currently no regulatory standards, medically based threshold limits, or dose-response relationships for exposure to airborne or surface concentrations of fungal spores.

4.0 EVALUATION OF CLEANUP ALTERNATIVES

Asbestos, lead in soil, lead-based paints and coatings, and microbial growth are considered hazardous substances relative to cleanup grant funding. EPA proposal guidance requires the ABCA, at a minimum, to consider two different cleanup remedies and a “no action” alternative.

The remedial alternatives were evaluated with consideration of the following factors:

- Effectiveness
- Implementability
- Cost

The feasibility of an alternative involves a determination whether the alternative is a practical solution for addressing the cleanup of contaminants at the site. Factors associated with the feasibility of the alternatives considered were:

- Technical feasibility
- Administrative feasibility
- Community and regulatory acceptance

The effectiveness of an alternative involves its ability to meet the objectives of the overall project. Criteria considered in evaluating the effectiveness of the alternatives were:

- Protection of public health and the environment
- Compliance with applicable or relevant and appropriate regulatory requirements
- Long-term effectiveness and permanence
- Reduction of the hazard
- Short-term effectiveness

In addition to effectiveness, feasibility, and cost considerations, consideration was given to the sustainability of cleanup alternatives regarding current and future climate change concerns. According to the National Oceanic and Atmospheric Administration's (NOAA) National Climate Assessment, the primary climate change conditions identified for the region include increased weather activity. Increased weather activity has been identified as site-specific climate change considerations and the resiliency of each cleanup alternative will be evaluated against these considerations.

4.1 Asbestos Cleanup Alternatives Considered

To address asbestos containing building materials associated with the Site, two different alternatives and a no action alternative were considered. The following subsections present each alternative in greater detail, including estimated costs and potential contingency items:

- Asbestos Cleanup Alternative A: Asbestos Abatement
- Asbestos Cleanup Alternative B: In-Place Management of ACMs
- Asbestos Cleanup Alternative C: No Action

4.1.1 Asbestos Cleanup Alternative A: Asbestos Abatement

Asbestos cleanup Alternative A includes a combination of conventional asbestos abatement using standard industry practices and RACM demolition, as required. Asbestos abatement must be performed by an abatement contractor permitted in the State of Iowa. The owner or operator must provide the IDNR with written notification of planned removal activities at least 10 working days prior to the commencement of asbestos abatement activities (Iowa DNR Form 542-1476).

Areas of the building that may be considered structurally unsafe (such as Building B1, as identified in the report prepared by Select Structural Engineering) may require RACM demolition to remove ACMs that cannot be safely removed via typical industry means and methods.

RACM demolition would require coordination between contractors, the City and the QEP for the City, and potentially other parties to ensure safe demolition means (likely via the alley to the north) and to ensure that the remaining buildings are not structurally impacted during the demolition activities. All debris generated during demolition activities would be kept adequately wet during

such activities so as not to generate visible dust emissions, and all materials within the debris pile would be classified as asbestos waste for the purpose of disposal.

The remainder of the asbestos abatement would consist of setting up regulated areas which would be established prior to the removal of ACMs, utilizing a variety of controls such as poly to establish primary and secondary barriers, negative pressure systems/containments, and/or other applicable measures to prevent asbestos fiber migration beyond the regulated area(s). Abatement procedures require that ACBMs be adequately wetted to control potential spreading of damaged or friable asbestos and airborne particulates. The work would also require decontamination facilities for both abatement workers and for equipment/materials. To aid in the remedial efforts, debris, particulates, and other residual materials would be vacuumed using HEPA units.

Waste from the RACM demolition activities would be loaded directly into trucks lined with poly. Each truck would be sealed and secured following loading, labeled with the appropriate OSHA warning labels and generator information, and transported directly to the designated landfill permitted to accept ACM waste.

Waste from the traditional abatement activities would be containerized in air and leak tight containers to contain ACM in manageable quantities and would be kept adequately wet until final disposal. Waste would be labeled with appropriate OSHA warning labels, Class 9 labels and generator information and disposed in a landfill permitted to accept ACM waste. Landfill disposal authorizations would be secured prior to initiating the work.

An air monitoring program will be recommended for removal of ACMs. Final clearance would be granted following a visual inspection of the work area followed by receipt of acceptable phase contrast microscopy (PCM) air sampling in accordance with National institute for Occupational Safety and Health (NIOSH) 7400 methodology or Transmission Electron Microscopy (TEM) analysis, if indicated by the work removal activities and methods.

Effectiveness

Under this alternative, ACM is permanently removed from the site. This approach is technically effective as a definitive and direct physical elimination of the contaminants and safety concerns that produce unacceptable public risk. The remedy usually does not significantly alter remaining structural conditions, and additional demolition restrictions would not remain following demonstration of clearance criteria related to the removal of the ACMs. Excluding clearance sampling, follow-up inspections and maintenance will not be required. With removal and off-site disposal of contaminants, the approach requires no special post-remedy institutional or land use controls for the property. This option would prevent potential asbestos exposure by future occupants, if the abatement is performed accordance with all Federal, State, and local requirements.

Potential disadvantages include errors during the traditional abatement activities could potentially

release asbestos fibers to the environment. A quality consulting firm with experience in overseeing abatement contractor activities can help to reduce this liability. Additionally, RACM demolition could cause unwanted and consequential damages to life, equipment, and property if not properly executed. This option creates a waste generation stream and associated liabilities for the generator/owner.

The site-specific climate change conditions identified include increased weather activity which could affect building integrity (damaged from storms). With this alternative, increased carbon dioxide and other air emissions will be likely, as heavy equipment will be required for the RACM demolition. The contractor will need to implement methodologies/efforts conduct work to reduce energy use, water use, and to reduce emission of criteria air pollutants and greenhouse gas emissions (i.e., such as not idling vehicles/utilization of clean idle certified equipment, water misters, and carpooling to site). Additionally, all RACM demolition debris would need to be considered asbestos-containing waste material and transported/disposed of at an approved disposal facility; recycling of materials would not be allowable by regulation.

Implementability

This alternative is achievable. The approach requires specialized equipment readily available in the local demolition and engineering markets; a specialized labor force exists in Iowa to accomplish the asbestos removal activities.

Any structurally unsafe/unsound building area requiring RACM demolition will require a demolition order by a Government Agency, with concurrence of the structural assessment. The City may need to condemn a portions of the building deemed unsound. To perform this task RACM demolition, the contractor will also be required to obtain and maintain approval of a work practice variance from the regulatory agencies having control for this option.

RACM demolition activities also pose a potential challenge. Building B1 is situated on the north side of the site, along an alleyway. The positioning of Building B1 relative to the ally/lack of space to maneuver equipment, overhead utilities, and positioning of adjacent structure(s) to remain presents challenges for the demolition contractor. Other subsurface considerations for underground utilities would also have to be taken into consideration. Additionally, wastewater management, management of debris, and protection of structures that are slated to remain will also be a challenge. Significant pre-task planning would be required to properly mitigate these concerns prior to beginning demolition activities at the site. RACM demolition of may not be approved by IDNR/IWD.

The implementation period is shorter-term and can generally be conducted during any time of the year; however, RACM demolition is ideally completed when temperatures are above freezing.

Cost

The cost of completing asbestos abatement, including RACM demolition of Building B1 is estimated to range between $450,000 and $600,000. The costs are dependent on several factors such as time of year, number of staff performing the work, and the specific work methods employed by the demolition and abatement contractors. Site security has been an ongoing issue at the site and should be considered as part of the abatement costs, if only to ensure the integrity of the regulated work areas to prevent fiber migration outside of the work area. In addition, dewatering if the tunnel spaces will be necessary; the level of effort for this activity is currently unknown due to ongoing water intrusion and will have to be evaluated prior to initiating abatement activities.

4.1.2 Asbestos Cleanup Alternative B: In-Place Management of ACMs

Asbestos cleanup Alternative B includes in-place management of asbestos containing materials. In place management would include the preparation of a written program to provide education, training, monitoring and recordkeeping of ACMs in the building(s). The operations and maintenance plan (O&M Plan) would be implemented and managed by the City until the building is turned over to the developer. An O&M Plan is designed to be a proactive program of training requirements, on-going surveillance, specialized cleaning, and work practices established to maintain ACM in a building in good condition.

Removal of all asbestos-containing building materials would not be part of this cleanup Alternative. The principal objective of this Alternative and an O&M Plan is to reduce the potential for fiber release from ACBMs in the building. Typical O&M Plans include work practices to maintain ACM in good condition, describes work techniques to properly clean-up asbestos debris, identifies training and personal protective equipment requirements for maintenance/custodial personnel who could disturb the ACM, and specifies the periodic re-evaluation of the condition of ACM present in the building.

Due to the condition of many of the ACMs (friable, and damaged), this alternative would require asbestos control and abatement procedures that are outside the scope of an O&M Plan. Asbestos abatement project(s) would need to be performed and would need to be performed by an appropriately licensed or accredited asbestos contractor in accordance with applicable asbestos regulations. This alternative would also require annual (at a minimum) inspections by a qualified and licensed asbestos inspector to monitor conditions of ACBMs remaining in the building(s).

Effectiveness

This alternative does not accomplish the goals of the City, as it does not remove all of the asbestos containing materials from the structure(s). Ultimately, the City would be transferring the burden along to the developer, who may not be suited to manage hazardous materials.

Implementability

This option is not feasible because the site is slated to be turned over to a prospective developer free of asbestos materials prior to renovation/redevelopment activities. The asbestos NESHAP regulations require that ACMs are removed prior to renovation or demolition.

Cost

Development of an initial O&M plan, training, and recordkeeping is estimated at $5,000 - $7,000. The annual implementation of the O&M plan and fiber reduction activities depends on the need to maintain materials in good condition, availability of qualified/training City staff, resources, and need for outside consulting. Annual inspections to document change in ACM conditions would be approximately $4,000. If ongoing water intrusion in the building is not remediated, the need for asbestos abatement, of damaged materials would likely continue, which would result in additional costs due to annual inflation.

An initial round of abatement activities and clean-up would be required under this alternative, as several materials are friable and in damaged condition. The estimated fee range for an initial round of asbestos removal for damaged friable ACBMs ranges between $50,000 - $75,000.

4.1.3 Asbestos Cleanup Alternative C: No Action

The “no action” scenario is required by the EPA ABCA process and does not address ACBMs and is not protective of human health and the environment. The “No Action” alternative does not include a means of mitigating or eliminating potential exposures to asbestos during or after redevelopment activities. Since no action would be taken, the potential for asbestos inhalation/exposure by construction workers, site workers, the landlord, developers, maintenance staff, and/or future tenants would not be eliminated. Further, the no action scenario does not prevent further weathering and degradation of ACMBs (through continued water intrusion, vibration, air erosion, etc.) which could cause airborne particulate/fibers or dust exposures.

Effectiveness

The no action alternative is deemed ineffective and unacceptable for continued Brownfield redevelopment for this Site because:

- It is likely to be considered unacceptable to the community because citizens, nearby workers and construction workers could unknowingly be placed at risk in the future. No-action provides neither remedy nor preventive value to site conditions or in support of improved public health.
- This approach is unacceptable technically in that the microscopic asbestos fibers are known human carcinogens and provide no readily discernable exposure warning mechanism such as odor or other sensory identification. Without an expensive and

long-term outdoor air/dust sampling program, there is no ability to identify if and when residual contaminants may be available for exposure.

- The continued presence of ACM in the building would continue to pose a long-term health risk to the public and also to workers who may enter the building. The No Action Alternative would make no progress toward achieving the goals of reduction of health risks to the surrounding public and facilitating the renovation/demolition of the building for redevelopment.

Implementability

By its definition, taking no action precludes a discussion of implementation. The structure would be left in the unused state in which it currently exists. The identified ACM would still pose a hazard to those entering the building and asbestos fibers could be released to the ambient air. The value of the building could decrease due to deterioration. Additional building material degradation due to moisture intrusion, air erosion, vibration, etc. is also likely to occur, which could ultimately lead to potential structural issues and additional future capital costs due to inflation.

Cost

Taking no action to cleanup asbestos materials precludes a discussion of cost to implement. This cleanup alternative would not include any specific efforts to remove or maintain ACBMs in the buildings, as such there would be no direct cleanup costs associated with this alterative.

Further, this alternative may later result in abatement/demolition complications, delays, and increased abatement/demolition costs due to ACM remaining within the structures and may reduce the feasibility of the City selling to the site to a developer as the developer would then incur all costs associated with abatement of the materials prior to proceeding with any proposed redevelopment activities. Expanded costs could occur if fugitive asbestos is released during future storms or weathering of damaged structures that might result in secondary deposition and contamination. This would impair re-use and value of surrounding property adjacent to the structure.

4.1.4 Cost Comparison of Asbestos Cleanup Alternatives

The table below presents a summary of the estimated costs for all alternatives under consideration for asbestos. There would be no capital cost if the site were to remain as an unused, vacant building.

ALTERNATIVE	CAPITAL COST	ANNUAL COST
A – Asbestos Abatement	$450,000 to $600,000*	N/A
B – In-Place Management of ACMs	O&M Plan: $5,000 - $7,000 Plus, initial abatement as required to remove damaged friable materials, $50,000 - $75,000	Inspections: $4,000 Plus, abatement as required
C – No Action	$0	$0

* - Includes general abatement costs considering typical industry practices for safe structures. Some site-specific factors may require additional costs to implement depending on the contractor removal methods or to allow for safe access to the work area.
‡ - Includes costs for annual re-inspection of ACMs to document current condition.

4.2 Lead in Soil Cleanup Alternatives Considered

To address lead in soil at the site, two different alternatives and no action were considered. These alternatives are outlined below. The following subsections present each alternative in greater detail, including estimated costs and potential contingency items related to lead in soil cleanup:

- Lead In Soil Cleanup Alternative A: Excavation and Removal
- Lead In Soil Cleanup Alternative B: Environmental Covenant and Engineered Cap
- Lead In Soil Cleanup Alternative C: No Action

4.2.1 Lead in Soil Cleanup Alternative A: Excavation and Removal

Lead in soil Alternative A includes conventional excavation removal using standard industry practices. The remedial area would be contained prior to the removal using barriers and dust suppression to control dust beyond the work zone. Remedial activities would be to dig out the affected area and utilized practices to control airborne particulates. During and following the excavation, dust particulates and other residual materials would be controlled by low dumping/placing materials in truck and utilization of dust control practices (wetting and covering of dump trucks).

Effectiveness

The lead in soil is permanently removed. This approach is technically effective as a definitive and direct physical elimination of the contaminants that produce unacceptable public risk. The remedy usually does not significantly alter structural conditions due to the shallow depths needed to meet remedial goals. With removal and off-site disposal of contaminants, the approach requires no special post-remedy institutional or land use controls for the property.

Potential disadvantages are minimal; however, errors during the removal could potentially release

lead to the environment. This option creates a waste generation stream and associated liabilities for the generator. This approach would need building demolition and/or pavement removals in areas of impact, if applicable to redevelopment. Removal of the lead in soil reduces the potential for environmental contamination.

With this alternative, increased carbon dioxide and other air emissions will be likely, as heavy equipment will be required for excavations. The contractor will need to implement methodologies/efforts conduct work to reduce energy use, and to reduce emission of criteria air pollutants and greenhouse gas emissions (i.e., such as not idling vehicles/utilization of clean idle certified equipment, water misters, and carpooling to site). Additionally, the soil spoils would need to be transported/disposed of at an approved disposal facility.

Implementability

This alternative would be difficult to implement due to the need to complete demolitions (buildings, paving) to gain access to the soils and would also need to factor the need for utility disconnects and relocates. As noted in the Phase II ESA included in Appendix C, shallow bedrock (weathered limestone) was encountered approximately 4.5 to 7-feet below the ground surface, which could affect the ability of the contractor to remove all impacted soil materials. Additionally, the area of impact is undefined at this time. No special approaches would be required to complete what would normally be considered a mature remedy, common in the remediation industry. The implementation period can be conducted when temperatures are generally above freezing and the duration of the work would be relatively short.

Cost

Based upon Terracon's experience with similar projects, the estimated cost to remove approximately 1,000 cubic yards of lead in soil area from the site is approximately $95,000. This cost includes planning, additional delineation, special waste permits, excavation and disposal, post excavation testing, backfill, and professional management. This estimate could have a large range since delineation of the lead in soil has not been defined and due to the variations in the depth to bedrock across the site.

4.2.2 Lead in Soil Cleanup Alternative B: Environmental Covenant and Engineered Cap

Lead in soil Alternative B includes placing an environmental covenant (EC) on the site using standard industry practices. The EC area would be identified and surveyed. An engineered cap (concrete/asphalt, or two feet of clean soil cap material) would be placed over the affected area. In addition, a Soil and Groundwater Management Plan (SGMP) would need to be generated and included in the EC to educate workers and the public on protective soil management practices of the impaired material.

Effectiveness

The lead in soil would be protected against public exposure and identified on the Title to the

property. This approach is technically effective as a definitive and direct physical elimination of the contaminants that produce unacceptable public risk. The remedy usually does not alter structural conditions and is attached to the property deed to meet remedial goals. Follow-up inspections and maintenance may be required to maintain the cap. This remedy requires institutional or land use controls for the property.

Potential disadvantages: this option creates a need for long term maintenance of the cap and some excavation (new utilities or utility maintenance) may be required.

Implementability

This alternative is technically achievable. No special approaches would be required to complete what would normally be considered a mature remedy, common in the remediation industry. The approach does not require specialized equipment. A specialized labor force exists in Iowa to accomplish the remedy. The implementation period is shorter-term and can be conducted during any time of the year.

Cost

The estimated cost to develop and file an environmental covenant and SGMP is approximately $10,750. The capping design would need to be incorporated into the general redevelopment of the site. The costs for capping vary drastically, depending on the cap selected (i.e. concrete vs. asphalt vs. clean soil) and could be $100,000, plus.

4.2.3 Lead in Soil Cleanup Alternative C: No Action

The “no action” scenario is required by the EPA ABCA process. In the no action alternative, lead impacted soil would remain in place with no further action.

Effectiveness

This alternative is deemed ineffective and unacceptable for continued Brownfield redevelopment for this Site because:

- It is likely to be considered unacceptable to the community because citizens, nearby workers and construction workers could unknowingly be placed at risk in the future. No-action provides neither remedy nor preventive value to site conditions or in support of improved public health.
- The continued presence of lead in soil would continue to pose a potential long-term health risk to the public and to workers that may perform excavation work in the area. The No Action Alternative would make no progress toward achieving the goals of reduction of health risks to the surrounding public and facilitating the redevelopment.

Implementability

By its definition, taking no action precludes a discussion of implementation; the lead in the soil would not be addressed.

Cost

By its definition, taking no action precludes a discussion of cost to implement. This cleanup alternative would not include any specific efforts to remove (or maintain) soils impacted with lead in place.

4.2.4 Cost Comparison of Alternatives for Lead in Soil

The table below presents a summary of the estimated costs for all alternatives under consideration for remedial efforts for lead in soil. There would be no capital cost if the site were to remain as an unused, vacant building.

ALTERNATIVE	CAPITAL COST	ANNUAL COST
A – Excavation and Removal	$95,000*	N/A
B – Environmental Covenant and Engineered Cap	EC: $10,750† Engineered Cap: $100,000, plus	Normal grounds maintenance
C – No Action	$0	$0

* - Estimate includes excavating and landfill disposal of 1,000 tons of impacted soil; disposal; backfilling; and excavation report. Note: the area is currently capped with concrete. Site demolition is not included, if required as part of redevelopment.

† - Estimate includes costs for drafting and filing the EC and preparation of Soil and Groundwater Management Plan.

4.3 Lead-Based Paint Cleanup Alternatives Considered

To address lead containing surface coatings and lead-based paint (LBP) at the site, two different alternatives and no action were considered. These alternatives are outlined below. The following subsections present each alternative in greater detail, including estimated costs and potential contingency items related to lead cleanup:

- LBP Cleanup Alternative A: Limited Lead-Based Paint Removal
- LBP Cleanup Alternative B: In Place Management of LBP/LCP
- LBP Cleanup Alternative C: No Action

4.3.1 LBP Alternative A: Limited Lead-Based Paint Removal

Lead-based paint cleanup Alternative A involves limited or selective removal of LBP and lead-containing coatings in the building that will be impacted by asbestos abatement. Work associated with any lead-based paint/lead containing paint will need to be completed by lead professionals certified by the IDPH.

Work would need to be completed in accordance with the RRP. Regulated areas would be

established prior to the removal of these materials utilizing a variety of controls such as poly to establish primary and secondary barriers, negative pressure systems/containments, and/or other applicable measures to prevent lead dust migration beyond the regulated area(s).

Waste would be containerized in air and leak tight containers to contain the waste in manageable quantities. Landfill disposal authorizations (which may include specialized testing for leaching characteristics of the materials) would be required prior to initiating the work.

Visual confirmation of the removed materials would be conducted along with dust wipe testing, as required by regulation.

Effectiveness

For this alternative, select lead coatings are permanently removed, allowing for access to ACMs or other materials as required by the project plans. This approach is technically effective as a definitive and direct physical elimination of the contaminants that produce unacceptable public risk, for the areas requiring asbestos abatement. However, this alternative is selective in nature, meaning that additional lead coatings would remain inside the building and could pose a threat to construction workers, site workers, the landlord, developers, maintenance staff, and/or future tenants during and after renovation activities.

End-use options that may include residential dwellings will require compliance with IAC Chapter 70, including clearance sampling. Additional notifications to tenants by the property manager/landlord might include: the EPA-approved information pamphlet on identifying and controlling lead-based paint hazards; information concerning lead-based paint or lead-based paint hazards pertaining to the building; and a lead disclosure attachment to the lease, inclusive of a “lead warning statement”.

Potential disadvantages are that LBP/LCP will remain in the building since the scope would be limited in nature. Other disadvantages to this alternative include errors during the removal and cleanup could generate lead dust inside the structure. This option also creates a waste generation stream, which could be deemed hazardous waste, and potential associated liabilities for the generator/owner. A quality consulting firm with experience in overseeing contractor activities can help to reduce this liability.

Removal of lead-containing coatings reduces the potential for environmental contamination.

Implementability

This alternative can be easily implemented and would likely be completed in conjunction with asbestos abatement activities.

Cost

The cost of completing limited LBP and lead-containing coatings removal is estimated at $30,000. Actual costs will depend on the final determination/ end-use of the site. Other factors include the time of year, number of staff performing the work, and the specific work methods employed by the Contractor. As indicated previously, site security has been an ongoing issue and should be considered as part of the costs, if only to ensure the integrity of the regulated work areas to prevent lead dust migration outside of the work areas.

4.3.2 LBP Alternative B: In Place Management of LBP/LCP

LBP cleanup Alternative B includes in-place management of lead containing surface coatings and assumes that no lead abatement would occur as part of the project. In place management would include the preparation of a written program to provide education, training, monitoring, management options, and recordkeeping of the lead containing materials in the building(s).

Due to the changing building conditions, as a result of water intrusion, and due to the age of the structure this alternative may require ongoing lead management and maintenance. Lead cleanup may need to be performed by an appropriately IDPH lead licensed firm, based on the needs of the redevelopment and condition of surface coatings as time progresses. This alternative may also require the completion of a lead risk assessment by a IDPH licensed Lead Inspector/Risk Assessor.

Effectiveness

This alternative does address the goals of the project. Demolition of lead containing materials will be required for the asbestos abatement. City would be transferring the burden along to the developer, who may not be suited to manage building materials containing lead. Additional action may need to be taken by the developer to address lead containing materials once a redevelopment plan is set.

Implementability

This option is not feasible because the site is slated to be turned over to a prospective developer free of asbestos materials prior to renovation/redevelopment activities; lead materials will need to be demolished as part of the asbestos abatement.

Cost

The capital cost for this alternative is estimated at $10,000 for preparation of a written program. The annual implementation and annual inspections to document change in conditions is estimated at approximately $2,000.

Costs for remedial activities are not included for this alternative.

4.3.3 LBP Cleanup Alternative C: No Action

The "no action" scenario is required by the EPA ABCA process. This alternative is to not address contaminants and trust that exposures as airborne particulate/fibers or dust through further weathering and degradation of the building materials do not make contaminants available for human exposure.

Effectiveness

This alternative is deemed ineffective and unacceptable for continued Brownfield redevelopment for this Site because:

- It is likely to be considered unacceptable to the community because citizens, nearby workers and construction workers could unknowingly be placed at risk in the future. No-action provides neither remedy nor preventive value to site conditions or in support of improved public health.
- The continued presence of lead in soil would continue to pose a potential long-term health risk to the public and also to workers that may perform excavation work in the area. The No Action Alternative would make no progress toward achieving the goals of reduction of health risks to the surrounding public and facilitating the demolition of the building for redevelopment.

Implementability

By its definition, taking no action precludes a discussion of implementation; the lead surface coatings would not be addressed and abatement of lead coatings would not occur. As noted elsewhere, glazed block and/or other surface coatings containing lead will need to be removed to access ACBMs.

Cost

By its definition, taking no action precludes a discussion of cost to implement. This cleanup alternative would not include any specific efforts to remove (or maintain) lead containing building materials.

4.3.4 Cost Comparison of Alternatives for Lead

The table below presents a summary of the estimated costs for all alternatives under consideration. There would be no capital cost if the site were to remain as an unused, vacant building.

ALTERNATIVE	CAPITAL COST	ANNUAL COST
A – Limited LBP Removal	$30,000*	N/A
B – In Place Management of LBP/LCP	$12,000	$2,000, Plus any required stabilization/ongoing maintenance
C – No Action	$0	NA

* - Estimate includes consideration that at minimum, some LBP removal will be required to abate ACMs at the site and would likely be performed in conjunction with ACM removal activities

4.4 Microbial Cleanup Alternatives Considered

To address the microbial growth at the Site, two different alternatives were considered. These alternatives are outlined below. The following subsections present each alternative in greater detail, including estimated costs and potential contingency items:

- Microbial Cleanup Alternative A: Limited Microbial Remediation/Removal
- Microbial Cleanup Alternative B: No Action

4.4.1 Microbial Cleanup Alternative A: Limited Microbial Remediation/Removal

Microbial cleanup Alternative A includes limited microbial remediation using standard industry practices which is anticipated to be completed in conjunction with the asbestos abatement services. The remedial area(s) would be contained prior to initiating remediation protocols using barriers to control the release of fungal spores outside of the established work zone. Remedial activities would consist of the physical removal of moisture-impacted materials and materials containing visible microbial growth that are required to properly access and dispose of ACBMs at the site. During and following the remediation services, airborne particulates would be controlled through the use of negative air machines equipped with HEPA filters. This approach also considers that the majority of this work could be completed concurrently as part of the asbestos removal operations. Many permitted asbestos abatement contractors are also proficient in microbial remediation practices, which utilize many of the same removal methods and equipment as the asbestos abatement industry best practices.

Effectiveness

Limited existing moisture- and mold-impacted materials are permanently removed from the site. This approach is technically effective as a definitive and direct physical elimination of the contaminants that produce unacceptable public risk. The remedy usually does not significantly

alter structural conditions. Excluding visual observations related to removal, follow-up inspections, sampling or testing, and maintenance are typically not required, although the timeframe between the site cleanup activities and renovation activities could allow some additional moisture intrusion until the building is properly sealed and tempered.

Potential disadvantages: microbial and moisture-impacted materials would likely still remain in the structure and could continue to release microbial spores into the building environment. Errors during removal of moisture- and microbial-impacted materials located on or near ACMs would create concerns related to the potential asbestos exposures for untrained workers/contractors. This option would likely create a separate waste generation stream and associated liabilities for the generator as the contractor would not likely dispose of microbial-impacted materials in the same shipments as the asbestos waste (save for those microbial-impacted materials that also require removal due to being asbestos-containing or asbestos-contaminated materials).

Implementability

This alternative is technically achievable. Minimal additional materials, equipment, or effort would be needed for this approach beyond what would already be scoped for the asbestos removal efforts.

Cost

The estimated cost to perform limited removal of moisture- and microbial-impacted materials from the site would be approximately $30,000. This estimate assumes the majority of these efforts would be combined with asbestos abatement efforts. This estimate also assumes that the primary intention of this scope would be to clean up and remove such materials as would be required to properly complete asbestos abatement in the structure.

4.4.2 Microbial Cleanup Alternative B: No Action

The “no action” scenario is required by the EPA ABCA process. This alternative is to not address moisture- and microbial-impacted materials and trust that human exposures to airborne fungal spores will not be present.

Effectiveness

This alternative is deemed ineffective and unacceptable for continued Brownfield redevelopment for this Site because:

- This option is likely to be considered unacceptable to the community because citizens, nearby workers and construction workers could unknowingly be placed at risk in the future. No-action provides neither remedy nor preventive value to site conditions or in support of improved public health.

- The continued presence of moisture-impacted materials would continue to pose a risk throughout the structure and additional moisture intrusion would increase the risk of significant damage to the structure. The continued presence of microbial-impacted materials could continue to pose a potential health risk to the public and also to workers that may perform services in the building. The No Action Alternative would make no progress toward achieving the goals of reduction of health risks to the surrounding public and facilitating the demolition/renovation of the building for redevelopment.

Implementability

By its definition, taking no action precludes a discussion of implementation. The structure would be left in the unused state in which it currently exists. The identified moisture- and microbial-impacted materials could still pose a hazard to those entering the building and additional fungal spores could continue to be released to the ambient air. The value of the building would continue to decrease due to deterioration.

Cost

By its definition, taking no action precludes a discussion of cost to implement. This cleanup alternative would not include any specific efforts to remove or maintain moisture- or microbial-impacted materials. There would be no direct cleanup costs associated with this alterative unless the site is redeveloped or renovated. This alternative may result in redevelopment complications, delays and increased demolition and/or renovation costs due to additional materials becoming impacted by moisture or microbial growth.

4.4.3 Cost Comparison of Alternatives for Microbial Growth

The table below presents a summary of the estimated costs for all alternatives under consideration. There would be no capital cost if the site were to remain as an unused, vacant building.

ALTERNATIVE	CAPITAL COST	ANNUAL COST
A – Limited Microbial Remediation and Removal	$30,000*	N/A
B – No Action	$0	$0

* - Includes estimated fees that would be incurred in addition to the proposed asbestos abatement fees and is not a standalone estimate. As the majority of the fees associated with remediation services such as this are tied to personnel and the number of working days required, additional working days to remediate the moisture- and mold-impacted materials are included in this table.

5.0 RECOMMENDED CLEANUP ALTERNATIVES

At this time, we recommended the following clean-up alternatives for this site:

- Asbestos Cleanup Alternative A: Asbestos Abatement
- Lead In Soil Cleanup Alternative C: No Action[2]
- LBP Alternative A: Limited Lead-Based Paint Removal
- Microbial Cleanup Alternative A: Limited Microbial Remediation/Removal

These alternatives address ACM liabilities, potential contaminant sources or potential limitations to future land use and brownfields redevelopment potential consistent with the City's goals and re-use planning. Additionally, these alternatives address exposure risks using proven approaches that are consistent with recognized industry standards while at the same time easily garnering regulatory approvals, where applicable. These options would remain comparably cost-effective based on current building structural integrity when compared to other abatement scenarios and building conditions.

6.0 POTENTIAL GREEN REMEDIATION TECHNIQUES

Strategies for green remediation rely on sustainable development whereby environmental protection does not preclude economic development, and economic development is ecologically viable today and in the long run. Potential Green Remediation Techniques take into account sustainability along the categories of the built environment; water, ecosystems and agriculture; energy and environment; and materials and toxics.

Approaches to green remediation consider best management plans (BMPs) which helps to accelerate the pace of environmental protection in accordance with EPA's strategic plan for improving environmental performance of business sectors. Green remediation builds on environmentally conscious practices already used across business and public sectors, as fostered by the EPA's Sectors Program, and promotes incorporation of state-of-the-art methods. The following represent BMPs and how they may be applied for the project:

- Conserving water by applying minimal amounts of water, as practical, for dust/particulate control,
- Improving water quality by removal or capping of lead in soil to reduce the threat of lead in soil leaching to groundwater,
- Increasing energy efficiency by new building design can take advantage of energy efficient electrical and HVAC components,

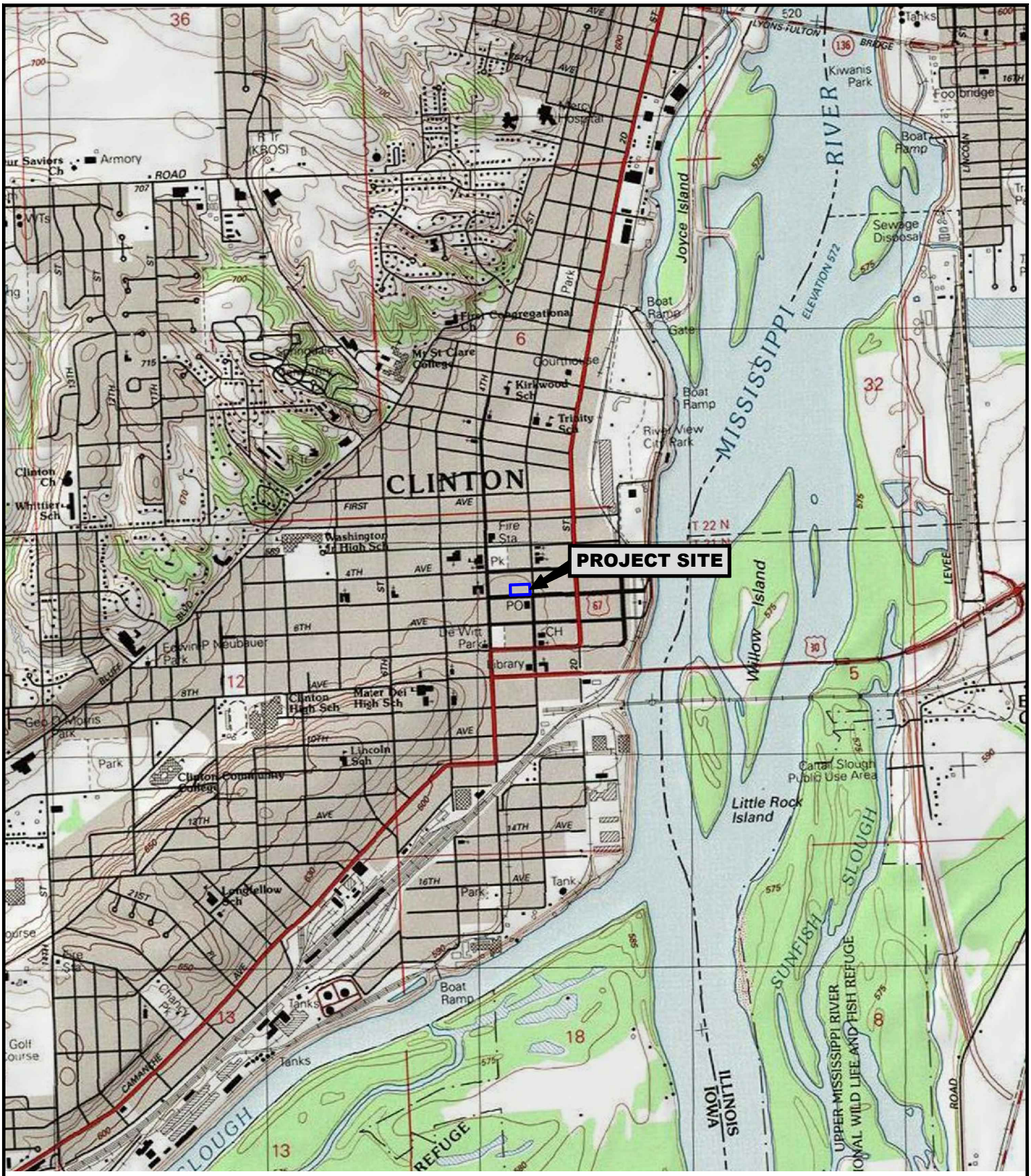
[2] This recommendation was made since no final redevelopment plans have been finalized. The recommendation may be subject to change based on future site reuse(s).

- Managing and minimizing toxics as presented in the Asbestos, Lead-Based Paint, and Microbial Cleanup Plan[3],
- Managing and minimizing waste as presented in the Asbestos, Lead-Based Paint, and Microbial Cleanup Plan, and
- Reducing emission of criteria air pollutants and greenhouse gases (GHGs) (U.S. EPA National Center for Environmental Innovation, 2006) as presented in the Asbestos, Lead-Based Paint, and Microbial Cleanup Plan.

[3] The Asbestos, Lead-Based Paint, and Microbial Cleanup Plan, which is provided as a separate document present the best BMPs for managing water use during remedial efforts; control of fugitive particulates, toxins, and dust.

APPENDIX A

EXHIBITS



TOPO IMAGE FROM ARCGIS MAP SERVER
http://services.arcgisonline.com/ArcGIS/services

LEGEND

- BOUNDARY OF ASSESSED AREA

NORTH

0 2000'

APPROXIMATE DRAWING SCALE

Project No.	07207086
Date:	8/11/2021
Project Mngr:	ACC
Drawn By:	JAL
File Name:	07207086-02.dwg
Layout Name:	E1

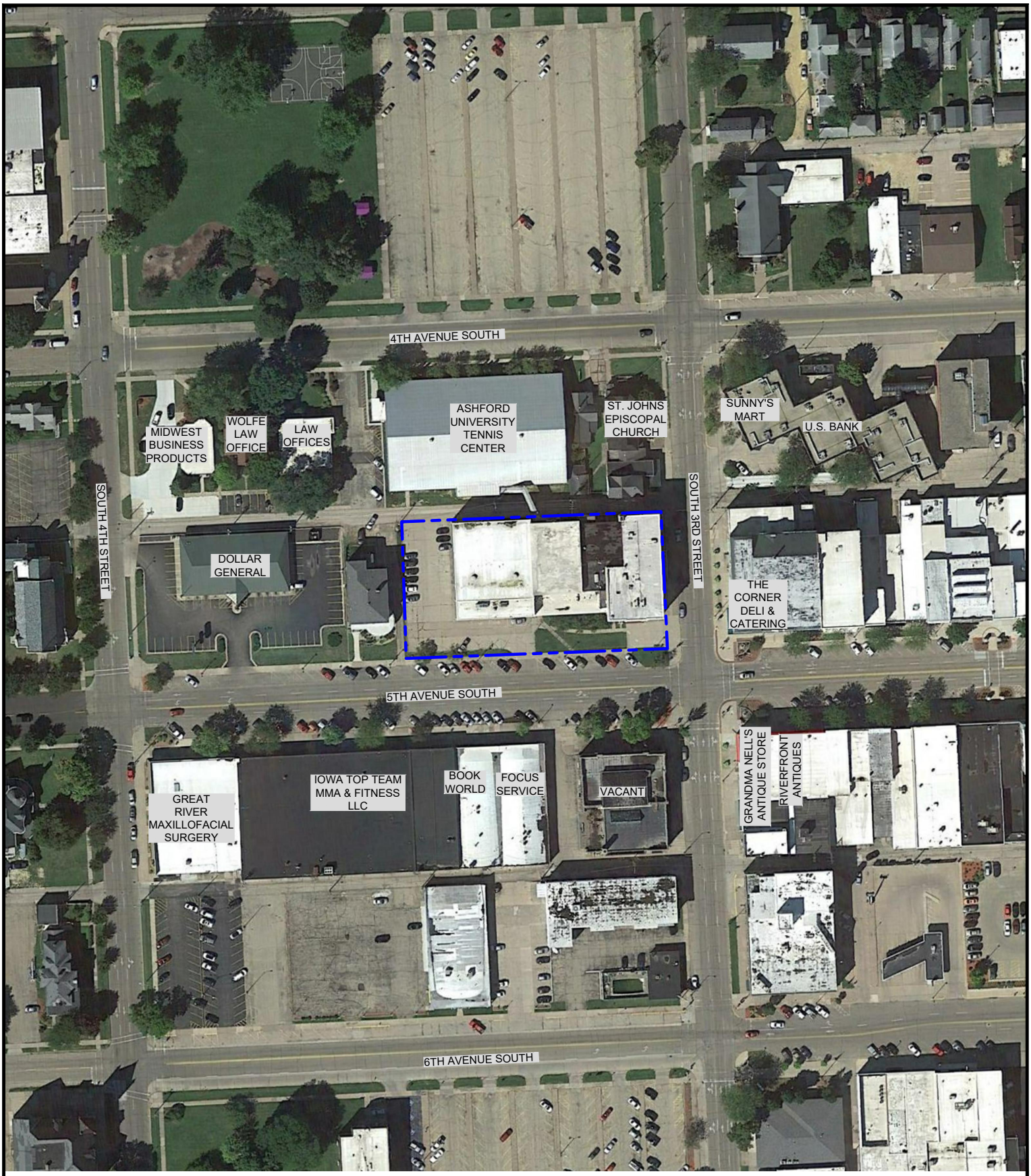
Terracon
Consulting Engineers and Scientists
870 40TH AVENUE BETTENDORF, IOWA 52722
PH. (563) 355-0702 FAX. (563) 355-4789

TOPOGRAPHIC SITE MAP

PHASE I ENVIRONMENTAL SITE ASSESSMENT
CLINTON YMCA
480 SOUTH 3RD STREET
CLINTON ,IOWA

EXHIBIT

1



AERIAL PHOTO FROM GOOGLE EARTH

LEGEND

- BOUNDARY OF ASSESSED AREA

NORTH

0 150'

APPROXIMATE DRAWING SCALE

Project No.	07207086
Date:	8/11/2021
Project Mngr:	ACC
Drawn By:	JAL
File Name:	07207086-02.dwg
Layout Name:	E2

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SITE DIAGRAM

PHASE I ENVIRONMENTAL SITE ASSESSMENT
CLINTON YMCA
480 SOUTH 3RD STREET
CLINTON ,IOWA

EXHIBIT

2

APPENDIX B

ASBESTOS AND LEAD-BASED PAINT SURVEY REPORT

Asbestos and Lead-Based Paint Survey Report

Former YMCA Building
480 South 3rd Street
Clinton, Clinton County, Iowa

January 21, 2022

Terracon Project No. 07207086; Task 18

Prepared for:

East Central Intergovernmental Association (ECIA)
7600 Commerce Drive
Dubuque, Iowa
&
The City of Clinton, Iowa
611 South 3rd Street
Clinton, Iowa

Prepared by:

Terracon Consultants, Inc.
Bettendorf, Iowa

January 21, 2022

East Central Intergovernmental Association
7600 Commerce Park
Dubuque, Iowa 52002-9673

Attn: Ms. Dawn Danielson
P: (563) 690-5772
E: ddanielson@ecia.org

Re: Asbestos and Lead-Based Paint Survey Report
Former YMCA Building
480 South 3rd Street
Clinton, Clinton County, Iowa 52732
Terracon Project No. 07207086; Task 18
Brownfields Assessment Grant: BF97782001

Dear Ms. Danielson:

Terracon Consultants, Inc. (Terracon) is pleased to submit the attached report for the above-referenced site to East Central Intergovernmental Association (ECIA). The purpose of this report is to present the results of the asbestos and lead-based paint sampling survey conducted on October 20, 21, 22, 28, and November 1, 2021. Terracon revisited the site in January 13 and 14, 2022 to further quantify materials and to collect additional confirmatory samples. The assessment was conducted in accordance with the Standard Consultant Contract *for Qualified Environmental Professional (QEP) Consultant Contract, ECIA Brownfield Coalition* dated December 3, 2020, and the Notice to Proceed Asbestos Inspection on 480 South 3rd street, Clinton, dated October 14, 2021. The survey was requested to identify asbestos-containing materials (ACMs) in the buildings located at 480 South 3rd Street Clinton, Iowa.

Asbestos was identified in the samples submitted for laboratory analysis and lead-based paint was identified in sample locations from the building. Please refer to the attached report for additional information.

Terracon appreciates the opportunity to provide this service to the ECIA and the City of Clinton, Iowa. If you have questions regarding this report, please contact James at 563-468-4271.

Sincerely,
Terracon Consultants, Inc.

Benjamin M. LaPointe, CHMM
Environmental Department Manager

James R. Baxter
Environmental Group Manager

TABLE OF CONTENTS

ASBESTOS AND LEAD-BASED PAINT SURVEY REPORT
Former YMCA Building
480 South 3rd Street
Clinton, Clinton County, Iowa 52732
Terracon Project No. 07217086; Task T18

January 21, 2022

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted an asbestos and lead-based paint (LBP) survey of the former Young Men's Christian Association (YMCA) building located at 480 South 3rd Street, Clinton, Clinton County, Iowa for East Central Intergovernmental Association (ECIA). The survey was conducted on October 20, 21, 22, 28, and November 1, 2021, in general accordance with the Standard Consultant Contract *For Qualified Environmental Professional (QEP) Consultant Contract, ECIA Brownfield Coalition* (The Agreement) dated December 3, 2020, the Asbestos and Lead Sampling and Analysis Plan dated September 8, 2021 (the SAP), and the Notice to Proceed dated October 14, 2021. Terracon revisited the site in January 13 and 14, 2022 to further quantify materials and to collect additional confirmatory samples. We understand the survey was requested in anticipation of future renovation or demolition of the building.

The scope of Terracon's services included the following:

- Locate, sample, quantify, and assess suspect building materials for the presence of asbestos,
- Locate and measure/sample surface coatings (i.e., paint) for the presence of lead-based paint (LBP); and,
- Completion of this survey report.

Suspect asbestos containing materials (ACM) samples were collected in general accordance with the sampling protocols outlined in US Environmental Protection Agency (USEPA) regulation 40 Code of Federal Regulations (CFR) Part 763-Asbestos, Subpart E-Asbestos-Containing Materials in Schools (40 CFR 763; known as the Asbestos Hazard Emergency Response Act, [AHERA]) and Terracon's Sampling and Analysis Plan and delivered to a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory for analysis by polarized light microscopy (PLM).

The LBP survey was conducted concurrently with the ACM survey. Surface coatings on building components (i.e., paint, ceramic tile, varnish, etc.) were assessed for lead content using a direct-reading x-ray fluorescence (XRF) analyzer.

1.1 Project Objectives

We understand the asbestos survey was requested in support of the planned renovation and/or demolition of the building to satisfy requirements of the USEPA 40 CFR Part 61, Subpart M, the National Emission Standards for Hazardous Air Pollutants (NESHAP). Terracon also understands that the intent of the assessment is to assist the client with communicating the presence, location, and quantity of ACM to employees, vendors, and contractors working in the building in order to meet the requirements of the Occupational Safety and Health Administration (OSHA) communication of hazard requirements found at 29 CFR 1926.1101. The purpose of this survey was to sample and identify suspect ACM and provide information regarding the identity, location, condition, and approximate quantities of ACM in the building.

Paint sampling was conducted to identify lead containing paints on painted components of the building. The findings of the lead containing paints survey as discussed in this report can be used to assist demolition/renovation contractors prepare appropriate safety plans for worker protection and design work plans as required for environmental protection, material handling, and waste disposal during demolition and/or renovation of the building.

1.2 Project Deviations

It should be noted that the City of Clinton, Iowa provided Terracon with an "Asbestos Inspection Report", conducted by Environmental Management Services of Iowa, Inc. (EMS), (the EMS Report) sometime after receiving authorization to proceed with the survey and prior to Terracon's mobilization. The City of Clinton, Iowa asked Terracon to utilize the EMS Report to aid in the survey activities. Utilizing the EMS Report to the best of our understanding/capabilities, Terracon collected additional confirmatory samples of materials reported as positive (less than or equal to 6% asbestos) and negative (none detected) by EMS. Terracon applied SAP protocols for point-count methodologies for sample analyses on materials reported by EMS, as warranted. Additionally, Terracon collected bulk samples of materials that appeared to have been not included in the EMS Report. A copy of this EMS Report is included as Appendix F. Please see section 3.1.3 for additional information and discussion of the sampling methodologies for previously assessed materials.

The following areas were either inaccessible and thus were not sampled or had limited access for sampling:

- Covered walkway that runs across the alley to the north;
- Elevators / elevator equipment;
- Electrical equipment;
- Tunnel spaces that had standing water, preventing visual access for additional pits, pumps, or other equipment;
- Subsurface materials / equipment;
- Pipe flanges and associated gasketing.

A positive stop method regarding point-count samples was conducted (i.e., duplicate point-count analysis was not conducted on homogeneous areas (HAs) confirmed positive via point count). Positive stop for point-count samples was conducted based on cost limitations of point-count samples and that asbestos is assumed to be present throughout a HA given any confirmed positive analysis. Therefore, further analysis is not required to determine whether the material is asbestos containing after a point-count analysis confirms asbestos content of a material. Since duplicate analysis of positive point-count samples was not conducted, relative percent difference (RPD) evaluation was conducted only for polarized light microscopy (PLM) analysis of each HA sampled. As discussed in the SAP, asbestos content of HAs are known to have variance in both the material and via the laboratory technician's determinations conducting PLM analysis. Therefore, duplicate sampling cannot be relied upon as a measure of precision of PLM analysis. However, data variance of PLM analysis is typical the material types of each HA identified. Therefore, HAs identified in the field, based on type, texture, color, use and other distinctive features, are presumed valid and representative building materials observed.

1.3 Reliance

This report is for the exclusive use of ECIA and the City of Clinton, Iowa for the project being discussed. Reliance by other parties on this report is prohibited without written authorization of Terracon and ECIA. Reliance on this report by ECIA, the City of Clinton, Iowa, and all authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, this report, and the Standard Consultant Contract. The limitations of liability defined in The Agreement is the aggregate limit of Terracon's liability to ECIA.

2.0 SITE DESCRIPTION

Based on information obtained from the Clinton County Assessor's Office[1], the original multi-story site building was constructed circa 1905, with reported additions in 1960 and 1978. The following table provides a summary of pertinent building information and construction information such as structure and finishes used within the Building(s).

[1] Posted at: https://clintoncity.iowaassessors.com/parcel.php?gid=260951.

Table A. YMCA Building Description and Information

Building Description and Information				
Building Use	Former YMCA and living space; currently unoccupied			
Owned/Leased	Owned by the City of Clinton, Iowa			
Building Square Footage	Approximately 70,000 square feet (SF)		Number of Floors	3
Construction Date	Circa 1905, additions in 1961 and 1978		Renovation Date(s)	Unknown
Basement:	Partial basement: 8,000 SF		Tunnels: Yes	Attic: No
Building Construction				
Main Structure	Brick / Concrete			
Flooring Structure	Concrete			
Flooring Finishes	Terrazzo, vinyl floor tile, concrete, carpeting			
Exterior Walls	Brick, block and limestone walls			
Interior Wall Finishes	Plaster, drywall, glazed block,			
Roof Type	Rubber membrane / concrete deck (built-up roofing underneath some membranes)			
Ceilings	Lower:	Plaster, cement board, acoustical	Upper:	Concrete
HVAC* Equipment	Hot water / boiler, central air; roof mounted units (RTUs)			

*HVAC – Heating, Ventilation and Air Conditioning

The building is currently unoccupied and in poor condition at the time of the inspection. Trash and debris were observed throughout the building including furniture, appliances, and miscellaneous building material. Significant water and structural damage were observed throughout the building at the time of the site reconnaissance. During Terracon's return visit to the site in January 2022, City personnel were on-site and indicated that the building had been broken into several times and that numerous copper pipes had been cut/removed from the site; Terracon personnel observed sections of copper pipe on the main level of the 1905 building and in the tunnel spaces around the large pool during the January 2022 field services. It is possible that additional break-ins may occur at the site which could impact asbestos or LBP materials, or further affect the building as it was observed by Terracon.

3.0 FIELD ACTIVITIES

3.1 Asbestos Survey

The asbestos survey was conducted in general accordance with the SAP by Mr. Steve M. Mack, a State of Iowa licensed asbestos inspector (license number 21-5930). Field survey activities were conducted on October 21, 22, 28, and November 1 of 2021, and January 13, 14 of 2022. A copy of Mr. Mack's asbestos inspector license is included in Appendix C.

3.1.1 Visual Assessment

Terracon's licensed inspector initiated the survey with a visual assessment of accessible exterior and interior areas of the structure to identify suspect ACMs. Terracon segregated suspect ACM into HAs based on type, texture, color, renovations, use, and other distinctive features and assign each identified material a unique HA number. HA numbers and material descriptions, locations, and other identifying factors as appropriate were logged on field log sheets.

Materials such as fiberglass, glass, metal, rubber, or wood are not considered suspect ACM and therefore, were not assigned a unique HA number or sampled.

Terracon completed a review of the EMS Report and limited destructive investigation to identify suspect ACMs prior to the sampling efforts. Floor coverings such as carpet glue overtop of floor finishes, multi-layered flooring systems debris, and overall cleanliness of the facility, coupled with limited lighting made it difficult to discern materials/colors in the field. Our best judgement and professional opinion as to the homogeneity of materials was applied, as appropriate.

Due to the lack of lighting in many areas, our observations may have been limited. Our survey efforts did not include investigation of sub-surface materials and was limited to visual observations of the electrical distribution equipment as part of these services due to access / safety concerns. Additionally, the elevators and associated equipment were not locked-out and therefore not sampled. Access was partially limited around the tunnel spaces associated with the large pool due to standing water, which prevented safe access to some areas of the tunnels. Terracon attempted to visually observe the space but was unable to observe equipment or materials that may have been on the floor or other safety concerns like pits changes in flooring elevation. Although reasonable effort was made to survey accessible suspect materials, additional suspect but unsampled materials could be located in walls, chases, above ceilings, in voids, in the subsurface, or in other concealed areas.

3.1.2 Physical Assessment

A physical assessment of each HA of suspect ACM was conducted to assess the friability and evidence of damage or degradation. A friable material is defined by the USEPA as a material that can be crumbled, pulverized, or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect components.

3.1.3 Sample Collection

Based on Terracon's review of the EMS Report and visual observation, bulk samples of suspect ACM were in general accordance with the site-specific SAP and USEPA sampling protocols. Terracon collected a minimum of three samples from each homogenous area that was identified as new or not previously assessed in the EMS report.

To the extent feasible, bulk samples were collected using wet methods using a surfactant solution as applicable to reduce the potential for fiber release. Samples were placed in unused, dedicated, and disposable sealable bags; an indelible marker was used to record the unique sample identification code on each bag. Sample identification codes were recorded on field log sheets with other information including collection date and time, collection locations, and estimated total quantity of each HA recorded.

To further define, clarify, and categorize materials presented in the EMS Report, Terracon also employed the following sample collection scheme(s):

- Collection of confirmatory samples (at least one) of apparent homogenous materials identified in the EMS Report that were indicated as non-detect for asbestos.
  - Terracon collected 25 samples from materials that were apparently reported as non-detect (negative) in the EMS report.

- Collection of confirmatory samples of apparent homogeneous materials identified in the EMS Report with results greater than or equal to 6% asbestos.
  - Terracon collected 45 samples from materials that EMS reported with an asbestos concentration of 6% or less. These materials were submitted to the NVLAP accredited lab for analysis using a 400 point-count method (with positive stop).

- Sampling of materials that were not readily apparent in the EMS report, based on our discretion.
  - Terracon collected 84 samples of materials that were deemed to not be represented by the previous sampling activities.

Asbestos content of suspect ACM does not diminish, degrade, or alter as a result of sample collection, holding periods, and laboratory analysis. Therefore, preservation methods and hold time limits do not apply to quality assurance/quality control (QA/QC) measures of field and laboratory activities.

3.1.4 Sample Analysis

Each set of bulk samples collected was submitted under a separate chain-of-custody to EMSL Analytical, Inc. (EMSL) of Cinnaminson, New Jersey, for the specified analysis. The confirmation samples (originally reported as negative by EMS) and materials not previously assessed by EMS were submitted for analysis by PLM with dispersion staining techniques per USEPA's *Method for the Determination of Asbestos in Bulk Building Materials* (600/R-93/116). The percentage of asbestos, if present, was determined by microscopic visual estimation. EMSL is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), Accreditation No. 101048-0. EMSL personnel conducted laboratory data validation for precision and accuracy in accordance

with their standard laboratory analytical procedures provided with the Generic QAPP dated April 7, 2021.

Based on the results of the PLM analysis and in accordance with the approved SAP, supplemental analysis of select asbestos samples with a result greater than 0% and up to 6% asbestos content (including previous positive samples noted in the EMS report) was conducted using the 400-point count method (600/R-93/116) with gravimetric preparation, where indicated by the laboratory method.

3.2 Lead-Based Paint Survey

The LBP screening was conducted by Mr. James R. Baxter on October 20, 21, and 22, 2021. The LBP screening included a visual assessment of coated surfaces in and on the buildings to identify areas/materials that would require analysis by an x-ray fluorescence analyzer (XRF) to analyze for lead content. Mr. Baxter is a Certified Lead Inspector/Risk Assessor (Certification/License Number: LEAD-INSP10101, expiration date May 19, 2024). A copy of Mr. Baxter's license is included in Appendix C.

3.2.1 Identification and of LBP Testing Combinations

Terracon visually identified LBP testing combinations of each room, unit, space, and/or common area. A testing combination is characterized by the room equivalent, the component type, and the substrate. A room equivalent is an identifiable part of a building (room, foyer, hallway, etc.). Painted surfaces include any surface coated with paint, shellac, varnish, stain, paint covered by wallpaper, or any other coating.

3.2.2 LBP Sampling Using XRF

Terracon used a Viken Detection Pb200i handheld XRF lead paint analyzer (serial number 2366), which has direct-reading capability, to screen for lead content on interior surface coatings. The XRF is a portable electronic device containing a small, sealed nuclear source. The device emits x-rays at various energy levels. The x-ray energy excites electrons in the outer orbits of lead atoms. The detector in the XRF unit reads this excitation and translates it into a semi-quantitative reading of lead present per surface area. XRF technology allows detection of lead in a painted surface, even several layers below the surface, without disturbing the painted surface. Using the manufacturer provided calibration block, Terracon calibrated the XRF unit to approximately 1.0 mg/cm^2 (minimum of three readings) and performed a negative calibration check prior to conducting the screening services. Where applicable, the calibration process was repeated at the mid-day break, and again at the end of each day the XRF was used for the project.

Using the XRF, Terracon obtained 121 readings of painted surfaces to evaluate for the presence of LBP. A summary of the readings obtained is included as **Table 5** in **Appendix A**.

4.0 REGULATORY OVERVIEW

4.1 Asbestos Regulatory Overview

In Iowa, asbestos activities are regulated by the Iowa Department of Natural Resources (IDNR) and the Division of Labor, Iowa Workforce Development (IWD). IDNR regulates asbestos fiber emissions under Iowa Administrative Code 567 Chapter 23 (IAC 567-23) and asbestos-containing waste disposal under IAC 567-109. IWD regulates occupational exposure to asbestos under IAC 875-10 and asbestos removal and encapsulation activities under IAC 875-155.

IAC 567-23.1(3) adopts USEPA's asbestos NESHAP (40 CFR Part 61, Subpart M) by reference. Subpart M regulates asbestos fiber emissions and asbestos waste disposal practices. It also requires the identification and classification of existing materials prior to demolition or renovation activity. Under NESHAP, asbestos-containing building materials are classified as friable, Category I nonfriable, or Category II nonfriable ACM. Friable materials are those that, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. Category I nonfriable ACM includes packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1% asbestos. Category II nonfriable ACMs are any materials other than Category I nonfriable materials that contain more than 1% asbestos.

Regulated ACM (RACM) must be removed before renovation or demolition activities that will disturb the materials. RACM includes:

- Friable ACM;
- Category I nonfriable ACM that has become friable or will be subjected to drilling, sanding, grinding, cutting, or abrading; and
- Category II nonfriable ACM that could be crumbled, pulverized, or reduced to powder during renovation or demolition activities.

The owner or operator must provide the IDNR and IWD with written notification of planned removal activities at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by an Iowa-permitted asbestos abatement contractor.

IAC 875-155 Asbestos Removal and Encapsulation require that any asbestos-related activity conducted in a public building must be conducted by personnel licensed or permitted by the IWD. Inspections for ACM must be conducted by IWD-licensed inspectors. Asbestos abatement must be conducted by IWD-permitted asbestos abatement contractors. When an abatement project design is prepared, it must be prepared by an IWD-licensed project designer.

IAC 875-10 adopts the OSHA Asbestos Standard for construction (29 CFR 1926.1101) by reference. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below the permissible exposure limits (PELs) of 0.1 asbestos fiber per cubic centimeter of air (0.1 f/cc) as an 8-hour time-weighted average (TWA) or 1.0 f/cc as a 30-minute excursion

limit. The OSHA standard classifies construction and maintenance activities that could disturb ACM and specifies work practices and precautions that employers must follow when engaging in each class of regulated work.

4.2 Lead Regulatory Overview

Lead is regulated by both the USEPA and OSHA. USEPA regulates lead use, removal, and disposal, and OSHA regulates worker exposure to lead. USEPA defines LBP as paint, varnish, stain, or other applied coatings that contain lead equal to or greater than 1.0 mg/cm^2, 5,000 milligrams per kilogram (mg/kg), or 0.5% by dry weight as determined by laboratory analysis. For the purpose of the OSHA lead standard, lead includes metallic lead, all inorganic lead compounds, and organic lead soaps. The federal OSHA standard does not define the amount of lead in paint that constitutes lead-based paint, thus all paint containing lead is considered lead-containing paint (LCP).

Additionally, the USEPA regulates the disposal of hazardous materials. USEPA has stated that components removed with intact LBP that is not delaminating from the substrate may be disposed of as general demolition debris. If the LBP is stripped from components, or if it is delaminating from the substrate, the waste may be subject to hazardous waste rules [i.e., Toxicity Characteristic Leaching Procedure (TCLP)]. Other materials potentially containing lead (e.g., batteries, flashings, etc.) must also be properly disposed of.

The OSHA lead standard for construction (29 CFR 1926.62) applies to all construction work where an employee may be occupationally exposed to lead. Work related to construction, alteration, renovation, or repair (including painting and decorating) is included in this standard. The lead standard applies to ***any*** detectable concentration of lead in paint, as even small concentrations of lead can result in unacceptable employee exposures depending on the method of removal and other workplace conditions. As per this standard, construction includes, but is not limited to, the following:

- Demolition or salvage of structures where lead or materials containing lead are present.
- Removal or encapsulation of materials containing lead.
- New construction, alteration, repair, or renovation of structures, substrates, or portions containing lead, or materials containing lead.
- Installation of products containing lead.
- Lead contamination/emergency clean-up.
- Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are conducted.
- Maintenance operations associated with construction activities described above.

Employees may not be exposed to lead at concentrations greater than the PEL of 50 micrograms per cubic meter (μg/m^3) averaged over an 8-hour period without adequate protection. The OSHA

standard also establishes an action level of 30 μg/m^3, which if exceeded, triggers certain requirements, including periodic exposure monitoring and medical monitoring.

5.0 FINDINGS AND RECOMMENDATIONS

5.1 Asbestos Survey Findings

Laboratory analysis of bulk samples confirmed the presence of asbestos in samples collected on October 22, 24, 28, and November 1, 2021 and January 13 and 14, 2022. **Table 1** included in **Appendix A** identifies the confirmed ACMs, sample locations, and approximate quantities, along with additional information. A summary of ACMs included in the EMS Report are also summarized in Table 1.

A summary of materials that have been determined to be <1% asbestos containing is included in **Table 2. Table 3** in **Appendix A** includes a list of inaccessible areas/spaces and materials that were not sampled or are suspected to be present in the facility, based on our experience. The Asbestos Survey Sample Summary is included in **Table 4** in **Appendix A.**

A copy of the asbestos analytical laboratory reports and chains-of-custody/sample sheets are included in **Appendix B**; a confirmed ACM Photo Log is included in **Appendix D.** Exhibits depicting the asbestos materials and positive sample locations (by Terracon) are included as **Exhibits 1-14** in **Appendix E**.

5.2 Asbestos Recommendations

As NESHAP and Occupational Safety and Health Administration (OSHA) regulations (summarized in Section 4.1) govern the removal of ACMs, Terracon recommends that a qualified contractor be retained to properly abate and dispose of ACMs identified within this report in accordance with local, state, and federal regulations.

The owner and/or operator are responsible for NESHAP regulatory compliance regarding the proper removal, handling, and disposal of ACMs containing greater than 1% asbestos prior to renovation or demolition. Also, per state regulations, please be aware that the owner and/or operator must notify the Iowa Department of Natural Resources (IDNR) 10-business days prior to asbestos abatement at certain quantity thresholds and prior to renovation activities.

Materials containing less than 1% asbestos are not considered ACMs under the USEPA NESHAP regulations, but are regulated by the OSHA construction standard, 29 CFR 1926.1101. Due to these considerations, all <1% materials should be handled/removed by trained personnel in accordance with OSHA regulations. Those materials are identified in **Table 2** in **Appendix A,** along with their approximate locations.

We recommend that the assumed ACMs listed in in the Inaccessible Areas in **Table 3** in **Appendix A** be removed by the abatement contractor.

Other general recommendations and considerations include:

- Due to the location of many of the ACMs, the abatement contractor shall be prepared to complete significant demolition to gain access to the materials. It may be advisable to have the abatement contractor be responsible for all demolition activities at the site due to the location of ACMs.
- Significant wall demolition will be required to fully access flooring materials
  - Demising walls have been built over top of flooring.
  - Several ACM floor coverings and mastics are located below underlayment, plywood, carpeting, sheet flooring, and generally on concrete. Significant effort will be required to access the ACM layer.
  - Significant wall, ceiling, and chase demolition will be required to access the TSI runs in cavities. Some of these walls also contain lead-based paint and will require proper removal activities as well.
- If additional but unsampled suspect ACMs are revealed during renovation or demolition activities, the material(s) must be assumed to contain asbestos and treated as such unless sampled by an accredited inspector and laboratory analysis determines otherwise.
- Dewatering of tunnels may be required to fully access the space and suspect ACM.
- The reader of this report should understand the limitations of this survey. If the project area as defined in this report or renovation plans change, additional assessment of previously unsampled suspect ACMs may be necessary.
- For materials that were found to contain <1% asbestos and which will be left in place during demolition (assuming whole building demo), we recommend that:
  - The demolition contractor review and comply with OSHA asbestos standard requirements.
  - Demolition of the structure should be completed utilizing wet methods.
  - Complete prompt clean-up of waste and debris. Place waste in leak tight containers (i.e., lined trucks/roll-offs); waste should be disposed of in an adequately wet manner, at an approved facility.
  - The demolition contractor consults with the landfill for special disposal procedures, if any. The landfill may require that a separate hole be dug,

and materials placed within and immediately covered, much like typical asbestos waste disposal procedures.

A summary of applicable asbestos regulations is presented in Section 4.

5.3 Lead Paint Survey Findings

Based on the direct readouts obtained during the XRF survey, multiple sampled surfaces did contain LBP (indicated in **bold** in Table 5 in Appendix A). The materials generally consisted of **plaster / drywall walls, support poles, and various glazed ceramic blocks**. XRF results less than (<) 1 mg/cm^2 indicate that lead is not present at or above the USEPA criterion for classification for the surface coating as an LBP, however, lead was present and detectable in a majority of the samples analyzed, which, from an OSHA regulatory standpoint, could present an airborne hazard to personnel conducting renovation activities. It should be noted that the Viken PB200i XRF Performance Characteristic Sheet[2] does not have an inconclusive range regarding testing results, therefore, paint chip sampling as indicated in the SAP was not required.

The LBP Survey Summary is included as Table 5 in Appendix A; a photo log for the positive lead samples is included as Appendix D and maps depicting the approximate extent of confirmed LBP are included as Exhibits 15-17.

5.4 Lead-Containing Paint Recommendations

Terracon recommends that all contractor(s) involved in the renovation activities should be informed of the presence of LBP and LCP (lead concentrations less than USEPA criterion) on identified building components. OSHA's lead standard for construction (29 CFR 1926.62) applies regardless of the concentration and contractor(s) will need to provide appropriate personal protective equipment and conduct personal exposure monitoring, at a minimum. Terracon recommends the contractor review the specified work tasks and methods involved in the renovation process and prepare a detailed LBP management plan. The LBP management plan should identify the work procedures and health and safety measures that will be used to control exposures to lead. As indicated in Section 5.2, some of the LBP glazing on the block walls is obstructing access to known or suspect ACMs. All contractors and personnel involved with the project should be made aware of these locations and confirm that the LBP and ACM work plans identify proper precautions for these hazards.

If waste materials containing LCP are generated, they may be regulated as hazardous waste. LCP waste from renovation activities, such as debris, paint chips, dust, and sludges, that exhibit the toxicity characteristic must be managed and disposed of as a hazardous waste under the Resource Conservation and Recovery Act (RCRA), except whole-building demolition debris. The

[2] Posted at: https://www.hud.gov/sites/dfiles/HH/documents/Viken_Pb200i_PCS_0.5_Dec_2020.pdf

hazardous waste criterion for lead wastes is established under RCRA, Subtitle C, as 5.0 milligrams per liter (mg/L) measured by the Toxicity Characteristic Leaching Procedure (TCLP).

6.0 QUALITY CONTROL AND DATA VALIDATION

6.1 Asbestos Quality Control and Data Validation

6.1.1 Field Methods and Measurements

To validate the quality and usability of asbestos data, a review of field activities outcomes and data included the following:

Table B. Asbestos Field Methods and Measurements Review Summary

Review Checklist	Validated	Descriptions
Bulk sampling of suspect asbestos containing materials were conducted in accordance with Terracon standard operating procedure E3000	Yes	
Terracon collected multiple samples of each applicable identified HA at the site to allow assessment of the accuracy of HAs identified and the representativeness of samples collected to each applicable HA in accordance with the SAP.	Yes	
To improve precision, samples of HAs with PLM results greater than 0% and up to 6% were further analyzed via point-counting.	Yes	Samples with PLM findings below 6% were subsequently analyzed via point-counting (400-point count analytical method, with gravimetric preparation, where indicated by the laboratory). As previously indicated, this included samples from the EMS report as part of Terracon's SAP.
Sampling is considered complete if 100% of identified HAs (not assumed or presumed to be ACM) were sampled and analyzed per the SAP.	Yes (with conditions)	Section 1.2 and Table 3 provided in Appendix A summarize inaccessible areas that were not included in the survey. The inaccessible areas may have HAs that could not be identified during the survey.
Chain of custody documents accurately depicts bulk samples collected and submitted, bulk samples/containers were received intact, and laboratory analysis requests were made pursuant to the SAP.	Yes	
If variances (expressed as percent difference) of either PLM or point-count analysis exceed 50% (based on material type) for a given HA, Terracon assessed the data results of each HA to determine whether multiple potential HAs within the associated sample group may exist.	Yes (with conditions)	RPD evaluation was conducted only for PLM analysis of each HA sampled as discussed in section 1.2 above. Variance of PLM data is typical for material types of each HA identified. Therefore, HAs identified in the field; based on type, texture, color, use and other distinctive features; are considered valid and representative of building materials observed.

6.1.2 Laboratory Methods and Measurements

Laboratory data validation of PLM and point-count methodology was performed by the NVLAP accredited laboratory in accordance with their Standard Operating Procedures included in the ECIA-approved generic QAPP.

Terracon confirmed that the receiving laboratory did not indicate concerns or issues related to sample breakage or tampering on the chain-of-custody upon receipt of the bulk samples. Terracon's review also confirmed that the samples recorded on the chain-of-custody correlated to the analytical information in the laboratory report. As discussed in Section 3.1, Asbestos content of suspect ACM does not diminish, degrade, or alter as a result of sample collection, holding periods, and laboratory analysis; therefore, preservation methods and hold time limits do not apply.

6.2 Lead Based Paint Quality Control and Validation

6.2.1 Field Methods and Measurements

To validate the quality and usability of LBP data, a review of field activities outcomes and data included the following:

Table C. LBP Field Methods and Measurements Review Summary

Review Checklist	Validated	Descriptions
XRF Measurements were conducted in accordance with Terracon standard operating procedure E4000.	Yes	
Calibration of the XRF was conducted per manufacturer specifications and recorded in field logs specific to the property assessed.	Yes	Calibration results of the XRF within the tolerances specified by the device manufacturer indicate that the device is working as intended.
To ensure sample representativeness of each testing combination identified, Terracon collected multiple XRF readings of each testing combination in accordance with the SAP.	Yes	
Sampling is considered complete if 100% of identified LBP testing combinations were measured via XRF and/or sampled and analyzed per the SAP.	Yes (with conditions)	Section 1.2 and Table 3 provided in Appendix A summarize inaccessible areas that were not included in the survey. The inaccessible areas may have LBP that could not be identified during the survey.
Paint chip samples were collected if XRF measurements were within the inconclusive range of the instrument.	N/A	Terracon did not have readings within the inconclusive range of the XRF, and thus, additional laboratory analysis of such samples was not completed as part of the survey. Validation of the results was conducted each day the services were completed at the site as part of the calibration checks.

Paint chip samples were collected in accordance with Terracon standard operating procedure E4000.	N/A	Terracon did not have readings within the inconclusive range of the XRF, and thus, additional laboratory analysis of paint chip samples was not completed as part of the survey.
Chain of custody documents accurately depict paint chip samples collected and submitted, paint chip samples/containers were received intact, and laboratory analysis requests were made pursuant to the SAP	N/A	Terracon did not have readings within the inconclusive range of the XRF, and thus, additional laboratory analysis of paint chip samples was not completed as part of the survey.

N/A = Not Applicable

The XRF used by Terracon requires no substrate correction, so all results at 1.0 mg/cm^2 or greater are considered LBP. It should be noted that Terracon's sampling process was based on the exterior colors and materials observed, and that underlying paint colors may contribute to the positive results.

6.2.2 Laboratory Methods and Measurements

Terracon did not have readings within the inconclusive range of the XRF, and thus, additional laboratory analysis of such samples was not completed as part of the survey. Validation of the results was conducted each day the services were completed at the site as part of the calibration checks.

7.0 LIMITATIONS/GENERAL COMMENTS

At the request of the City of Clinton, Iowa, the asbestos survey services and portions of this report were completed based on information contained in the EMS Report. The user of this report should understand the limitations of relying on this information.

Terracon performed limited demolition or destructive activities during sampling, but did not knocking large holes in walls, dismantle equipment, or remove protective coverings. Reasonable efforts to access suspect materials within known areas of restricted access (e.g., crawl spaces) were made; however, confined spaces or areas which may pose a health or safety risk to Terracon personnel were not sampled. Sampling did not include suspect materials which could not be safely reached with available ladders/man-lifts.

The following areas were either not sampled or had limited access:

- Covered walkway that runs across the alley to the north;
- Elevators / elevator equipment;
- Electrical equipment;
- Tunnel spaces that had standing water, preventing full access and limited visual observations for additional pits, pumps, or other equipment;
- Subsurface materials / equipment;
- Pipe flanges and associated gasketing.

The survey was conducted utilizing limited destructive sampling techniques. It should be noted that some equipment and materials such as electrical systems, gaskets, pumps, or other mechanical devices (if observed) were not sampled as Terracon was not able to confirm that all electrical lines had been switched off or they were not able to be accessed. This survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions, and recommendations expressed in this report are based on the specific conditions during our sampling. The information contained in this report is relevant to the date on which the sampling was conducted and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by ECIA and the City of Clinton, Iowa for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories, or other third parties supplying information used in the preparation of this report. No warranty, express or implied is made.

APPENDIX A

TABLES

Terracon

APPENDIX A
480 South 3rd Street
Clinton, Clinton County, Iowa

TABLE 1 – IDENTIFIED ASBESTOS-CONTAINING MATERIALS BY HOMOGENEOUS AREA (HA)

The materials listed in this table have been sampled and determined to contain asbestos in concentrations greater than 1%. When disturbed, various federal, state, and local regulations will apply. Please refer to the attached Exhibits in Appendix B for the general location of the ACMs and for additional notes.

HA[3]	Material Description	Material Location	Lab Results	Friability	Condition	Estimated Quantity[4] / Notes
PC1[5]	Thermal Systems Insulation (TSI) Mag pipe insulation, white with canvas wrap	1905 Building – basement room B-5 and B-9 boiler room	2-7% Chrysotile (PLM)[6] 12.75% Chrysotile (PC)[7]	Friable	Significantly Damaged	18 LF
PC2	TSI mudded joint fitting with canvas wrap	1905 and 1961 buildings – basement rooms B-1 through B-11; 1st rooms 3, 6, and boy's restroom pipe chase; women's and girl's locker rooms; 2nd and 3rd between floors and walls to restrooms	2-10% Chrysotile (PLM) 7.98% Chrysotile (PC)	Friable	Significantly Damaged	2,500 LF PC4 - This material was apparently referred to as wools felt pipe insulation by EMS.
PC3	TSI mudded joint fitting	1905 and 1961 buildings – basement rooms B-1 through B-11; 1st rooms 3, 6, and boy's restroom pipe chase; women's and girl's locker rooms; 2nd and 3rd between floors and walls to restrooms	3-5% Chrysotile (PLM) 12.50% Chrysotile (PC)	Friable	Significantly Damaged	
	TSI mudded joint fitting - canvas wrap		3-5% Chrysotile (PLM) 1.50% Chrysotile (PC)	Friable	Significantly Damaged	
PC4	TSI layered paper pipe insulation - with canvas wrap (hard-wrap)	1905 and 1961 buildings – basement rooms B-1 through B-11; 1st rooms 3, 6, and boy's restroom pipe chase; women's and girl's locker rooms; 2nd and 3rd between floors and walls to restrooms	2-3% Chrysotile (PLM) 8.00% Chrysotile (PC)	Friable	Significantly Damaged	
PC5	9-inch (") x 9" Vinyl floor tile (VFT) - red	1905 Building – SE corner of the basement room B-1; 1st floor room 4; 2nd floor room 2F kitchen	3% Chrysotile (PLM) 5.6% Chrysotile (PC)	Non-Friable	Significantly Damaged	500 SF It is assumed that the <1% associated tar paper will be abated along with the asbestos containing floor tile and mastic
	Mastic – black		3% Chrysotile (PLM) 3.3% Chrysotile (PC)	Non-Friable	Significantly Damaged	

[3] HA – indicates homogenous area
[4] Estimated quantities are based on a cursory field evaluation and actual quantities may vary significantly, especially if ACMs are present in hidden and/or inaccessible areas not evaluated as part of this survey. LF = linear feet; SF = square feet
[5] PC# – indicates an HA number assigned to a confirmatory sample for a material that was apparently indicated as ACM in the EMS Report. Note: these samples were analyzed with a 400-point county analytical method; non-organically bound materials were also prepared with a with gravimetric-reduction preparation technique, as warranted.
[6] PLM – Polarized Light Microscopy Analytical method.
[7] PC – 400-Point Count analytical method; Note: non-organically bound materials were also prepared with a with gravimetric-reduction preparation technique, as warranted

HA[3]	Material Description	Material Location	Lab Results	Friability	Condition	Estimated Quantity[4] / Notes
PC6	9” x 9” vinyl floor tile - beige with tan & brown spots	1905 Building – basement room B-1; 1961 building sub-level women’s and girl’s locker rooms, 1st hallways and stairwells to 2nd floor	2% Chrysotile (PLM) 1.2% Chrysotile (PC)	Non-Friable	Significantly Damaged	5,000 SF The mastic associated with this material was reported as <1% asbestos containing.
PC7	9” x 9” vinyl floor tile - (multiple colors) grey with white specks	1905 Building – basement stair landing; 1st floor room 3, west side storage	2-5% Chrysotile (PLM) 1.7% Chrysotile (PC)	Non-Friable	Significantly Damaged	150 SF
PC8	9” x 9” vinyl floor tile - beige with brown & white streaks	1905 Building 2nd floor, 2F north, south, and east hallways, 2F restroom, 2F rooms 7-9 on the 3rd floor	5% Chrysotile (PLM) 2.8% Chrysotile (PC)	Non-Friable	Significantly Damaged	1,500 SF
	Mastic – black		3% Chrysotile (PLM) 1.1% Chrysotile (PC)	Non-Friable	Significantly Damaged	
PC9	9” x 9” vinyl floor tile - white with brown streaks	1905 Building –2nd floor, room 2F kitchen	3% Chrysotile 5.2% Chrysotile (PC)	Non-Friable	Significantly Damaged	350 SF
PC13	12” x 12” vinyl floor tile - white with brown streaks	1961 Building – South walkway to 1978 building, southeast lobby, west locker rooms, hallways, stairwells; 2nd floor hallways, west and east gym offices, 3rd floor hallways and stairwell, custodial closet	2% Chrysotile (PLM) 3.4% Chrysotile (PC)	Non-Friable	Significantly Damaged	3,600 SF EMS reports this material in the following locations: 1978 building: 1st floor southeast lobby and hall, east stairs, west central locker room area; 2nd floor: handball hall, main hall and janitor’s closet, west office, east office, gym drinking fountain area; 3rd floor: hallway
	Mastic – black		2% Chrysotile (PLM) 2.6% Chrysotile (PC)	Non-Friable	Significantly Damaged	
PC14	9” x 9” vinyl floor tile, brown	1905 Building – basement room B-1 SE corner, room B-2; 2nd floor – 2F kitchen	3% Chrysotile (PLM) 12.2% Chrysotile (PC)	Non-Friable	Significantly Damaged	500 SF
	Mastic – black		3% Chrysotile (PLM) 3.5% Chrysotile (PC)	Non-Friable	Significantly Damaged	

HA[3]	Material Description	Material Location	Lab Results	Friability	Condition	Estimated Quantity[4] / Notes
PC15	9" x 9" vinyl floor tile - beige with streaks	1905 Building – basement room B-2	5% Chrysotile (PLM) 5.8% Chrysotile (PC)	Non-Friable	Significantly Damaged	5,000 SF Both the black mastic and yellow glue associated with the floor tile were reported as <1% asbestos.
NC01[8]	2-foot (') x 2' ceiling tile, white, with pinholes and slight texture	1905 Building - 1st floor Room 5 (multipurpose room)	4% Amosite (PLM) 1.75% Amosite (PC)	Friable	Significantly Damaged	2,800 SF
NC04	9" x 9" vinyl floor tile, beige	1905 Building, 2nd floor south restroom	3% Chrysotile (PLM) 1.6% Chrysotile (PC)	Non-Friable	Significantly Damaged	4,500 SF
NC16	9" x 9" vinyl floor tile, light tan	1905 Building, 1st floor west side of lobby, beneath carpet and underlayment	5% Chrysotile (PLM) 3.6% Chrysotile (PC)	Non-Friable	Significantly Damaged	1,200 SF
1[9]	Black caulk, rough texture	1905 Building - 2nd floor, 2F room 7, behind the wood paneling on walls	3% Chrysotile (PLM) 3.8% Chrysotile (PC)	Non-Friable	Damaged	1,800 SF
15	Grey caulk; weathered, rough texture	1905 Building - exterior windows and vents	5% Chrysotile (PLM) <0.25 to 1.9% Chrysotile (PC)	Non-Friable	Significantly Damaged	65 Windows, 4 Vent Penetrations Approximately 100 SF Note: the laboratory reported that Sample 15-CA1-043 was a brown-gray color and was determined to be <1% asbestos; that sample is likely not homogeneous to the remainder of the samples. An additional layer could have been applied over the ACM.
17	Vibration cloth – white, woven canvas type material	1905 Building - basement mechanical room, pool mechanical room; 1961 Building – mezzanine mechanical room	20 to 35% Chrysotile (PLM)	Non-Friable	Damaged	13 Units
22	2' x 2' Cement board – gray smooth and peg board style panels	1905 Building: basement south restroom wall panels; basement south main room ceiling; basement south restroom locker room and shower area; pool area; 1961 building: locker room and shower in basement as ceiling repair; 1st floor pool area ceiling; 1978 building: 1st floor pool area	18 to 25% chrysotile	Non-Friable	Damaged	4,500 SF This material is on both walls and ceilings in select locations. Some panels have a pegboard style pattern.
Not Assigned[7]	TSI mudded joint fittings	Associated with TSI layered paper pipe insulation; 1905 Building & 1961 building – throughout buildings	2-5% Amosite; 5-10% Chrysotile	Friable	Significantly Damaged	545 fittings This material was sampled and quantified by EMS And was described by mudded joint fittings on woolsfelt pipe insulation.
Not Assigned[7]	Vibration damper cloth	1905 building basement mechanical room 1961 building 1st floor mechanical room	50% Chrysotile	Friable	Damaged	11 dampers This material was sampled and quantified by EMS
Not Assigned[7]	Breeching insulation	1905 basement boiler room	10% Amosite	Friable	Significantly Damaged	200 SF This material was sampled and quantified by EMS.
Not Assigned[7]	Boiler door gasketing		40% Chrysotile	Friable	Significantly Damaged	2 gaskets This material was sampled and quantified by EMS

[8] NC# – Indicates an HA number assigned to materials/samples that were apparently deemed negative in the EMS Survey and which were subsequently sampled by Terracon and confirmed as ACM through point count analysis.

HA[3]	Material Description	Material Location	Lab Results	Friability	Condition	Estimated Quantity[4] / Notes
Not Assigned[7]	White caulk on wood	1905 Building east entry exterior and north entry exterior	2% Chrysotile	Non-Friable	Damaged	40 LF This material was sampled and quantified by EMS
Not Assigned	Linoleum, tan	1905 Building, 2nd, and 3rd floors apartment units	2% Chrysotile	Non-Friable	Damaged	960 SF This material was sampled and quantified by EMS
Not Assigned	Linoleum, green	1905 Building, 2nd, and 3rd floor apartment units	2% Chrysotile	Non-Friable	Damaged	1,170 SF This material was sampled and quantified by EMS
Not Assigned	Linoleum, gray	1905 Building, 2nd, and 3rd floor apartment units	2% Chrysotile	Non-Friable	Damaged	2,865 SF This material was sampled and quantified by EMS
Not Assigned[7]	Heat exchanger insulation	1961 Building, basement pool mechanical room	5% Amosite, 2% Chrysotile	Friable	Significantly Damaged	10 SF This material was sampled and quantified by EMS
Not Assigned[7]	TSI debris		Varies	Friable	Significantly damaged	10 SF This material was sampled and quantified by EMS
Not Assigned[7]	Roof flashing	1960s addition roof(s) – Upper and lower roofs	2 - 3% Chrysotile	Non-Friable	Damaged	520 LF This material was sampled and quantified by EMS and was described as built-up roof flashings (under newer roofing).
Not Assigned[7]	Roof flashing	1978 Roof – Upper and lower roofs	10% Chrysotile	Non-Friable	Damaged	585 LF T This material was sampled and quantified by EMS and was described as built-up roof flashings (under newer roofing).

[9] # - indicates an HA number assigned to additional samples/materials that were not apparently surveyed by EMS

TABLE 2 – MATERIALS CONTAINING LESS THAN (<) 1% ASBESTOS by HOMOGENOUS AREA (HA)

In addition to the NESHAP-defined ACM, the following materials were identified as containing less than (≤) 1% asbestos. Although these materials are not regulated under NESHAP, these materials are subject to OSHA requirements when disturbed (see 29 CFR 1926.1101). See **Appendix D** for detailed analytical results and the sample sheets. Please refer to the exhibits in **Appendix B** for the general locations of the materials and for additional notes.

HA[10]	Material Description	Material Location	Lab Results	Friability	Condition	Estimated Quantity [11]/ Notes
PC5[12]	Tar Paper – black, associated with the 9-inch (“) x 9" vinyl floor tile and mastic - red	1905 Building – SE corner of the basement room B-1; 1st floor room 4; 2nd floor room 2F kitchen	<0.25% Chrysotile (PC)[13]	Friable	Damaged	500 SF It is assumed that this material would be abated with the overlying ACM floor tile and mastic.
PC6	Mastic – black, associated with the 9" x 9" vinyl floor tile and mastic – beige with tan and brown spots	1905 Building – basement room B-1; 1961 building sub-level women’s and girl’s locker rooms, 1st hallways and stairwells to 2nd floor	<0.25% Chrysotile	Non-friable	Significantly Damaged	6,800 SF The floor tile associated with this material has been determined to contain concentrations >1% asbestos.
PC7	Mastic – brown/black, associated with 9" x 9" vinyl floor tile: gray with white specks	1905 Building – basement stair landing; 1st floor room 3, west side storage	<0.25% Chrysotile	Non-friable	Significantly Damaged	1,320 SF The floor tile associated with this material has been determined to contain concentrations >1% asbestos.
PC9	Mastic – black, associated with the 9" x 9" vinyl floor tile – white with brown streaks	1905 Building – 2nd floor, 2F room 8 / kitchen	<0.25% Chrysotile	Non-friable	Significantly Damaged	250 SF The floor tile associated with this material has been determined to contain concentrations >1% asbestos.
PC10	Sheet flooring – tan with black tar paper backing	1905 Building – 2nd floor apartment units 1, 6, 8	<0.25% Chrysotile	Non-friable	Damaged	960 SF
PC11	Sheet flooring – green with black tar paper backing	1905 Building – 2nd floor apartment unit 2; 3rd floor apartment units 20, 21, 23, 26, 27, 28	<0.25-0.9% Chrysotile	Non-friable	Damaged	1,170 SF
PC12	Sheet flooring - grey with black tar paper backing	1905 Building – 2nd floor apartment units 3, 4, 5, 7; 3rd floor apartment units 9, 12-19, 22, 24, 25	0.3 to 0.9% Chrysotile	Non-friable	Damaged	2,865 SF

[10] HA – indicates homogenous area
[11] Estimated quantities are based on a cursory field evaluation and actual quantities may vary significantly, especially if ACMs are present in hidden and/or inaccessible areas not evaluated as part of this survey. LF = linear feet; SF = square feet
[12] PC# – indicates an HA number assigned to a confirmatory sample for a material that was apparently indicated as ACM in the EMS Report. Note: these samples were analyzed with a 400-point county analytical method; non-organically bound materials were also prepared with a with gravimetric-reduction preparation technique, as warranted.
[13] PC – 400-Point Count analytical method; Note: non-organically bound materials were also prepared with a with gravimetric-reduction preparation technique, as warranted

HA[10]	Material Description	Material Location	Lab Results	Friability	Condition	Estimated Quantity [11]/ Notes
PC15	Mastic – black, associated with 9" x 9" vinyl floor tile – beige with streaks	1905 Building – basement room B-2	<0.25-0.8% Chrysotile	Non-friable	Significantly Damaged	4,700 SF The floor tile associated with this material has been determined to contain concentrations >1% asbestos. It is assumed that the yellow mastic is contaminated by the black layer.
	Mastic – yellow, associated with 9" x 9" vinyl floor tile – beige with streaks		<0.25% Chrysotile	Non-friable	Significantly Damaged	
03[14]	Yellow mastic associated with non-ACM grey cove base	1905 Building – 1st floor rooms 1, 2, 4, 5; 2nd floor rooms 7-9, and north, south, and east hallways, apartment units; 1961 building – south walkway to the 1978 building	<0.25% Chrysotile	Non-friable	Damaged	1,000 LF

[14] # - indicates an HA number assigned to additional samples/materials that were not apparently surveyed by EMS

TABLE 3 – INACCESSIBLE AREAS AND ASSUMED ASBESTOS-CONTAINING MATERIALS, NOT SAMPLED

Assumed materials are materials that are commonly determined to contain asbestos that could not be sampled during the survey. Reasons for not sampling can include lack of accessibility (hard pan ceilings, interlocked ceiling tile), need for significant demolition to access materials in an occupied space, or other sampling limitations. Assumed ACM should be monitored for damage and treated as asbestos containing material. These materials should be sampled before any renovation or demolition activities that may disturb them to determine their actual asbestos content.

Location/Area	Space	Material Description	Notes
1961 Building	Locker rooms (shower/restroom area)	Thermal systems pipe insulation (TSI) – mudded joint packings and pipe wrap	Limited access: significant demolition would be required to access the interior wall cavities and above hard panned ceilings. Demolition in these areas should proceed with caution as there are likely TSI runs embedded in these inaccessible cavities. In addition, the majority of the ceramic block walls in these areas contain LBP, which should also be managed accordingly during demolition activities.
1961 Building	Second floor, covered walkway across the alley	Possible insulation, caulks/sealants, flooring materials, etc.	The inside door to the walkway was sealed shut and was unable to be opened; City of Clinton personnel indicated that the space is only accessible from the building on the north side of the alley.
1961 Building	Tunnel areas	TSI, electrical systems, misc. equipment, etc.	The west side tunnel space that runs around the large pool had standing water ranging from approximately six inches to more than one foot of water. The water obscured the floor as well as potential pits, submerged pumps, or other equipment in these areas. Heavy deposition of friable and suspect friable asbestos materials in these areas were observed (primarily TSI materials) were observed throughout the tunnel areas.
1905 Building	Elevator/ Elevator Shaft	Elevator Brake shoes	The elevator in the 1905 building runs from the basement to the third floor; the mechanical room is located in the basement, but neither the interior of the elevator or the elevator shaft was able to be accessed during Terracon's site services. Assumed materials associated with this area should be removed by a permitted abatement contractor.
1905/1961/1978 Buildings	Electrical System	Electrical boards and other misc. electrical equipment	Various electrical panels and boards were observed in the building, Terracon removed several outer housings/coverings to look for asbestos-containing paneling, bus bars, etc. however not all of the materials were able to be removed or accessed.
1905 Building	Roof	Roofing materials, flashings, etc.	Terracon did not observe a specific access panel for the roof of the 1905 building. Due to the tapered construction of the upper portion of the 1905 building from the adjacent roof, ladder access was not possible. A potential access point may be obscured by drywall or other building materials from the inside. Limited observations from the adjoining roofs appear to indicate a membrane roof that appears similar to adjacent roofs; however, the underlying materials are currently unknown.
1905 Building and 1961 Building	Basement (1905) and 2F Mechanical room (1961)	Fire Doors (4 total observed, 2 in each of the listed locations)	Fire door materials were not able to be sampled and are assumed to contain asbestos; these materials should be removed by a permitted abatement company.

TABLE 4 – ASBESTOS SURVEY SAMPLE SUMMARY

HA[15]	Sample #	Material Description	Layer	Material Location	Sample Location	Lab Results
NC[16]01	NC-CT3-01	2-foot (‘) x 2’ ceiling tile, white, with pinholes and slight texture	Ceiling tile	1905 Building - 1st floor Room 5 (multipurpose room)	North room, in the southeast corner	**4% Amosite (PLM)** **1.75% Amosite (PC)**
NC02	NC-CT1-02	1' x 1' Ceiling tile, green with brown fiber smooth texture	Ceiling tile	1905 Building - 2F – laundry room	North storage closet near the doorway	None Detected (ND)
NC03	NC-CT4-03	2' x 4' Ceiling tile, white, textured	Ceiling tile	1905 Building, 1st floor Room 1, 4, Room 5 (multipurpose room), 1F elevator room, men’s and women’s locker rooms, 2nd, and 3rd floor unit apartments	North room, southwest area near the entrance	ND
NC04	NC-FT1-04	9-inch (“) x 9” vinyl floor tile, beige	Floor tile	1905 Building, 2nd floor south restroom	South restroom, southeast corner, under sheet flooring and underlayment	**3% Chrysotile** **1.6% Chrysotile (PC)**
			Mastic			ND
NC05	NC-FC1-05	Vinyl floor sheeting - tan with black and gray specks	Vinyl sheet flooring	1905 Building, 2nd floor south restroom	South restroom, center area near the sinks	ND
NC06	NC-PL1-06	Plaster skim coat and drywall - tan with a slight texture	Plaster skim coat	1905 Building, 1st floor, room 4; 2nd and 3rd floor hallways, and unit apartments	South restroom, south wall center area, mid-way up the wall	ND
			Drywall			ND
NC07	NC-MS5-07	1" x 1" Ceramic tile - gray with light gray grout and adhesive	Ceramic	1905 Building, 3rd Floor, north restroom; 1978 building men’s locker room	North restroom, center of doorway threshold	ND
			Grout			ND
			Adhesive			ND
NC08	NC-WB1-08	Drywall and joint compound – white, slight texture	Drywall	1905 Building, basement room 8 elevator mechanical room, 1st floor, room 4, 3rd Floor unit apartments	Room 13, northeast wall center area, in the corner	ND
			Joint compound			ND
NC09	NC-WB3-09	Drywall compound – white slight texture	Drywall compound	1905 Building, 2nd and 3rd floor storage closets	Storage room on the east side the north open room	ND
NC10	NC-FC1-10	Vinyl sheet flooring and mastic – tan, smooth texture	Vinyl sheet flooring	1978 Building 3rd floor running track	Elevated running track, near the southeast entrance to track	ND
			Mastic			ND
NC11	NC-FC5-11	Felt paper underlayment – black smooth texture	Felt paper	1961 Building, 2nd floor gymnasium	Gymnasium floor, northeast corner of gym	ND
NC12	NC-MS5-12	1" x 1" Ceramic tile and grout – beige with gray grout	Ceramic	1961 Building, large pool area	Center swimming pool, on the northwest corner of the pool	ND
			Grout			ND
NC13	NC-HP2-13	Plaster (hard finish) on wood lath – white, painted blue	Plaster	1905 Building, 1st floor east and south entrances	Main lobby area, center of wall by the southeast stair entrance	ND
NC14	NC-FT2-14	12" x 12" vinyl floor tile and mastic– white, smooth	Floor tile	1905 Building, 1st floor main lobby	Main lobby area, on the north side of the center counter on the floor	ND
			Mastic			ND
NC 15	NC-CA5-15	Caulk (panel adhesive) – beige, rough texture	Caulk	1905 Building, 1st floor stairwells behind Masonite wall boards	East stairwell landing above the handrail, behind the stair wall paneling	ND
NC16	NC-FT5-16	9” x 9” vinyl floor tile, light tan	Floor tile	1905 Building, 1st floor west side of lobby, beneath carpet and underlayment	Main lobby area, underneath a layer of floor tile and wood underlayment	**5% Chrysotile** **3.6% Chrysotile (PC)**
			Mastic			ND
NC17	NC-FC1-17	Sheet flooring and mastic – red with black and tan specks	Sheet flooring	1905 Building, 1st floor room 6 kitchen area	North room kitchenette area, 2' inside the door at east entrance	ND
			Mastic			ND

[15] HA – indicates homogenous area
[16] NC# – Indicates an HA number assigned to materials/samples that were apparently deemed negative in the EMS Survey and which were subsequently sampled by Terracon and confirmed as ACM through point count analysis.

HA[15]	Sample #	Material Description	Layer	Material Location	Sample Location	Lab Results
NC18	NC-CT5-18	2' x 2' Ceiling tile – white faced fiberglass panels	Ceiling tile	1905 Building, 1st floor room 6 kitchen area	North room kitchenette area, east entrance above the doorway	ND
NC19	NC-CT4-19	2' x 4' Ceiling tile – white, slightly textured	Ceiling tile	1905 Building, 1st floor, east and south entrances	Southcentral room by main lobby, above the doorway entrance	ND
NC20	NC-FC1-20	Vinyl sheet flooring and mastic - tan	Sheet flooring	1961 Building basement, women's locker room	Central women's locker room, under sink, next to shower room	ND
			Mastic			ND
NC21	NC-FC4-21	Vinyl stair treads and mastic – tan with diamond pattern	Stair tread	1961 Building basement, west stairs to women's locker room	Upper locker room entrance, stairwell down to locker rooms	ND
			mastic			ND
NC22	NC-CT5-22	2' x 4' Ceiling tile – brown, ½" fibrous with tan face	Ceiling tile	1905 Building, 1st floor, small storage area, west side	Basement storage room / crawlspace	ND
NC23	NC-WB4-23	Spray-on popcorn coating – white, rough texture	Spray-on coating	1905 Building 1st floor - 1F elevator room; basement room B-2	Basement area, southwest corner in elevator lobby on the ceiling	ND
NC24	NC-CA3-24	Caulk – gray smooth texture	Caulk	1961 Building, girl's locker room, south hallway, east windows of the large pool room	Main locker room area, by the gym (tilt-up conc.)	ND
NC25	NC-CA3-25	Caulk – white, brittle, rough texture	Caulk	1978 Building 3rd floor running track	Track area, on east wall, brick wall seams (brick joints)	ND
PC[17]1	PC1-PI1-01	Thermal Systems Insulation (TSI) Mag pipe insulation, white with canvas wrap	Insulation	1905 Building – basement room B-5 and B-9 boiler room	Basement landing, bottom of east stairwell, overhead	**12.75% Chrysotile**
	PC1-PI1-02		Insulation		Basement area, north side of small office next to east stairs	Positive Stop (not analyzed)
			Wrap			ND
	PC1-PI1-03		Insulation		Basement area, north side of small office next to east stairs	Positive Stop (not analyzed)
			Wrap			ND
PC2	PC2-MJ3-04	TSI mudded joint fitting with canvas wrap	Mudded joint	1905 and 1961 buildings – basement rooms B-1 through B-11; 1st rooms 3, 6, and boy's restroom pipe chase; women's and girl's locker rooms; 2nd and 3rd between floors and walls to restrooms	Basement area, south main room above the drop ceiling against north wall	**7.98% Chrysotile**
	PC2-MJ3-05		Mudded joint		Basement area, women's locker room back of room above the drop ceiling	Positive Stop (not analyzed)
	PC2-MJ3-06		Mudded joint		2nd Floor mechanical room above the ductwork	Positive Stop (not analyzed)
PC3	PC3-MJ4-07	TSI mudded joint fitting with canvas wrap, associated with fiberglass piping	Fitting	1905 and 1961 buildings – basement rooms B-1 through B-11; 1st rooms 3, 6, and boy's restroom pipe chase; women's and girl's locker rooms; 2nd and 3rd between floors and walls to restrooms	Basement area, south room along north wall	**12.50% Chrysotile**
			Wrap			**1.50% Chrysotile**
	PC3-MJ4-08		Fitting		Gymnasium, southeast corner below elevated heater	Positive Stop (not analyzed)
			Wrap			
	PC3-MJ4-09		fitting		Basement area, near women's locker room entrance	Positive Stop (not analyzed)
PC4	PC4-PI3-10	TSI layered paper pipe insulation - with canvas wrap (hard-wrap)	Piping	1905 and 1961 buildings – basement rooms B-1 through B-11; 1st rooms 3, 6, and boy's restroom pipe chase; women's and girl's locker rooms; 2nd and 3rd between floors and walls to restrooms	Basement area, near bottom of east stairwell	**8.00% Chrysotile**
	PC4-PI3-11		Piping		Basement area, women's locker room back	Positive Stop (not analyzed)
	PC4-PI3-12		Piping		2nd Floor mechanical room above the ductwork	Positive Stop (not analyzed)
PC5	PC5-FT1-13	9-inch (") x 9" Vinyl floor tile (VFT), red and black mastic	Floor tile	1905 Building – SE corner of the basement room B-1; 1st floor room 4; 2nd floor room 2F kitchen	Basement area, southeast room along near center of room	**5.6% Chrysotile**
			Mastic, black			**3.3% Chrysotile**
	PC5-FT1-14		Floor tile		1st Floor, southeast room near entrance	Positive Stop (not analyzed)
			Mastic, black			
	PC5-FT1-15		Floor tile		2nd Floor kitchen area near entrance	Positive Stop

[17] PC# – indicates an HA number assigned to a confirmatory sample for a material that was apparently indicated as ACM in the EMS Report. Note: these samples were analyzed with a 400-point county analytical method; non-organically bound materials were also prepared with a with gravimetric-reduction preparation technique, as warranted.

HA[15]	Sample #	Material Description	Layer	Material Location	Sample Location	Lab Results
			Mastic, black			(not analyzed)
			Tar paper			<0.25% Chrysotile
PC6	PC6-FT1-16	9” x 9” VFT - beige with tan & brown spots and black mastic	Floor tile	1905 Building – basement room B-1; 1961 building sub-level women’s and girl’s locker rooms, 1st hallways and stairwells to 2nd floor	Basement area, bottom of east stairwell	**1.2% Chrysotile**
			Mastic, black			<0.25% Chrysotile
	PC6-FT1-17		Floor tile		1st Floor, southeast room near entrance	Positive Stop (not analyzed)
			Mastic			Insufficient Material
			Mastic, black			<0.25% Chrysotile
	PC6-FT1-16		Floor tile		1st Floor, southeast room near entrance	Positive Stop (not analyzed)
			Mastic, black			<0.25% Chrysotile
PC7	PC7-FT1-19	9” x 9” VFT - (multiple colors) grey with white specks and black mastic	Floor tile	1905 Building – basement stair landing; 1st room 3, west side storage	1st Floor, storage room near counter by entrance	**1.7% Chrysotile**
			Mastic, black			<0.25% Chrysotile
	PC7-FT1-20		Floor tile		1st Floor, storage room near counter along north wall	Positive Stop (not analyzed)
			Mastic, black			<0.25% Chrysotile
	PC7-FT1-21		Floor tile		1st Floor, storage room near counter back of room by south wall	Positive Stop (not analyzed)
			Mastic, black			<0.25% Chrysotile
PC8	PC8-FT1-22	9” x 9” VFT - beige with brown & white streaks and black mastic	Floor tile	1905 Building 2nd floor, 2F north, south, and east hallways, 2F restroom, 2F rooms 7-9 3rd floor	2nd Floor, outside north restrooms	**2.8% Chrysotile**
			Mastic, black			**1.1% Chrysotile**
	PC8-FT1-23		Floor tile		2nd Floor, main room southwest corner	Positive Stop (not analyzed)
			Mastic, black			
	PC8-FT1-24		Floor tile		3rd Floor, common room along south area	Positive Stop (not analyzed)
			Mastic, black			
PC9	PC9-FT1-25	9” x 9” VFT - white with brown streaks	Floor tile	1905 Building –2nd floor, room 2F kitchen	2nd Floor, near north entrance of kitchen	**5.2% Chrysotile**
			Mastic, black			<0.25% Chrysotile
	PC9-FT1-26		Floor tile		2nd Floor, center of building, old kitchen area	Positive Stop (not analyzed)
			Mastic, black			Insufficient Material
	PC9-FT1-27		Floor tile		2nd Floor, near west entrance of kitchen	Positive Stop (not analyzed)
			Mastic, black			<0.25% Chrysotile
PC10	PC10-FC1-28	Sheet flooring - tan with black tar paper backing	Floor sheeting	1905 Building –2nd and 3rd floor apartment units	2nd Floor, room 1 under carpet and sub-floor	<0.25% Chrysotile
	PC10-FC1-29		Floor sheeting		3rd Floor, room 8 under carpet and sub-floor	<0.25% Chrysotile
	PC10-FC1-30		Floor sheeting		3rd Floor, room 11 under carpet and sub-floor	<0.25% Chrysotile
PC11	PC11-FC1-31	Sheet flooring - green with black tar paper backing	Floor sheeting	1905 Building –2nd and 3rd floor apartment units	2nd Floor, room 2 under carpet and sub-floor	<0.25% Chrysotile
	PC11-FC1-32		Floor sheeting		3rd Floor, room 20 under carpet and sub-floor	0.4% Chrysotile
	PC11-FC1-33		Floor sheeting		3rd Floor, room 23 under carpet and sub-floor	0.5% Chrysotile
PC12	PC12-FC1-34	Sheet flooring - grey with black tar paper backing	Floor sheeting	1905 Building –2nd and 3rd floor apartment units	2nd Floor, room 3 under carpet and sub-floor	0.8% Chrysotile
	PC12-FC1-35		Floor sheeting		3rd Floor, room 9 under carpet and sub-floor	0.9% Chrysotile
	PC12-FC1-36		Floor sheeting		3rd Floor, room 19 under carpet and sub-floor	0.3% Chrysotile
PC13	PC13-FT2-37	12” x 12” vinyl floor tile - white with brown streaks and black mastic	Floor tile	1961 Building – South walkway to 1978 building, southeast lobby, west locker rooms, hallways, stairwells; 2nd floor hallways, west and east gym	1st Floor, southeast side of lobby/hallway	**3.4% Chrysotile**
			Mastic, black			**2.6% Chrysotile**
	PC13-FT2-38		Floor tile		2nd Floor, outside handball court	Positive Stop (not analyzed)
			Mastic, black			

HA[15]	Sample #	Material Description	Layer	Material Location	Sample Location	Lab Results
	PC13-FT2-39		Floor tile	offices, 3rd floor hallways and stairwell, custodial closet	2nd Floor, east hallway by gymnasium	Positive Stop (not analyzed)
			Mastic, black			
PC14	PC14-FT1-40	9" x 9" vinyl floor tile, brown and black mastic	Floor tile	1905 Building – basement room B-1 SE corner, room B-2; 2nd floor – 2F kitchen	Basement area, southeast room along near center of room	**12.2% Chrysotile**
			Mastic, black			**3.5% Chrysotile**
	PC14-FT1-41		Floor tile		Basement area, southeast room near entrance	Positive Stop (not analyzed)
			Mastic, black			
	PC14-FT1-42		Floor tile		Basement area, southeast room along southeast wall	Positive Stop (not analyzed)
			Mastic, black			
PC15	PC15-FT1-43	9" x 9" vinyl floor tile - beige with streaks and mixed mastic	Floor tile	1905 Building – basement room B-2	Basement area, southwest room near entrance	**5.8% Chrysotile**
			Mastic, black			0.3% Chrysotile
			Mastic, yellow			<0.25% Chrysotile
	PC15-FT1-44		Floor tile		Basement area, southwest room near center	Positive Stop (not analyzed)
			Mastic, black			<0.25% Chrysotile
			Mastic, yellow			<0.25% Chrysotile
	PC15-FT1-45		Floor tile		Basement area, southwest room near north wall	Positive Stop (not analyzed)
			Mastic, black			0.8% Chrysotile
			Mastic 2, yellow			<0.25% Chrysotile
1[18]	1-CA3-01	Caulk – black, rough texture	Adhesive	1905 Building - 2nd floor, 2F room 7, behind the wood paneling on walls	North room on the northwest side, center mid-wall, behind paneling	**4% Chrysotile (PLM) 3.8% Chrysotile (PC)**
	1-CA3-02		Adhesive		North room, north wall center of room	**4% Chrysotile (PLM) 4.6% Chrysotile (PC)**
	1-CA3-03		Adhesive		North room, south wall, southeast corner, mid-wall	**3% Chrysotile (PLM) 4.3% Chrysotile (PC)**
2	2-MG6-04	Glue pucks associated with 1' x 1' ceiling tile – light brown, smooth	Adhesive	1905 Building - east stairwell in the ceiling	East stairwell, between 1st and 2nd floor, above the stairs	ND
	2-MG6-05		Adhesive		East stairwell, between 1st and 2nd floor, above the stairs	ND
	2-MG6-06		Adhesive		East stairwell, between 1st and 2nd floor, above the stairs	ND
3	3-FC3-07	Cove base and mastic – gray with yellow glue and mastic	Cove base	1905 Building – 1st floor rooms 1, 2, 4, 5; 2nd floor rooms 7-9, and north, south, and east hallways, apartment units; 1961 building – south walkway to the 1978 building	Main lobby area on the southeast wall, near the entrance stairs	ND
			Glue			ND
	3- FC3-08		Cove base		Main hallway on the west wall, near restroom	ND
			Glue			<1% Chrysotile (PLM) <0.25% Chrysotile (PC)
	3- FC3-09		Cove base		Main front hallway on the west end, near the stairs to 1905 building	ND
			Glue			ND
4	4-MA1-10	2" x 8" Brick and mortar – tan with gray mortar	Brick	1905 Building – perimeter and interior walls in the basement, 1st, 2nd, and 3rd floors; 1961 building room 9 and 10	Basement area, near bottom of east stairwell, above the north room entrance	ND
			Mortar			ND
	4-MA1-11		Brick		North room on the east wall, in duct chase about mid-wall	ND
			Mortar			ND
	4-MA1-12		Brick		Main front hallway on the east side, above the "1961" granite marker	ND
			Mortar			ND
5	5-CA2-13	Caulk – gray rough exterior, smooth inner material	Caulk		Main front lobby area, southwest door frame (painted gray)	ND

[18] # - indicates an HA number assigned to additional samples/materials that were not apparently surveyed by EMS

HA[15]	Sample #	Material Description	Layer	Material Location	Sample Location	Lab Results
	5-CA2-14		Caulk	1905 Building – 1st floor, interior door frames 1961 building – main front hallway, and locker room windows; 1978 building – 1st floor windows and door frames	Main front hallway, east door frame to the lower locker rooms	ND
	5-CA2-15		Caulk		Main front hallway, west door frame to the 1978 building	ND
6	6-MA1-16	2” x 8” Ceramic-face brick and mortar – aqua green and black, smooth texture	Brick	1961 building – South hallway to the 1978 building	Main front hallway, by the east stairwell where green meets black brick	ND
			Mortar			ND
	6-MA1-17		Brick		Main front hallway, lower section where black brick meets granite slab on east end	ND
			Mortar			ND
	6-MA1-18		Brick		Main front hallway, west side lower end of green brick, 10’ from doors	ND
			Mortar			ND
7	7-FP1-19	Spray-on Fireproofing – white thick popcorn texture	Spray-on	1905 Building, basement room B-6, north end of building	Basement area, north room, west corner by heater	ND
	7-FP1-20		Spray-on		Basement area, north room center, by electrical junction box	ND
	7-FP1-21		Spray-on		Basement area, north room by the entrance, east side of door	ND
	7-FP1-82		Spray-on		North room (B-6), east wall by mech. Room, by 2nd steel column	ND
	7-FP1-83		Spray-on		North room (B-6), east wall, NE corner by end of duct work	ND
	7-FP1-84		Spray-on		North room (B-6), south wall, SW corner of B-6 by speaker	ND
8	8-PI4-22	Fiberglass pipe insulation and mastic – yellow fiberglass with white paper face and mastic	Insulation	1905 and 1961 buildings – basement rooms B-1 through B-11; 1st rooms 3, 6, and boy’s restroom pipe chase; women’s and girl’s locker rooms; 2nd and 3rd between floors and walls to restrooms	Basement area, north room, west corner by heater	ND
			Mastic			ND
	8-PI4-23		Insulation		Basement area, north room by the entrance, east side of door	ND
			Mastic			ND
	8-PI4-24		Insulation		1st Floor boy’s restroom, pipe chase	ND
			Mastic			ND
9	9-MA2-25	8” x 16” concrete masonry unit (CMU) block and mortar – gray with light gray mortar	CMU block	1905 Building – basement interior walls; 1961 building, sub-level locker rooms, mezzanine mechanical room, interior and exterior wals1978 building – 1st, 2nd, and 3rd floor interior perimeter walls, locker rooms, hallways, and stairwells	Basement area, north mechanical room, right side of door on corner	ND
			Mortar			ND
	9-MA2-26		CMU block		1st Floor hallway entrance to the lower locker rooms, by main front hallway	ND
			Mortar			ND
	9-MA2-27		CMU block		Main lobby area, next to the front closet area, mid-wall	ND
			Mortar			ND
10	10-WP6-28	Electrical wiring – single-strand, black woven sheath run through ceramic insulators	Sheath	1905 Building – basement, 1st,2nd, and 3rd floors, concealed in walls, chases, floors, and rafters	2nd Floor, above the main hallway on south side	ND
			Insulator			ND
	10-WP6-29		Sheath		3rd Floor, above the ceiling tile in the main common area, south side	ND
			Insulator			ND
	10-WP6-30		Sheath		3rd Floor, above the ceiling tile in the main common area, north side	ND
			Insulator			ND
11	11-WP6-31	Electrical wiring – double-strand, black woven sheath with silver and gray coating	Sheath	1905 Building – basement, 1st,2nd, and 3rd floors, concealed in walls, chases, floors, and rafters	2nd Floor, room 2 under carpet and sub-floor	ND
			Insulator			ND
			Insulator 2			ND
			Insulator			ND
	11-WP6-32		Sheath		3rd Floor, room 20 under carpet and sub-floor	ND
			Insulator			ND
			Insulator 2			ND
			Insulator			ND
	11-WP6-33		Sheath		3rd Floor, room 23 under carpet and sub-floor	ND
			Insulator			ND

HA[15]	Sample #	Material Description	Layer	Material Location	Sample Location	Lab Results
			Insulator 2			ND
			Insulator			ND
12	12-MG7-34	Carpet adhesive – yellow, rough texture, sticky	Adhesive	1905 Building – basement, 1st 2nd, and 3rd floors; 1961 building, sub-level locker rooms, 2nd floor offices; 1978 building, locker rooms and offices	Southeast entrance area, under carpet squares on marble circle design floor	ND
	12-MG7-35		Adhesive		Main lobby area, southeast stairwell kickboards	ND
	12-MG7-36		Adhesive		Main lobby area, on flooring next to southwest elevator entrance	ND
13	13-MA2-37	6” x 12” CMU and mortar – glaze-faced block, with light gray mortar	CMU	1961 Building – sub-level locker women’s and girl’s rooms, offices, large pool room, 2F gym; 1978 building locker women’s and girl’s rooms, offices, small pool room	Lower-level locker room lobby, between men’s and women’s locker rooms	ND
			Mortar			ND
	13-MA2-38		CMU		Women’s locker room by west wall, lower wall, center	ND
			Mortar			ND
	13-MA2-39		CMU		Men’s locker room, south wall before pool entrance	ND
			Mortar			ND
14	14-FC3-40	Cove base and mastic – black with brown and yellow mastic	Cove base	1961 Building – sub-level locker rooms hallways, and stairwells; 1978 building main lobby and west hallway	Lower locker room entrance in main front hallway, at top of stair landing	ND
			Mastic			ND
	14-FC3-41		Cove base		Main lobby area, down the west hallway	ND
			Mastic			ND
	14-FC3-42		Cove base		Main lobby area, on south wall near the east doorway	ND
			Mastic			ND
15	15-CA1-43	Caulk – gray, weathered, rough texture	Caulk	1905 Building – basement, 1st, 2nd, and 3rd floor exterior window frames, 1961 building – exterior vents and wall penetrations	Room 18, exterior window caulk around window frame	**6% Chrysotile (PLM)** <0.25% Chrysotile (PC)
	15-CA1-44		Caulk		Southeast room, south wall, exterior window caulk around window frame	ND
	15-CA1-45		Caulk		Exterior north wall, center, around exhaust vent	**5% Chrysotile (PLM) 1.9% Chrysotile (PC)**
16	16-RF6-46	Built-up roof – black tar paper w/felt paper, yellow foam insulation, & white gypsum board	Tar paper	1905, 1961, and 1978 Building roofs	1905 Building, room 2 – southeast end by east wall, between the two SE windows	ND
			Foam			ND
			Insulation			ND
			Rubber			ND
	16-RF6-47		Tar paper		1905 Building, lower roof 2 – south end, SE side between exhaust vent and wall	ND
			Foam			ND
			Insulation			ND
	16-RF6-48		Tar paper		1961 Building, room 3 – east side central area, next to the access wall-ladder	ND
			Foam			ND
			Insulation			ND
			Gypsum			ND
			Backing			ND
17	17-WP1-49	Vibration cloth – white, woven canvas type material	Vibration cloth	1905 Building - basement mechanical room, pool mechanical room. 1961 Building – mezzanine mechanical room	1905 basement mechanical room (room B-7), south elevated unit	**20% Chrysotile**
	17-WP1-50		Vibration cloth		1905 Building pool mechanical room, central elevated duct unit	**25% Chrysotile**
	17-WP1-51		Vibration cloth		2nd Floor mechanical room, south air handler unit, south wall central area	**35% Chrysotile**
18	18-MA5-52	3' x 5' Marble tile slabs and associated thin set	Tile	1905 Building 1st floor south entryway and east entryway	1905 Building 1st floor south entryway, top of stair landing, east side top of slab	ND
			Thin set			ND
	18-MA5-53		Tile		1905 Building 1st floor east entryway, lower landing, south side of door, centered	ND
			Thin set			ND
	18-MA5-54		Tile		1905 Building 1st floor east entryway, lower landing, south side of door, bottom	ND
			Thin set			ND

HA[15]	Sample #	Material Description	Layer	Material Location	Sample Location	Lab Results
19	19-MA5-55	5" x 12" Ceramic block and grout – off-white with brown specks	Ceramic block	1905 Building, sub-level women's and young girl's locker rooms	1905 Sub-level women's locker room, NW side next to steam room, by electrical box	ND
			Grout			ND
	19-MA5-56		Ceramic block		1905 Sub-level women's locker room, NW shower room by south drain area	ND
			Grout			ND
	19-MA5-57		Ceramic block		1905 Sub-level women's locker room, North-central area above the west sink	ND
			Grout			ND
20	20-MA5-58	5" x 12" Ceramic block and grout – tan w/gray grout	Ceramic block	1961 Building – sub-level locker women's and girl's rooms, offices, large pool room, 2F gym; 1978 building locker women's and girl's rooms, offices, small pool room	1905 Sub-level women's locker room, south end by central entrance, by sinks	ND
			Grout			ND
	20-MA5-59		Ceramic block		1961 Building, large pool room, NW corner by entrance to small pool room	ND
			Grout			ND
	20-MA5-60		Ceramic block		1961 Building, 2nd floor gym, SW corner doorway, at upper right door jamb	ND
			Grout			ND
21	21-MA3-61	5"x 12" Quarry tile and associated thin set, and grout – dark brown w/gray grout	Tile	1978 Building, men's shower room, west side entrance	Men's locker room, NE corner of men's shower room at the north end of drain	ND
			Thin set			ND
			Grout			ND
	21-MA3-62		Tile		Men's locker room, NW corner of men's shower room exit to pool, by the drain	ND
			Thin set			ND
			Grout			ND
	21-MA3-63		Tile		Men's locker room, SE corner of the shower room, south end of the drain	ND
			Thin set			ND
			Grout			ND
22	22-CP1-64	2' x 2' Cement board – gray smooth and peg board style panels	Cement board	1905 building, basement, room B-4; 1961 Building, large pool room ceiling; 1978 building small pool room	1961 Building, large pool room, NW corner of ceiling near entrance to small pool room	**18% Chrysotile**
	22-CP1-65		Cement board		1961 Building, large pool room, NE corner of ceiling near entry to pool storage room	**20% Chrysotile**
	22-CP1-66		Cement board		1961 Building, large pool room, SE corner of ceiling near entry to girl's locker room	**25% Chrysotile**
23	23-WP1-67	Vibration cloth – green, woven canvas type material	Vibration cloth	1978 Building, 3rd floor mechanical room	3rd Floor mechanical room, west side of room on exhaust fan #3, east side	ND
	23-WP1-68		Vibration cloth		3rd Floor mechanical room, east side by door, on air handler unit for handball courts	ND
	23-WP1-69		Vibration cloth		3rd Floor mechanical room, south-central wall on small, elevated tank	ND
24	24-MA5-70	Marble tile and grout – white round tile with black grout	Tile	1905 Building, basement elevator room, and 1st floor lobby room 1	1905 Building 1st floor, room 1-1, lobby area south entry at top south stair landing, center area	ND
			Grout			ND
	24-MA5-71		Tile		1905 Building 1st floor, room 1-1, east stairs lower landing, north end at top of steps	ND
			Grout			ND
	24-MA5-72		Tile		1905 Building basement, elevator room (B-9) at doorway threshold, centered	ND
			Grout			ND
25	25-MA5-73	Concrete skim coat – gray rough texture	Skim coat	1905 Building, exterior foundation	1905 Building, exterior north wall, under the red fire escape under the yellow brick	ND
			Texture			ND
	25-MA5-74		Skim coat		1905 Building, exterior north wall, east corner by exposed limestone block	Layer not present
			Texture			ND
	25-MA5-75		Skim coat		1905 Building, exterior east wall, at NE corner of building by exposed limestone block	ND
			Texture			ND
26	26-SC2-76	Tar sealant – black, smooth texture	Sealant	1978 Building, exterior walls	1978 building exterior, south wall center, where sidewalk meets concrete wall	ND
	26-SC2-77		Sealant		1978 building exterior, south wall SW corner, where sidewalk meets concrete wall	ND

HA[15]	Sample #	Material Description	Layer	Material Location	Sample Location	Lab Results
	26-SC2-78		Sealant		1978 building exterior, west wall center, where sidewalk meets concrete wall	ND
27	27-WP1-79	Vibration cloth – red woven canvas type material	Vibration cloth	1961 Building, mezzanine mechanical room	1961 Building, 2nd floor mechanical room, SW corner of room on upper air handler unit	ND
	27-WP1-80		Vibration cloth		1961 Building, 2nd floor mechanical room, NW corner of room on copper fan duct	ND
	27-WP1-81		Vibration cloth		1961 Building, 2nd floor mechanical room, NW corner on east side, on gray duct by wall	ND

TABLE 5 - LBP XRF SURVEY SUMMARY

Lead-based paints (≥1.0 mg/cm^2) are indicated in **bold**. A *negative* classification indicates that lead is not present on the testing combination at or above the HUD/EPA standard. The walls were sampled using the format of the wall immediately to the left in each room or area as "A" wall then going clockwise around the room for walls "B", "C", and "D". Note that some rooms have more than one door/access point, and so the reference point starts where the inspector entered the room.

Sample Nos.	Substrate	Component	Color	Location	Reading (mg/cm^2)	Friction or Impact Surface (Y or N)	Notes
Pre-call 1	NA	NA	NA	NA	1.0	NA	NA
Pre-Cal 2	NA	NA	NA	NA	1.0	NA	NA
Pre-Cal 3	NA	NA	NA	NA	1.0	NA	NA
Blank-Cal	NA	NA	NA	NA	0.1	NA	NA
1	**Plaster**	**Wall**	**White**	**1905 building main entrance, left side wall above the marble**	**1.7**	**N**	
2	Wood	Wall Trim	Grey	Main entrance, left side wall above the marble	0.4	N	
3	Wood	Ceiling Trim	Grey	Main entrance above the door	0.4	N	
4	**Plaster**	**Ceiling**	**White**	**1905 building, main entrance above the door**	**1.6**	**N**	
5	**Drywall**	**Wall**	**Blue**	**1905 building, main lobby, A wall, just north of partially open chase**	**1.1**	**N**	
6	Drywall	Wall	Blue	Main lobby, A wall, approximate center of wall	0.8	N	
7	Drywall	Wall	Blue	Main lobby, A wall, north corner near B wall	0.2	N	
8	Drywall	Wall	White	Main lobby, B wall, far northwest corner of room near entrance to girl's locker room	0.3	N	
9	Metal	Breaker box	Grey	Main lobby, B wall east of girl's locker room	0.2	N	
10	Drywall	Wall	Grey	Room east of main lobby, A wall	0.3	N	
11	Wood	Support pole	Grey	Room east of main lobby, south support pole	0.2	N	
12	Wood	Windowsill	White	Room east of main lobby, C wall	0.3	N	
13	Wood	Window trim	White	Room east of main lobby, C wall (windows between room and main lobby)	0.2	N	
14	Drywall	Wall	Green	Closet wall inside room north of main lobby	0.1	N	
15	Wood	Wall Paneling	Tan	B wall of room north of main lobby	0.9	N	
16	Wood	Wall Paneling	Tan	D wall of room north of main lobby	0.3	N	
17	**Plaster**	**Wall**	**White**	**1905 building, short hallway wall leading to lower-level girls locker room from main lobby**	**1.4**	**N**	
18	Metal	Door	Light grey	Hallway near steps to girl's locker room	0.0	N	
19	Metal	Door frame	Light grey	Hallway near steps to girl's locker room	0.1	N	
20	**Ceramic block**	**Wall**	**Glazing**	**1961 building, glazed block on B wall, entrance area of girl's locker room**	**1.4**	**N**	
21	**Ceramic block**	**Wall**	**Glazing**	**1961 building, glazed block on C wall, entrance area of girl's locker room**	**1.3**	**N**	
22	Metal	Locker frame	Grey blue	Locker frame in girl's locker room	0.4	N	Heavy peeling/flaking
23	Metal	Locker door	Grey blue	Locker door in girl's locker room	0.3	N	Heavy peeling/flaking
24	**Ceramic block**	**Wall**	**Glazing**	**1961 building, glazed block in shower area of girl's locker room**	**1.5**	**N**	
25	Metal	Door	Light grey	Lower entrance door to girl's locker room	0.1	N	

Sample Nos.	Substrate	Component	Color	Location	Reading (mg/cm^2)	Friction or Impact Surface (Y or N)	Notes
26	Metal	Door frame	Light grey	Lower entrance door to girl's locker room	0.1	N	
27	**Ceramic block**	**Wall**	**Glazing**	**1961 building, glazed block in second shower area of girl's locker room**	**1.3**	**N**	
28	Wood	Window frame	Grey	East side lower entrance of main building	0.2	N	
29	Metal	Door	Grey	East side lower entrance of main building (interior)	0.1	N	
30	Metal	Door Frame	Grey	East side lower entrance of main building (interior)	0.1	Y	
31	Wood	Wall trim	Grey	Trim above marble at lower entrance	0.3	N	
32	Metal	Radiator	White	East side lower entrance of main building	0.2	N	
33	Wood	Wall paneling	Beige	East side lower entrance of main building, above marble	0.3	N	
34	Brick	Wall	White	Main building basement area, north room, A wall	0.1	N	
35	Brick	Wall	Red	Main building basement area, north room, A wall	0.2	N	
36	Brick	Wall	Yellow	Main building basement area, north room, A wall	0.1	N	
37	Brick	Wall	White	Main building basement area, north room, C wall	0.1	N	
38	Metal	Support pole	White	Main building basement area, north room, northwest pole	0.4	N	
39	Concrete masonry unit (CMU) block	Wall	White	Main building basement area, main room, A wall	0.2	N	
40	Wood	Support pole	White	Main building basement area, main room, northwest pole	0.2	N	
41	CMU block	Wall	Blue	Main building basement area, main room, A wall	0.1	N	
42	Brick	Wall	White	Main building basement area, main room, C wall	0.2	N	
43	Brick	Wall	Blue	Main building basement area, main room, C wall	0.1	N	
44	Metal	Door	Blue	Main building basement area, main room, C wall	0.1	N	
45	Metal	Door frame	Blue	Main building basement area, main room, C wall	0.1	N	
46	Wood	Wall paneling	Beige	Main building, stairwell from main floor to 2F	0.2	N	
47	Wood	Door	NA	Main building, door to 2F	0.0	N	
48	Wood	Door frame	NA	Main building, door to 2F	0.0	N	
49	Wood	Stair rail	Black	Main building, landing between 1F and 2F	0.2	N	
50	Wood	Stair bannister	White	Main building, landing between 1F and 2F	0.1	N	
51	Drywall	Wall	White	North room/area of 2F, hallway	0.2	N	
52	Metal	Door	White	Door to north room area, main building, 2F	0.1	N	
53	Metal	Door frame	White	Door to north room area, main building, 2F	0.1	N	
54	Plaster	Wall	White	North room/area of 2F, west hallway	0.2	N	
55	**Metal**	**Support pole**	**White**	**1905 Building, 2F, multipurpose room, southwest pole**	**1.9**	**N**	
56	**Metal**	**Support pole**	**White**	**1905 Building, 2F, multipurpose room, northeast pole**	**2.2**	**N**	
57	Wood	Wall paneling	White	Small "gym" area, main building 2F, B wall	0.2	N	
58	Wood	Wall paneling	NA	Main building, 2F, small room adjoined to small gym	0.0	N	
59	Drywall	Wall	Light blue	Main building, 2F restroom	0.2	N	

Sample Nos.	Substrate	Component	Color	Location	Reading (mg/cm²)	Friction or Impact Surface (Y or N)	Notes
60	Drywall	Wall	White	Main building, 2F, former living area, approximate center of hallway	0.2	N	
61	Drywall	Wall	White	Main building, 2F, former living area, hallway entrance	0.1	N	
62	Drywall	Wall	White	Main building, 2F, Unit 1 A wall	0.1	N	
63	Drywall	Wall	White	Main building, 2F, Unit 1 A wall	0.2	N	
64	Wood	Door	NA	Main building, 2F, Unit 1	0.0	N	
65	Wood	Door	NA	Main building, 2F, Unit 1	0.0	N	
66	Drywall	Wall	White	Main building, 2F, Unit 3 B wall	0.2	N	
67	Drywall	Wall	White	Main building, 2F, Unit 3 D wall	0.2	N	
68	Wood	Door	NA	Main building, 2F, Unit 3	0.0	N	
69	Wood	Door	NA	Main building, 2F, Unit 3	0.1	N	
70	Drywall	Wall	White	Main building, 2F, Unit 5 A wall	0.2	N	
71	Drywall	Wall	White	Main building, 2F, Unit 5 C wall	0.1	N	
72	Wood	Door	NA	Main building, 2F, Unit 5	0.0	N	
Mid-day Cal 1	NA	NA	NA	NA	1.0	NA	
Mid-day Cal 2	NA	NA	NA	NA	1.0	NA	
Mid-day Cal 3	NA	NA	NA	NA	1.0	NA	
Mid-day negative Cal	NA	NA	NA	NA	0.1	NA	
73	Drywall	Wall	White	Main building, 2F, A wall of restroom adjacent to Unit 2	0.2	N	
74	Ceramic block (1”)	Wall	NA	Main building, 2F, A wall of restroom adjacent to Unit 2	0.0	N	
75	Wood	Stair rail	Black	Main building, stairwell to 3F	0.1	N	
76	Wood	Stair bannister	White	Main building, stairwell to 3F	0.1	N	
77	Wood	Door	NA	Main building, entrance to 3F	0.0	N	
78	Wood	Door frame	NA	Main building, entrance to 3F	0.0	N	
79	Drywall	Wall	White	A wall of main open room/area, 3F	0.2	N	
80	Drywall	Wall	White	C wall of main open room/area, 3F	0.1	N	
81	Drywall	Ceiling	White	Approximate center of main open room/area, 3F	0.1	N	
82	Drywall	Wall	White	Main building, 3F, Unit 8 B wall	0.2	N	
83	Drywall	Wall	White	Main building, 3F, Unit 8 D wall	0.2	N	
84	Wood	Door	White	Main building, 3F, Unit 8	0.1	N	
85	Wood	Door	White	Main building, 3F, Unit 8	0.1	N	
86	Drywall	Wall	White	3F hallway, approximate center	0.2	N	
87	Drywall	Wall	White	3F hallway, next to Unit 8	0.1	N	
88	Drywall	Wall	White	3F restroom, A wall	0.1	N	
89	Ceramic tile	Wall	Grey (glazing)	3F restroom, C wall	0.0	N	
90	Wood	Door	White	3F restroom	0.1	N	
91	Wood	Door frame	White	3F restroom	0.2	N	
92	Brick	Wall	Teal Blue	1961 building, hallway area near pools and pool locker rooms, east end near main building	0.0	N	

Sample Nos.	Substrate	Component	Color	Location	Reading (mg/cm²)	Friction or Impact Surface (Y or N)	Notes
93	Brick	Wall	Teal Blue	1961 building, hallway area near pools and pool locker rooms, west end near pools	0.1	N	
94	Concrete	Wall	White	1961 building, hallway area near pools and pool locker rooms, west end near pools	0.2	N	
95	CMU	Wall	White	1961 building, open area before the locker rooms, C wall	0.3	N	
96	Block	Wall	Glazing	1961 building, open area before the locker rooms, B wall	0.0	N	
97	**Ceramic block**	**Wall**	**Glazing**	**Small pool area, A wall, glazed block**	**1.5**	**N**	
98	**Ceramic block**	**Wall**	**Glazing**	**Small pool area, D wall glazed block**	**1.8**	**N**	
99	**Ceramic block**	**Wall**	**Glazing**	**Large pool area, A wall glazed block**	**1.8**	**N**	
100	**Ceramic block**	**Wall**	**Glazing**	**Large pool area, C wall glazed block**	**1.6**	**N**	
101	**Ceramic block**	**Wall**	**Glazing**	**Large pool area, D wall glazed block**	**1.9**	**N**	
102	**Ceramic block**	**Wall**	**Glazing**	**Men's locker room, near entrance area to pool, C wall**	**1.6**	**N**	
103	**Ceramic block**	**Wall**	**Glazing**	**Men's locker room, shower area, B wall**	**1.8**	**N**	
104	**Ceramic block**	**Wall**	**Glazing**	**Men's locker room, bathroom area, A wall**	**1.5**	**N**	
105	**Ceramic block**	**Wall**	**Glazing**	**Men's locker room, utility closet C wall**	**1.4**	**N**	
106	Plaster	Support pole	White	Approximate center of men's locker room	0.1	N	
107	Metal	Stair rail	Brown	1961 building, stairwell to 2F	0.1	N	
108	Metal	Stair bannister	Brown	1961 building, stairwell to 2F	0.2	N	
109	Wood	Floor	NA	1961 gymnasium area, near D wall entrance from pool side	0.0	N	
110	Wood	Floor	NA	1961 gymnasium area, B wall side, near the center edge of the floor	0.0	N	
111	Wood	Door/opening trim	NA	1961 gymnasium area, B wall side	0.0	N	Peeling/flaking
112	Wood	Floor	NA	1961 gymnasium, approximate center of gym floor		N	
113	**Ceramic block**	**Wall**	**Glazing**	**1961 gymnasium, lower portion of D wall**	**1.5**	**N**	
114	**Ceramic block**	**Wall**	**Glazing**	**1961 gymnasium, lower portion of A wall**	**1.6**	**N**	
115	Plaster	Wall	White	Stairwell to small 3F area in 1961 building	0.5	N	
116	Plaster	Wall	White	1978 building, 3F office hallway area, 1961 building	0.1	N	
117	Plaster	Wall	White	1978 building, 3F office, A wall	0.2	N	
118	Plaster	Wall	White	1978 building, 3F office, D wall	0.3	N	
119	Plaster	Wall	White	1978 building, 3F outside of small pickleball court	0.3	N	
120	Plaster	Wall	White	Stairwell between 2F and 3F	0.2	N	
121	Drywall	Wall	White	Stairwell between 2F and 3F, damaged wall area near 1905 building (living area)	0.1	N	
Post-Cal 1	NA	NA	NA	NA	1.0	NA	
Post-Cal 2	NA	NA	NA	NA	1.0	NA	

Sample Nos.	Substrate	Component	Color	Location	Reading (mg/cm^2)	Friction or Impact Surface (Y or N)	Notes
Post-Cal 3	NA	NA	NA	NA	1.1	NA	
Negative Cal	NA	NA	NA	NA	0.1	NA	

APPENDIX B

ANALYTICAL LABORATORY REPORTS AND CHAINS-OF-CUSTODY

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID:	042127615
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Attn: Kathy Toft
Terracon Consultants, Inc.
870 40th Avenue
Bettendorf, IA 52722

Phone:	(563) 355-0702
Fax:	(319) 355-4789
Collected:	
Received:	11/02/2021
Analyzed:	11/12/2021

Proj: YMCA ACM Point Count Sampling / 480-3rd Street / Former YMCA / 07207086

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: PC1-PL1-01 ***Lab Sample ID:*** **042127615-0001**

Sample Description: Basement Landing, Bottom of East Stairwell, Overhead/Mag Pipe Insulation White w/Canvas Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/08/2021	White	0.0%	87.3%	**12.75% Chrysotile**	System_ID:

Client Sample ID: PC1-PL1-02-Insulation ***Lab Sample ID:*** **042127615-0002**

Sample Description: Basement Area, North Side of Small Office Next to East Stairs/Mag Pipe Insulation White w/Canvas Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC1-PL1-02-Wrap ***Lab Sample ID:*** **042127615-0002A**

Sample Description: Basement Area, North Side of Small Office Next to East Stairs/Mag Pipe Insulation White w/Canvas Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/11/2021	Brown/White	90.0%	10.0%	None Detected	System_ID:

Client Sample ID: PC1-PL1-03-Insulation ***Lab Sample ID:*** **042127615-0003**

Sample Description: Basement Area, North Side of Small Office Next to East Stairs/Mag Pipe Insulation White w/Canvas Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC1-PL1-03-Wrap ***Lab Sample ID:*** **042127615-0003A**

Sample Description: Basement Area, North Side of Small Office Next to East Stairs/Mag Pipe Insulation White w/Canvas Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/11/2021	Brown/White	90.0%	10.0%	None Detected	System_ID:

Client Sample ID: PC2-MJ3-04 ***Lab Sample ID:*** **042127615-0004**

Sample Description: Basement Area, South Main Room Above the Drop Ceiling Against North Wall/Mudded Joint Fitting w/Canvas Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/08/2021	Tan	20.0%	72.0%	**7.98% Chrysotile**	System_ID:

Client Sample ID: PC2-MJ3-05 ***Lab Sample ID:*** **042127615-0005**

Sample Description: Basement Area, Women's Locker Room Back of Room Above the Drop Ceiling/Mudded Joint Fitting w/Canvas Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021				Positive Stop (Not Analyzed)	System_ID:

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EMSL Order ID:	042127615
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: PC2-MJ3-06 ***Lab Sample ID:*** **042127615-0006**

Sample Description: 2nd Floor Mechanical RoomAbove the Duct Work/Mudded Joint Fitting w/Canvas Wrap

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC3-MJ4-07-Fitting ***Lab Sample ID:*** **042127615-0007**

Sample Description: Basement Area South Room Along North Wall/Mudded Joint Fitting w/Canvas Wrap/Fiberglass

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/08/2021	Tan	20.0%	67.5%	**12.50% Chrysotile**	System_ID:

Client Sample ID: PC3-MJ4-07-Wrap ***Lab Sample ID:*** **042127615-0007A**

Sample Description: Basement Area South Room Along North Wall/Mudded Joint Fitting w/Canvas Wrap/Fiberglass

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021	Tan/White	0.0%	98.5%	**1.50% Chrysotile**	System_ID:

Client Sample ID: PC3-MJ4-08-Fitting ***Lab Sample ID:*** **042127615-0008**

Sample Description: Gymnasium, Southeast Corner Below Elevated Heater/Mudded Joint Fitting w/Canvas Wrap/Fiberglass

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC3-MJ4-08-Wrap ***Lab Sample ID:*** **042127615-0008A**

Sample Description: Gymnasium, Southeast Corner Below Elevated Heater/Mudded Joint Fitting w/Canvas Wrap/Fiberglass

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC3-MJ4-09 ***Lab Sample ID:*** **042127615-0009**

Sample Description: Basement Area, Near Women's Locker Room Entrance/Mudded Joint Fitting w/Canvas Wrap/Fiberglass

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC4-PI3-10 ***Lab Sample ID:*** **042127615-0010**

Sample Description: Basement Area Near Bottom of East Stairwell/Pipe Insulation - Layered Paper with Canvas Wrap (Hard-Wrap)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021	Tan	70.0%	22.0%	**8.00% Chrysotile**	System_ID:

Client Sample ID: PC4-PI3-11 ***Lab Sample ID:*** **042127615-0011**

Sample Description: Basement Area Women's Locker Room Back/Pipe Insulation - Layered Paper with Canvas Wrap (Hard-Wrap)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021				Positive Stop (Not Analyzed)	System_ID:

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EMSL Order ID:	042127615
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: PC4-PI3-12 ***Lab Sample ID:*** **042127615-0012**

Sample Description: 2nd Floor Mechanical Room Above the Duct Work/Pipe Insulation - Layered Paper with Canvas Wrap (Hard-Wrap)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM Pt Ct	11/12/2021				Positive Stop (Not Analyzed)	
						System_ID:

Client Sample ID: PC5-FT1-13-Floor Tile ***Lab Sample ID:*** **042127615-0013**

Sample Description: Basement Area, Southeast Room Near Entrance/9"x9" Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Red	0.0%	94.4%	**5.6% Chrysotile**	
						System_ID:

Client Sample ID: PC5-FT1-13-Mastic ***Lab Sample ID:*** **042127615-0013A**

Sample Description: Basement Area, Southeast Room Near Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	96.7%	**3.3% Chrysotile**	
						System_ID:

Client Sample ID: PC5-FT1-14-Floor Tile ***Lab Sample ID:*** **042127615-0014**

Sample Description: 1st Floor Southeast Room Near Entrance/9"x9" Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	
						System_ID:

Client Sample ID: PC5-FT1-14-Mastic ***Lab Sample ID:*** **042127615-0014A**

Sample Description: 1st Floor Southeast Room Near Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	
						System_ID:

Client Sample ID: PC5-FT1-15-Floor Tile ***Lab Sample ID:*** **042127615-0015**

Sample Description: 2nd Floor Kitchen Area Near Entrance/9"x9" Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	
						System_ID:

Client Sample ID: PC5-FT1-15-Mastic ***Lab Sample ID:*** **042127615-0015A**

Sample Description: 2nd Floor Kitchen Area Near Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	
						System_ID:

Client Sample ID: PC5-FT1-15-Tar Paper ***Lab Sample ID:*** **042127615-0015B**

Sample Description: 2nd Floor Kitchen Area Near Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	100%	**<0.25% Chrysotile**	
						System_ID:

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EMSL Order ID:	042127615
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Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: PC6-FT1-16-Floor Tile ***Lab Sample ID:*** **042127615-0016**

Sample Description: Basement Area, Bottom of East Stairwell/9"x9" Floor Tile Beige with Tand and Brown Spots

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Brown/Tan/Beige	0.0%	98.8%	**1.2% Chrysotile**	System_ID:

Client Sample ID: PC6-FT1-16-Mastic ***Lab Sample ID:*** **042127615-0016A**

Sample Description: Basement Area, Bottom of East Stairwell/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC6-FT1-17-Floor Tile ***Lab Sample ID:*** **042127615-0017**

Sample Description: 1st Floor Southeast Room Near Entrance/9"x9" Floor Tile Beige with Tand and Brown Spots

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC6-FT1-17-Mastic ***Lab Sample ID:*** **042127615-0017A**

Sample Description: 1st Floor Southeast Room Near Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Insufficient Material	System_ID:

Client Sample ID: PC6-FT1-17-Mastic 2 ***Lab Sample ID:*** **042127615-0017B**

Sample Description: 1st Floor Southeast Room Near Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Yellow	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC6-FT1-18-Floor Tile ***Lab Sample ID:*** **042127615-0018**

Sample Description: Basement Area, Women's Locker room Shower Area/9"x9" Floor Tile Beige with Tand and Brown Spots

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC6-FT1-18-Mastic ***Lab Sample ID:*** **042127615-0018A**

Sample Description: Basement Area, Women's Locker room Shower Area/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC7-FT1-19-Floor Tile ***Lab Sample ID:*** **042127615-0019**

Sample Description: 1st Floor Storage room Near Counter by Entrance/9"x9" Floor Tile Grey w White Specks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Gray/White	0.0%	98.3%	**1.7% Chrysotile**	System_ID:

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Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: PC7-FT1-19-Mastic ***Lab Sample ID:*** **042127615-0019A**

Sample Description: 1st Floor Storage room Near Counter by Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Brown	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC7-FT1-20-Floor Tile ***Lab Sample ID:*** **042127615-0020**

Sample Description: 1st Floor Storage Room Near Counter along North Wall/9"x9" Floor Tile Grey w White Specks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC7-FT1-20-Mastic ***Lab Sample ID:*** **042127615-0020A**

Sample Description: 1st Floor Storage Room Near Counter along North Wall/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC7-FT1-21-Floor Tile ***Lab Sample ID:*** **042127615-0021**

Sample Description: 1st Floor Storage Room Near Counter Back of Room by South Wall/9"x9" Floor Tile Grey w White Specks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC7-FT1-21-Mastic ***Lab Sample ID:*** **042127615-0021A**

Sample Description: 1st Floor Storage Room Near Counter Back of Room by South Wall/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC8-FT1-22-Floor Tile ***Lab Sample ID:*** **042127615-0022**

Sample Description: 2nd Floor, Outside North Restrooms/9"x9" Floor Tile Beige w Brown and White Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	3rown/White/Beige	0.0%	97.2%	**2.8% Chrysotile**	System_ID:

Client Sample ID: PC8-FT1-22-Mastic ***Lab Sample ID:*** **042127615-0022A**

Sample Description: 2nd Floor, Outside North Restrooms/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	98.9%	**1.1% Chrysotile**	System_ID:

Client Sample ID: PC8-FT1-23-Floor Tile ***Lab Sample ID:*** **042127615-0023**

Sample Description: 2nd Floor Main Room Southwest Corner/9"x9" Floor Tile Beige w Brown and White Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

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Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: PC8-FT1-23-Mastic ***Lab Sample ID:*** **042127615-0023A**

Sample Description: 2nd Floor Main Room Southwest Corner/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC8-FT1-24-Floor Tile ***Lab Sample ID:*** **042127615-0024**

Sample Description: 3rd Floor Common Room Along South Area/9"x9" Floor Tile Beige w Brown and White Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC8-FT1-24-Mastic ***Lab Sample ID:*** **042127615-0024A**

Sample Description: 3rd Floor Common Room Along South Area/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC9-FT1-25-Floor Tile ***Lab Sample ID:*** **042127615-0025**

Sample Description: 2nd Floor Near North Entrance of Kitchen/9"x9" Floor TileWhite w/Brown Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Brown/White	0.0%	94.8%	**5.2% Chrysotile**	System_ID:

Client Sample ID: PC9-FT1-25-Mastic ***Lab Sample ID:*** **042127615-0025A**

Sample Description: 2nd Floor Near North Entrance of Kitchen/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC9-FT1-26-Floor Tile ***Lab Sample ID:*** **042127615-0026**

Sample Description: 2nd Floor Center of Building Old Kitchen Area/9"x9" Floor TileWhite w/Brown Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC9-FT1-26-Mastic ***Lab Sample ID:*** **042127615-0026A**

Sample Description: 2nd Floor Center of Building Old Kitchen Area/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Insufficient Material	System_ID:

Client Sample ID: PC9-FT1-27-Floor Tile ***Lab Sample ID:*** **042127615-0027**

Sample Description: 2nd Floor Near West Entrance of Kitchen/9"x9" Floor TileWhite w/Brown Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

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Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: PC9-FT1-27-Mastic ***Lab Sample ID:*** **042127615-0027A**

Sample Description: 2nd Floor Near West Entrance of Kitchen/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC10-FC1-28 ***Lab Sample ID:*** **042127615-0028**

Sample Description: 2nd Floor Room 1 Under Carpet and Sub-Floor/Floor Sheeting, Tan with Black Tar Paper Backing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Tan/Black	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC10-FC1-29 ***Lab Sample ID:*** **042127615-0029**

Sample Description: 3rd Floor Room 8 Under Carpet and Sub-Floor/Floor Sheeting, Tan with Black Tar Paper Backing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Tan/Black	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC10-FC1-30 ***Lab Sample ID:*** **042127615-0030**

Sample Description: 3rd Floor Room 11 Under Carpet and Sub-Floor/Floor Sheeting, Tan with Black Tar Paper Backing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/12/2021	Tan/Black	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC11-FC1-31 ***Lab Sample ID:*** **042127615-0031**

Sample Description: 2nd Floor Room 2 Under Carpet and Sub-Floor/Floor Sheeting Green with Black Tar Paper Backing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black/Green	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC11-FC1-32 ***Lab Sample ID:*** **042127615-0032**

Sample Description: 3rd Floor Room 20 Under Carpet and Sub-Floor/Floor Sheeting Green with Black Tar Paper Backing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black/Green	0.0%	99.6%	**0.4% Chrysotile**	System_ID:

Client Sample ID: PC11-FC1-33 ***Lab Sample ID:*** **042127615-0033**

Sample Description: 3rd Floor Room 23 Under Carpet and Sub-Floor/Floor Sheeting Green with Black Tar Paper Backing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/12/2021	Black/Green	0.0%	99.5%	**0.5% Chrysotile**	System_ID:

Client Sample ID: PC12-FC1-34 ***Lab Sample ID:*** **042127615-0034**

Sample Description: 2nd Floor Room 3 Under Carpet and Sub-Floor/Floor Sheeting Grey w Black Tar Paper Backing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Gray/Black	0.5%	98.7%	**0.8% Chrysotile**	System_ID:

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Client Sample ID: PC12-FC1-35 ***Lab Sample ID:*** **042127615-0035**

Sample Description: 3rd Floor Room 9 Under Carpet and Sub-Floor/Floor Sheeting Grey w Black Tar Paper Backing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Gray/Black	0.0%	99.1%	**0.9% Chrysotile**	System_ID:

Client Sample ID: PC12-FC1-36 ***Lab Sample ID:*** **042127615-0036**

Sample Description: 3rd Floor Room 19 Under Carpet and Sub-Floor/Floor Sheeting Grey w Black Tar Paper Backing

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/12/2021	Gray/Black	0.0%	99.7%	**0.3% Chrysotile**	System_ID:

Client Sample ID: PC13-FT2-37-Floor Tile ***Lab Sample ID:*** **042127615-0037**

Sample Description: 1st Floor Southeast Side of Lobby/Hallway/12"x12" Floor Tile White w/ Brown Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Brown/White	0.0%	96.6%	**3.4% Chrysotile**	System_ID:

Client Sample ID: PC13-FT2-37-Mastic ***Lab Sample ID:*** **042127615-0037A**

Sample Description: 1st Floor Southeast Side of Lobby/Hallway/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	97.4%	**2.6% Chrysotile**	System_ID:

Client Sample ID: PC13-FT2-38-Floor Tile ***Lab Sample ID:*** **042127615-0038**

Sample Description: 2nd Floor Outside Hand Ball Court/12"x12" Floor Tile White w/ Brown Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC13-FT2-38-Mastic ***Lab Sample ID:*** **042127615-0038A**

Sample Description: 2nd Floor Outside Hand Ball Court/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC13-FT2-39-Floor Tile ***Lab Sample ID:*** **042127615-0039**

Sample Description: 2nd Floor East Hallway by Gymnasium/12"x12" Floor Tile White w/ Brown Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC13-FT2-39-Mastic ***Lab Sample ID:*** **042127615-0039A**

Sample Description: 2nd Floor East Hallway by Gymnasium/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

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Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: PC14-FT1-40-Floor Tile ***Lab Sample ID:*** **042127615-0040**

Sample Description: Basement Area Southeast Room Along near Center of Room/9"x9" Floor Tile Brown

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Brown	0.0%	87.8%	**12.2% Chrysotile**	System_ID:

Client Sample ID: PC14-FT1-40-Mastic ***Lab Sample ID:*** **042127615-0040A**

Sample Description: Basement Area Southeast Room Along near Center of Room/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	96.5%	**3.5% Chrysotile**	System_ID:

Client Sample ID: PC14-FT1-41-Floor Tile ***Lab Sample ID:*** **042127615-0041**

Sample Description: Basement Area, Southeast Room Near Entrance/9"x9" Floor Tile Brown

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC14-FT1-41-Mastic ***Lab Sample ID:*** **042127615-0041A**

Sample Description: Basement Area, Southeast Room Near Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC14-FT1-42-Floor Tile ***Lab Sample ID:*** **042127615-0042**

Sample Description: Basement Area, Southeast Room along Southeast Wall/9"x9" Floor Tile Brown

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC14-FT1-42-Mastic ***Lab Sample ID:*** **042127615-0042A**

Sample Description: Basement Area, Southeast Room along Southeast Wall/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC15-FT1-43-Floor Tile ***Lab Sample ID:*** **042127615-0043**

Sample Description: Basement Area, Southwest Room Near Entrance/9"x9" Floor Tile Beige w/Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Beige	0.0%	94.2%	**5.8% Chrysotile**	System_ID:

Client Sample ID: PC15-FT1-43-Mastic ***Lab Sample ID:*** **042127615-0043A**

Sample Description: Basement Area, Southwest Room Near Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	99.7%	**0.3% Chrysotile**	System_ID:

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Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: PC15-FT1-43-Mastic 2 ***Lab Sample ID:*** **042127615-0043B**

Sample Description: Basement Area, Southwest Room Near Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Yellow	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC15-FT1-44-Floor Tile ***Lab Sample ID:*** **042127615-0044**

Sample Description: Basement Area, Southwest Room Near Center/9"x9" Floor Tile Beige w/Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC15-FT1-44-Mastic ***Lab Sample ID:*** **042127615-0044A**

Sample Description: Basement Area, Southwest Room Near Center/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Black	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC15-FT1-44-Mastic 2 ***Lab Sample ID:*** **042127615-0044B**

Sample Description: Basement Area, Southwest Room Near Center/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/11/2021	Yellow	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: PC15-FT1-45-Floor Tile ***Lab Sample ID:*** **042127615-0045**

Sample Description: Basement Area Southwest Room Near North Wall/9"x9" Floor Tile Beige w/Streaks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/12/2021				Positive Stop (Not Analyzed)	System_ID:

Client Sample ID: PC15-FT1-45-Mastic ***Lab Sample ID:*** **042127615-0045A**

Sample Description: Basement Area Southwest Room Near North Wall/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/12/2021	Black	0.0%	99.2%	**0.8% Chrysotile**	System_ID:

Client Sample ID: PC15-FT1-45-Mastic 2 ***Lab Sample ID:*** **042127615-0045B**

Sample Description: Basement Area Southwest Room Near North Wall/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
400 PLM PtCt Grav. Red.	11/12/2021	Yellow	0.0%	100%	**<0.25% Chrysotile**	System_ID:

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Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Analyst(s):

Alex Francois	400 PLM Pt Ct (3)
Brian Kibelstis	400 PLM PtCt Grav. Red (5) 400 PLM Pt Ct (2)
Gabrielle DiDonato	400 PLM PtCt Grav. Red (11)
Paige Havener	400 PLM PtCt Grav. Red (20) 400 PLM Pt Ct (2)

Reviewed and approved by:

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NJ DEP 03036, PA ID# 68-00367, LA #04127

Report amended: 12/07/202107:25:00 Replaces initial report from: 11/09/202115:26:36 Reason Code: Client-Other (see report comment)

Terracon

Bettendorf: 870 40th Ave., Bettendorf, IA
52722 (563) 355 0702

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 042127615
Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

Project Name:	YMCA ACM Point-Count Sampling	**Project Number:**	07207086	**Project Manager:**	James Baxter DNU as SM contact
Project Address:	480 – 3rd Street	**City/State / Zip:**	Clinton, Iowa	**Email Results/Invoice/Sample Confirmation To:**	Steve.Mack@terracon.com James.Baxter@terracon.com
Site/Building:	Former YMCA			**EMSL Login: Enter Customer Contact as:**	Kathy.Toft@terracon.com

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP Classification[1]	Notes/Physical Condition[2]
PC1 – PI1 – 01	Basement landing, bottom of east stairwell, overhead	1905 Building, basement	Mag pipe insulation, white with canvas wrap	8 LF	F C1 C2	G D SD
PC1 – PI1 – 02	Basement area, north side of small office next to east stairs					
PC1 – PI1 – 03	Basement area, north side of small office next to east stairs					
PC2 – MJ3 – 04	Basement area, south main room above the drop ceiling against north wall	1905 Building, basement	Mudded joint fitting with canvas wrap	230 LF	F C1 C2	G D SD
PC2 – MJ3 – 05	Basement area, women's locker room back of room above the drop ceiling	1961 Building, basement				
PC2 – MJ3 – 06	2nd Floor mechanical room above the duct work	1961 Building, 2nd floor				
PC3 – MJ4 – 07	Basement area, south room along north wall	1905 Building, basement & gymnasium	Mudded joint fitting with canvas wrap/fiber glass	325 LF	F C1 C2	G D SD
PC3 – MJ4 – 08	Gymnasium, southeast corner below elevated heater					
PC3 – MJ4 – 09	Basement area, near women's locker room entrance					
PC4 – PI3 – 10	Basement area, near bottom of east stairwell	1905 Building, basement & 1961 building, 2nd floor	Pipe insulation-layered paper with canvas wrap (hard-wrap)	760 LF	F C1 C2	G D SD
PC4 – PI3 – 11	Basement area, women's locker room back					
PC4 – PI3 – 12	2nd Floor mechanical room above the duct work					
PC5 – FT1 – 13	Basement area, southeast room along near center of room	1905 Building, basement, 1st floor southeast room, & 2nd floor kitchen	9" x 9" Floor tile & mastic, red	500 SF	F C1 C2	G D SD
PC5 – FT1 – 14	1st Floor, southeast room near entrance					
PC5 – FT1 – 15	2nd Floor kitchen area near entrance					

Sampling Date: October 22, 2021 **Collected by (print):** Steven Mack **Inspector's Signature:**

Relinquished by: Steven Mack **Date/Time:** 11/01/2021 **Received by:** FX **Date/Time:** 11/2-21 9:40AM

Analysis: PLM EPA 600/R-93/116 ☐ PLM 400 Point Count ☒ TEM ☐ Other _____ **Instructions:** Coring

Turnaround Time: 3 Hrs ☐ 24 Hrs ☐ 2 Days ☐ 3 Days ☐ 5 Days ☒ Other _____ **Terracon ARMS:** ☐ **Stop Positive:** ☒ **Number of samples:** _____

[1] F = Friable: C1 = Category I: packings, gaskets, asphaltic roofing products, resilient flooring; C2 = Category II Non-Friable: any materials other than Cat. I containing >1% asbestos

Terracon

Bettendorf: 870 40th Ave., Bettendorf, IA
52722 (563) 355 0702

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 042127615
Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
PC6 – FT1 – 16	Basement area, bottom of east stairwell	1905 Building, basement & 1st floor	9" x 9" Floor tile & mastic, beige with tan & brown spots	6,800 SF	F C1 C2	G D SD
PC6 – FT1 – 17	1st Floor, southeast room near entrance					
PC6 – FT1 – 18	Basement area, women's locker room shower area					
PC7 – FT1 – 19	1st Floor, storage room near counter by entrance	1905 Building, 1st floor storage room	9" x 9" Floor tile & mastic, (multiple colors) grey with white specks	108 SF	F C1 C2	G D SD
PC7 – FT1 – 20	1st Floor, storage room near counter along north wall					
PC7 – FT1 – 21	1st Floor, storage room near counter back of room by south wall					
PC8 – FT1 – 22	2nd Floor, outside north restrooms	1905 Building, 2nd floor near bathrooms, & 3rd floor near common area	9" x 9" Floor tile & mastic, beige with brown & white streaks	1,320 SF	F C1 C2	G D SD
PC8 – FT1 – 23	2nd Floor, main room southwest corner					
PC8 – FT1 – 24	3rd Floor, common room along south area					
PC9 – FT1 – 25	2nd Floor, near north entrance of kitchen	1905 Building, 2nd floor kitchen	9" x 9" Floor tile & mastic, white with brown streaks	250 SF	F C1 C2	G D SD
PC9 – FT1 – 26	2nd Floor, center of building, old kitchen area					
PC9 – FT1 – 27	2nd Floor, near west entrance of kitchen					
PC10 – FC1 – 28	2nd Floor, room 1 under carpet and sub-floor	1905 Building, 2nd & 3rd floor	Floor sheeting, tan with black tar paper backing	960 SF	F C1 C2	G D SD
PC10 – FC1 – 29	3rd Floor, room 8 under carpet and sub-floor					
PC10 – FC1 – 30	3rd Floor, room 11 under carpet and sub-floor					
PC11 – FC1 – 31	2nd Floor, room 2 under carpet and sub-floor	1905 Building, 2nd & 3rd floor	Floor sheeting, green with black tar paper backing	1,170	F C1 C2	G D SD
PC11 – FC1 – 32	3rd Floor, room 20 under carpet and sub-floor					
PC11 – FC1 – 33	3rd Floor, room 23 under carpet and sub-floor					

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EMSL
CINNAMINSON, NJ
21 DEC -7 AM 7:15

OrderID: 042127615

Terracon

Bettendorf: 870 40th Ave., Bettendorf, IA
52722 (563) 355 0702

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 042127615
Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
PC12 – FC1 – 34	2nd Floor, room 3 under carpet and sub-floor	1905 Building, 2nd & 3rd floor	Floor sheeting, grey with black tar paper backing	2,900 SF	F C1 C2	G D SD
PC12 – FC1 – 35	3rd Floor, room 9 under carpet and sub-floor					
PC12 – FC1 – 36	3rd Floor, room 19 under carpet and sub-floor					
PC13 – FT2 – 37	1st Floor, southeast side of lobby/hallway	1961 Building, 1st floor lobby & 2nd floor	12" x 12" Floor tile & mastic, white with brown streaks	3,600 SF	F C1 C2	G D SD
PC13 – FT2 – 38	2nd Floor, outside handball court					
PC13 – FT2 – 39	2nd Floor, east hallway by gymnasium					
PC14 – FT1 – 40	Basement area, southeast room along near center of room	1905 Building, basement	9" x 9" Floor tile & mastic, brown	460 SF	F C1 C2	G D SD
PC14 – FT1 – 41	Basement area, southeast room near entrance					
PC14 – FT1 – 42	Basement area, southeast room along southeast wall					
PC15 – FT1 – 43	Basement area, southwest room near entrance	1905 Building, basement	9" x 9" Floor tile & mastic, beige with streaks	4,700 SF	F C1 C2	G D SD
PC15 – FT1 – 44	Basement area, southwest room near center					
PC15 – FT1 – 45	Basement area, southwest room near north wall					
– –					F C1 C2	G D SD
– –						
– –						
– –					F C1 C2	G D SD
– –						
– –						

OrderID: 042127615

EMSL Analytical, Inc.

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Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID:	042127746
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Attn: Kathy Toft
Terracon Consultants, Inc.
870 40th Avenue
Bettendorf, IA 52722

Phone:	(563) 355-0702
Fax:	(319) 355-4789
Collected:	
Received:	11/04/2021
Analyzed:	1/04/2022

Proj: Former YMCA Building / 480 3rd Street / YMCA Building / 07207086 / Clinton, Iowa 52732 / Negative Confirmation Sampling

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: NC-CT3-01 ***Lab Sample ID:*** **042127746-0001**

Sample Description: North Room in the Southeast Corner/2'x2' Ceiling Tile, White Pinholes and Slight Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	70.0%	26.0%	**4% Amosite**	System_ID:
400 PLM Pt Ct	1/03/2022	White	0.0%	98.3%	**1.75% Amosite**	System_ID:

Client Sample ID: NC-CT1-02 ***Lab Sample ID:*** **042127746-0002**

Sample Description: North Storage Closet Near the Doorway/1'x1' Ceiling Tile Green with Brown Fiber Smooth Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Brown/Green	98.0%	2.0%	None Detected	System_ID:

Client Sample ID: NC-CT4-03 ***Lab Sample ID:*** **042127746-0003**

Sample Description: North Room, Southwest Area Near the Entrance/2'x4' Ceiling Tile White Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	70.0%	30.0%	None Detected	System_ID:

Client Sample ID: NC-FT1-04-Floor Tile ***Lab Sample ID:*** **042127746-0004**

Sample Description: South Restroom, Southeast Corner, Under Sheet Flooring and Underlayment/9"x9" Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	97.0%	**3% Chrysotile**	System_ID:
400 PLM PtCt Grav. Red.	1/04/2022	Gray	0.0%	98.4%	**1.6% Chrysotile**	System_ID:

Client Sample ID: NC-FT1-04-Mastic ***Lab Sample ID:*** **042127746-0004A**

Sample Description: South Restroom, Southeast Corner, Under Sheet Flooring and Underlayment/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-FC1-05 ***Lab Sample ID:*** **042127746-0005**

Sample Description: South Restroom, Center Area Near the Sinks/Vinyl Floor Sheeting Tan with Black and Gray Specks

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

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http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID:	042127746
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: NC-PL1-06-Plaster Skim Coat ***Lab Sample ID:*** **042127746-0006**

Sample Description: South Restroom South Wall Center Area Mid-Way Up the Wall/Plaster Skim Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-PL1-06-Drywall ***Lab Sample ID:*** **042127746-0006A**

Sample Description: South Restroom South Wall Center Area Mid-Way Up the Wall/Drywall

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	10.0%	90.0%	None Detected	System_ID:

Client Sample ID: NC-MS5-07-Ceramic Tile ***Lab Sample ID:*** **042127746-0007**

Sample Description: North Restroom Center of Doorway Threshold/1"x1" Ceramic Tile Gray

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-MS5-07-Grout ***Lab Sample ID:*** **042127746-0007A**

Sample Description: North Restroom Center of Doorway Threshold/Grout

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-MS5-07-Adhesive ***Lab Sample ID:*** **042127746-0007B**

Sample Description: North Restroom Center of Doorway Threshold/Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-WB1-08-Drywall ***Lab Sample ID:*** **042127746-0008**

Sample Description: Room 13 Northeast Wall Center Area in the Corner/Drywall

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray/White	10.0%	90.0%	None Detected	System_ID:

Client Sample ID: NC-WB1-08-Joint Compound ***Lab Sample ID:*** **042127746-0008A**

Sample Description: Room 13 Northeast Wall Center Area in the Corner/Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-WB3-09 ***Lab Sample ID:*** **042127746-0009**

Sample Description: Storage Room on the East Side the North Open Room/Drywall Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	10.0%	90.0%	None Detected	System_ID:

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EMSL Order ID:	042127746
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: NC-FC1-10-Vinyl Sheet Flooring ***Lab Sample ID:*** **042127746-0010**

Sample Description: Elevated Running Track Near the Southeast Entrance to Track/Vinyl Sheet Flooring

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	2.0%	98.0%	None Detected	System_ID:

Client Sample ID: NC-FC1-10-Mastic ***Lab Sample ID:*** **042127746-0010A**

Sample Description: Elevated Running Track Near the Southeast Entrance to Track/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Clear	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-FC5-11 ***Lab Sample ID:*** **042127746-0011**

Sample Description: Gymnasium Floor Northeast Corner of Gym/Felt Paper Underlayment

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Black	85.0%	15.0%	None Detected	System_ID:

Client Sample ID: NC-MS5-12-Ceramic Tile ***Lab Sample ID:*** **042127746-0012**

Sample Description: Center Swimming Pool on the Northwest Corner of the Pool/1"x1" Ceramic Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Beige	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-MS5-12-Grout ***Lab Sample ID:*** **042127746-0012A**

Sample Description: Center Swimming Pool on the Northwest Corner of the Pool/Grout

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-HP2-13 ***Lab Sample ID:*** **042127746-0013**

Sample Description: Main Lobby Area, Center of Wall by the Southeast Stair Entrance/Plaster (Hard Finish) on Wood Lath

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-FT2-14-Floor Tile ***Lab Sample ID:*** **042127746-0014**

Sample Description: Main Lobby Area, on North Side of the Center Counter on the Floor/12"x12" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-FT2-14-Mastic ***Lab Sample ID:*** **042127746-0014A**

Sample Description: Main Lobby Area, on North Side of the Center Counter on the Floor/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

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200 Route 130 North Cinnaminson, NJ 08077
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http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID:	042127746
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: NC-CA5-15 ***Lab Sample ID:*** **042127746-0015**

Sample Description: East Stairwell Landing Above the Handrail Behind the Stair Wall Paneling/Caulk Beige Rough Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Beige	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-FT5-16-Floor Tile ***Lab Sample ID:*** **042127746-0016**

Sample Description: Main Lobby Area, Underneath a Layer of Floor Tile and Wood Underlayment/9"x9" Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	95.0%	**5% Chrysotile**	System_ID:
400 PLM PtCt Grav. Red.	1/03/2022	Tan	0.0%	96.4%	**3.6% Chrysotile**	System_ID:

Client Sample ID: NC-FT5-16-Mastic ***Lab Sample ID:*** **042127746-0016A**

Sample Description: Main Lobby Area, Underneath a Layer of Floor Tile and Wood Underlayment/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-FC1-17-Sheet Flooring ***Lab Sample ID:*** **042127746-0017**

Sample Description: North Room Kitchenette Area 2' Inside the Door at East Entrance/Sheet Flooring

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-FC1-17-Mastic ***Lab Sample ID:*** **042127746-0017A**

Sample Description: North Room Kitchenette Area 2' Inside the Door at East Entrance/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-CT5-18 ***Lab Sample ID:*** **042127746-0018**

Sample Description: North Room Kitchenette Area, East Entrance Above the Doorway/2'x2' Ceiling Tile White Faced Fiberglass Panels

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Yellow	98.0%	2.0%	None Detected	System_ID:

Client Sample ID: NC-CT4-19 ***Lab Sample ID:*** **042127746-0019**

Sample Description: South Central Room by Main Lobby Above the Doorway Entrance/2'x4' Ceiling Tile White Slightly Textured

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	98.0%	2.0%	None Detected	System_ID:

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EMSL Order ID:	042127746
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: NC-FC1-20-Sheet Flooring ***Lab Sample ID:*** **042127746-0020**

Sample Description: Central Women's Locker Room Under Sink Next to Shower Room/Vinyl Sheet Flooring

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-FC1-20-Mastic ***Lab Sample ID:*** **042127746-0020A**

Sample Description: Central Women's Locker Room Under Sink Next to Shower Room/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-FC4-21-Stairtread ***Lab Sample ID:*** **042127746-0021**

Sample Description: Upper Locker Room Entrance Stairwell Down to Locker Rooms/Vinyl Stairtread

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-FC4-21-Mastic ***Lab Sample ID:*** **042127746-0021A**

Sample Description: Upper Locker Room Entrance Stairwell Down to Locker Rooms/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-CT5-22 ***Lab Sample ID:*** **042127746-0022**

Sample Description: Basement Storage Room / Crawlspace/2'x4' Ceiling Tile Brown 1/2" Fibrous with Tan Face

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Brown	98.0%	2.0%	None Detected	System_ID:

Client Sample ID: NC-WB4-23 ***Lab Sample ID:*** **042127746-0023**

Sample Description: Basement Area, Southwest Corner in Elevator Lobby on the Ceiling/Spray-on Popcorn Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-CA3-24 ***Lab Sample ID:*** **042127746-0024**

Sample Description: Main Locker Room Area by the Gym/Caulk - Gray Smooth Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: NC-CA3-25 ***Lab Sample ID:*** **042127746-0025**

Sample Description: Track Area on East Wall Brick Wall Seams/Caulk - White Brittle Rough Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

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EMSL Order ID:	042127746
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Analyst(s):

Bryan Lopez-Duenas	PLM (37)
Jason Stuhr	400 PLM PtCt Grav. Red (1)
Laura Vera	400 PLM PtCt Grav. Red (1) 400 PLM Pt Ct (1)

Reviewed and approved by:

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

Samples analyzed by EMSL Analytical, Inc. Orlando, FL NVLAP Lab Code 101151-0

Report amended: 01/04/202208:20:37 Replaces initial report from: 11/10/202123:29:37 Reason Code: Client-Additional Analysis

OrderID: 042127746

Terracon

Bettendorf: 870 40th Ave., Bettendorf, IA
52722 (563) 355 0702

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID:

Select a Laboratory:

0421 27716 **Lab Location:** HQ - Cinnaminson, NJ 101048-0

Page ______ of ______

Project Name:	Former YMCA Building
Project Address:	480 3rd Street
Site/Building:	YMCA Building

Project Number:	07207086
City/State / Zip:	Clinton, Iowa 52732
Batch:	Negative Confirmation Sampling

Project Manager:	James Baxter DNU as SM contact
Email Results/Invoice/Sample Confirmation To:	Steve.Mack@terracon.com James.Baxter@terracon.com
EMSL Login: Enter Customer Contact as:	Kathy.Toft@terracon.com

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP Classification[1]	Notes/Physical Condition[2]
NC – CT3 – 01	North room, in the southeast corner	1905 Building 1st floor	2' x 2' Ceiling tile, white, pinholes and slight texture	2,800 SF	F C1 C2 RACM	G D SD
NC – CT1 – 02	North storage closet near the doorway	1905 Building 2nd floor	1' x 1' Ceiling tile, green with brown fiber smooth texture	75 SF	F C1 C2 RACM	G D SD
NC – CT4 – 03	North room, southwest area near the entrance	1905 Building 1st floor	2' x 4' Ceiling tile, white, textured	1,600 SF	F C1 C2 RACM	G D SD
NC – FT1 – 04	South restroom, southeast corner, under sheet flooring and underlayment	1905 Building 2nd floor	9" x 9" Floor tile and mastic – beige	4,500 SF	F C1 C2	G D SD
NC – FC1 – 05	South restroom, center area near the sinks	1905 Building 2nd floor	Vinyl floor sheeting - tan with black and gray specks	150 SF	F C1 C2 RACM	G D SD
NC – PL1 – 06	South restroom, south wall center area, mid-way up the wall	1905 Building 2nd floor	Plaster skim coat and drywall - tan with a slight texture	20,000 SF	F C1 C2 RACM	G D SD
NC – MS5 – 07	North restroom, center of doorway threshold	1905 Building 3rd Floor	1" x 1" Ceramic tile - gray with light gray grout and adhesive	150 SF	F C1 C2	G D SD
NC – WB1 – 08	Room 13, northeast wall center area, in the corner	1905 Building 3rd Floor	Drywall and joint compound – white, slight texture	5,000 SF	F C1 C2	G D SD
NC – WB3 – 09	Storage room on the east side the north open room	1905 Building 2nd floor	Drywall compound – white slight texture	600 SF	F C1 C2	G D SD
NC – FC1 – 10	Elevated running track, near the southeast entrance to track	3rd Floor running track	Vinyl sheet flooring and mastic – tan, smooth texture	3,200 SF	F C1 C2 RACM	G D SD
NC – FC5 – 11	Gymnasium floor, northeast corner of gym	2nd Floor gymnasium	Felt paper underlayment – black smooth texture	8,000 SF	F C1 C2	G D SD
NC – MS5 – 12	Center swimming pool, on the northwest corner of the pool	1961 Building Swimming pool area	1" x 1" Ceramic tile and grout – beige with gray grout	2,000 SF	F C1 C2	G D SD
NC – HP2 – 13	Main lobby area, center of wall by the southeast stair entrance	1905 Building 1st floor	Plaster (hard finish) on wood lath – white, painted blue	3,600 SF	F C1 C2	G D SD

2021 NOV -4 AM 10: 10

RECEIVED EMSL CINNAMINSON, N.J.

Sampling Date: October 22, 2021 **Collected by (print):** Steven Mack **Inspector's Signature:** [signature]

Relinquished by: **Date/Time:** 10/22/2021 **Received by:** [signature] **Date/Time:** 11-4-21 940A

Analysis: PLM EPA 600/R-93/116 ☒ PLM 400 Point Count ☐ TEM ☐ Other ______

Turnaround Time: 3 Hrs. ☐ 24 Hrs. ☐ 2 Days ☐ 3 Days ☐ 5 Days ☒ Other ______

Instructions:
Terracon ARMS: ☒ **Stop Positive:** ☐ **Number of samples:** ______

(25)

[1] F = Friable; C1 = Category I: packings, gaskets, asphaltic roofing products, resilient flooring; C2 = Category II Non-Friable: any materials other than Cat. I containing >1% asbestos

Terracon

Bettendorf: 870 40th Ave., Bettendorf, IA
52722 (563) 355 0702

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID:

Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

042127746

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
NC – FT2 – 14	Main lobby area, on the north side of the center counter on the floor	1905 Building 1st floor	12" x 12" Vinyl floor tile and mastic– white, smooth	600 SF	F C1 C2	G D SD
NC – CA5 – 15	East stairwell landing above the handrail, behind the stair wall paneling	1905 Building 1st floor	Caulk (panel adhesive) – beige, rough texture	100 SF	F C1 C2	G D SD
NC – FT5 – 16	Main lobby area, underneath a layer of floor tile and wood underlayment	1905 Building 1st floor	9" x 9" Floor tile and mastic – light tan	1,200 SF	F C1 C2	G D SD
NC – FC1 – 17	North room kitchenette area, 2' inside the door at east entrance	1905 Building 1st floor	Sheet flooring and mastic – red with black and tan specks	50 SF	F C1 C2 RACM	G D SD
NC – CT5 – 18	North room kitchenette area, east entrance above the doorway	1905 Building 1st floor	2' x 2' Ceiling tile – white faced fiberglass panels	50 SF	F C1 C2	G D SD
NC – CT4 – 19	South central room by main lobby, above the doorway entrance	1905 Building 1st floor	2' x 4' Ceiling tile – white, slightly textured	1,500 SF	F C1 C2 RACM	G D SD
NC – FC1 – 20	Central women's locker room, under sink, next to shower room	1961 Building basement	Vinyl sheet flooring and mastic - tan	120 SF	F C1 C2 RACM	G D SD
NC – FC4 – 21	Upper locker room entrance, stairwell down to locker rooms	1961 Building basement	Vinyl stair treads and mastic – tan with diamond pattern	85 SF	F C1 C2	G D SD
NC – CT5 – 22	Basement storage room / crawlspace	1905 Building 1st floor	2' x 4' Ceiling tile – brown, ½" fibrous with tan face	60 SF	F C1 C2 RACM	G D SD
NC – WB4 – 23	Basement area, southwest corner in elevator lobby on the ceiling	1905 Building 1st floor	Spray-on popcorn coating – white, rough texture	9,000 SF	F C1 C2	G D SD
NC – CA3 – 24	Main locker room area, by the gym (tilt-up conc.)	1978 Building 1st floor	Caulk – gray smooth texture	200 LF	F C1 C2	G D SD
NC – CA3 – 25	Track area, on east wall, brick wall seams (brick joints)	1978 Building 3rd floor	Caulk – white, brittle, rough texture	450 LF	F C1 C2	G D SD
– –					F C1 C2	G D SD
– –					F C1 C2	G D SD
– –					F C1 C2	G D SD
– –					F C1 C2	G D SD
– –					F C1 C2	G D SD
– –					F C1 C2	G D SD

Christy, Sherry 042127746

From: Cinnaminson-Asbestos
Sent: Thursday, December 30, 2021 2:59 PM
To: Corporate - Asbestos Login
Subject: FW: Point Count Request

From: Mack, Steve M <Steve.Mack@terracon.com>
Sent: Thursday, December 30, 2021 7:58:29 PM (UTC+00:00) Monrovia, Reykjavik
To: EMSL Lab - Cinnaminson Asbestos <CinnAsblab@EMSL.com>
Subject: Point Count Request

[EXTERNAL E-MAIL]

Hi Sherry. I am hoping you can help me, I have a request for 24 hour TAT, point count 400 with grav. prep point count for two past lab reports. The first is for Terracon PN# 07207086 / EMSL Order #042127746, dated November 4, 2021, and the other is Terracon PN# 07207086 / EMSL Order # 042127713, dated November 4, 2021.

Steven Mack
Field Supervisor
Environmental Services
Terracon Consultants Inc.
870 – 40th Avenue | Bettendorf, IA. 52722
Mobile: (309) 236-1461
Steven.Mack@terracon.com

Christy, Sherry

From: Mack, Steve M <Steve.Mack@terracon.com>
Sent: Monday, January 3, 2022 7:49 AM
To: Christy, Sherry
Subject: Re: Point Count Request

[EXTERNAL E-MAIL]

Happy New Year! All positives 6% and below for both please. Thank you, Sherry.

Sent from my Verizon, Samsung Galaxy smartphone
Get Outlook for Android

From: Christy, Sherry <schristy@EMSL.com>
Sent: Monday, January 3, 2022 6:05:25 AM
To: Mack, Steve M <Steve.Mack@terracon.com>
Subject: FW: Point Count Request

Good Morning Steve,

One more thing what samples do you want point counted? I see positives on there but not sure which ones you want? For both orders.

Thanks,

Sherry Christy | *Asbestos Sample and Logistics Coordinator*
EMSL Analytical, Inc. | 200 Route 130 North | Cinnaminson, NJ 08077
Phone: 856-303-2585 | Fax: 856-786-5973 | Toll Free: 800-220-3675

COVID-19 Update: *EMSL Analytical, Inc. remains open as an essential business. To view real-time status updates for each of our 46 laboratories in the US and Canada, download EMSL's free smart device application via the iTunes App Store - Apple or Google Play. APP updates are posted under Support / Lab Hours.*

Some of the resources EMSL Analytical, Inc. offers to our clients:
LABConnect | Order Products | Client Corner | Training | Additional Resources | Sampling Videos

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From: Cinnaminson-Asbestos <cinnasblabpublic@emsl.com>
Sent: Thursday, December 30, 2021 2:59 PM
To: Corporate - Asbestos Login <CorporateAsbestosLogin@emsl.com>
Subject: FW: Point Count Request

From: Mack, Steve M <Steve.Mack@terracon.com>
Sent: Thursday, December 30, 2021 7:58:29 PM (UTC+00:00) Monrovia, Reykjavik
To: EMSL Lab - Cinnaminson Asbestos <CinnAsblab@EMSL.com>
Subject: Point Count Request

[EXTERNAL E-MAIL]

Hi Sherry. I am hoping you can help me, I have a request for 24 hour TAT, point count 400 with grav. prep point count for two past lab reports. The first is for Terracon PN# 07207086 / EMSL Order #042127746, dated November 4, 2021, and the other is Terracon PN# 07207086 / EMSL Order # 042127713, dated November 4, 2021.

Steven Mack
Field Supervisor
Environmental Services
Terracon Consultants Inc.
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EMSL Analytical, Inc.
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Tel/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order: 042127746
Customer ID: TEI93
Customer PO: 07207086
Project ID:

Attention: Kathy Toft
Terracon Consultants, Inc.
870 40th Avenue
Bettendorf, IA 52722

Phone: (563) 355-0702
Fax: (319) 355-4789
Received Date: 11/04/2021 9:40 AM
Analysis Date: 11/10/2021
Collected Date:

Project: Former YMCA Building / 480 3rd Street / YMCA Building / 07207086 / Clinton, Iowa 52732 / Negative Confirmation Sampling

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
NC-CT3-01 *042127746-0001*	North Room in the Southeast Corner - 2'x2' Ceiling Tile, White Pinholes and Slight Texture	White Fibrous Heterogeneous	5% Cellulose 65% Min. Wool	26% Non-fibrous (Other)	4% Amosite
NC-CT1-02 *042127746-0002*	North Storage Closet Near the Doorway - 1'x1' Ceiling Tile Green with Brown Fiber Smooth Texture	Brown/Green Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
NC-CT4-03 *042127746-0003*	North Room, Southwest Area Near the Entrance - 2'x4' Ceiling Tile White Texture	White Fibrous Heterogeneous	40% Cellulose 30% Min. Wool	20% Perlite 10% Non-fibrous (Other)	None Detected
NC-FT1-04-Floor Tile *042127746-0004*	South Restroom, Southeast Corner, Under Sheet Flooring and Underlayment - 9"x9" Floor Tile	Gray Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
NC-FT1-04-Mastic *042127746-0004A*	South Restroom, Southeast Corner, Under Sheet Flooring and Underlayment - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
NC-FC1-05 *042127746-0005*	South Restroom, Center Area Near the Sinks - Vinyl Floor Sheeting Tan with Black and Gray Specks	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
NC-PL1-06-Plaster Skim Coat *042127746-0006*	South Restroom South Wall Center Area Mid-Way Up the Wall - Plaster Skim Coat	White Non-Fibrous Homogeneous		30% Quartz 15% Ca Carbonate 55% Non-fibrous (Other)	None Detected
NC-PL1-06-Drywall *042127746-0006A*	South Restroom South Wall Center Area Mid-Way Up the Wall - Drywall	Gray Non-Fibrous Homogeneous	10% Cellulose	65% Gypsum 25% Non-fibrous (Other)	None Detected
NC-MS5-07-Ceramic Tile *042127746-0007*	North Restroom Center of Doorway Threshold - 1"x1" Ceramic Tile Gray	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
NC-MS5-07-Grout *042127746-0007A*	North Restroom Center of Doorway Threshold - Grout	Gray Non-Fibrous Homogeneous		30% Quartz 15% Ca Carbonate 55% Non-fibrous (Other)	None Detected
NC-MS5-07-Adhesive *042127746-0007B*	North Restroom Center of Doorway Threshold - Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 11/10/2021 23:29:33

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order: 042127746
Customer ID: TEI93
Customer PO: 07207086
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
NC-WB1-08-Drywall *042127746-0008*	Room 13 Northeast Wall Center Area in the Corner - Drywall	Gray/White Fibrous Heterogeneous	10% Cellulose <1% Glass	65% Gypsum 25% Non-fibrous (Other)	None Detected
NC-WB1-08-Joint Compound *042127746-0008A*	Room 13 Northeast Wall Center Area in the Corner - Joint Compound	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
NC-WB3-09 *042127746-0009*	Storage Room on the East Side the North Open Room - Drywall Compound	White Fibrous Heterogeneous	10% Cellulose <1% Glass	65% Gypsum 25% Non-fibrous (Other)	None Detected
NC-FC1-10-Vinyl Sheet Flooring *042127746-0010*	Elevated Running Track Near the Southeast Entrance to Track - Vinyl Sheet Flooring	Tan Fibrous Homogeneous	2% Glass	98% Non-fibrous (Other)	None Detected
NC-FC1-10-Mastic *042127746-0010A*	Elevated Running Track Near the Southeast Entrance to Track - Mastic	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
NC-FC5-11 *042127746-0011*	Gymnasium Floor Northeast Corner of Gym - Felt Paper Underlayment	Black Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
NC-MS5-12-Ceramic Tile *042127746-0012*	Center Swimming Pool on the Northwest Corner of the Pool - 1"x1" Ceramic Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
NC-MS5-12-Grout *042127746-0012A*	Center Swimming Pool on the Northwest Corner of the Pool - Grout	Gray Non-Fibrous Homogeneous		30% Quartz 15% Ca Carbonate 55% Non-fibrous (Other)	None Detected
NC-HP2-13 *042127746-0013*	Main Lobby Area, Center of Wall by the Southeast Stair Entrance - Plaster (Hard Finish) on Wood Lath	White Non-Fibrous Homogeneous		30% Quartz 15% Ca Carbonate 55% Non-fibrous (Other)	None Detected
NC-FT2-14-Floor Tile *042127746-0014*	Main Lobby Area, on North Side of the Center Counter on the Floor - 12"x12" Vinyl Floor Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
NC-FT2-14-Mastic *042127746-0014A*	Main Lobby Area, on North Side of the Center Counter on the Floor - Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
NC-CA5-15 *042127746-0015*	East Stairwell Landing Above the Handrail Behind the Stair Wall Paneling - Caulk Beige Rough Texture	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
NC-FT5-16-Floor Tile *042127746-0016*	Main Lobby Area, Underneath a Layer of Floor Tile and Wood Underlayment - 9"x9" Floor Tile	Tan Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile

Initial report from: 11/10/2021 23:29:33

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID:	042127713
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Attn: Kathy Toft
Terracon Consultants, Inc.
870 40th Avenue
Bettendorf, IA 52722

Phone:	(563) 355-0702
Fax:	(319) 355-4789
Collected:	11/ 1/2021
Received:	11/04/2021
Analyzed:	1/04/2022

Proj: 07207086 / YMCA - Additional HA Sampling / Former YMCA / 480 3rd Street, Clinton, Iowa

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: 1-CA3-01 ***Lab Sample ID:*** **042127713-0001**

Sample Description: North Room on the Northwest Side, Center Mid-Wall, behind Paneling/Caulk - Black, Rough Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Black	0.0%	96.0%	**4% Chrysotile**	System_ID:
400 PLM PtCt Grav. Red.	1/04/2022	Black	0.0%	96.2%	**3.8% Chrysotile**	System_ID:

Client Sample ID: 1-CA3-02 ***Lab Sample ID:*** **042127713-0002**

Sample Description: North Room, North Wall Center of Room/Caulk - Black, Rough Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Black	0.0%	96.0%	**4% Chrysotile**	System_ID:
400 PLM PtCt Grav. Red.	1/04/2022	Black	0.0%	95.4%	**4.6% Chrysotile**	System_ID:

Client Sample ID: 1-CA3-03 ***Lab Sample ID:*** **042127713-0003**

Sample Description: North Room, South Wall, Southeast Corner, Mid-Wall/Caulk - Black, Rough Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Black	0.0%	97.0%	**3% Chrysotile**	System_ID:
400 PLM PtCt Grav. Red.	1/04/2022	Black	0.0%	95.7%	**4.3% Chrysotile**	System_ID:

Client Sample ID: 2-MG6-04 ***Lab Sample ID:*** **042127713-0004**

Sample Description: East Stairwell, between 1st and 2nd Floor, above the Stairs/Glue Pucks associated with 1'x1' Ceiling Tile - Light Brown, Smooth

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Brown	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 2-MG6-05 ***Lab Sample ID:*** **042127713-0005**

Sample Description: East Stairwell, between 1st and 2nd Floor, above the Stairs/Glue Pucks associated with 1'x1' Ceiling Tile - Light Brown, Smooth

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Brown	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 2-MG6-06 ***Lab Sample ID:*** **042127713-0006**

Sample Description: East Stairwell, between 1st and 2nd Floor, above the Stairs/Glue Pucks associated with 1'x1' Ceiling Tile - Light Brown, Smooth

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Brown	0.0%	100.0%	None Detected	System_ID:

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID:	042127713
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: 3-FC3-07-Cove Base ***Lab Sample ID:*** **042127713-0007**

Sample Description: Main Lobby Area on the Southeast Wall, Near the Entrance Stairs/Cove Base - Gray with Yellow Glue

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 3-FC3-07-Glue ***Lab Sample ID:*** **042127713-0007A**

Sample Description: Main Lobby Area on the Southeast Wall, Near the Entrance Stairs/Cove Base - Gray with Yellow Glue

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Yellow	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 3-FC3-08-Cove Base ***Lab Sample ID:*** **042127713-0008**

Sample Description: Main Hallway on the West Wall, Near Restroom/Cove Base - Gray with Yellow Glue

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 3-FC3-08-Glue ***Lab Sample ID:*** **042127713-0008A**

Sample Description: Main Hallway on the West Wall, Near Restroom/Cove Base - Gray with Yellow Glue

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Brown/White	0.0%	100.0%	**<1% Chrysotile**	System_ID:
400 PLM PtCt Grav. Red.	1/04/2022	Brown/White	0.0%	100%	**<0.25% Chrysotile**	System_ID:

Client Sample ID: 3-FC3-09-Cove Base ***Lab Sample ID:*** **042127713-0009**

Sample Description: Main Front Hallway on the West End, Near the Stairs to 1905 Building/Cove Base - Gray with Yellow Glue

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 3-FC3-09-Glue ***Lab Sample ID:*** **042127713-0009A**

Sample Description: Main Front Hallway on the West End, Near the Stairs to 1905 Building/Cove Base - Gray with Yellow Glue

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Yellow	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 4-MA1-10-Brick ***Lab Sample ID:*** **042127713-0010**

Sample Description: Basement Area, Near Bottom of East Stairwell, above the North Room Entrance/2"x8" Brick Tan

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

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Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID:	042127713
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: 4-MA1-10-Mortar ***Lab Sample ID:*** **042127713-0010A**

Sample Description: Basement Area, Near Bottom of East Stairwell, above the North Room Entrance/Gray Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 4-MA1-11-Brick ***Lab Sample ID:*** **042127713-0011**

Sample Description: North Room on the East Wall, In Duct Chase about Mid-Wall/2"x8" Brick Tan

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 4-MA1-11-Mortar ***Lab Sample ID:*** **042127713-0011A**

Sample Description: North Room on the East Wall, In Duct Chase about Mid-Wall/Gray Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 4-MA1-12-Brick ***Lab Sample ID:*** **042127713-0012**

Sample Description: Main Front Hallway on the East Side, above the "1961" Granite Marker/2"x8" Brick Tan

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 4-MA1-12-Mortar ***Lab Sample ID:*** **042127713-0012A**

Sample Description: Main Front Hallway on the East Side, above the "1961" Granite Marker/Gray Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 5-CA2-13 ***Lab Sample ID:*** **042127713-0013**

Sample Description: Main Front Lobby Area, Southwest Door Frame (Painted Gray)/Caulk - Gray Rough Exterior, Smooth Inner Material

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 5-CA2-14 ***Lab Sample ID:*** **042127713-0014**

Sample Description: Main Front Hallway, East Door Frame to the Lower Locker Rooms/Caulk - Gray Rough Exterior, Smooth Inner Material

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 5-CA2-15 ***Lab Sample ID:*** **042127713-0015**

Sample Description: Main Front Hallway, West Door Frame to the 1978 Building/Caulk - Gray Rough Exterior, Smooth Inner Material

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Gray	0.0%	100.0%	None Detected	System_ID:

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Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: 6-MA1-16-Brick ***Lab Sample ID:*** **042127713-0016**

Sample Description: Main Front Hallway, by the East Stairwell Where Green Meets Black Brick/2"x8" Ceramic-Face Brick Aqua Green and Black, Smooth Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan/Green	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 6-MA1-16-Mortar ***Lab Sample ID:*** **042127713-0016A**

Sample Description: Main Front Hallway, by the East Stairwell Where Green Meets Black Brick/Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray/Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 6-MA1-17-Brick ***Lab Sample ID:*** **042127713-0017**

Sample Description: Main Front Hallway, Lower Section Where Black Brick Meets Granite Slab on East End/2"x8" Ceramic-Face Brick Aqua Green and Black, Smooth Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan/Green	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 6-MA1-17-Mortar ***Lab Sample ID:*** **042127713-0017A**

Sample Description: Main Front Hallway, Lower Section Where Black Brick Meets Granite Slab on East End/Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan/Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 6-MA1-18-Brick ***Lab Sample ID:*** **042127713-0018**

Sample Description: Main Front Hallway, West Side Lower End of Green Brick, 10' From Doors/2"x8" Ceramic-Face Brick Aqua Green and Black, Smooth Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Tan/Green	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 6-MA1-18-Mortar ***Lab Sample ID:*** **042127713-0018A**

Sample Description: Main Front Hallway, West Side Lower End of Green Brick, 10' From Doors/Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 7-FP1-19 ***Lab Sample ID:*** **042127713-0019**

Sample Description: Basement Area, North Room, West Corner by Heater/Spray-on Fireproofing, White Thick Popcorn Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 7-FP1-20 ***Lab Sample ID:*** **042127713-0020**

Sample Description: Basement Area, North Room Center, by Electrical Junction Box/Spray-on Fireproofing, White Thick Popcorn Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	0.0%	100.0%	None Detected	System_ID:

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Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: 7-FP1-21 ***Lab Sample ID:*** **042127713-0021**

Sample Description: Basement Area, North Room by the Entrance, East Side of Door/Spray-on Fireproofing, White Thick Popcorn Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	White	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 8-PI4-22-Insulation ***Lab Sample ID:*** **042127713-0022**

Sample Description: Basement Area, North Room, West Corner by Heater/Fiberglass Pipe Insulation Yellow Fiberglass with White Paper Face

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Yellow	95.0%	5.0%	None Detected	System_ID:

Client Sample ID: 8-PI4-22-Mastic ***Lab Sample ID:*** **042127713-0022A**

Sample Description: Basement Area, North Room, West Corner by Heater/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	30.0%	70.0%	None Detected	System_ID:

Client Sample ID: 8-PI4-23-Insulation ***Lab Sample ID:*** **042127713-0023**

Sample Description: Basement Area, North Room by the Entrance, East Side of Door/Fiberglass Pipe Insulation Yellow Fiberglass with White Paper Face

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Yellow	95.0%	5.0%	None Detected	System_ID:

Client Sample ID: 8-PI4-23-Mastic ***Lab Sample ID:*** **042127713-0023A**

Sample Description: Basement Area, North Room by the Entrance, East Side of Door/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	30.0%	70.0%	None Detected	System_ID:

Client Sample ID: 8-PI4-24-Insulation ***Lab Sample ID:*** **042127713-0024**

Sample Description: 1st Floor Boy's Restroom, Pipe Chase/Fiberglass Pipe Insulation Yellow Fiberglass with White Paper Face

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Yellow	95.0%	5.0%	None Detected	System_ID:

Client Sample ID: 8-PI4-24-Mastic ***Lab Sample ID:*** **042127713-0024A**

Sample Description: 1st Floor Boy's Restroom, Pipe Chase/Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	White	30.0%	70.0%	None Detected	System_ID:

Client Sample ID: 9-MA2-25-CMU Block ***Lab Sample ID:*** **042127713-0025**

Sample Description: Basement Area, North Mechanical Room, Right Side of Door on Corner/8"x16" CMU Block Gray

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

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Client Sample ID: 9-MA2-25-Mortar ***Lab Sample ID:*** **042127713-0025A**

Sample Description: Basement Area, North Mechanical Room, Right Side of Door on Corner/Mortar Light Gray

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 9-MA2-26-CMU Block ***Lab Sample ID:*** **042127713-0026**

Sample Description: 1st Floor Hallway Entrance to the Lower Locker Rooms, by Main Front Hallway/8"x16" CMU Block Gray

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 9-MA2-26-Mortar ***Lab Sample ID:*** **042127713-0026A**

Sample Description: 1st Floor Hallway Entrance to the Lower Locker Rooms, by Main Front Hallway/Mortar Light Gray

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 9-MA2-27-CMU Block ***Lab Sample ID:*** **042127713-0027**

Sample Description: Main Lobby Area, Next to the Front Closet Area, Mid-Wall/8"x16" CMU Block Gray

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 9-MA2-27-Mortar ***Lab Sample ID:*** **042127713-0027A**

Sample Description: Main Lobby Area, Next to the Front Closet Area, Mid-Wall/Mortar Light Gray

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 10-WP6-28-Sheath ***Lab Sample ID:*** **042127713-0028**

Sample Description: 2nd Floor, above the Main Hallway on South Side/Electrical Wiring - Single Strand, Black Woven Sheath Run Through Ceramic Insulators

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Black	75.0%	25.0%	None Detected	System_ID:

Client Sample ID: 10-WP6-28-Insulator ***Lab Sample ID:*** **042127713-0028A**

Sample Description: 2nd Floor, above the Main Hallway on South Side/Electrical Wiring - Single Strand, Black Woven Sheath Run Through Ceramic Insulators

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White/Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 10-WP6-29-Sheath ***Lab Sample ID:*** **042127713-0029**

Sample Description: 3rd Floor, above the Ceiling Tile in the Main Common Area, South Side/Electrical Wiring - Single Strand, Black Woven Sheath Run Through Ceramic Insulators

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Black	75.0%	25.0%	None Detected	System_ID:

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Client Sample ID: 10-WP6-29-Insulator ***Lab Sample ID:*** **042127713-0029A**

Sample Description: 3rd Floor, above the Ceiling Tile in the Main Common Area, South Side/Electrical Wiring - Single Strand, Black Woven Sheath Run Through Ceramic Insulators

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White/Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 10-WP6-30-Sheath ***Lab Sample ID:*** **042127713-0030**

Sample Description: 3rd Floor, above the Ceiling Tile in the Main Common Area, North/Electrical Wiring - Single Strand, Black Woven Sheath Run Through Ceramic Insulators

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Black	75.0%	25.0%	None Detected	System_ID:

Client Sample ID: 10-WP6-30-Insulator ***Lab Sample ID:*** **042127713-0030A**

Sample Description: 3rd Floor, above the Ceiling Tile in the Main Common Area, North/Electrical Wiring - Single Strand, Black Woven Sheath Run Through Ceramic Insulators

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	White/Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 11-WP6-31-Sheath ***Lab Sample ID:*** **042127713-0031**

Sample Description: 2nd Floor, Room 2 under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray/Black/Silver	72.0%	28.0%	None Detected	Result includes inseparable silver coating. System_ID:

Client Sample ID: 11-WP6-31-Insulator ***Lab Sample ID:*** **042127713-0031A**

Sample Description: 2nd Floor, Room 2 under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 11-WP6-31-Insulator2 ***Lab Sample ID:*** **042127713-0031B**

Sample Description: 2nd Floor, Room 2 under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 11-WP6-31-Insulation ***Lab Sample ID:*** **042127713-0031C**

Sample Description: 2nd Floor, Room 2 under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Brown	95.0%	5.0%	None Detected	System_ID:

Client Sample ID: 11-WP6-32-Sheath ***Lab Sample ID:*** **042127713-0032**

Sample Description: 3rd Floor, Room 20 under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan/Black/Silver	72.0%	28.0%	None Detected	Result includes inseparable silver coating. System_ID:

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Client Sample ID: 11-WP6-32-Insulator ***Lab Sample ID:*** **042127713-0032A**

Sample Description: 3rd Floor, Room 20 under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 11-WP6-32-Insulator2 ***Lab Sample ID:*** **042127713-0032B**

Sample Description: 3rd Floor, Room 20 under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	White	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 11-WP6-32-Insulation ***Lab Sample ID:*** **042127713-0032C**

Sample Description: 3rd Floor, Room 20 under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Brown	95.0%	5.0%	None Detected	System_ID:

Client Sample ID: 11-WP6-33-Sheath ***Lab Sample ID:*** **042127713-0033**

Sample Description: 3rd Floor, Room 23under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Gray/Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 11-WP6-33-Insulator ***Lab Sample ID:*** **042127713-0033A**

Sample Description: 3rd Floor, Room 23under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 11-WP6-33-Insulator 2 ***Lab Sample ID:*** **042127713-0033B**

Sample Description: 3rd Floor, Room 23under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	White	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 11-WP6-33-Insulation ***Lab Sample ID:*** **042127713-0033C**

Sample Description: 3rd Floor, Room 23under Carpet and Sub-Floor/Electrical Wiring - Double-Strand, Black Woven Sheath with Silver and Gray Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Brown	95.0%	5.0%	None Detected	System_ID:

Client Sample ID: 12-MG7-34 ***Lab Sample ID:*** **042127713-0034**

Sample Description: Southeast Entrance Area, Under Carpet Squares on Marble Circle Design Floor/Carpet Adhesive - Yellow, Rough Texture, Sticky

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Yellow	0.0%	100.0%	None Detected	System_ID:

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Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: 12-MG7-35 ***Lab Sample ID:*** **042127713-0035**

Sample Description: Main Lobby Area, Southeast Stairwell Kickboards/Carpet Adhesive - Yellow, Rough Texture, Sticky

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Yellow	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 12-MG7-36 ***Lab Sample ID:*** **042127713-0036**

Sample Description: Main Lobby Area, on Flooring Next to Southwest Elevator Entrance/Carpet Adhesive - Yellow, Rough Texture, Sticky

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Yellow	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 13-MA2-37-CMU ***Lab Sample ID:*** **042127713-0037**

Sample Description: Lower Level Locker Room Lobby, Between Men's and Women's Locker Rooms/6"x12" CMU Glaze Faced Block

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 13-MA2-37-Mortar ***Lab Sample ID:*** **042127713-0037A**

Sample Description: Lower Level Locker Room Lobby, Between Men's and Women's Locker Rooms/Light Gray Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 13-MA2-38-CMU ***Lab Sample ID:*** **042127713-0038**

Sample Description: Women's Locker Room by West Wall, Lower Wall, Center/6"x12" CMU Glaze Faced Block

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 13-MA2-38-Mortar ***Lab Sample ID:*** **042127713-0038A**

Sample Description: Women's Locker Room by West Wall, Lower Wall, Center/Light Gray Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 13-MA2-39-CMU ***Lab Sample ID:*** **042127713-0039**

Sample Description: Men's Locker Room, South Wall before Pool Entrance/6"x12" CMU Glaze Faced Block

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Tan	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 13-MA2-39-Mortar ***Lab Sample ID:*** **042127713-0039A**

Sample Description: Men's Locker Room, South Wall before Pool Entrance/Light Gray Mortar

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Gray	0.0%	100.0%	None Detected	System_ID:

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Client Sample ID: 14-FC3-40-Cove Base ***Lab Sample ID:*** **042127713-0040**

Sample Description: Lower Locker Room Entrance in Main Front Hallway, at Top of Stair Landing/Cove Base Black

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 14-FC3-40-Mastic ***Lab Sample ID:*** **042127713-0040A**

Sample Description: Lower Locker Room Entrance in Main Front Hallway, at Top of Stair Landing/Brown and Yellow Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Brown/Yellow	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 14-FC3-41-Cove Base ***Lab Sample ID:*** **042127713-0041**

Sample Description: Main Lobby Area, Down the West Hallway/Cove Base Black

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 14-FC3-41-Mastic ***Lab Sample ID:*** **042127713-0041A**

Sample Description: Main Lobby Area, Down the West Hallway/Brown and Yellow Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Brown/Yellow	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 14-FC3-42-Cove Base ***Lab Sample ID:*** **042127713-0042**

Sample Description: Main Lobby Area, on South Wall Near the East Doorway/Cove Base Black

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Black	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 14-FC3-42-Mastic ***Lab Sample ID:*** **042127713-0042A**

Sample Description: Main Lobby Area, on South Wall Near the East Doorway/Brown and Yellow Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Brown/Yellow	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 15-CA1-43 ***Lab Sample ID:*** **042127713-0043**

Sample Description: Room 18, Exterior Window Caulk around Window Frame/Caulk- Gray Weathered, Rough Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Brown/Gray	0.0%	94.0%	**6% Chrysotile**	System_ID:
400 PLM PtCt Grav. Red.	1/04/2022	Brown/Gray	0.4%	99.6%	**<0.25% Chrysotile**	System_ID:

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Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID:	042127713
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116

Client Sample ID: 15-CA1-44 ***Lab Sample ID:*** **042127713-0044**

Sample Description: Southeast Room, South Wall, Exterior Window Caulk around Window Frame/Caulk- Gray Weathered, Rough Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/10/2021	Gray	0.0%	100.0%	None Detected	System_ID:

Client Sample ID: 15-CA1-45 ***Lab Sample ID:*** **042127713-0045**

Sample Description: Exterior North Wall, Center, around Exhaust Vent/Caulk- Gray Weathered, Rough Texture

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/11/2021	Gray	0.0%	95.0%	**5% Chrysotile**	System_ID:
400 PLM PtCt Grav. Red.	1/04/2022	Gray	1.0%	97.1%	**1.9% Chrysotile**	System_ID:

Analyst(s):

Alex Francois	PLM (52)
Nancy Stalter	PLM (26)
Paige Havener	400 PLM PtCt Grav. Red (6)

Reviewed and approved by:

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NJ DEP 03036, PA ID# 68-00367, LA #04127

Report amended: 01/04/202223:11:48 Replaces amended report from: 12/07/202109:42:00 Reason Code: Client-Additional Analysis

Terracon

Bettendorf: 870 40th Ave., Bettendorf, IA
52722 (563) 355 0702

Asbestos Bulk Sample and Chain of Custody Form

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CINNAMINSON, NJ
21 DEC -7 AM 9:38

Lab Order ID: 042127713
Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

Project Name:	YMCA – Additional HA Sampling	**Project Number:**	07207086	**Project Manager:**	James Baxter DNU as SM contact
Project Address:	480 – 3rd Street	**City/State / Zip:**	Clinton, Iowa	**Email Results/Invoice/Sample Confirmation To:**	Steve.Mack@terracon.com James.Baxter@terracon.com
Site/Building:	Former YMCA	**Batch:**	Additional HA Sampling	**EMSL Login: Enter Customer Contact as:**	Kathy.Toft@terracon.com

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP Classification[1]	Notes/Physical Condition[2]
1 – CA3 – 01	North room on the northwest side, center mid-wall, behind paneling	1905 Building 2nd Floor	Caulk – black, rough texture	350 LF	F C1 C2	G D SD
1 – CA3 – 02	North room, north wall center of room					
1 – CA3 – 03	North room, south wall, southeast corner, mid-wall					
2 – MG6 – 04	East stairwell, between 1st and 2nd floor, above the stairs	1905 Building, East stairs	Glue pucks associated with 1' x 1' ceiling tile – light brown, smooth	120 LF	F C1 C2	G D SD
2 – MG6 – 05	East stairwell, between 1st and 2nd floor, above the stairs					
2 – MJ3 – 06	East stairwell, between 1st and 2nd floor, above the stairs					
3 – FC3 – 07	Main lobby area on the southeast wall, near the entrance stairs	1905 Building, 1st floor	Cove base and mastic – gray with yellow glue and mastic	1,000 LF	F C1 C2	G D SD
3 – FC3 – 08	Main hallway on the west wall, near restroom	1905 Building, 2nd floor				
3 – FC3 – 09	Main front hallway on the west end, near the stairs to 1905 building	1961 Building 1st floor				
4 – MA1 – 10	Basement area, near bottom of east stairwell, above the north room entrance	1905 Building, Basement	2" x 8" Brick and mortar – tan with gray mortar	Throughout all buildings	F C1 C2	G D SD
4 – MA1 – 11	North room on the east wall, in duct chase about mid-wall	1905 Building, 1st floor				
4 – MA1 – 12	Main front hallway on the east side, above the "1961" granite marker	1961 Building 1st floor				
5 – CA2 – 13	Main front lobby area, southwest door frame (painted gray)	1905 Building, 1st floor	Caulk – gray rough exterior, smooth inner material	200 LF	F C1 C2	G D SD
5 – CA2 – 14	Main front hallway, east door frame to the lower locker rooms	1961 Building				
5 – CA2 – 15	Main front hallway, west door frame to the 1978 building	1st floor				

Sampling Date: November 01, 2021 **Collected by (print):** Steven Mack **Inspector's Signature:**

Relinquished by: Steven Mack **Date/Time:** 11/03/2021 **Received by:** FX **Date/Time:** 11/4/21 940 AM (Corrected)

Analysis: PLM EPA 600/R-93/116 ☒ PLM 400 Point Count ☐ TEM ☐ Other _____

Turnaround Time: 3 Hrs ☐ 24 Hrs ☐ 2 Days ☐ 3 Days ☒ 5 Days ☐ Other _____

Instructions:

Terracon ARMS: ☒ **Stop Positive:** ☐ **Number of samples:** _____

[1] F = Friable; C1 = Category I: packings, gaskets, asphaltic roofing products, resilient flooring; C2 = Category II Non-Friable; any materials other than Cat. I containing >1% asbestos

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Asbestos Bulk Sample and Chain of Custody Form

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21 DEC -7 AM 9:38

Lab Order ID: 04212773
Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
6 – MA1 – 16	Main front hallway, by the east stairwell where green meets black brick	1961 Building, 1st floor	2" x 8" Ceramic-face brick and mortar – aqua green and black, smooth texture	1,800 SF	F C1 C2	G D SD
6 – MA1 – 17	Main front hallway, lower section where black brick meets granite slab on east end					
6 – MA1 – 18	Main front hallway, west side lower end of green brick, 10' from doors					
7 – FP1 – 19	Basement area, north room, west corner by heater	1905 Building, basement	Spray-on Fireproofing – white thick popcorn texture	1,200 SF	F C1 C2 RACM	G D SD
7 – FP1 – 20	Basement area, north room center, by electrical junction box					
7 – FP1 – 21	Basement area, north room by the entrance, east side of door					
8 – PI4 – 22	Basement area, north room, west corner by heater	1905 Building, basement and 1st floor	Fiberglass pipe insulation and mastic – yellow fiberglass with white paper face and mastic	1,500 SF	F C1 C2 RACM	G D SD
8 – PI4 – 23	Basement area, north room by the entrance, east side of door					
8 – PI4 – 24	1st Floor boy's restroom, pipe chase					
9 – MA2 – 25	Basement area, north mechanical room, right side of door on corner	1905 Building, basement	8" x 16" CMU block and mortar – gray with light gray mortar	Throughout buildings	F C1 C2	G D SD
9 – MA2 – 26	1st Floor hallway entrance to the lower locker rooms, by main front hallway	1961 Building, 1st floor				
9 – MA2 – 27	Main lobby area, next to the front closet area, mid-wall	1978 Building, 1st floor				
10 – WP6 – 28	2nd Floor, above the main hallway on south side	1905 Building, 2nd and 3rd floor	Electrical wiring – single-strand, black woven sheath run through ceramic insulators	500 LF	F C1 C2	G D SD
10 – WP6 – 29	3rd Floor, above the ceiling tile in the main common area, south side					
10 – WP6 – 30	3rd Floor, above the ceiling tile in the main common area, north side					
11 – WP6 – 31	2nd Floor, room 2 under carpet and sub-floor	1905 Building, 2nd & 3rd floor	Electrical wiring – double-strand, black woven sheath with silver and gray coating	1,000 LF	F C1 C2	G D SD
11 – WP6 – 32	3rd Floor, room 20 under carpet and sub-floor					
11 – WP6 – 33	3rd Floor, room 23 under carpet and sub-floor					

Terracon

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Asbestos Bulk Sample and Chain of Custody Form

RECEIVED
EMSL
CINNAMINSON, NJ

Lab Order ID: 04212773

Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

Sample Identification HA – BS Code – Sample #	Sample Location Description (21 DEC -7 AM 9:38)	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
12 – MG7 – 34	Southeast entrance area, under carpet squares on marble circle design floor	1905 Building, 1st floor	Carpet adhesive – yellow, rough texture, sticky	6,000 SF	F C1 C2	G D SD
12 – MG7 – 35	Main lobby area, southeast stairwell kickboards					
12 – MG7 – 36	Main lobby area, on flooring next to southwest elevator entrance					
13 – MA2 – 37	Lower level locker room lobby, between men's and women's locker rooms	1961 Building, basement	6" x 12" CMU and mortar – glaze-faced block, with light gray mortar	5,000 SF	F C1 C2	G D SD
13 – MA2 – 38	Women's locker room by west wall, lower wall, center					
13 – MA2 – 39	Men's locker room, south wall before pool entrance					
14 – FC3 – 40	Lower locker room entrance in main front hallway, at top of stair landing	1961 Building, 1st floor	Cove base and mastic – black with brown and yellow mastic	500 LF	F C1 C2	G D SD
14 – FC3 – 41	Main lobby area, down the west hallway	1978 Building, 1st floor				
14 – FC3 – 42	Main lobby area, on south wall near the east doorway	1978 Building, 1st floor				
15 – CA1 – 43	Room 18, exterior window caulk around window frame	1905 Building, 3rd floor	Caulk – gray, weathered, rough texture	4,700 SF	F C1 C2	G D SD
15 – CA1 – 44	Southeast room, south wall, exterior window caulk around window frame	1905 Building, 1st floor				
15 – CA1 – 45	Exterior north wall, center, around exhaust vent	1961 Building, Exhaust				
– –					F C1 C2	G D SD
– –						
– –						
– –					F C1 C2	G D SD
– –						
– –						

Christy, Sherry 042127713

From: Cinnaminson-Asbestos
Sent: Thursday, December 30, 2021 2:59 PM
To: Corporate - Asbestos Login
Subject: FW: Point Count Request

From: Mack, Steve M <Steve.Mack@terracon.com>
Sent: Thursday, December 30, 2021 7:58:29 PM (UTC+00:00) Monrovia, Reykjavik
To: EMSL Lab - Cinnaminson Asbestos <CinnAsblab@EMSL.com>
Subject: Point Count Request

[EXTERNAL E-MAIL]

Hi Sherry. I am hoping you can help me, I have a request for 24 hour TAT, point count 400 with grav. prep point count for two past lab reports. The first is for Terracon PN# 07207086 / EMSL Order #042127746, dated November 4, 2021, and the other is Terracon PN# 07207086 / EMSL Order # 042127713, dated November 4, 2021.

Steven Mack
Field Supervisor
Environmental Services
Terracon Consultants Inc.
870 – 40th Avenue | Bettendorf, IA. 52722
Mobile: (309) 236-1461
Steven.Mack@terracon.com

Christy, Sherry

From: Mack, Steve M <Steve.Mack@terracon.com>
Sent: Monday, January 3, 2022 7:49 AM
To: Christy, Sherry
Subject: Re: Point Count Request

[EXTERNAL E-MAIL]

Happy New Year! All positives 6% and below for both please. Thank you, Sherry.

Sent from my Verizon, Samsung Galaxy smartphone
Get Outlook for Android

From: Christy, Sherry <schristy@EMSL.com>
Sent: Monday, January 3, 2022 6:05:25 AM
To: Mack, Steve M <Steve.Mack@terracon.com>
Subject: FW: Point Count Request

Good Morning Steve,

One more thing what samples do you want point counted? I see positives on there but not sure which ones you want? For both orders.

Thanks,

Sherry Christy | *Asbestos Sample and Logistics Coordinator*
EMSL Analytical, Inc. | 200 Route 130 North | Cinnaminson, NJ 08077
Phone: 856-303-2585 | Fax: 856-786-5973 | Toll Free: 800-220-3675

COVID-19 Update: *EMSL Analytical, Inc. remains open as an essential business. To view real-time status updates for each of our 46 laboratories in the US and Canada, download EMSL's free smart device application via the iTunes App Store - Apple or Google Play. APP updates are posted under Support / Lab Hours.*

Some of the resources EMSL Analytical, Inc. offers to our clients:
LABConnect | Order Products | Client Corner | Training | Additional Resources | Sampling Videos

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From: Cinnaminson-Asbestos <cinnasblabpublic@emsl.com>
Sent: Thursday, December 30, 2021 2:59 PM
To: Corporate - Asbestos Login <CorporateAsbestosLogin@emsl.com>
Subject: FW: Point Count Request

EMSL Analytical, Inc.
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Tel/Fax: (800) 220-3675 / (856) 786-5974
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EMSL Order: 042127713
Customer ID: TEI93
Customer PO: 07207086
Project ID:

Attention: Kathy Toft
Terracon Consultants, Inc.
870 40th Avenue
Bettendorf, IA 52722

Phone: (563) 355-0702
Fax: (319) 355-4789
Received Date: 11/04/2021 9:40 AM
Analysis Date: 11/10/2021 - 11/11/2021
Collected Date: 11/01/2021

Project: 07207086 / YMCA - Additional HA Sampling / Former YMCA / 480 3rd Street, Clinton, Iowa

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
1-CA3-01 *042127713-0001*	North Room on the Northwest Side, Center Mid-Wall, behind Paneling - Caulk - Black, Rough Texture	Black Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
1-CA3-02 *042127713-0002*	North Room, North Wall Center of Room - Caulk - Black, Rough Texture	Black Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
1-CA3-03 *042127713-0003*	North Room, South Wall, Southeast Corner, Mid-Wall - Caulk - Black, Rough Texture	Black Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
2-MG6-04 *042127713-0004*	East Stairwell, between 1st and 2nd Floor, above the Stairs - Glue Pucks associated with 1'x1' Ceiling Tile - Light Brown, Smooth	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2-MG6-05 *042127713-0005*	East Stairwell, between 1st and 2nd Floor, above the Stairs - Glue Pucks associated with 1'x1' Ceiling Tile - Light Brown, Smooth	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2-MG6-06 *042127713-0006*	East Stairwell, between 1st and 2nd Floor, above the Stairs - Glue Pucks associated with 1'x1' Ceiling Tile - Light Brown, Smooth	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-FC3-07-Cove Base *042127713-0007*	Main Lobby Area on the Southeast Wall, Near the Entrance Stairs - Cove Base - Gray with Yellow Glue	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-FC3-07-Glue *042127713-0007A*	Main Lobby Area on the Southeast Wall, Near the Entrance Stairs - Cove Base - Gray with Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-FC3-08-Cove Base *042127713-0008*	Main Hallway on the West Wall, Near Restroom - Cove Base - Gray with Yellow Glue	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Report amended: 12/07/2021 09:42:00 Replaces initial report from: 11/11/2021 08:57:35 Reason Code: Client-Change to Project

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order: 042127713
Customer ID: TEI93
Customer PO: 07207086
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
3-FC3-08-Glue *042127713-0008A*	Main Hallway on the West Wall, Near Restroom - Cove Base - Gray with Yellow Glue	Brown/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	<1% Chrysotile
3-FC3-09-Cove Base *042127713-0009*	Main Front Hallway on the West End, Near the Stairs to 1905 Building - Cove Base - Gray with Yellow Glue	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-FC3-09-Glue *042127713-0009A*	Main Front Hallway on the West End, Near the Stairs to 1905 Building - Cove Base - Gray with Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-MA1-10-Brick *042127713-0010*	Basement Area, Near Bottom of East Stairwell, above the North Room Entrance - 2"x8" Brick Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-MA1-10-Mortar *042127713-0010A*	Basement Area, Near Bottom of East Stairwell, above the North Room Entrance - Gray Mortar	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-MA1-11-Brick *042127713-0011*	North Room on the East Wall, In Duct Chase about Mid-Wall - 2"x8" Brick Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-MA1-11-Mortar *042127713-0011A*	North Room on the East Wall, In Duct Chase about Mid-Wall - Gray Mortar	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-MA1-12-Brick *042127713-0012*	Main Front Hallway on the East Side, above the "1961" Granite Marker - 2"x8" Brick Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-MA1-12-Mortar *042127713-0012A*	Main Front Hallway on the East Side, above the "1961" Granite Marker - Gray Mortar	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5-CA2-13 *042127713-0013*	Main Front Lobby Area, Southwest Door Frame (Painted Gray) - Caulk - Gray Rough Exterior, Smooth Inner Material	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5-CA2-14 *042127713-0014*	Main Front Hallway, East Door Frame to the Lower Locker Rooms - Caulk - Gray Rough Exterior, Smooth Inner Material	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Report amended: 12/07/2021 09:42:00 Replaces initial report from: 11/11/2021 08:57:35 Reason Code: Client-Change to Project

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http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order:	042127713
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
15-CA1-43 *042127713-0043*	Room 18, Exterior Window Caulk around Window Frame - Caulk- Gray Weathered, Rough Texture	Brown/Gray Fibrous Heterogeneous		94% Non-fibrous (Other)	6% Chrysotile
15-CA1-44 *042127713-0044*	Southeast Room, South Wall, Exterior Window Caulk around Window Frame - Caulk- Gray Weathered, Rough Texture	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15-CA1-45 *042127713-0045*	Exterior North Wall, Center, around Exhaust Vent - Caulk- Gray Weathered, Rough Texture	Gray Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile

Analyst(s)
Alex Francois (52)
Nancy Stalter (26)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

Report amended: 12/07/2021 09:42:00 Replaces initial report from: 11/11/2021 08:57:35 Reason Code: Client-Change to Project

EMSL Analytical, Inc.

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http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order:	042200836
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Attention:	James Baxter	**Phone:**	(563) 468-4271
	Terracon Consultants, Inc.	**Fax:**	(319) 355-4789
	870 40th Avenue	**Received Date:**	01/17/2022 8:45 AM
	Bettendorf, IA 52722	**Analysis Date:**	01/17/2022
		Collected Date:	01/13/2022

Project: 07207086 / Clinton - YMCA / 480 South 3rd Street Clinton, Iowa 52732 / Former YMCA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
16-RF6-46-Tar Paper *042200836-0001*	1905 Building, Roof 2 - Southeast End by East Wall, Between the two SE Windows - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	Black Fibrous Homogeneous	10% Cellulose 40% Glass	50% Non-fibrous (Other)	None Detected
16-RF6-46-Foam *042200836-0001A*	1905 Building, Roof 2 - Southeast End by East Wall, Between the two SE Windows - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-RF6-46-Insulation *042200836-0001B*	1905 Building, Roof 2 - Southeast End by East Wall, Between the two SE Windows - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	Black Fibrous Homogeneous	70% Cellulose	10% Perlite 20% Non-fibrous (Other)	None Detected
16-RF6-46-Rubber Membrane *042200836-0001C*	1905 Building, Roof 2 - Southeast End by East Wall, Between the two SE Windows - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-RF6-47-Tar Paper *042200836-0002*	1905 Building, Lower Roof 2, South End, SE Side between Exhaust Vent and Wall - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	Black Fibrous Homogeneous	15% Cellulose 40% Glass	45% Non-fibrous (Other)	None Detected

Initial report from: 01/17/2022 13:40:05

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EMSL Order:	042200836
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
16-RF6-47-Foam *042200836-0002A*	1905 Building, Lower Roof 2, South End, SE Side between Exhaust Vent and Wall - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-RF6-47-Insulation *042200836-0002B*	1905 Building, Lower Roof 2, South End, SE Side between Exhaust Vent and Wall - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	Brown Fibrous Homogeneous	70% Cellulose	15% Perlite 15% Non-fibrous (Other)	None Detected
16-RF6-48-Tar Paper *042200836-0003*	1961 Building, Roof 3 - East Side Central Area, Next to the Access Wall-Ladder - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
16-RF6-48-Foam *042200836-0003A*	1961 Building, Roof 3 - East Side Central Area, Next to the Access Wall-Ladder - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16-RF6-48-Insulation *042200836-0003B*	1961 Building, Roof 3 - East Side Central Area, Next to the Access Wall-Ladder - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	Brown Fibrous Homogeneous	80% Cellulose	10% Perlite 10% Non-fibrous (Other)	None Detected
16-RF6-48-Gypsum Board *042200836-0003C*	1961 Building, Roof 3 - East Side Central Area, Next to the Access Wall-Ladder - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	White Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected

Initial report from: 01/17/2022 13:40:05

EMSL Analytical, Inc.
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EMSL Order:	042200836
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
16-RF6-48-Backing *042200836-0003D*	1961 Building, Roof 3 - East Side Central Area, Next to the Access Wall-Ladder - Built-up Roof - Black Tar Paper w/ Felt Paper, Yellow Foam Insulation & White Gypsum Board	White Fibrous Homogeneous	70% Synthetic	30% Non-fibrous (Other)	None Detected
17-WP1-49 *042200836-0004*	1905 Basement Mechanical Room (Room B-7), South Elevated Unit - Vibration Cloth - White, Woven Canvas Type Material	White Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
17-WP1-50 *042200836-0005*	1905 Building Pool Mechanical Room, Central Elevated Duct Unit - Vibration Cloth - White, Woven Canvas Type Material	White Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
17-WP1-51 *042200836-0006*	2nd Floor Mechanical Room, South Air Handler Unit, South Wall Central Area - Vibration Cloth - White, Woven Canvas Type Material	White Fibrous Homogeneous	20% Cellulose	45% Non-fibrous (Other)	35% Chrysotile
18-MA5-52-Tile Slabs *042200836-0007*	1905 Building 1st Floor South Entryway, Top of Stair Landing, East Side Top of Slab - Marble Tile Slabs	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-MA5-52-Thin-Set *042200836-0007A*	1905 Building 1st Floor South Entryway, Top of Stair Landing, East Side Top of Slab - Thin-Set	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-MA5-53-Tile Slabs *042200836-0008*	1905 Building 1st Floor East Entryway, Lower Landing, South Side of Door, Centered - Marble Tile Slabs	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-MA5-53-Thin-Set *042200836-0008A*	1905 Building 1st Floor East Entryway, Lower Landing, South Side of Door, Centered - Thin-Set	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-MA5-54-Tile Slabs *042200836-0009*	1905 Building 1st Floor East Entryway, Lower Landing, South S ide of Door, Bottom - Marble Tile Slabs	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18-MA5-54-Thin-Set *042200836-0009A*	1905 Building 1st Floor East Entryway, Lower Landing, South S ide of Door, Bottom - Thin-Set	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 01/17/2022 13:40:05

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EMSL Order:	042200836
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
19-MA5-55-Ceramic Block *042200836-0010*	1905 Sub-Level Women's Locker Room, NW Side Next to Steam Room, by Electrical Box - 5"x12" Ceramic Block - Off-White with Brown Specks	Brown/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-MA5-55-Grout *042200836-0010A*	1905 Sub-Level Women's Locker Room, NW Side Next to Steam Room, by Electrical Box - Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-MA5-56-Ceramic Block *042200836-0011*	1905 Sub-Level Women's Locker Room, NW Shower Room by South Drain Area - 5"x12" Ceramic Block - Off-White with Brown Specks	Brown/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-MA5-56-Grout *042200836-0011A*	1905 Sub-Level Women's Locker Room, NW Shower Room by South Drain Area - Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-MA5-57-Ceramic Block *042200836-0012*	1905 Sub-Level Women's Locker Room, North-Central Area above the West Sink - 5"x12" Ceramic Block - Off-White with Brown Specks	Brown/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-MA5-57-Grout *042200836-0012A*	1905 Sub-Level Women's Locker Room, North-Central Area above the West Sink - Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-MA5-58-Ceramic Block *042200836-0013*	1905 Sub-Level Women's Locker Room, South End by Central Entrance, by Sinks - 5"x12" Ceramic Block Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-MA5-58-Grout *042200836-0013A*	1905 Sub-Level Women's Locker Room, South End by Central Entrance, by Sinks - Gray Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-MA5-59-Ceramic Block *042200836-0014*	1961 Building, Large Pool Room, NW Corner by Entrance to Small Pool Room - 5"x12" Ceramic Block Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-MA5-59-Grout *042200836-0014A*	1961 Building, Large Pool Room, NW Corner by Entrance to Small Pool Room - Gray Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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EMSL Order:	042200836
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
20-MA5-60-Ceramic Block *042200836-0015*	1961 Building, 2nd Floor Gym, SW Corner Doorway, at Upper Right Door Jamb - 5"x12" Ceramic Block Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-MA5-60-Grout *042200836-0015A*	1961 Building, 2nd Floor Gym, SW Corner Doorway, at Upper Right Door Jamb - Gray Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-MA3-61-Tile *042200836-0016*	Men's Locker Room, NE Corner of Men's Shower Room at the North End of Drain - 5"x12" Quarry Tile - Dark Brown	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-MA3-61-Thin-Set *042200836-0016A*	Men's Locker Room, NE Corner of Men's Shower Room at the North End of Drain - Thin-Set	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-MA3-61-Grout *042200836-0016B*	Men's Locker Room, NE Corner of Men's Shower Room at the North End of Drain - Gray Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-MA3-62-Tile *042200836-0017*	Men's Locker Room, NW Corner of Men's Shower Room Exit to Pool, by the Drain - 5"x12" Quarry Tile - Dark Brown	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-MA3-62-Thin-Set *042200836-0017A*	Men's Locker Room, NW Corner of Men's Shower Room Exit to Pool, by the Drain - Thin-Set	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-MA3-62-Grout *042200836-0017B*	Men's Locker Room, NW Corner of Men's Shower Room Exit to Pool, by the Drain - Gray Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-MA3-63-Tile *042200836-0018*	Men's Locker Room, SE Corner of the Shower Room, South End of the Drain - 5"x12" Quarry Tile - Dark Brown	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-MA3-63-Thin-Set *042200836-0018A*	Men's Locker Room, SE Corner of the Shower Room, South End of the Drain - Thin-Set	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-MA3-63-Grout *042200836-0018B*	Men's Locker Room, SE Corner of the Shower Room, South End of the Drain - Gray Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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EMSL Order:	042200836
Customer ID:	TEI93
Customer PO:	07207086
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
22-CP1-64 *042200836-0019*	1961 Building, Large Pool Room, NW Corner of Ceiling Near Entrance to Small Pool Room - 2'x2' Ceramic Board - Gray Smooth and Peg Board Style Panels	Gray Fibrous Homogeneous		82% Non-fibrous (Other)	18% Chrysotile
22-CP1-65 *042200836-0020*	1961 Building, Large Pool Room, NE Corner of Ceiling Near Entry to Pool Storage Room - 2'x2' Ceramic Board - Gray Smooth and Peg Board Style Panels	Gray Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
22-CP1-66 *042200836-0021*	1961 Building, Large Pool Room, SE Corner of Ceiling Near Entry to Girl's Locker Room - 2'x2' Ceramic Board - Gray Smooth and Peg Board Style Panels	Gray Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
23-WP1-67 *042200836-0022*	3rd Floor Mechanical Room, West Side of Room on Exhaust Fan #3, East Side - Vibration Cloth - Green, Woven Canvas Type Material	Gray/Green Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
23-WP1-68 *042200836-0023*	3rd Floor Mechanical Room, East Side by Door, on Air Handler Unit for Handball Courts - Vibration Cloth - Green, Woven Canvas Type Material	Gray/Green Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
23-WP1-69 *042200836-0024*	3rd Floor Mechanical Room, South-Central Wall on Small, Elevated Tank - Vibration Cloth - Green, Woven Canvas Type Material	Gray/Green Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
24-MA5-70-Tile *042200836-0025*	1905 Building 1st Floor, Room 1-1, Lobby Area South Entry at Top South Stair Landing, Center Area - Marble Tile - White Round Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-MA5-70-Grout *042200836-0025A*	1905 Building 1st Floor, Room 1-1, Lobby Area South Entry at Top South Stair Landing, Center Area - Black Grout	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
24-MA5-71-Tile *042200836-0026*	1905 Building 1st Floor, Room 1-1, East Stairs Lower Landing, North End at Top of Steps - Marble Tile - White Round Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-MA5-71-Grout *042200836-0026A*	1905 Building 1st Floor, Room 1-1, East Stairs Lower Landing, North End at Top of Steps - Black Grout	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-MA5-72-Tile *042200836-0027*	1905 Building Basement, Elevator Room (B-9) at Doorway Threshold, Centered - Marble Tile - White Round Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-MA5-72-Grout *042200836-0027A*	1905 Building Basement, Elevator Room (B-9) at Doorway Threshold, Centered - Black Grout	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-MA5-73-Skim Coat *042200836-0028*	1905 Building, Exterior North Wall, Under the Red Fire Escape Under the Yellow Brick - Concrete Skim Coat	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-MA5-73-Texture *042200836-0028A*	1905 Building, Exterior North Wall, Under the Red Fire Escape Under the Yellow Brick - Gray Rough Texture	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-MA5-74-Skim Coat *042200836-0029*	1905 Building, Exterior North Wall, East Corner by Exposed Limestone Block - Concrete Skim Coat				Layer Not Present
25-MA5-74-Texture *042200836-0029A*	1905 Building, Exterior North Wall, East Corner by Exposed Limestone Block - Gray Rough Texture	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-MA5-75-Skim Coat *042200836-0030*	1905 Building, Exterior East Wall, at NE Corner of Building by Exposed Limestone Block - Concrete Skim Coat	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-MA5-75-Texture *042200836-0030A*	1905 Building, Exterior East Wall, at NE Corner of Building by Exposed Limestone Block - Gray Rough Texture	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
26-SC2-76 *042200836-0031*	1978 Building Exterior, South Wall Center, Where Sidewalk Meets Concrete Wall - Tar Sealant - Black, Smooth Texture	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-SC2-77 *042200836-0032*	1978 Building Exterior, South Wall SW Corner, Where Sidewalk Meets Concrete Wall - Tar Sealant - Black, Smooth Texture	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-SC2-78 *042200836-0033*	1978 Building Exterior, West Wall Center, Where Sidewalk Meets Concrete Wall - Tar Sealant - Black, Smooth Texture	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
27-WP1-79 *042200836-0034*	1961 Building, 2nd Floor Mechanical Room, SW Corner of Room on Upper Air Handler Unit - Vibration Cloth - Red Woven Canvas Type Material	Red Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
27-WP1-80 *042200836-0035*	1961 Building, 2nd Floor Mechanical Room, NW Corner of Room on Copper Fan Duct - Vibration Cloth - Red Woven Canvas Type Material	Red Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
27-WP1-81 *042200836-0036*	1961 Building, 2nd Floor Mechanical Room, NW Corner on East Side, on Gray Duct by Wall - Vibration Cloth - Red Woven Canvas Type Material	Red Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
7-FP1-82 *042200836-0037*	1905 Building Basement, North Room (B-6), East Wall by Mech. Room, by 2nd Steel Column - Spray-on Fireproofing - White Thick, Rough Texture, Popcorn Style	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
7-FP1-83 *042200836-0038*	1905 Building Basement, North Room (B-6), East Wall, NE Corner by End of Duct Work - Spray-on Fireproofing - White Thick, Rough Texture, Popcorn Style	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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EMSL Order:	042200836
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Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
7-FP1-84 *042200836-0039*	1905 Building Basement, North Room (B-6), South Wall, SW Corner of B-6 by Speaker - Spray-on Fireproofing - White Thick, Rough Texture, Popcorn Style	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Gabrielle DiDonato (37)
Michelle Quach (31)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

Initial report from: 01/17/2022 13:40:05

Terracon

Bettendorf: 870 40th Ave., Bettendorf, IA
52722 (563) 355 0702

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 04220083 6

Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

Project Name:	Clinton - YMCA	**Project Number:**	07207086	**Project Manager:**	James Baxter DNU as SM contact
Project Address:	480 South 3rd Street	**City/State / Zip:**	Clinton, Iowa 52732	**Email Results/Invoice/Sample Confirmation To:**	Steve.Mack@terracon.com James.Baxter@terracon.com
Site/Building:	Former YMCA		Additional HA's (cont.)	**EMSL Login: Enter Customer Contact as:**	Kathy.Toft@terracon.com

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP Classification[1]	Notes/Physical Condition[2]
16 – RF6 – 46	1905 Building, roof 2 – southeast end by east wall, between the two SE windows	1905, 1961, and 1978 building roofs	Built-up roof – black tar paper w/felt paper, yellow foam insulation, & white gypsum board	26,000 SF	F **C1** C2	G **D** SD
16 – RF6 – 47	1905 Building, lower roof 2 – south end, SE side between exhaust vent and wall					
16 – RF6 – 48	1961 Building, roof 3 – east side central area, next to the access wall-ladder					
17 – WP1 – 49	1905 basement mechanical room (room B-7), south elevated unit	1905 and 1961 Buildings	Vibration cloth – white, woven canvas type material	13 Units	F C1 **C2**	G **D** SD
17 – WP1 – 50	1905 Building pool mechanical room, central elevated duct unit					
17 – WP1 – 51	2nd Floor mechanical room, south air handler unit, south wall central area					
18 – MA5 – 52	1905 Building 1st floor south entryway, top of stair landing, east side top of slab	1905 Building	Marble tile slabs and associated thin set -	400 SF	F C1 **C2**	**G** D SD
18 – MA5 – 53	1905 Building 1st floor east entryway, lower landing, south side of door, centered					
18 – MA5 – 54	1905 Building 1st floor east entryway, lower landing, south side of door, bottom					
19 – MA5 – 55	1905 Sub-level women's locker room, NW side next to steam room, by electrical box	1905 Building	5" x 12" Ceramic block and grout – off-white with brown specks	1,000 SF	F C1 **C2**	**G** D SD
19 – MA5 – 56	1905 Sub-level women's locker room, NW shower room by south drain area					
19 – MA5 – 57	1905 Sub-level women's locker room, North-central area above the west sink					
20 – MA5 – 58	1905 Sub-level women's locker room, south end by central entrance, by sinks	1905 and 1961 Buildings	5" x 12" Ceramic block and grout – tan w/gray grout	2,200 SF	F C1 **C2**	**G** D SD
20 – MA5 – 59	1961 Building, large pool room, NW corner by entrance to small pool room					
20 – MA5 – 60	1961 Building, 2nd floor gym, SW corner doorway, at upper right door jamb					

RECEIVED
22 JAN 17 AM 8:59
EMSL
CINNAMINSON NJ

Sampling Date: January 13, 2022 **Collected by (print):** Steven Mack **Inspector's Signature:** Steven Mack

Relinquished by: Steven Mack **Date/Time:** 1/13/2022 **Received by:** KD EMSL Fx 5:45pm **Date/Time:** 1-17-2022

Analysis: PLM EPA 600/R-93/116 ☒ PLM 400 Point Count ☒ TEM ☐ Other _____

Turnaround Time: 3 Hrs. ☐ 24 Hrs ☐ 2 Days ☐ 3 Days ☐ 5 Days ☐ Other 6 Hr. TAT

Instructions:
Terracon ARMS: ☒ **Stop Positive:** ☐ **Number of samples:** _____

[1] F = Friable; C1 = Category I: packings, gaskets, asphaltic roofing products, resilient flooring; C2 = Category II Non-Friable: any materials other than Cat. I containing >1% asbestos

39

Terracon

Bettendorf: 870 40th Ave., Bettendorf, IA
52722 (563) 355 0702

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 042200836

Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
21 – MA3 – 61	Men's locker room, NE corner of men's shower room at the north end of drain	1978 Building	5"x 12" Quarry tile and associated thin set, and grout – dark brown w/gray grout	500 SF	F C1 **C2**	**G** D SD
21 – MA3 – 62	Men's locker room, NW corner of men's shower room exit to pool, by the drain					
21 – MA3 – 63	Men's locker room, SE corner of the shower room, south end of the drain					
22 – CP1 – 64	1961 Building, large pool room, NW corner of ceiling near entrance to small pool room	1961 and 1978 Building	2' x 2' Cement board – gray smooth and peg board style panels	4,000 SF	F C1 **C2**	**G** D SD
22 – CP1 – 65	1961 Building, large pool room, NE corner of ceiling near entry to pool storage room					
22 – CP1 – 66	1961 Building, large pool room, SE corner of ceiling near entry to girl's locker room					
23 – WP1 – 67	3rd Floor mechanical room, west side of room on exhaust fan #3, east side	1978 Building, mechanical room	Vibration cloth – green, woven canvas type material	6 Units	F C1 **C2**	G D **SD**
23 – WP1 – 68	3rd Floor mechanical room, east side by door, on air handler unit for handball courts					
23 – WP1 – 69	3rd Floor mechanical room, south-central wall on small, elevated tank					
24 – MA5 – 70	1905 Building 1st floor, room 1-1, lobby area south entry at top south stair landing, center area	1905 Building, basement, and 1st floor	Marble tile and grout – white round tile with black grout	3,000 SF	F C1 **C2**	G **D** SD
24 – MA5 – 71	1905 Building 1st floor, room 1-1, east stairs lower landing, north end at top of steps					
24 – MA5 – 72	1905 Building basement, elevator room (B-9) at doorway threshold, centered					
25 – MA5 – 73	1905 Building, exterior north wall, under the red fire escape under the yellow brick	1905 Building, exterior foundation	Concrete skim coat – gray rough texture	300 SF	F C1 **C2**	G **D** SD
25 – MA5 – 74	1905 Building, exterior north wall, east corner by exposed limestone block					
25 – MA5 – 75	1905 Building, exterior east wall, at NE corner of building by exposed limestone block					
26 – SC2 – 76	1978 building exterior, south wall center, where sidewalk meets concrete wall	1978 Building, exterior	Tar sealant – black, smooth texture	75 SF	F C1 **C2**	G D **SD**
26 – SC2 – 77	1978 building exterior, south wall SW corner, where sidewalk meets concrete wall					
26 – SC2 – 78	1978 building exterior, west wall center, where sidewalk meets concrete wall					

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22 JAN 17 AM 8:52
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CINNAMINSON, NJ

Terracon

Bettendorf: 870 40th Ave., Bettendorf, IA
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Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 042200836
Select a Laboratory:

Lab Location: HQ - Cinnaminson, NJ 101048-0

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP[1] Classification	Notes/Physical Condition[2]
27 – WP1 – 79	1961 Building, 2nd floor mechanical room, SW corner of room on upper air handler unit	1961 Building	Vibration cloth – red woven canvas type material	4 Units	F C1 **C2**	G D **SD**
27 – WP1 – 80	1961 Building, 2nd floor mechanical room, NW corner of room on copper fan duct					
27 – WP1 – 81	1961 Building, 2nd floor mechanical room, NW corner on east side, on gray duct by wall					
7 – FP1 – 82	1905 Building basement, north room (B-6), east wall by mech. Room, by 2nd steel column	1905 Building, basement	Spray-on fireproofing – white thick, rough texture, popcorn style	3,000 SF	F C1 C2 **RACM**	G **D** SD
7 – FP1 – 83	1905 Building basement, north room (B-6), east wall, NE corner by end of duct work					
7 – FP1 – 84	1905 Building basement, north room (B-6), south wall, SW corner of B-6 by speaker					
– –					F C1 C2	G D SD
– –						
– –						
– –					F C1 C2	G D SD
– –						
– –						
– –					F C1 C2	G D SD
– –						
– –						
– –					F C1 C2	G D SD
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APPENDIX C

LICENSES

STEVEN MACK

DOB: 07-03-1970

Issued: 03-08-2021

This person is licensed to perform asbestos work in the State of Iowa. ID card is intended for official use only and must be present on jobsite.

License Type	Number	Expires
INSPECTOR	21-5930	01-28-2022

DIVISION OF IOWA LABOR

Asbestos

Rod A. Roberts

Rod A. Roberts
Labor Commissioner

May 20, 2021

James R Baxter Jr.
870 40th Avenue
Bettendorf, IA 52722

Dear James R Baxter Jr.

The department has reviewed the information you submitted and determined that you have met the requirements for certification in the state of Iowa as a Lead Inspector/Risk Assessor. Your certification number is: LEAD-INSP10101.

Your certification will expire on May 19, 2024. By that date, you must renew your certification in order to perform any lead professional certification activities. To renew your certification, you will need to have completed the appropriate refresher course. Refresher courses are valid if taken within 3-years from the date that you renew.

Please keep a copy of your certification on your person or in an easily retrievable area at the work site. If you submitted your application online or with a valid email address, the certification is being provided to you electronically. You may choose to either print these documents or have them available on your phone or other electronic device for display if requested.

You can find the certification requirements and work practice standards for all lead professionals in Iowa Administrative Code 641 - Chapter 70, which is at: http://www.idph.iowa.gov/LPP under "Resources". You **must** be currently certified to perform work that requires certification.

Bureau of Environmental Health Services
Lead Professional Certification
Phone: 800-972-2026
E-mail: Lead.Bureau@idph.iowa.gov

IOWA DEPARTMENT OF PUBLIC HEALTH

James R Baxter Jr.

Lead Inspector/Risk Assessor

Certification Number: LEAD-INSP10101

Expiration Date: May 19, 2024

APPENDIX D

PHOTO LOGS

Confirmed ACM Photo Log
Confirmed LBP Photo Log

Photo 1: View of 1905 Bldg. 1st floor, north room 2' x 2' ceiling tile (NC-01).

Photo 2: View of 1905 Bldg. 2nd floor, 9" x 9" floor tile, south restroom, beneath vinyl flooring (NC-04).

Photo 3: View of 1905 Bldg. 1st floor, 9" x 9" floor tile in main lobby, beneath underlayment (NC-16).

Photo 4: View of 1905 Bldg. Mag. Pipe insulation, basement landing of east stairwell (PC1-01).

Photo 5: View of 1905 Bldg. basement, mudded joint fitting with canvas wrap (PC2-04).

Photo 6: View of 1905 Bldg. basement, mudded joint fitting w/ canvas wrap on fiberglass pipe (PC3-07).

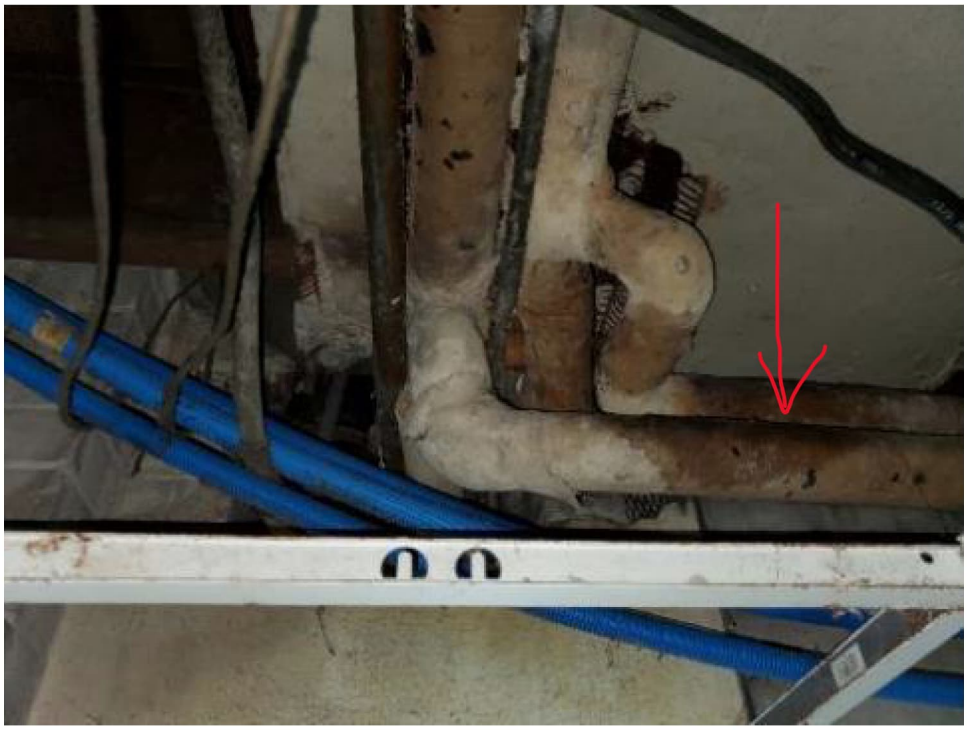


Photo 7: View of 1961 Bldg. 2nd floor gym, mudded fitting w/ canvas wrap on hard-wrap pipe (PC4-10).

Photo 8: View of 1905 Bldg. basement, 9" x 9" floor tile and mastic, southeast room, corner (PC5-13).

Photo 9: View of 1905 Bldg.1st floor, southeast room, 9" x 9" floor tile, (PC6-16).

Photo 10: View of 1905 Bldg.1st floor, storage room, 9" x 9" floor tile (PC7-19).

Photo 11: View of 1905 Bldg. 2nd floor, near the restrooms, 9" x 9" floor tile & mastic (PC8-22).

Photo 12: View of 1905 Bldg. 2nd floor, kitchen area, 9" x 9" floor tile (PC9-25).

Photo 13: View of Bldg. 1961 1st floor, main lobby, 12" x 12" floor tile & mastic (PC13-37).

Photo 14: View of 1905 Bldg. basement, 9" x 9" floor tile & mastic, southeast room, corner (PC14-40).

Photo 15: View of 1905 Bldg. basement, 9" x 9" floor tile, southeast room (PC15-43).

Photo 16: View of 1905 Bldg. 2nd floor north room, black caulk behind paneling walls (HA-1).

Photo 16: View of 1961 Bldg. exterior north wall, gray caulk on building exhaust (HA-15).

Photo 16: View of 1905 Bldg. exterior window caulk around window frames, gray (HA-15).

Photo 17: View of 1961 mezzanine mechanical room vibration cloth, white (HA-17).

Photo 18: View of 1961 Bldg. 2" x 2" cement board pegboard panels, gray (HA-22).

Photo 1: View of LBP plaster in main entrance area of building

Photo 2: View of LBP on glazed ceramic block in locker rooms

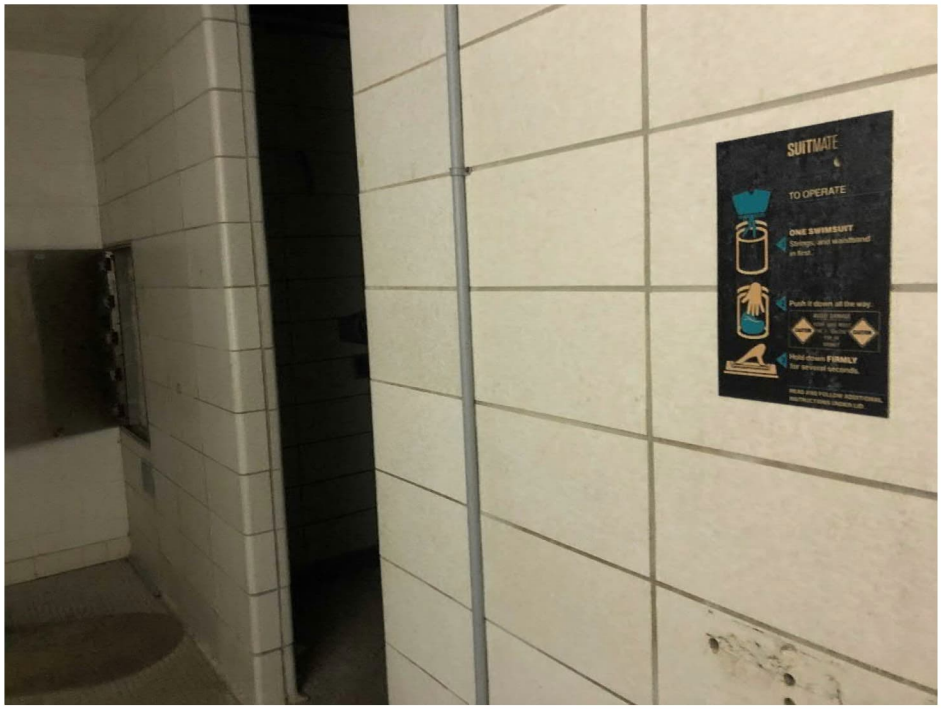


Photo 3: View of LBP on glazed ceramic block in locker rooms

Photo 4: View of LBP on glazed ceramic block in locker rooms

Photo 5: View of LBP on lockers

Photo 6: View of LBP on lockers

Photo 7: View of LBP on west wall of main lobby/entrance area

Photo 8: View of LBP on support poles in small gym

APPENDIX E

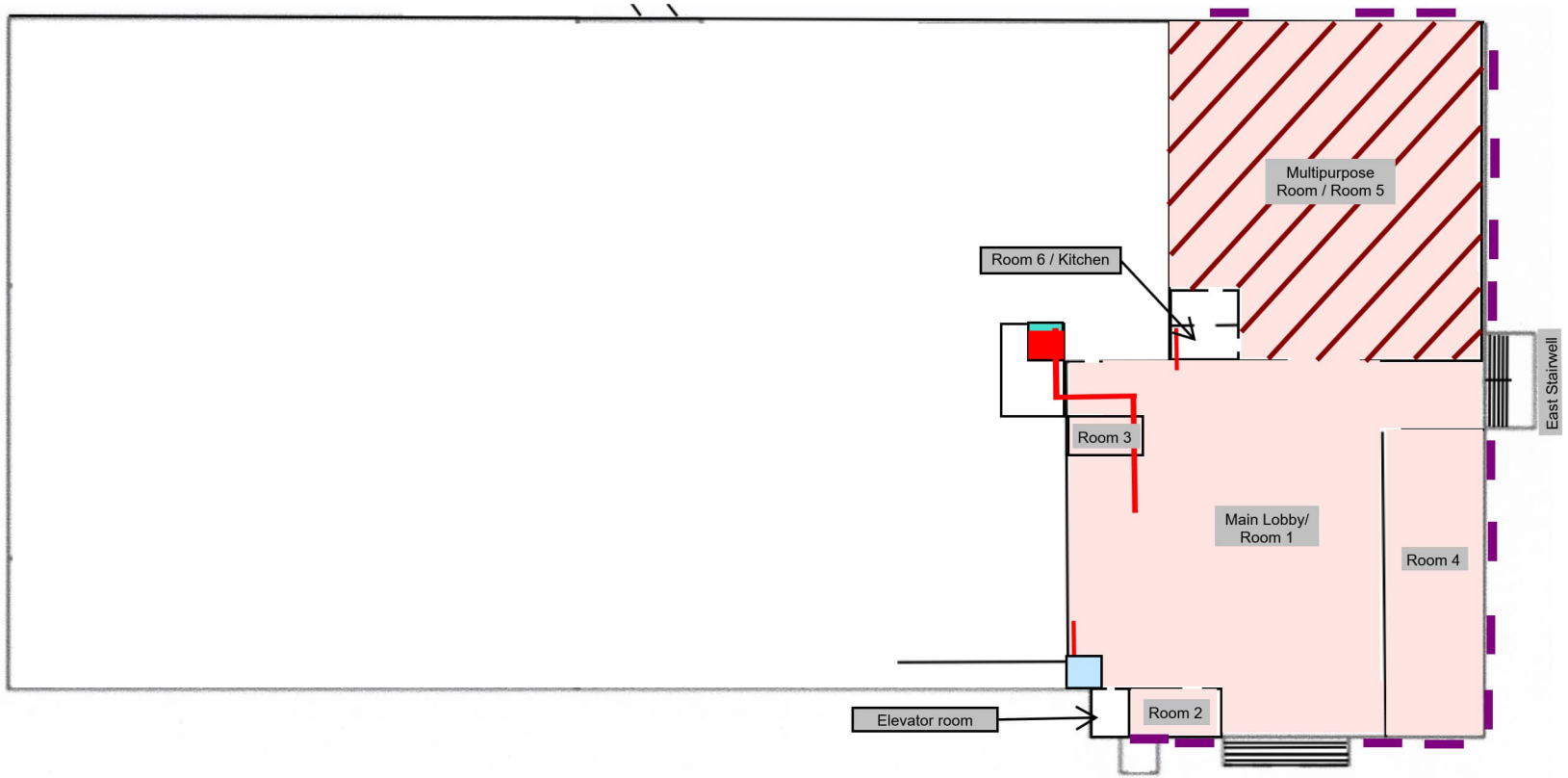
EXHIBITS

Asbestos Containing Materials Legend

- 9" x 9" Floor tile & mastic, beige with tan & brown spots (black mastic is < 1%)
  9" x 9" Floor tile & mastic, gray w/white specks (black mastic is < 1%)
  9" x 9" Floor tile & mastic, light tan (black mastic is < 1%)
- 12" x 12" Floor tile & mastic, white w/brown streaks
- 2' x 2' Ceiling tile, white , pinholes and slight texture
  Mudded joint fitting with canvas wrap
- Mudded joint fitting with canvas wrap/fiber glass
  Pipe insulation-layered paper with canvas wrap (hard-wrap)
- Vertical pipe chase
- Caulk, gray/white

Notes

1. These locations are approximate and should be utilized for information purposes.The abatement contractor should confirm all locations and quantities.
2. Due to the complexity of the piping system, not all TSI runs are shown; nor are all fittings. TSI pipe insulation may be located inside walls, ceilings, tunnels, and chases.
3. Demolition may be required to fully abate ACM materials. Due to the locations and multiply layers of resilient flooring and underlayment's, ACM flooring may be underneath existing walls that would require demolition to complete the abatement process. Flooring may extend under built-ins.
4. The ceiling tile encompass the entire area inside the dark red slash marks.



N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	JRB
Drawn by:	SMM
Checked by:	JRB
Approved by:	JRB
Project No.	07207086; T18
Scale:	N.T.S.
File Name:	Former YMCA
Date:	January 2022

Terracon
Consulting Engineers & Scientists
870 40th Avenue Bettendorf, Iowa 52722
PH. (563) 355-0702 FAX. (563) 355-4789

CONFIRMED ACM LOCATION MAP

1905 Building Main Level
Former YMCA – 480 South 3rd Street
Clinton, Iowa

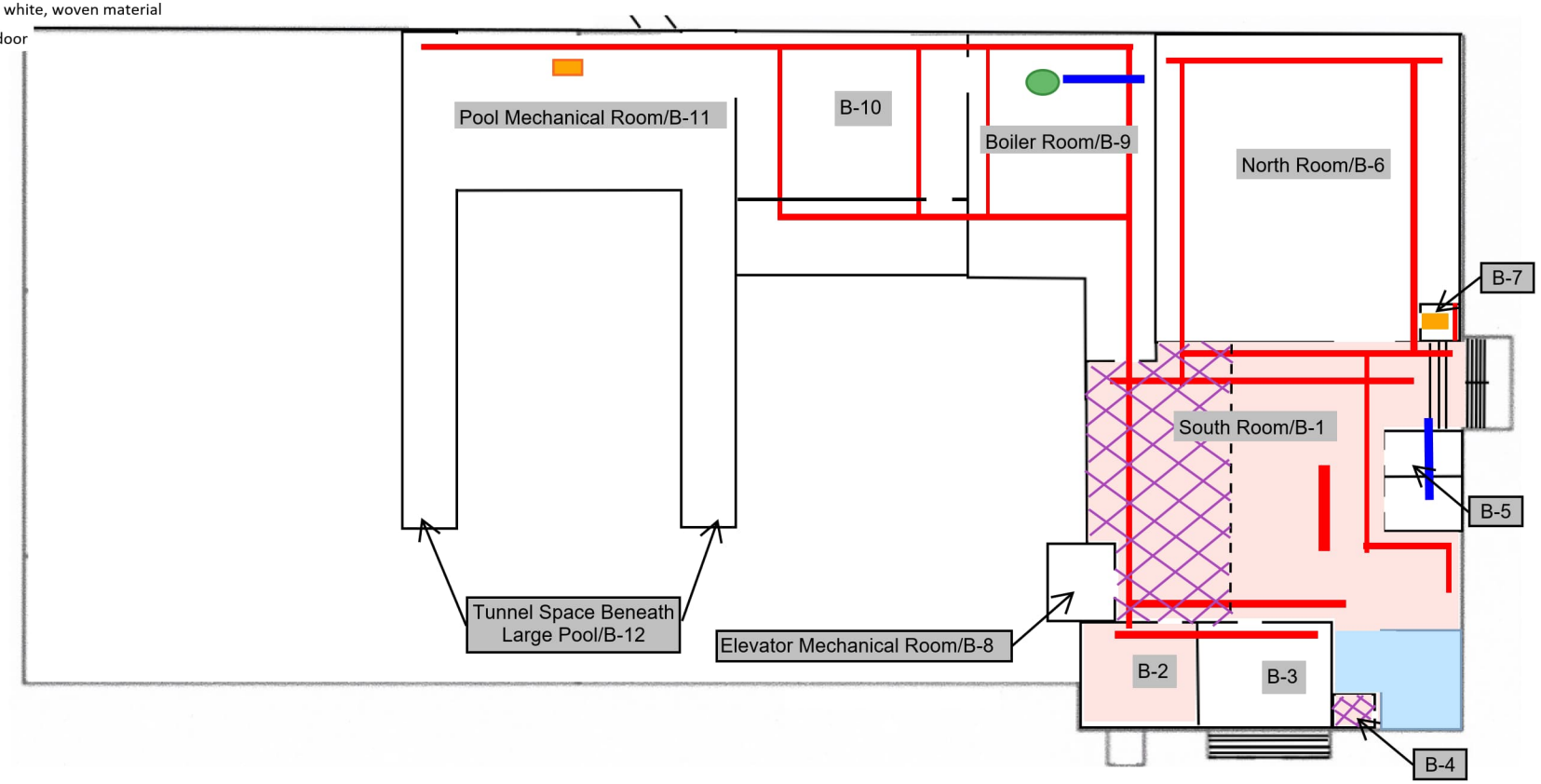
EXHIBIT 1

Asbestos Containing Materials Legend

- Mag pipe insulation, white with canvas wrap
- 9" x 9" Floor tile & mastic, red
- 9" x 9" Floor tile & mastic, brown
- 9" x 9" Floor tile & mastic, beige w/tan and brown spots (black mastic is < 1%)
- 9" x 9" Floor tile & mastic, beige w/streaks(black mastic is < 1%)
- Mudded joint fitting with canvas wrap
- Mudded joint fitting with canvas wrap/fiber glass
- Pipe insulation-layered paper with canvas wrap (hard-wrap)
- Cement board ceiling panels, gray, thin, smooth
- Vibration cloth, white, woven material
- Gasket, boiler door

Notes

1. These locations are approximate and should be utilized for information purposes.The abatement contractor should confirm all locations and quantities.
2. Due to the complexity of the piping system, not all TSI runs are shown; nor are all fittings. TSI pipe insulation may be located inside walls, ceilings, tunnels, and chases.
3. Demolition may be required to fully abate ACM materials. Due to the locations and multiply layers of resilient flooring and underlayment's, ACM flooring may be underneath existing walls that would require demolition to complete the abatement process. Flooring may extend under built-ins.
4. The cement board ceiling panels encompass the entire area inside the purple slash cross marks.



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CONFIRMED ACM LOCATION MAP

1905/1961 Basement/Boiler Rooms
Former YMCA – 480 South 3rd Street
Clinton, Iowa

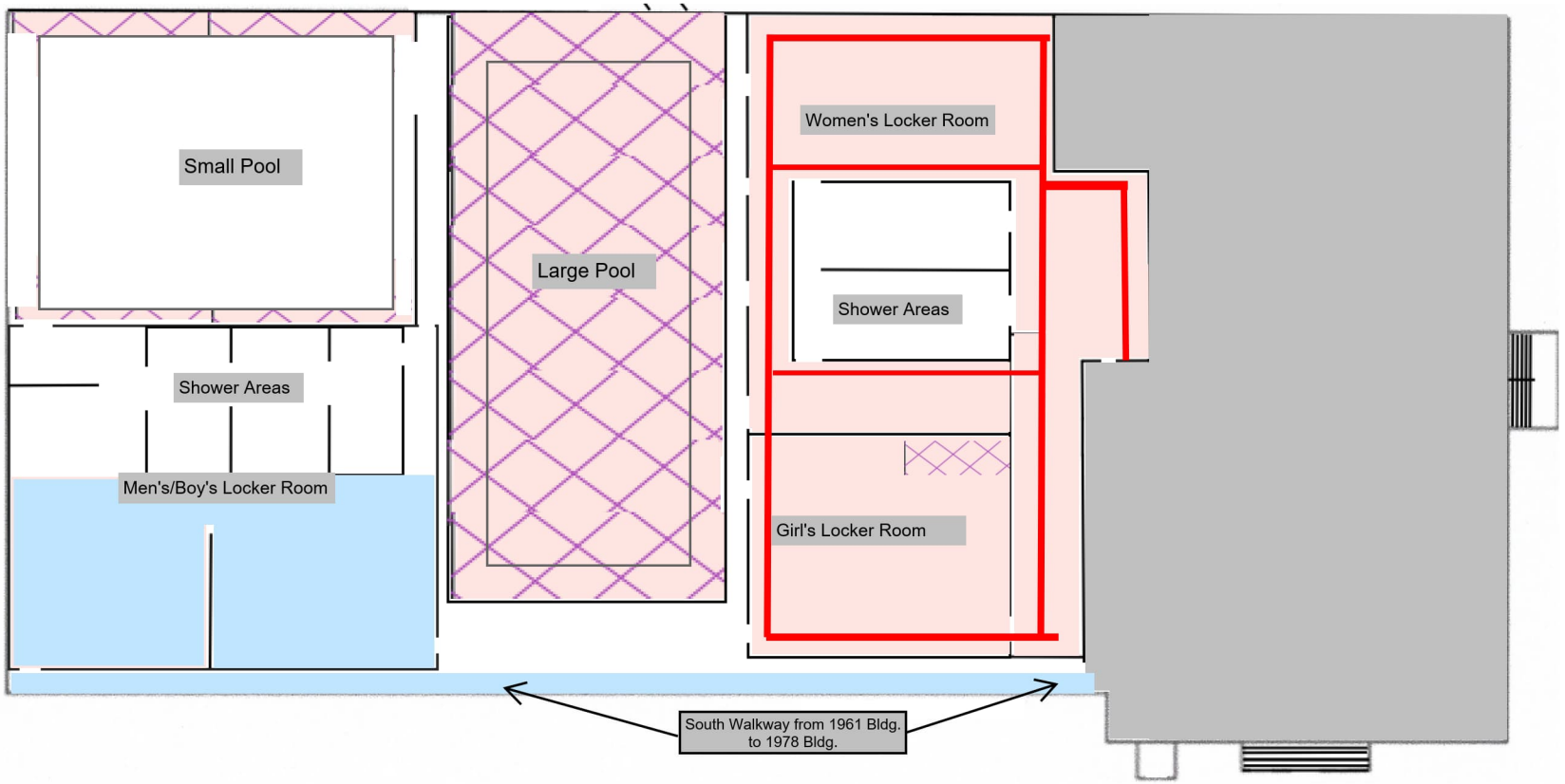
EXHIBIT 2

Asbestos Containing Materials Legend

- 9" x 9" Floor tile & mastic, beige w/tan and brown spots (black mastic is < 1%)
- 12" x 12" Floor tile & mastic, white w/brown streaks
- Mudded joint fitting with canvas wrap
- Mudded joint fitting with canvas wrap/fiber glass
- Pipe insulation-layered paper with canvas wrap (hard-wrap)
- Cement board ceiling panels, gray, thin, smooth

Notes

1. These locations are approximate and should be utilized for information purposes.The abatement contractor should confirm all locations and quantities.
2. Due to the complexity of the piping system, not all TSI runs are shown; nor are all fittings. TSI pipe insulation may be located inside walls, ceilings, tunnels, and chases.
3. Demolition may be required to fully abate ACM materials. Due to the locations and multiply layers of resilient flooring and underlayment's, ACM flooring may be underneath existing walls that would require demolition to complete the abatement process. Flooring may extend under built-ins.
4. The cement board ceiling panels encompass the entire area inside the purple slash cross marks.



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CONFIRMED ACM LOCATION MAP

1961/1978 Sub-Level (Locker Rooms and Pools)
Former YMCA – 480 South 3rd Street
Clinton, Iowa

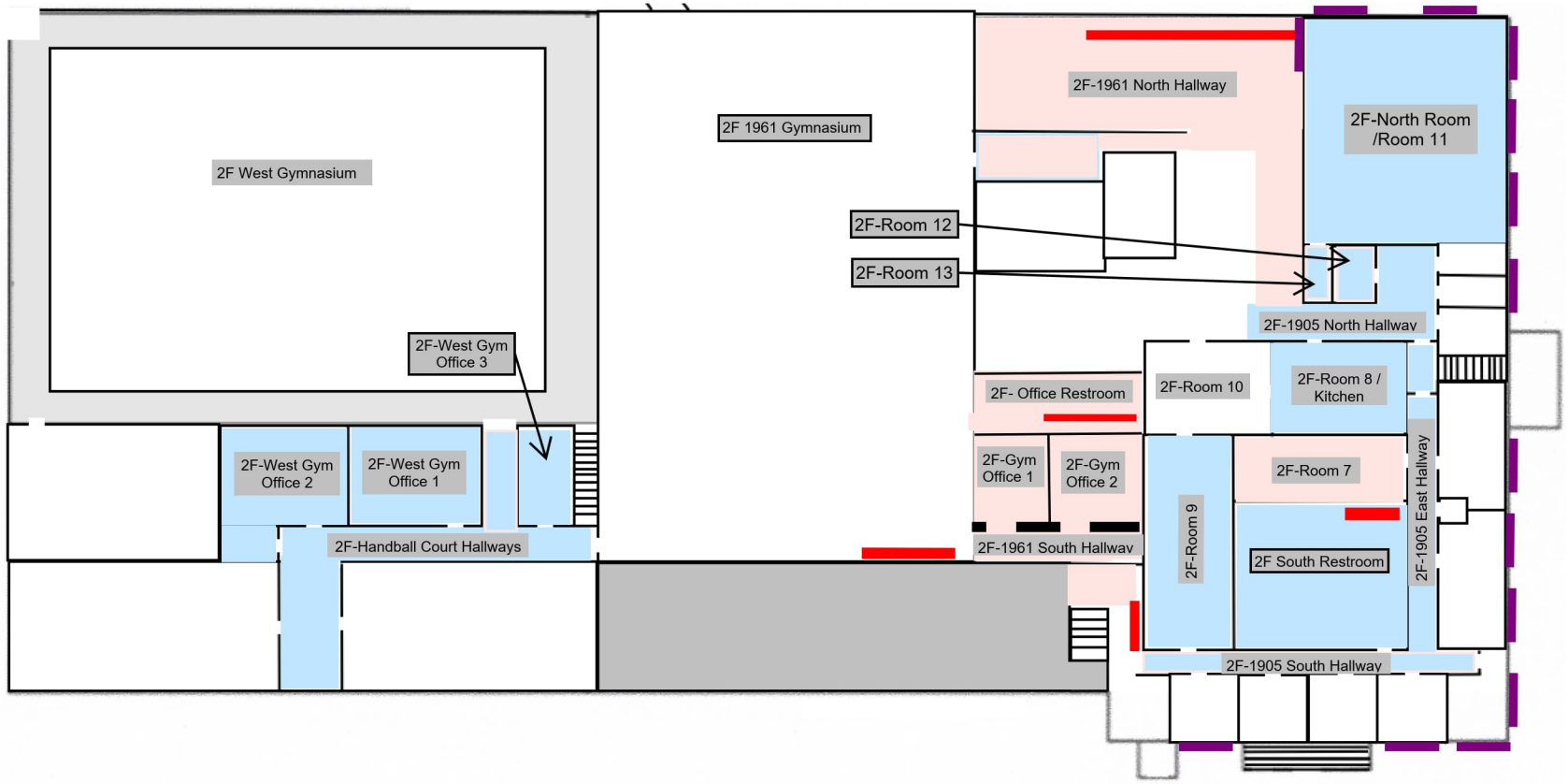
EXHIBIT 3

Asbestos Containing Materials Legend

- Mudded joint fitting with canvas wrap
- Mudded joint fitting with canvas wrap/fiber glass
- Pipe insulation-layered paper with canvas wrap (hard-wrap)
- 9" x 9" Floor tile & mastic, red
- 9" x 9" Floor tile & mastic, brown
- 9" x 9" Floor tile & mastic, beige with brown & white streaks
- 12" x 12" Floor tile & mastic, white w/brown streaks
- 9" x 9" Floor tile, beige with tan & brown spots (black mastic is < 1%)
- 9" x 9" Floor tile, beige with streaks (black mastic is < 1%)
- Caulk, gray

Notes

1. These locations are approximate and should be utilized for information purposes.The abatement contractor should confirm all locations and quantities.
2. Due to the complexity of the piping system, not all TSI runs are shown; nor are all fittings. TSI pipe insulation may be located inside walls, ceilings, tunnels, and chases.
3. Demolition may be required to fully abate ACM materials. Due to the locations and multiply layers of resilient flooring and underlayment's, ACM flooring may be underneath existing walls that would require demolition to complete the abatement process. Flooring may extend under built-ins.
5. The approximate location of exterior window caulk is indetified with purple lines.



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CONFIRMED ACM LOCATION MAP

1905/1961/1978 Second Floor
Former YMCA – 480 South 3rd Street
Clinton, Iowa

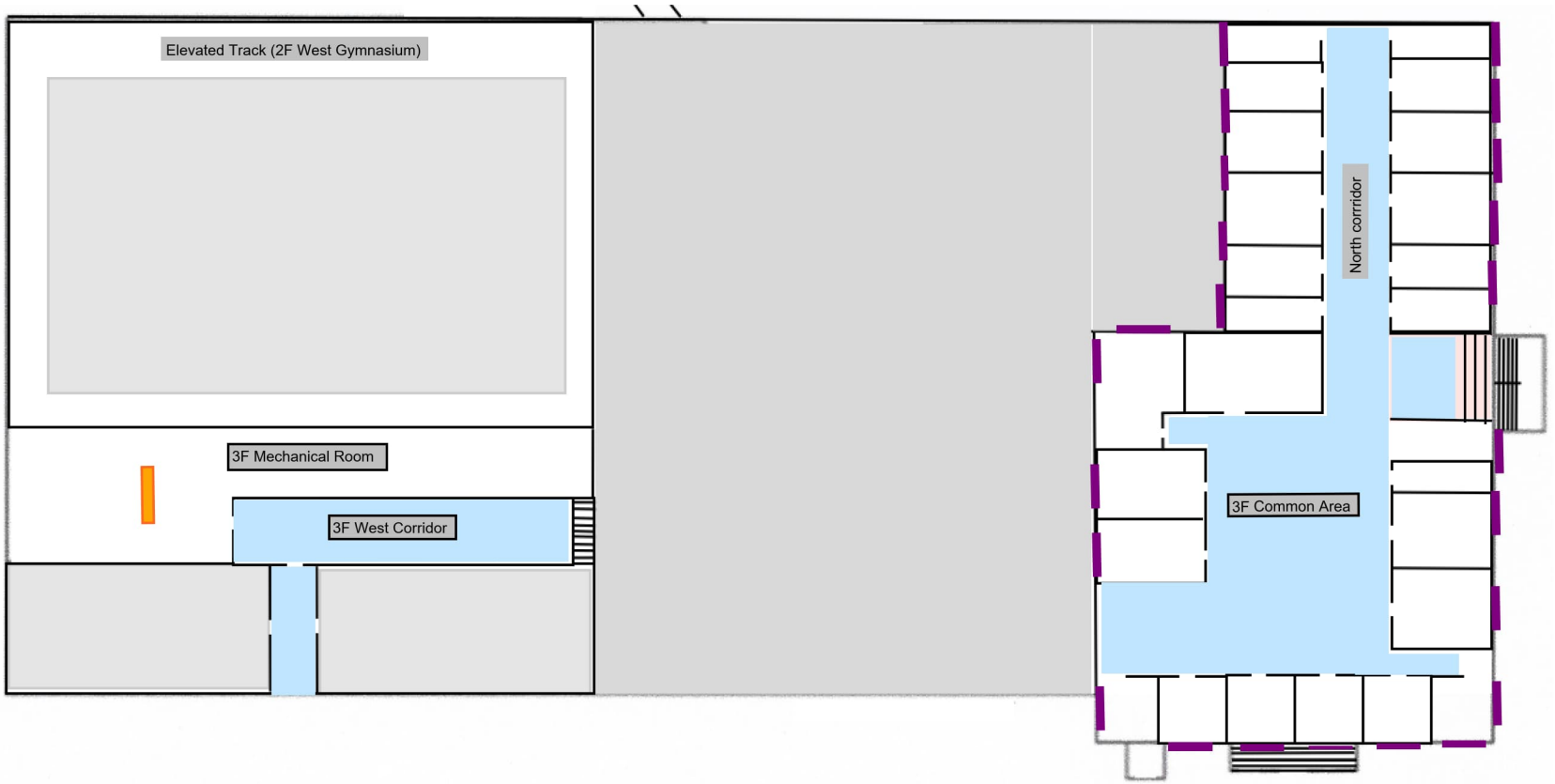
EXHIBIT 4

Asbestos Containing Materials Legend

- 9” x 9” Floor tile & mastic, beige with brown & white streaks
  12" x 12" Floor tile & mastic, white w/brown streaks
- 9” x 9” Floor tile, beige with streaks (black mastic is < 1%)
- Caulk, gray
- Vibration cloth, white, woven material

Notes

1. These locations are approximate and should be utilized for information purposes.The abatement contractor should confirm all locations and quantities.
2. Due to the complexity of the piping system, not all TSI runs are shown; nor are all fittings. TSI pipe insulation may be located inside walls, ceilings, tunnels, and chases.
3. Demolition may be required to fully abate ACM materials. Due to the locations and multiply layers of resilient flooring and underlayment's, ACM flooring may be underneath existing walls that would require demolition to complete the abatement process. Flooring may extend under built-ins.



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Project No.	07207086; T18
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File Name:	Former YMCA
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CONFIRMED ACM LOCATION MAP

1905/1978 Buildings, 3rd Floor
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 5

Asbestos Containing Materials Legend

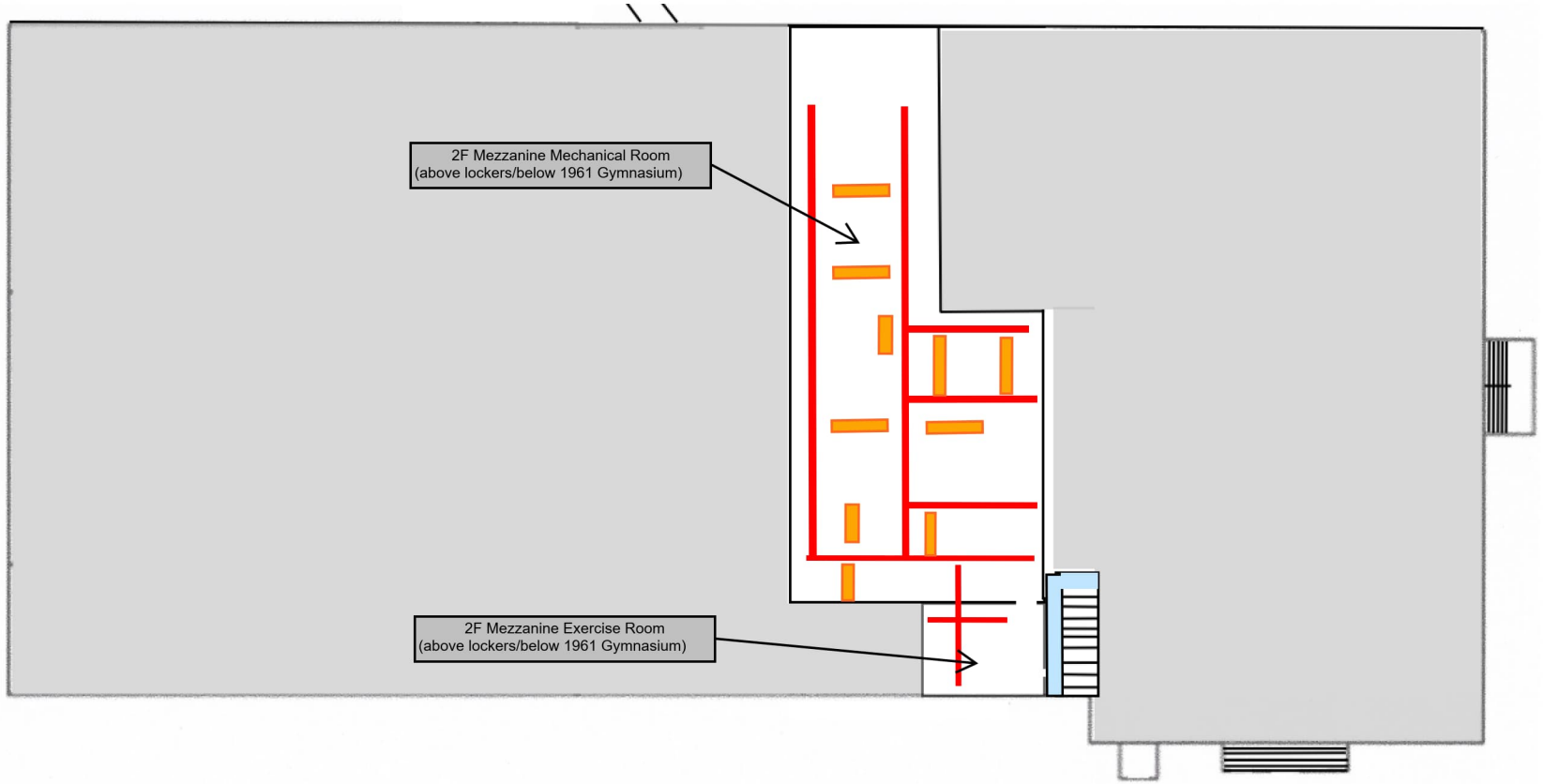
Mudded joint fitting with canvas wrap
- Mudded joint fitting with canvas wrap/fiber glass
Pipe insulation-layered paper with canvas wrap (hard-wrap)

- Vibration cloth, white, woven material

- 9" x 9" Floor tile & mastic, beige with tan & brown spots (black mastic is negative)

Notes

1. These locations are approximate and should be utilized for information purposes.The abatement contractor should confirm all locations and quantities.
2. Due to the complexity of the piping system, not all TSI runs are shown; nor are all fittings. TSI pipe insulation may be located inside walls, ceilings, tunnels, and chases.
3. Demolition may be required to fully abate ACM materials. Due to the locations and multiply layers of resilient flooring and underlayment's, ACM flooring may be underneath existing walls that would require demolition to complete the abatement process. Flooring may extend under built-ins.
4. The approximate locations of vibration cloth are identified by orange hash marks.



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CONFIRMED ACM LOCATION MAP

1961 Building Mezzanine Mechanical Room
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 6

Asbestos Containing Materials Legend

- Built-up roof, under new vinyl sheet roofing (results from EMS report)

Notes

1. These locations are approximate and should be utilized for information purposes.The abatement contractor should confirm all locations and quantities.
2. Due to safety issues and inaccessability, not all roof elevations were sampled. Unsampled materials must be assumed to be asbestos-containing.

N

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Project Manager:	JRB
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Approved by:	JRB
Project No.	07207086; T18
Scale:	N.T.S.
File Name:	Former YMCA
Date:	January 2022

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CONFIRMED ACM LOCATION MAP

Building Roof
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT

7

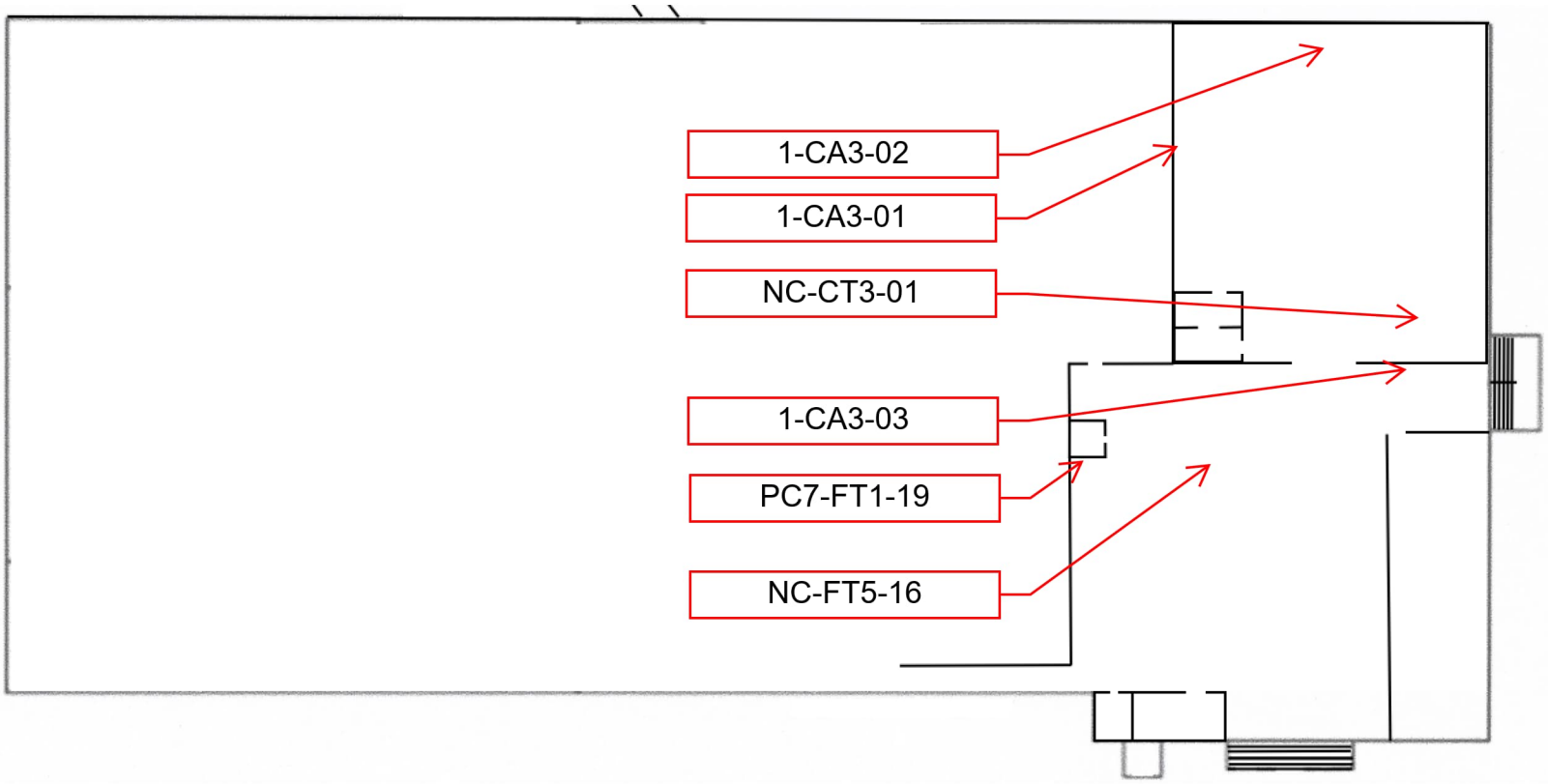
ACM Sample Locations Legend

XX-XXX-XX – Terracon sample numbers

→ – Approximate sample locations

Notes

1. These locations are Terracon sample locations only. Map does not include Samples from other reports.
2. These locations are approximate and should be utilized for information purposes. The abatement contractor should confirm all locations and quantities.



N

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Scale:	N.T.S.
File Name:	Former YMCA
Date:	January 2022

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Consulting Engineers & Scientists
870 40th Avenue Bettendorf, Iowa 52722
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ACM SAMPLE LOCATION MAP

1905 Building Main Level
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 8

ACM Sample Locations Legend

XX-XXX-XX – Terracon sample numbers

→ – Approximate sample locations

Notes

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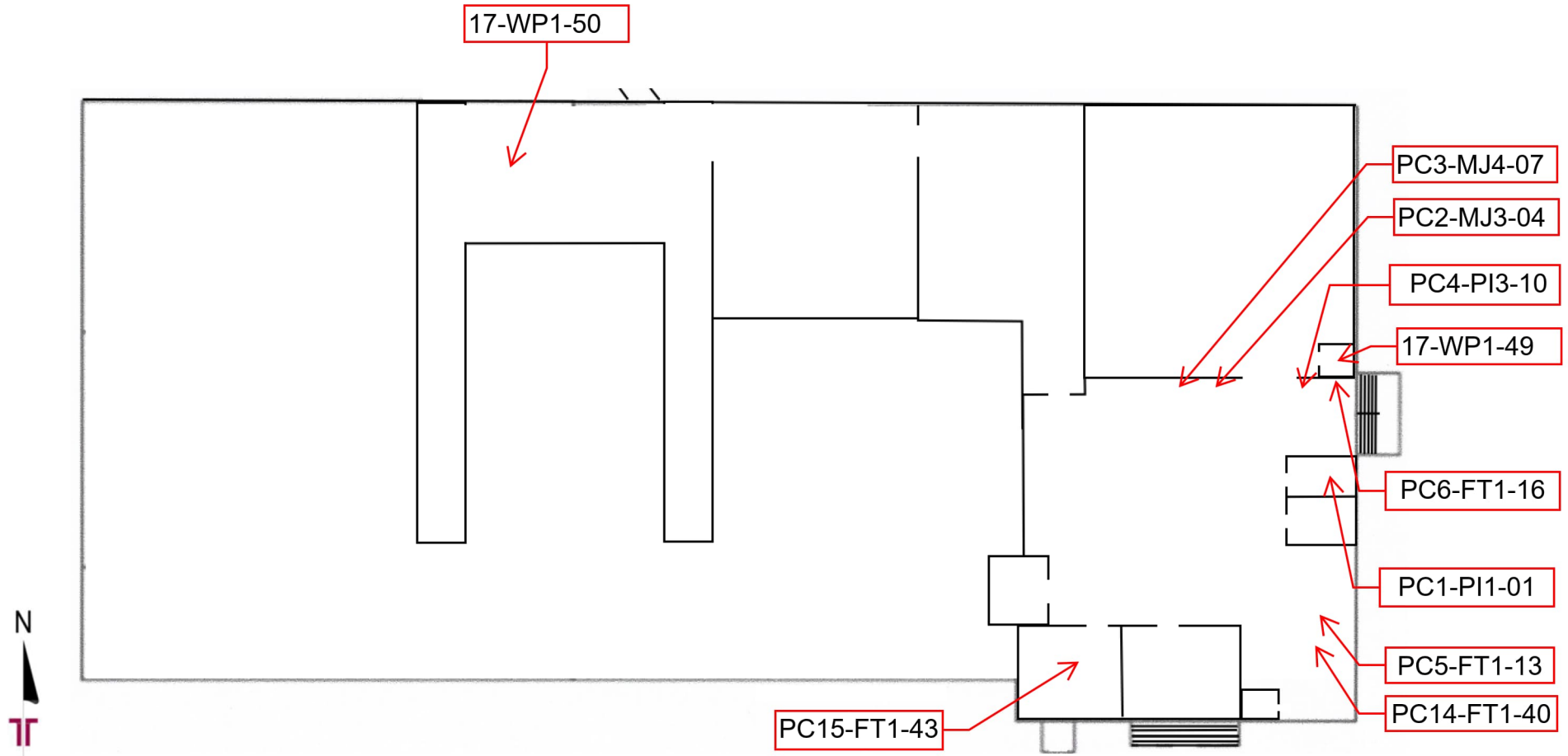
2. These locations are approximate and should be utilized for information purposes. The abatement contractor should confirm all locations and quantities.



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Project No.	07207086; T18
Scale:	N.T.S.
File Name:	Former YMCA
Date:	January 2022

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870 40th Avenue Bettendorf, Iowa 52722
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ACM SAMPLE LOCATION MAP

1905/1961 Basement/Boiler Rooms
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 9

ACM Sample Locations Legend

XX-XXX-XX – Terracon sample numbers

→ – Approximate sample locations

Notes

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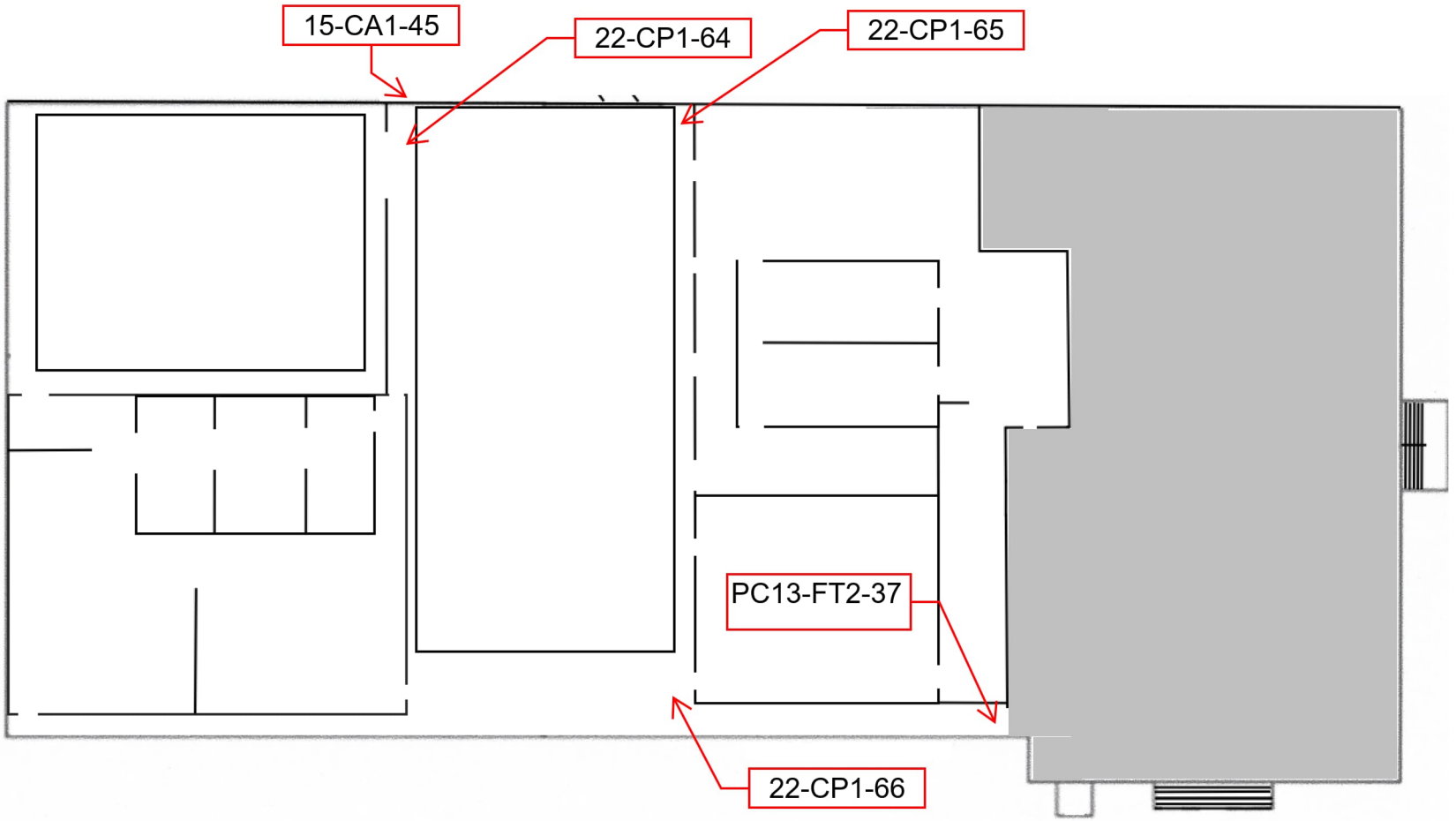

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ACM SAMPLE LOCATION MAP

1961/1978 Sub-Level (Locker Rooms and Pools)
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 10

ACM Sample Locations Legend

XX-XXX-XX – Terracon sample numbers

→ – Approximate sample locations

Notes

1. These locations are Terracon sample locations only. Map does not include Samples from other reports.
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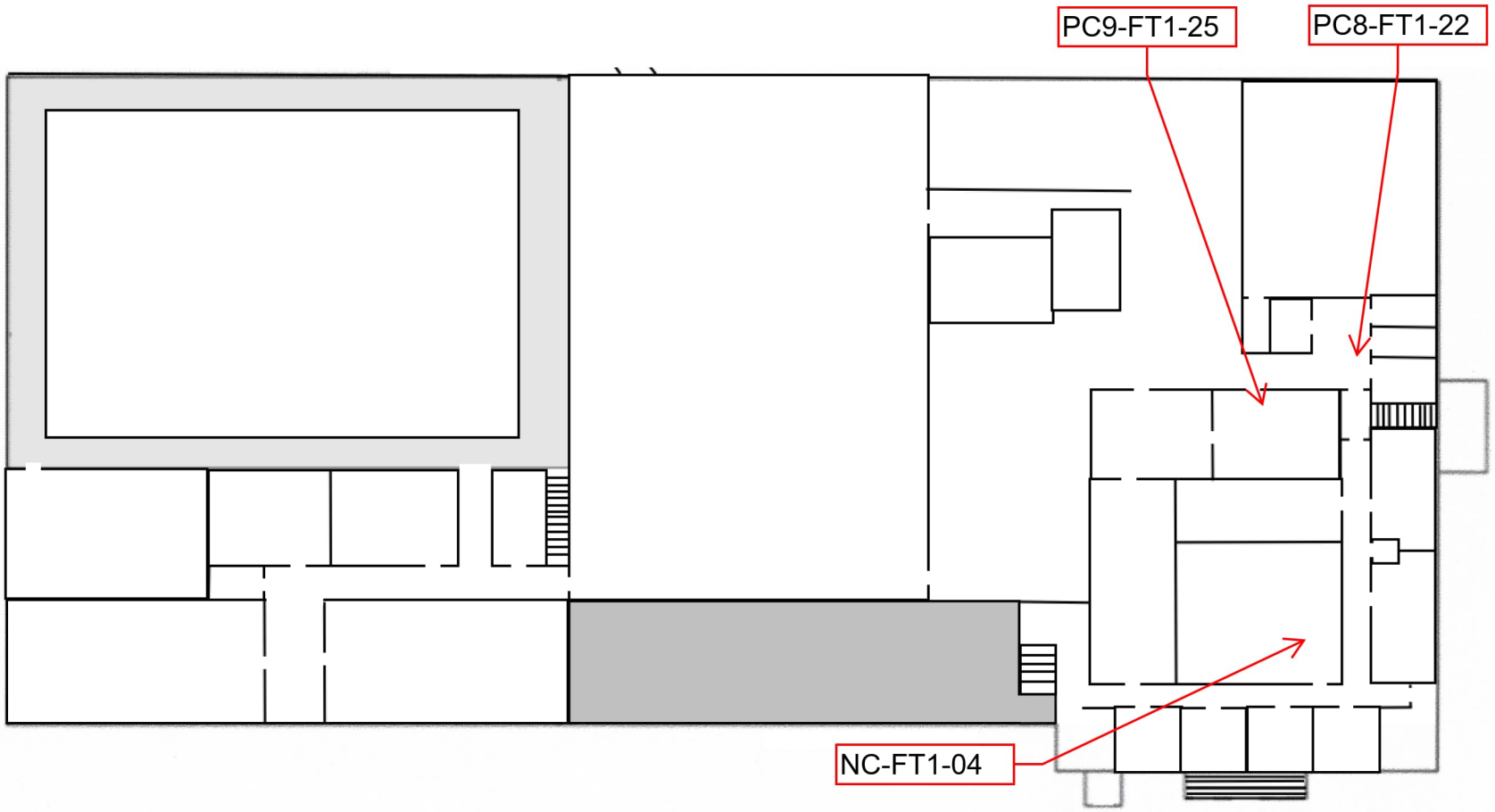

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870 40th Avenue Bettendorf, Iowa 52722
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ACM SAMPLE LOCATION MAP

1905/1961/1978 Second Floor
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 11

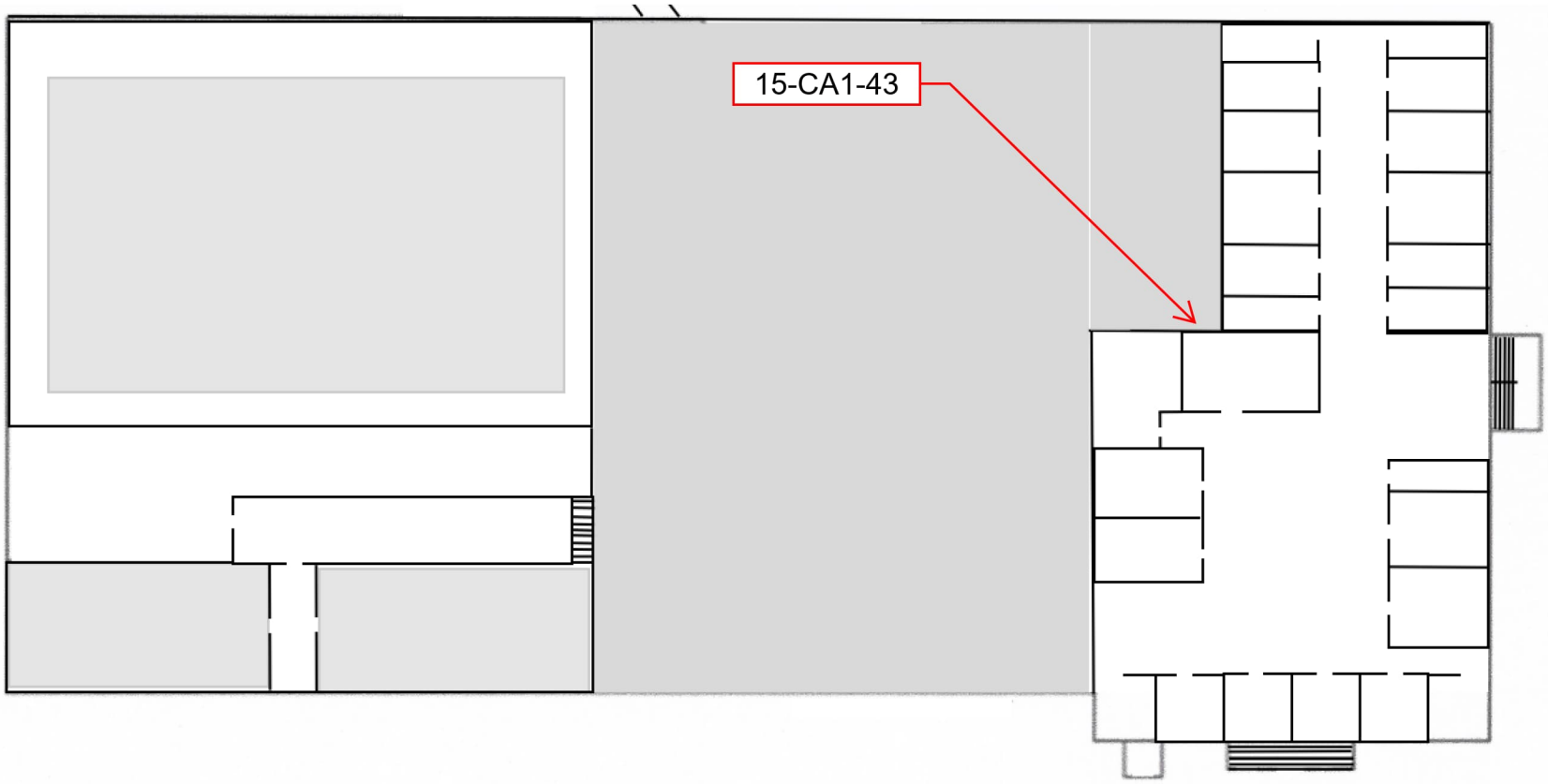
ACM Sample Locations Legend

XX-XXX-XX – Terracon sample numbers

→ – Approximate sample locations

Notes

1. These locations are Terracon sample locations only. Map does not include Samples from other reports.
2. These locations are approximate and should be utilized for information purposes. The abatement contractor should confirm all locations and quantities.



N

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ACM SAMPLE LOCATION MAP

1905/1978 Buildings, 3rd Floor
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 12

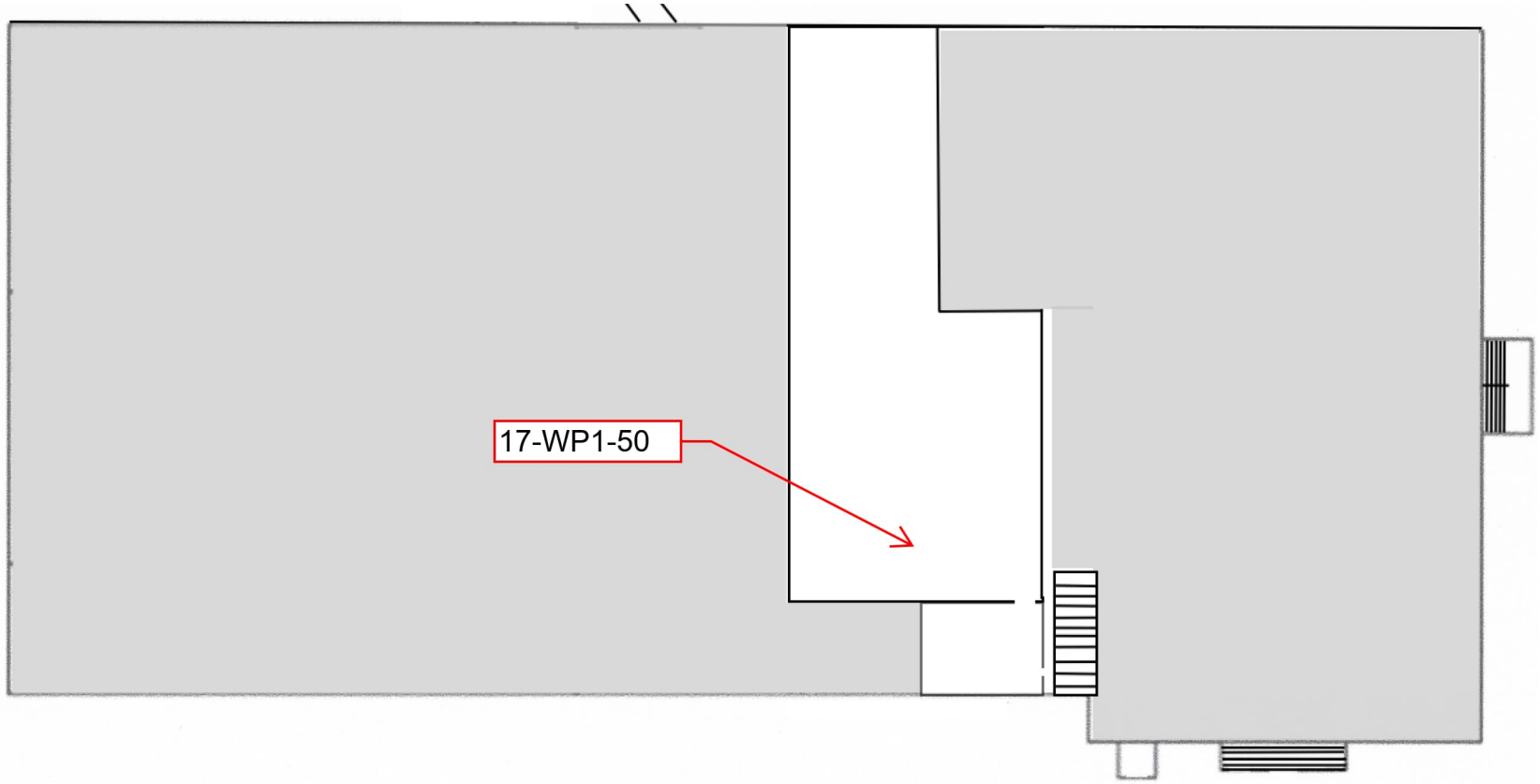
ACM Sample Locations Legend

XX-XXX-XX – Terracon sample numbers

→ – Approximate sample locations

Notes

1. These locations are Terracon sample locations only. Map does not include Samples from other reports.
2. These locations are approximate and should be utilized for information purposes. The abatement contractor should confirm all locations and quantities.



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ACM SAMPLE LOCATION MAP

1961 Building Mezzanine Mechanical Room
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 13

ACM Sample Locations Legend

– EMS general sample locations

Notes

1. These locations are Terracon sample locations only. Map does not include Samples from other reports.
2. These general locations are approximate to the EMS report, and should be utilized for information purposes. The abatement contractor should confirm all locations and quantities.

N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	JRB
Drawn by:	SMM
Checked by:	JRB
Approved by:	JRB

Project No.	07207086; T18
Scale:	N.T.S.
File Name:	Former YMCA
Date:	January 2022

Terracon
Consulting Engineers & Scientists
870 40th Avenue Bettendorf, Iowa 52722
PH. (563) 355-0702 FAX. (563) 355-4789

ACM SAMPLE LOCATION MAP

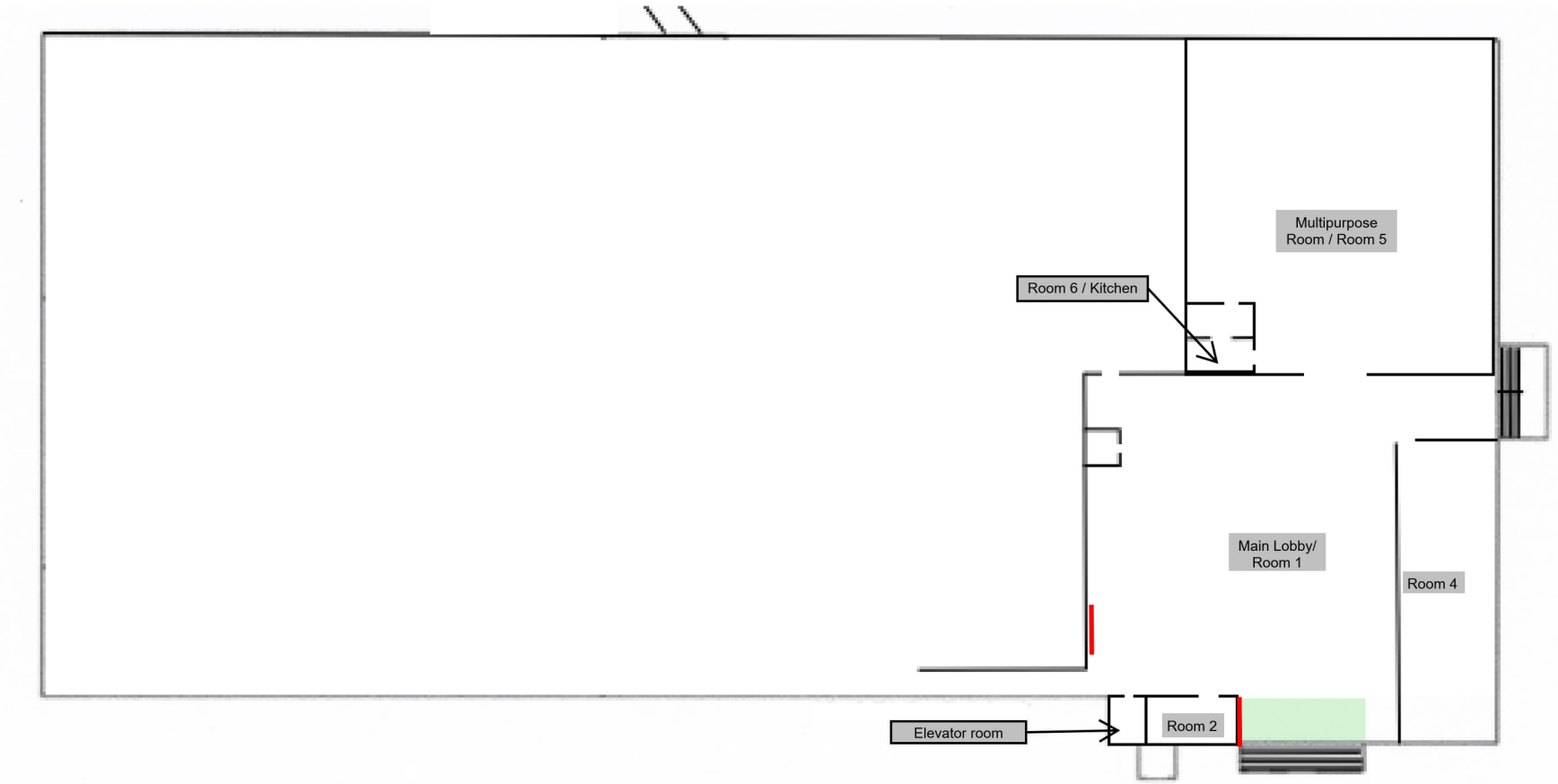
Building Roof
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT

14

Approximate location of LBP on plaster ceiling in entryway

Approximate location/assumed extent of LBP on plaster/drywall in entryway/main lobby area



N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	JRB
Drawn by:	SMM
Checked by:	JRB
Approved by:	JRB

Project No.	07207086; T18
Scale:	N.T.S.
File Name:	Former YMCA
Date:	January 2022

Terracon
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CONFIRMED LBP LOCATION MAP

1905 Building Main Level
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT

15

Approximate extent/location of LBP glazing on ceramic block walls. Block walls extend floor to ceiling throughout the majority of the locker room areas, and generally include pipe chases as well behind the shower areas

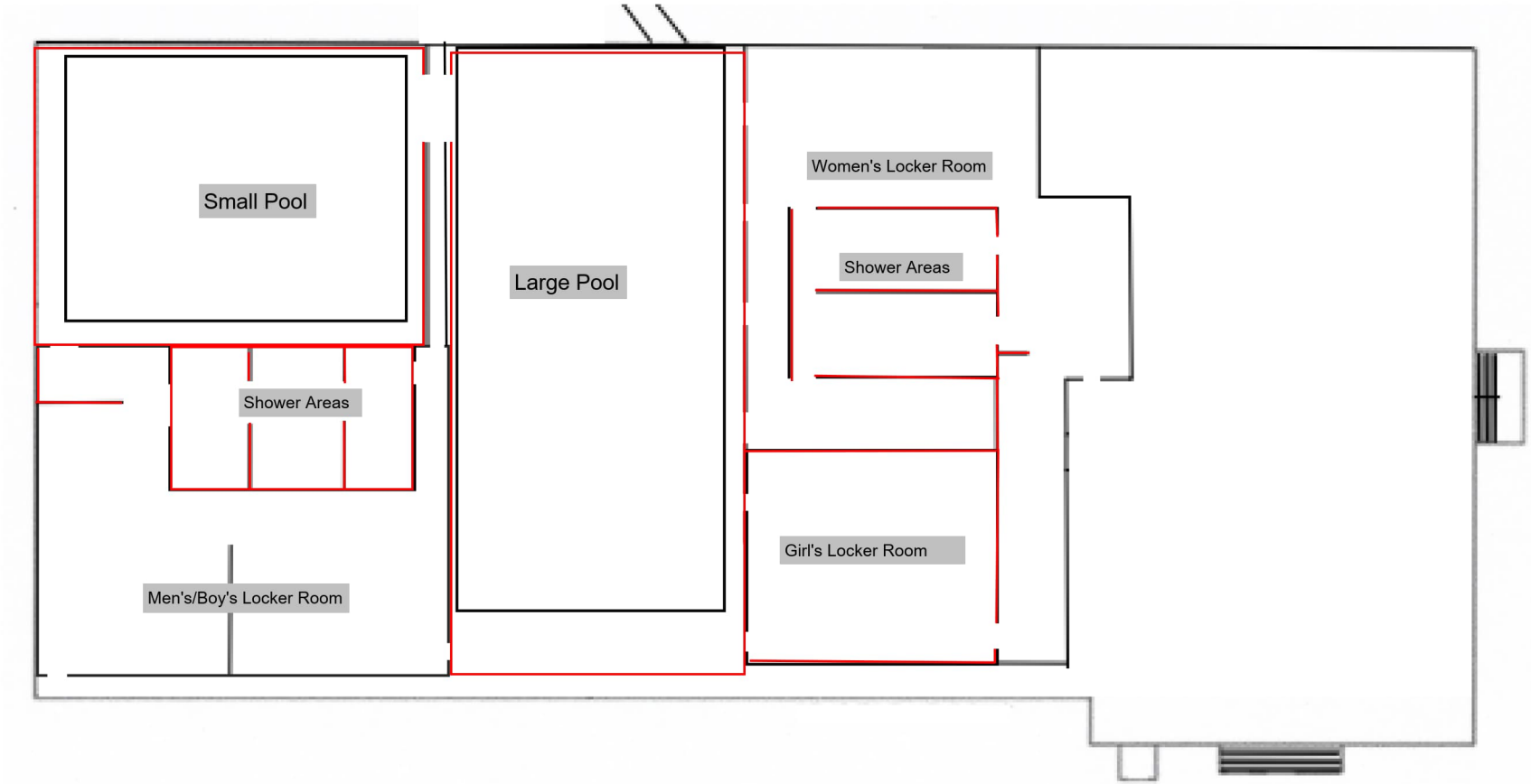

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	JRB
Drawn by:	SMM
Checked by:	JRB
Approved by:	JRB

Project No.	07207086; T18
Scale:	N.T.S.
File Name:	Former YMCA
Date:	January 2022

Terracon
Consulting Engineers & Scientists
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PH. (563) 355-0702 FAX. (563) 355-4789

CONFIRMED LBP LOCATION MAP

1961/1978 Sub-Level (Locker Rooms and Pools)
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 16

Approximate location of the four LBP support poles on the second floor of the 1905 building

Extent of LBP glazing on ceramic block walls in gymnasium; block walls extend approxiamtely 6 feet up from the floor.

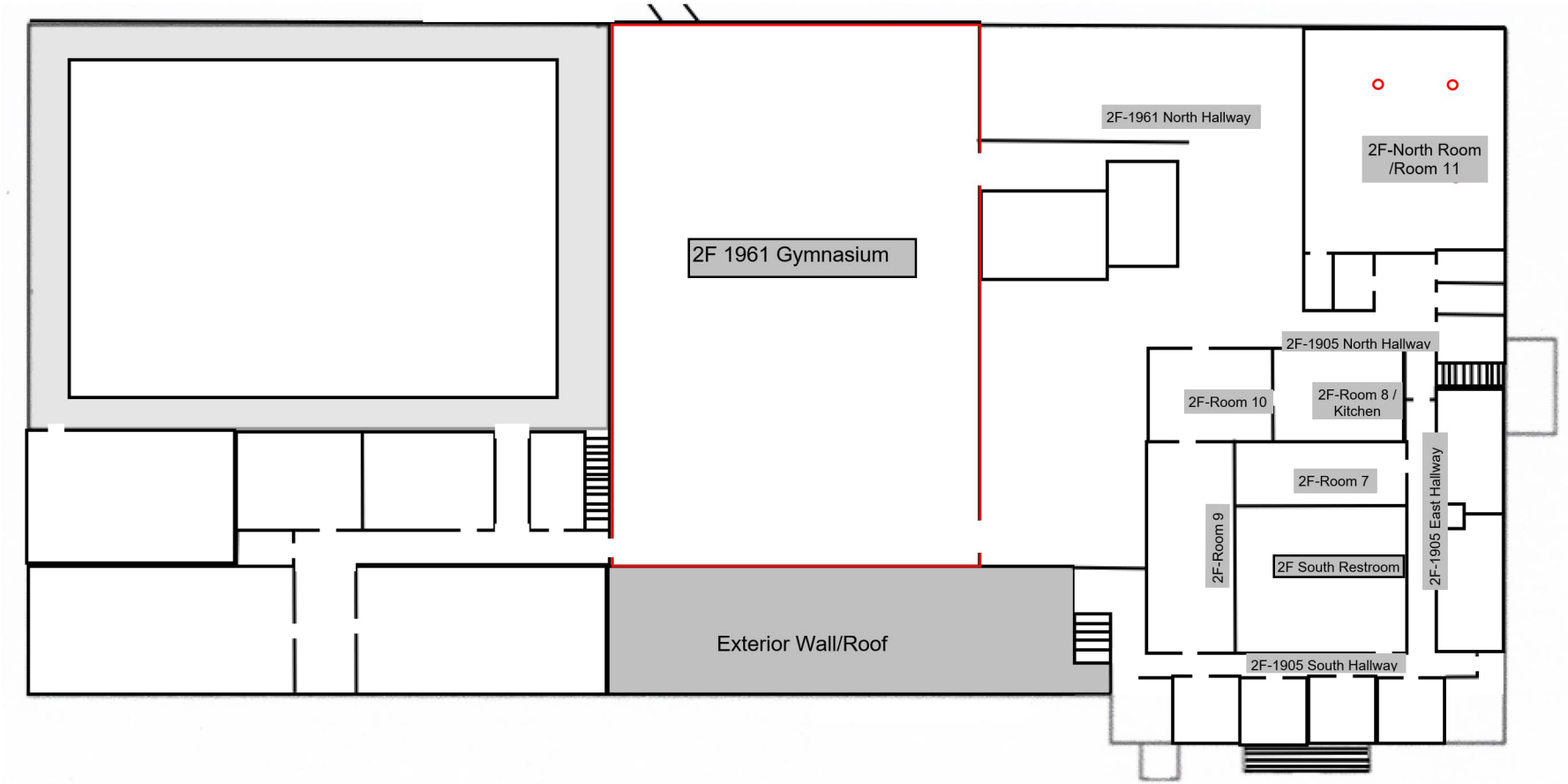

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	JRB
Drawn by:	SMM
Checked by:	JRB
Approved by:	JRB
Project No.	07207086; T18
Scale:	N.T.S.
File Name:	Former YMCA
Date:	January 2022

Terracon
Consulting Engineers & Scientists
870 40th Avenue Bettendorf, Iowa 52722
PH. (563) 355-0702 FAX. (563) 355-4789

CONFIRMED LBP LOCATION MAP

1905/1961/1978 Second Floor
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 17

APPENDIX E

PREVIOUS INSPECTION REPORT

Asbestos Inspection Report

SUBMITTED TO:
City of Clinton
P. O. Box 2958
Clinton, IA 52733-2958

Asbestos Inspection

LOCATION:
Former YMCA
480 South 3rd Street
Clinton, IA 52732

Prepared By:

Environmental Management Services of Iowa, Inc.
5170 Wolff Road, #2
Dubuque, IA 52002-2563
(563) 583-0808

Environmental Management Services of Iowa, Inc. - 5170 Wolff Road, #2 - Dubuque, IA 52002-2563 - (563) 583-0808

ASBESTOS CONTAINING MATERIALS INSPECTION SUMMARY

CLIENT: City of Clinton, P. O. Box 2958, Clinton, IA 52733-2958

Building Size: 81,000 sq. ft.

# of Floors: 4

BUILDING INSPECTED: Former YMCA, 480 South 3rd Street, Clinton, IA 52732

Year Constructed: 1905, 1961, 1978

INSPECTOR: Jeff Stahr

DATE INSPECTED: 02/18/2021, 02/22/2021 - 02/24/2021, 03/02/2021

Inspection Comments:

An asbestos inspection was performed to identify potentially friable and non-friable asbestos containing materials.

The following asbestos materials were identified:

SECTION	ROOM(S)/LOCATION	DESCRIPTION OF ASBESTOS MATERIAL	AMOUNT	UNIT OF MEASUREMENT	TYPE OF ASBESTOS	% OF ASBESTOS	FRIABLE OR NON-FRIABLE
1905 Building							
Basement	Southeast Room	9" X 9" floor tile (red and brown) and mastic	378	sq. ft.	Chrysotile	Floor Tile=3%, Mastic=3%	Non-friable
Basement	South Restroom	cement board wall panels	36	sq. ft.	Chrysotile	25%	Non-friable
Basement	South Restroom	mudded joint fittings (on fiberglass insulation)	1	MJF	Chrysotile	5%	Friable
Basement	Southwest Room	9" X 9" floor tile (red and brown) (under carpet)	272	sq. ft.	Chrysotile	Floor Tile=3%, Mastic=3%	Non-friable
Basement	Southwest Room	mudded joint fittings (on fiberglass insulation)	1	MJF	Chrysotile	3%	Friable
Basement	South Main Room	9" X 9" floor tile (beige with tan and brown spots)	2,300	sq. ft.	Chrysotile	2%	Non-friable
Basement	South Main Room	cement board ceiling panels	1,340	sq. ft.	Chrysotile	25%	Non-friable
Basement	South Main Room	mudded joint fittings (on fiberglass insulation)	53	MJFs	Chrysotile	3%	Friable
Basement	South Main Room	woolsfelt pipe insulation	221	ln. ft.	Chrysotile	2%-3%	Friable
Basement	South Main Room	mudded joint fittings (on woolsfelt pipe insulation)	38	MJFs	Amosite, Chrysotile	2%-5%, 5%-10%	Friable
Basement	Closet (by Tunnel)	mudded joint fittings (on woolsfelt pipe insulation)	2	MJFs	Amosite, Chrysotile	2%-5%, 5%-10%	Friable
Basement	Closet (by Tunnel)	woolsfelt pipe insulation	12	ln. ft.	Chrysotile	2%-3%	Friable
Basement	Closet (by Tunnel)	mudded joint fittings (on fiberglass insulation)	3	MJFs	Chrysotile	3%	Friable
Basement	Small Office	magnesia pipe insulation	7	ln. ft.	Chrysotile	2%	Friable
Basement	Small Office	mudded joint fittings (on fiberglass insulation)	2	MJFs	Chrysotile	3%	Friable
Basement	East Stairs	magnesia pipe insulation	1	ln. ft.	Chrysotile	2%	Friable
Basement	East Stairs	woolsfelt pipe insulation	7	ln. ft.	Chrysotile	2%-3%	Friable
Basement	East Stairs	9" X 9" floor tile (beige with tan and brown spots)	28	sq. ft.	Chrysotile	2%	Non-friable
Basement	North Room	mudded joint fittings (on fiberglass insulation)	50	MJFs	Chrysotile	3%	Friable
Basement	Mechanical Room	vibration dampener cloth	2	dampeners	Chrysotile	50%	Friable
Basement	Mechanical Room	mudded joint fittings (on fiberglass insulation)	5	MJFs	Chrysotile	3%	Friable
Basement	Tunnel (to Boiler Room)	mudded joint fittings (on fiberglass insulation)	3	MJFs	Chrysotile	3%	Friable
Basement	Boiler Room	mudded joint fittings (on fiberglass insulation)	45	MJFs	Chrysotile	3%	Friable

*** Amounts of material are approximations. Contractors are responsible for verifying measurements.**

ASBESTOS CONTAINING MATERIALS INSPECTION SUMMARY

CLIENT: City of Clinton, P. O. Box 2958, Clinton, IA 52733-2958

Building Size: 81,000 sq. ft.
# of Floors: 4

BUILDING INSPECTED: Former YMCA, 480 South 3rd Street, Clinton, IA 52732

Year Constructed: 1905, 1961, 1978

INSPECTOR: Jeff Stahr

DATE INSPECTED: 02/18/2021, 02/22/2021 - 02/24/2021, 03/02/2021

Inspection Comments:

An asbestos inspection was performed to identify potentially friable and non-friable asbestos containing materials.

The following asbestos materials were identified:

SECTION	ROOM(S)/LOCATION	DESCRIPTION OF ASBESTOS MATERIAL	AMOUNT	UNIT OF MEASUREMENT	TYPE OF ASBESTOS	% OF ASBESTOS	FRIABLE OR NON-FRIABLE
Basement	Boiler Room	woolsfelt pipe insulation	80	ln. ft.	Chrysotile	2%-3%	Friable
Basement	Boiler Room	mudded joint fittings (on woolsfelt pipe insulation)	30	MJFs	Amosite, Chrysotile	2%-5%, 5%-10%	Friable
Basement	Boiler Room	breeching insulation	200	sq. ft.	Amosite	10%	Friable
Basement	Boiler Room	boiler door gaskets	2	gaskets	Chrysotile	40%	Friable
First Floor	Southeast Room	9" X 9" floor tile (beige with tan and brown streaks) (under carpet and underlayment)	830	sq. ft.	Chrysotile	5%	Non-friable
First Floor	Southwest Room	9" X 9" floor tile (beige with tan and brown streaks) (under carpet and underlayment)	192	sq. ft.	Chrysotile	5%	Non-friable
First Floor	Lobby Area	9" X 9" floor tile (beige with tan and brown streaks) (under carpet and underlayment)	300	sq. ft.	Chrysotile	5%	Non-friable
First Floor	Lobby Area Southwest	mudded joint fittings (on fiberglass insulation in small chase)	3	MJFs	Chrysotile	3%	Friable
First Floor	Lobby Area Northwest	woolsfelt pipe insulation	14	ln. ft.	Chrysotile	2%-3%	Friable
First Floor	Lobby Area Northwest	mudded joint fittings (on woolsfelt pipe insulation)	1	MJFs	Amosite, Chrysotile	2%-5%, 5%-10%	Friable
First Floor	Lobby Area Northwest	mudded joint fittings (on fiberglass insulation)	2	MJFs	Chrysotile	3%	Friable
First Floor	Store Room (by counter)	9" X 9" floor tile (multiple colors)	108	sq. ft.	Chrysotile	2%-5%	Non-friable
First Floor	Store Room (by counter)	woolsfelt pipe insulation	6	ln. ft.	Chrysotile	2%-3%	Friable
First Floor	Store Room (by counter)	mudded joint fittings (on woolsfelt pipe insulation)	1	ln. ft.	Amosite, Chrysotile	2%-5%, 5%-10%	Friable
First Floor	Restroom and Chase	woolsfelt pipe insulation	60	ln. ft.	Chrysotile	2%-3%	Friable
First Floor	Restroom and Chase	mudded joint fittings (on woolsfelt pipe insulation)	8	MJFs	Amosite, Chrysotile	2%-5%, 5%-10%	Friable
First Floor	Restroom and Chase	mudded joint fittings (on fiberglass insulation)	6	MJFs	Chrysotile	3%	Friable
First Floor	Kitchenette (behind wall)	mudded joint fittings (on fiberglass insulation)	3	MJFs	Chrysotile	3%	Friable

*** Amounts of material are approximations. Contractors are responsible for verifying measurements.**

ASBESTOS CONTAINING MATERIALS INSPECTION SUMMARY

CLIENT: City of Clinton, P. O. Box 2958, Clinton, IA 52733-2958

Building Size: 81,000 sq. ft.

# of Floors: 4

BUILDING INSPECTED: Former YMCA, 480 South 3rd Street, Clinton, IA 52732

Year Constructed: 1905, 1961, 1978

INSPECTOR: Jeff Stahr

DATE INSPECTED: 02/18/2021, 02/22/2021 - 02/24/2021, 03/02/2021

Inspection Comments:

An asbestos inspection was performed to identify potentially friable and non-friable asbestos containing materials.

The following asbestos materials were identified:

SECTION	ROOM(S)/LOCATION	DESCRIPTION OF ASBESTOS MATERIAL	AMOUNT	UNIT OF MEASUREMENT	TYPE OF ASBESTOS	% OF ASBESTOS	FRIABLE OR NON-FRIABLE
First Floor	East Stairs	9" X 9" floor tile (beige with brown streaks) (under non-asbestos floor tile and underlayment)	180	sq. ft.	Chrysotile	5%	Non-friable
First Floor	East Entry Exterior	white caulk (on wood)	20	ln. ft.	Chrysotile	2%	Non-friable
First Floor	North Entry Exterior	white caulk (on wood)	20	ln. ft.	Chrysotile	2%	Non-friable
Second Floor	North Room	9" X 9" floor tile (beige with streaks)	1,620	sq. ft.	Chrysotile	5%	Non-friable
Second Floor	North Room Office Storage	9" X 9" floor tile (beige with streaks)	250	sq. ft.	Chrysotile	5%	Non-friable
Second Floor	North Hallway	9" X 9" floor tile (beige with streaks)	270	sq. ft.	Chrysotile	5%	Non-friable
Second Floor	Landing Hall	9" X 9" floor tile (beige with streaks) (under carpet and underlayment)	80	sq. ft.	Chrysotile	5%	Non-friable
Second Floor	Stairs	9" X 9" floor tile (beige with streaks) (under carpet and underlayment)	150	sq. ft.	Chrysotile	5%	Non-friable
Second Floor	Halls and Janitor's Closets	9" X 9" floor tile (beige with streaks) (under carpet and underlayment)	450	sq. ft.	Chrysotile	5%	Non-friable
Second Floor	South Restroom	9" X 9" floor tile (beige with streaks) (under non-asbestos linoleum)	100	sq. ft.	Chrysotile	5%	Non-friable
Second Floor	South Restroom Chase	woolsfelt pipe insulation	20	ln. ft.	Chrysotile	2%-3%	Friable
Second Floor	South Restroom Chase	mudded joint fittings (on woolsfelt pipe insulation)	11	MJFs	Amosite, Chrysotile	2%-5%, 5%-10%	Friable
Second Floor	Laundry Room	9" X 9" floor tile (beige with streaks) (under non-asbestos 12" X 12" floor tile and underlayment)	50	sq. ft.	Chrysotile	5%	Non-friable
Second Floor	Large West Apartment and Closet	9" X 9" floor tile (beige with streaks) (under carpet and underlayment)	330	sq. ft.	Chrysotile	5%	Non-friable
Second Floor	Old Kitchen	9" X 9" floor tile (white with brown streaks) (on underlayment)	320	sq. ft.	Chrysotile	3%	Non-friable
Second Floor	Old Kitchen	9" X 9" floor tile (red and brown) (under 9" X 9" floor tile and underlayment) and mastic	320	sq. ft.	Chrysotile	Floor Tile=3%, Mastic=3%	Non-friable
Second Floor	Room 1	linoleum (tan) (under carpet and underlayment)	210	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	Room 2	linoleum (green) (under carpet and underlayment)	210	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	Room 3	linoleum (gray) (under carpet and underlayment)	200	sq. ft.	Chrysotile	2%	Non-friable

*** Amounts of material are approximations. Contractors are responsible for verifying measurements.**

ASBESTOS CONTAINING MATERIALS INSPECTION SUMMARY

CLIENT: City of Clinton, P. O. Box 2958, Clinton, IA 52733-2958

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DATE INSPECTED: 02/18/2021, 02/22/2021 - 02/24/2021, 03/02/2021

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SECTION	ROOM(S)/LOCATION	DESCRIPTION OF ASBESTOS MATERIAL	AMOUNT	UNIT OF MEASUREMENT	TYPE OF ASBESTOS	% OF ASBESTOS	FRIABLE OR NON-FRIABLE
Second Floor	Room 4	linoleum (gray) (under carpet and underlayment)	170	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	Room 5	linoleum (gray) (under carpet and underlayment)	200	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	Room 6	linoleum (tan) (under carpet and underlayment)	200	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	Room 7	linoleum (gray) (under carpet and underlayment)	170	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	North Hall	9" X 9" floor tile (beige with streaks) (under carpet and underlayment)	280	sq. ft.	Chrysotile	5%	Non-friable
Third Floor	Stairs	9" X 9" floor tile (beige with streaks) (under non-asbestos 12" X 12" floor tile and underlayment)	110	sq. ft.	Chrysotile	5%	Non-friable
Third Floor	Lobby and Halls	9" X 9" floor tile (beige with streaks) (under carpet and underlayment)	1,000	sq. ft.	Chrysotile	5%	Non-friable
Third Floor	Room 8	linoleum (tan) (under carpet and underlayment)	200	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 9	linoleum (gray) (under carpet and underlayment)	200	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 10	linoleum (tan) (under carpet and underlayment)	200	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 11	linoleum (tan) (under carpet and underlayment)	150	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 12	linoleum (gray) (under carpet and underlayment)	200	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 13	linoleum (gray) (under carpet and underlayment)	200	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 14	linoleum (gray) (under carpet and underlayment)	150	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 15	linoleum (gray) (under carpet and underlayment)	200	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 16	linoleum (gray) (under carpet and underlayment)	200	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 17	linoleum (gray) (under carpet and underlayment)	180	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 18	linoleum (gray) (under carpet and underlayment)	155	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 19	linoleum (gray) (under carpet and underlayment)	160	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 20	linoleum (green) (under carpet and underlayment)	160	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 21	linoleum (green) (under carpet and underlayment)	160	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 22	linoleum (gray) (under carpet and underlayment)	160	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 23	linoleum (green) (under carpet and underlayment)	160	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 24	linoleum (gray) (under carpet and underlayment)	160	sq. ft.	Chrysotile	2%	Non-friable

*** Amounts of material are approximations. Contractors are responsible for verifying measurements.**

ASBESTOS CONTAINING MATERIALS INSPECTION SUMMARY

CLIENT: City of Clinton, P. O. Box 2958, Clinton, IA 52733-2958

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INSPECTOR: Jeff Stahr

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SECTION	ROOM(S)/LOCATION	DESCRIPTION OF ASBESTOS MATERIAL	AMOUNT	UNIT OF MEASUREMENT	TYPE OF ASBESTOS	% OF ASBESTOS	FRIABLE OR NON-FRIABLE
Third Floor	Room 25	linoleum (gray) (under carpet and underlayment)	160	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 26	linoleum (green) (under carpet and underlayment)	160	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 27	linoleum (green) (under carpet and underlayment)	160	sq. ft.	Chrysotile	2%	Non-friable
Third Floor	Room 28	linoleum (green) (under carpet and underlayment)	160	sq. ft.	Chrysotile	2%	Non-friable
1961 Building							
Basement	Pool Mechanical Room	heat exchanger insulation	10	sq. ft.	Amosite, Chrysotile	5%, 2%	Friable
Basement	Pool Mechanical Room	woolsfelt pipe insulation debris	10	sq. ft.	Chrysotile	2%-3%	Friable
Basement	Pool Mechanical Room	mudded joint fittings (on fiberglass insulation)	10	MJFs	Chrysotile	3%	Friable
Basement	Pool Storage	mudded joint fittings (on fiberglass insulation)	2	MJFs	Chrysotile	3%	Friable
Basement	Pool Storage Hall	mudded joint fittings (on fiberglass insulation)	2	MJFs	Chrysotile	3%	Friable
Basement	Locker Room and Shower Area	9" X 9" floor tile (beige with tan and brown spots) (most under carpet)	2,240	sq. ft.	Chrysotile	2%	Non-friable
Basement	Locker Room and Shower Area	cement board panel (as ceiling repair)	8	sq. ft.	Chrysotile	25%	Non-friable
Basement	Locker Room and Shower Area	woolsfelt pipe insulation	300	sq. ft.	Chrysotile	2%-3%	Friable
Basement	Locker Room and Shower Area	mudded joint fittings (on woolsfelt pipe insulation)	120	MJFs	Amosite, Chrysotile	2%-5%, 5%-10%	Friable
Basement	Locker Room and Shower Area	mudded joint fittings (on fiberglass insulation)	85	MJFs	Chrysotile	3%	Friable
First Floor	Pool	cement board panels (on ceiling)	3,700	sq. ft.	Chrysotile	25%	Non-friable
First Floor	East Stairs	9" X 9" floor tile (beige with tan and brown spots)	150	sq. ft.	Chrysotile	2%	Non-friable
First Floor	Exercise Room	mudded joint fittings (on fiberglass insulation)	7	MJFs	Chrysotile	3%	Friable
First Floor	Mechanical Room	mudded joint fittings (on fiberglass insulation)	25	MJFs	Chrysotile	3%	Friable
First Floor	Mechanical Room	mudded joint fittings (on woolsfelt pipe insulation)	13	MJFs	Amosite, Chrysotile	2%-5%, 5%-10%	Friable
First Floor	Mechanical Room	woolsfelt pipe insulation	33	ln. ft.	Chrysotile	2%-3%	Friable

*** Amounts of material are approximations. Contractors are responsible for verifying measurements.**

ASBESTOS CONTAINING MATERIALS INSPECTION SUMMARY

CLIENT: City of Clinton, P. O. Box 2958, Clinton, IA 52733-2958

Building Size: 81,000 sq. ft.

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The following asbestos materials were identified:

SECTION	ROOM(S)/LOCATION	DESCRIPTION OF ASBESTOS MATERIAL	AMOUNT	UNIT OF MEASUREMENT	TYPE OF ASBESTOS	% OF ASBESTOS	FRIABLE OR NON-FRIABLE
First Floor	Mechanical Room	vibration dampener cloth	9	dampeners	Chrysotile	50%	Friable
First Floor	Handball Hall	9" X 9" floor tile (beige with tan and brown spots)	420	sq. ft.	Chrysotile	2%	Non-friable
First Floor	North Stairs	9" X 9" floor tile (beige with tan and brown spots)	200	sq. ft.	Chrysotile	2%	Non-friable
First Floor	East Stairs	mudded joint fittings (on fiberglass insulation)	1	MJFs	Chrysotile	3%	Friable
Second Floor	East Stairs	9" X 9" floor tile (beige with tan and brown spots)	150	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	North Stairs	9" X 9" floor tile (beige with tan and brown spots)	200	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	Handball Balcony	9" X 9" floor tile (beige with tan and brown spots)	420	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	North Hall	9" X 9" floor tile (beige with tan and brown spots)	350	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	North Hall	mudded joint fittings (on fiberglass insulation)	1	MJF	Chrysotile	5%	Friable
Second Floor	Gym Office and Entry	9" X 9" floor tile (beige with tan and brown spots)	153	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	South Hall	9" X 9" floor tile (beige with tan and brown spots)	90	sq. ft.	Chrysotile	2%	Non-friable
Second Floor	Gymnasium	mudded joint fittings (on fiberglass insulation)	11	MJFs	Chrysotile	3%	Non-friable
Third Floor	East Stairs	9" X 9" floor tile (beige with tan and brown spots)	150	sq. ft.	Chrysotile	2%	Non-friable
Roof	Lower Roof	built up roof flashings (under newer roofing)	220	ln. ft.	Chrysotile	2%	Non-friable
Roof	Upper Roof	built up roof flashings (under newer roofing)	300	ln. ft.	Chrysotile	3%	Non-friable
1978 Building							
First Floor	Southeast Lobby and Hall	12" X 12" floor tile (white with brown streaks) and mastic	800	sq. ft.	Chrysotile	Floor Tile=2%, Mastic=2%	Non-friable
First Floor	East Stairs	12" X 12" floor tile (white with brown streaks) and mastic	32	sq. ft.	Chrysotile	Floor Tile=2%, Mastic=2%	Non-friable
First Floor	West Central Locker Room Area	12" X 12" floor tile (white with brown streaks) and mastic (most under carpet or ceramic tile)	1,530	sq. ft.	Chrysotile	Floor Tile=2%, Mastic=2%	Non-friable
First Floor	Pool	cement board panels	132	sq. ft.	Chrysotile	25%	Non-friable
Second Floor	Handball Hall	12" X 12" floor tile (white with brown streaks) and mastic	120	sq. ft.	Chrysotile	Floor Tile=2%, Mastic=2%	Non-friable
Second Floor	Main Hall and Janitor's Closet	12" X 12" floor tile (white with brown streaks) and mastic	290	sq. ft.	Chrysotile	Floor Tile=2%, Mastic=2%	Non-friable

*** Amounts of material are approximations. Contractors are responsible for verifying measurements.**

ASBESTOS CONTAINING MATERIALS INSPECTION SUMMARY

CLIENT: City of Clinton, P. O. Box 2958, Clinton, IA 52733-2958

Building Size: 81,000 sq. ft.
# of Floors: 4

BUILDING INSPECTED: Former YMCA, 480 South 3rd Street, Clinton, IA 52732

Year Constructed: 1905, 1961, 1978

INSPECTOR: Jeff Stahr

DATE INSPECTED: 02/18/2021, 02/22/2021 - 02/24/2021, 03/02/2021

Inspection Comments:

An asbestos inspection was performed to identify potentially friable and non-friable asbestos containing materials.

The following asbestos materials were identified:

SECTION	ROOM(S)/LOCATION	DESCRIPTION OF ASBESTOS MATERIAL	AMOUNT	UNIT OF MEASUREMENT	TYPE OF ASBESTOS	% OF ASBESTOS	FRIABLE OR NON-FRIABLE
Second Floor	West Office	12" X 12" floor tile (white with brown streaks) and mastic	165	sq. ft.	Chrysotile	Floor Tile=2%, Mastic=2%	Non-friable
Second Floor	East Office	12" X 12" floor tile (white with brown streaks) and mastic (under carpet)	155	sq. ft.	Chrysotile	Floor Tile=2%, Mastic=2%	Non-friable
Second Floor	Gymnasium Drinking Fountain	12" X 12" floor tile (white with brown streaks) and mastic	10	sq. ft.	Chrysotile	Floor Tile=2%, Mastic=2%	Non-friable
Third Floor	Hallway	12" X 12" floor tile (white with brown streaks) and mastic	185	sq. ft.	Chrysotile	Floor Tile=2%, Mastic=2%	Non-friable
Roof	Upper Roof	built up roof flashings (under newer roofing)	360	ln. ft.	Chrysotile	10%	Non-friable
Roof	Lower Roof	built up roof flashings (under newer roofing)	225	ln. ft.	Chrysotile	10%	Non-friable

DEFINITIONS:
Friable = easily crumbled / can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand
Non-friable = cannot be pulverized under hand pressure

All other discovered suspect materials not listed above were also sampled and analyzed, and do not contain asbestos.
Please see the Bulk Sample Results.

Jeff Stahr, Inspector

21-5440
State of Iowa
Asbestos Inspector License #

*** Amounts of material are approximations. Contractors are responsible for verifying measurements.**

ASBESTOS CONTAINING MATERIALS INSPECTION SUMMARY

CLIENT: City of Clinton, P. O. Box 2958, Clinton, IA 52733-2958

Building Size: 81,000 sq. ft.
# of Floors: 4

BUILDING INSPECTED: Former YMCA, 480 South 3rd Street, Clinton, IA 52732

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DATE INSPECTED: 02/18/2021, 02/22/2021 - 02/24/2021, 03/02/2021

Inspection Comments:

An asbestos inspection was performed to identify potentially friable and non-friable asbestos containing materials.

The following asbestos materials were identified:

SECTION	ROOM(S)/LOCATION	DESCRIPTION OF ASBESTOS MATERIAL	AMOUNT	UNIT OF MEASUREMENT	TYPE OF ASBESTOS	% OF ASBESTOS	FRIABLE OR NON-FRIABLE

NOTES:

To keep disturbance to building materials and damage to property minimum, a limited number of spot checks were done to visualize suspect asbestos materials and collect necessary samples for testing. Therefore, suspect asbestos materials may be hidden and may be uncovered during the renovation and/or demolition processes.

Local and State regulations may require asbestos containing materials to be removed by a licensed asbestos abatement contractor. An Asbestos Notification and fee may be required to be submitted to the appropriate government agencies either ten calendar days or ten working days (depending on the type and amount of asbestos being removed) prior to starting asbestos work.

A renovation project when there is still asbestos present in a structure, may require a Renovation Notification and fee to be submitted to the appropriate government agencies ten working days prior to starting renovation work.

A demolition project, which includes the removal of any load bearing walls and/or complete demolition of a structure, may require a Demolition Notification and fee to be submitted to the appropriate government agencies ten working days prior to starting demolition work.

Materials with less than 1% asbestos content are not required to be removed by a licensed asbestos abatement contractor. However, these materials are still to be handled by following proper regulations and safe work practices. The building owner may still opt to have a licensed asbestos abatement contractor remove this type of material.

*** Amounts of material are approximations. Contractors are responsible for verifying measurements.**

ENVIRONMENTAL MANAGEMENT SERVICES OF IOWA, INC.

5170 Wolff Road, #2
Dubuque, IA 52002
(563) 583-0808 FAX: (563) 583-2206

04126

BULK SAMPLE ANALYSIS REQUEST

DATE: 2-19-21 **INSPECTOR:** Jeff Stahr

FACILITY: City of Clinton **BUILDING #:**

BUILDING: 480 S. 3rd St Clinton IA **PROJECT #:**

LABORATORY: EMSL Analytical, Inc.
2001 East 52nd Street
Indianapolis, IN 46205
(317) 803-2997 FAX: (317) 803-3047
Main Office: 1-800-220-3675

DATE SAMPLE TAKEN	SAMPLE NUMBER	LOCATION	SAMPLE DESCRIPTION	
2-18-21	48053-01	Pool Filter Room	Heatexchanger Mag Ins.	5% Amosite 2% chrysotile
2-18-21	48053-02	Pool Filter Room	Mudded fitting	2% chrysotile (C)
2-18-21	48053-03	Pool Filter Room	Woolsfelt pipe ins.	2% C
2-18-21	48053-04	Boiler Room	Mud on breeching	10% Amosite
2-18-21	48053-05	Boiler Room	mudded fitting	3% c
2-18-21	48053-06	Boiler Room	Woolsfelt pipe ins.	3% c
2-18-21	48053-07	Basement Near S. Storage	mudded joint fitting	3% c
2-18-21	48053-08	Basement Stair landing	Woolsfelt pipe ins.	2%
2-18-21	48053-09	1st floor Restroom Chase	mudded joint fitting	<1% Amosite 2% chry
2-18-21	48053-10	1st floor Restroom Chase	Woolsfelt pipe ins.	2% c
2-18-21	48053-11	Basement Stair landing	Mag pipe ins.	2% c
2-18-21	48053-12	Basement SE Room	9x9 Floor tile	3% / 3%
2-18-21	48053-13	Basement SE Room	9x9 Floortile	3% / 3% c
2-18-21	48053-14	Main BSMT area - South	9x9 Floortile	2% / ND
2-18-21	48053-15	Main BSMT area West Side	Cement board ceiling	25% c
2-18-21	48053-16	Basement near S. Storage	Ceiling Tile	<1%
2-18-21	48053-17	Basement near Coal room	Ceiling Tile	
2-18-21	48053-18	Basement SE Room	Drywall, mud + pc Texture	
2-18-21	48053-19	Basement RR	plaster	
2-18-21	48053-20	Basement RR	Linoleum	

RESULTS AND INVOICES to be E-mailed to: markemsi@aol.com (OVER)

SHIPPING: Ground Next Day Air (circle one)

04126

ENVIRONMENTAL MANAGEMENT SERVICES OF IOWA, INC.
5170 Wolff Road, #2
Dubuque, IA 52002
(563) 583-0808 FAX: (563) 583-2206

BULK SAMPLE ANALYSIS REQUEST

DATE: 2-19-21 INSPECTOR: Jeff Stahr

FACILITY: City of Clinton BUILDING #:

BUILDING: 480 S. 3rd St Clinton IA PROJECT #:

LABORATORY: EMSL Analytical, Inc.
2001 East 52nd Street
Indianapolis, IN 46205
(317) 803-2997 FAX: (317) 803-3047
Main Office: 1-800-220-3675

DATE SAMPLE TAKEN	SAMPLE NUMBER	LOCATION	SAMPLE DESCRIPTION	
2-18-21	48053-21	BSMT Weight Room	Drywall mud + pc Texture	
2-18-21	48053-22	Bsmt Elevator Lobby	popcorn ceiling Texture	
2-18-21	48053-23	BSMT Elevator Lobby	Ceiling Tile	
2-18-21	48053-24	BSMT Former Restroom	Ceramic Wall Tile, Grout + Adh.	
2-18-21	48053-25	BSMT Stairs	Vinyl Stair Tred	
2-18-21	48053-26	North Basement	popcorn ceiling Texture	
2-18-21	48053-27	North Basement	popcorn Ceiling Texture	
2-18-21	48053-28	North Basement	popcorn Ceiling Texture	
2-18-21	48053-29	North Basement Air Handler	Vibration Cloth	50%c
2-18-21	48053-30	BSMT Former Restroom	Quarry tile, Grout + Adhesive	

RESULTS AND INVOICES to be E-mailed to: markemsi@aol.com (OVER)

SHIPPING: Ground Next Day Air (circle one)

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Tel/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order: 162104126
Customer ID: CFME50
Customer PO:
Project ID:

Attention: Mark Hogan
Environmental Management Svs. of Iowa
5170 Wolff Rd. #2
Dubuque, IA 52002

Project: 480 South 3rd St Clinton IA

Phone: (563) 583-0808
Fax: (563) 583-2206
Received Date: 03/04/2021 10:15 AM
Analysis Date: 03/05/2021
Collected Date: 02/18/2021

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
480S3-01 *162104126-0001*	Pool Filter Room - Heat Exchanger Mag Ins.	White Non-Fibrous Homogeneous		93% Non-fibrous (Other)	5% Amosite 2% Chrysotile
480S3-02 *162104126-0002*	Pool Filter Room - Mudded Fitting	Gray Fibrous Homogeneous	5% Synthetic 30% Min. Wool	63% Non-fibrous (Other)	2% Chrysotile
480S3-03-Insulation *162104126-0003*	Pool Filter Room - Woolsfelt Pipe Ins.	Gray Fibrous Homogeneous	95% Cellulose	3% Non-fibrous (Other)	2% Chrysotile
480S3-03-Paper *162104126-0003A*	Pool Filter Room - Woolsfelt Pipe Ins.	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
480S3-04 *162104126-0004*	Boiler Room - Mud on Breeching	Gray/White Fibrous Homogeneous		90% Non-fibrous (Other)	10% Amosite
480S3-05 *162104126-0005*	Boiler Room - Mudded Fitting	Gray Fibrous Homogeneous	40% Min. Wool	57% Non-fibrous (Other)	3% Chrysotile
480S3-06-Insulation *162104126-0006*	Boiler Room - Woolsfelt Pipe Ins.	Brown/Gray Fibrous Homogeneous	95% Cellulose	2% Non-fibrous (Other)	3% Chrysotile
480S3-06-Paper *162104126-0006A*	Boiler Room - Woolsfelt Pipe Ins.	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (Other)	None Detected
480S3-07 *162104126-0007*	Basement near S. Storage - Mudded Joint Fitting	Gray Fibrous Homogeneous	40% Min. Wool	57% Non-fibrous (Other)	3% Chrysotile
480S3-08-Wrap *162104126-0008*	Basement Stair Landing - Woolsfelt Pipe Ins.	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
480S3-08-Felt *162104126-0008A*	Basement Stair Landing - Woolsfelt Pipe Ins.	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
480S3-08-Insulation *162104126-0008B*	Basement Stair Landing - Woolsfelt Pipe Ins.	Gray/Black Fibrous Homogeneous	95% Cellulose	3% Non-fibrous (Other)	2% Chrysotile
480S3-09 *162104126-0009*	1st Floor Restroom Chase - Mudded Joint Fitting	Gray Fibrous Homogeneous	30% Min. Wool	68% Non-fibrous (Other)	<1% Amosite 2% Chrysotile
480S3-10-Wrap *162104126-0010*	1st Floor Restroom Chase - Woolsfelt Pipe Ins.	Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
480S3-10-Felt *162104126-0010A*	1st Floor Restroom Chase - Woolsfelt Pipe Ins.	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
480S3-10-Insulation *162104126-0010B*	1st Floor Restroom Chase - Woolsfelt Pipe Ins.	Brown/Gray Fibrous Homogeneous	95% Cellulose	3% Non-fibrous (Other)	2% Chrysotile

Initial report from: 03/05/2021 12:59:01

EMSL Analytical, Inc.
6340 CastlePlace Dr. Indianapolis, IN 46250
Tel/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order:	162104126
Customer ID:	CFME50
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
480S3-10-Felt *162104126-0010C*	1st Floor Restroom Chase - Woolsfelt Pipe Ins.	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
480S3-11 *162104126-0011*	Basement Stair Landing - Mag Pipe Ins.	White Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
480S3-12-Floor Tile *162104126-0012*	Basement SE Room - 9x9 Floor Tile	Brown Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
480S3-12-Mastic *162104126-0012A*	Basement SE Room - 9x9 Floor Tile	Black Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
480S3-13-Floor Tile *162104126-0013*	Basement SE Room - 9x9 Floor Tile	Red Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
480S3-13-Mastic *162104126-0013A*	Basement SE Room - 9x9 Floor Tile	Black Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
480S3-14-Mastic *162104126-0014*	Main Bsmt Area-Southwest - 9x9 Floor Tile	Yellow/Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-14-Floor Tile *162104126-0014A*	Main Bsmt Area-Southwest - 9x9 Floor Tile	Tan Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
480S3-14-Mastic *162104126-0014B*	Main Bsmt Area-Southwest - 9x9 Floor Tile	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-15 *162104126-0015*	Main Bsmt Area South-side - Cementboard Ceiling	Gray Fibrous Homogeneous		75% Non-fibrous (Other)	25% Chrysotile
480S3-16 *162104126-0016*	Basement near S. Storage - Ceiling Tile	Gray/White Fibrous Homogeneous	95% Min. Wool	5% Non-fibrous (Other)	<1% Chrysotile
480S3-17 *162104126-0017*	Basement near Coat Room - Ceiling Tile	Gray/White Fibrous Homogeneous	60% Cellulose 15% Min. Wool	20% Perlite 5% Non-fibrous (Other)	None Detected
480S3-18-Drywall *162104126-0018*	Basement SE Room - Drywall, Mud + PC Texture	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
480S3-18-Joint Compound *162104126-0018A*	Basement SE Room - Drywall, Mud + PC Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-18-Texture *162104126-0018B*	Basement SE Room - Drywall, Mud + PC Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-19-Finish Coat *162104126-0019*	Basement RR - Plaster	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-19-Base Coat *162104126-0019A*	Basement RR - Plaster	Gray Non-Fibrous Homogeneous	<1% Hair	20% Quartz 80% Non-fibrous (Other)	None Detected
480S3-20-Linoleum *162104126-0020*	Basement RR - Linoleum	Tan/White Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected

Initial report from: 03/05/2021 12:59:01

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EMSL Order: 162104126
Customer ID: CFME50
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
480S3-20-Mastic *162104126-0020A*	Basement RR - Linoleum	Tan/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-21 *162104126-0021*	Bsmt Weight Room - Drywall, Mud + PC Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-22-Drywall *162104126-0022*	Bsmt Elevator Lobby - Popcorn Ceiling Texture	Brown/White Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
480S3-22-Joint Compound *162104126-0022A*	Bsmt Elevator Lobby - Popcorn Ceiling Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-22-Texture *162104126-0022B*	Bsmt Elevator Lobby - Popcorn Ceiling Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-23 *162104126-0023*	Bsmt Elevator Lobby - Ceiling Tile	White Fibrous Homogeneous	90% Min. Wool	10% Non-fibrous (Other)	None Detected
480S3-24-Ceramic Tile *162104126-0024*	Bsmt Former Restroom - Ceramic Wall Tile, Grout + Adh.	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-24-Grout *162104126-0024A*	Bsmt Former Restroom - Ceramic Wall Tile, Grout + Adh.	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-24-Adhesive *162104126-0024B*	Bsmt Former Restroom - Ceramic Wall Tile, Grout + Adh.	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-24-Bedding *162104126-0024C*	Bsmt Former Restroom - Ceramic Wall Tile, Grout + Adh.	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
480S3-25 *162104126-0025*	Bsmt Stairs - Vinyl Stair Tread	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-26 *162104126-0026*	North Basement - Popcorn Ceiling Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-27 *162104126-0027*	North Basement - Popcorn Ceiling Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-28 *162104126-0028*	North Basement - Popcorn Ceiling Texture	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-29 *162104126-0029*	North Basement Air Handler - Vibration Cloth	Gray Fibrous Homogeneous	40% Synthetic	10% Non-fibrous (Other)	50% Chrysotile
480S3-30-Ceramic Tile *162104126-0030*	Bsmt Former Restroom - Quarry Tile, Grout + Adhesive	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
480S3-30-Grout *162104126-0030A*	Bsmt Former Restroom - Quarry Tile, Grout + Adhesive	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected

Initial report from: 03/05/2021 12:59:01

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EMSL Order:	162104126
Customer ID:	CFME50
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Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
480S3-30-Adhesive *162104126-0030B*	Bsmt Former Restroom - Quarry Tile, Grout + Adhesive	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)
Amanda Straw (52)

Richard Harding, Laboratory Manager
or Other Approved Signatory

Initial report from: 03/05/2021 12:59:01

OrderID: 162103526

.RONMENTAL MANAGEMENT SERVICES OF IOWA, INC.
5170 Wolff Road, #2
Dubuque, IA 52002
(563) 583-0808 FAX: (563) 583-2206

BULK SAMPLE ANALYSIS REQUEST

DATE: 2-23-21 INSPECTOR: Jeff Stahr

FACILITY: City of Clinton BUILDING #:

BUILDING: 480 South 3rd St Clinton IA PROJECT #:

LABORATORY: EMSL Analytical, Inc.
2001 East 52nd Street
Indianapolis, IN 46205
(317) 803-2997 FAX: (317) 803-3047
Main Office: 1-800-220-3675

DATE SAMPLE TAKEN	SAMPLE NUMBER	LOCATION	SAMPLE DESCRIPTION	
2-22-21	48053-31	3rd floor 78 Bldg Entry to Running Track	Ceiling Tile	
2-22-21	48053-32	Basement 1962 Locker Rooms (central)	Linoleum	
2-22-21	48053-33	South Locker Room	Floor tile	
2-22-21	48053-34	South Locker Room	Floor tile	
2-22-21	48053-35	South Locker Room	Floor tile	
2-22-21	48053-36	Stairs to N. Locker Room	Ceiling tile	
2-22-21	48053-37	North locker Room	Ceiling Tile	
2-22-21	48053-38	Central Locker Room	Ceiling Tile	
2-22-21	48053-39	Central Locker Room	Ceiling Tile	
2-22-21	48053-40	Shower Chase	mudded fitting	2% Amosite 3% chrysotile
2-22-21	48053-41	Shower Threshhold	Quarry tile, Grout & Adhesive	
2-22-21	48053-42	1st floor SE Room	Ceiling Tile	
2-22-21	48053-43	Lobby Area at SE Room	Drywall mud	
2-22-21	48053-44	South Lobby	Plaster	
2-22-21	48053-45	SE Room	Floor tile	5% / ND
2-22-21	48053-46	SE Room	Linoleum	
2-22-21	48053-47	East Stairs	Floor tile	
2-22-21	48053-48	East Stairs	Floor tile	
2-22-21	48053-49	East Stairs	Floor tile	
2-22-21	48053-50	East Stairs	Drywall with panel Adhesive	

RESULTS AND INVOICES to be E-mailed to: markemsi@aol.com (OVER)

SHIPPING: Ground Next Day Air
(circle one)

OrderID: 162103526

ENVIRONMENTAL MANAGEMENT SERVICES OF IOWA, INC.

5170 Wolff Road, #2
Dubuque, IA 52002
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162103526

BULK SAMPLE ANALYSIS REQUEST

DATE: 2-23-21 INSPECTOR: Jeff Stahr

FACILITY: City of Clinton BUILDING #:

BUILDING: 480 South 3rd St Clinton IA PROJECT #:

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Main Office: 1-800-220-3675

DATE SAMPLE TAKEN	SAMPLE NUMBER	LOCATION	SAMPLE DESCRIPTION	
2-22-21	48053-51	1st Floor N. Lobby Area	Floor tile	
2-22-21	48053-52	N. Lobby Area	Floor tile	
2-22-21	48053-53	Storeroom behind counter	Floor tile	2%/ND
2-22-21	48053-54	Old Kitchen (Spray on)	Linoleum	
2-22-21	48053-55	North Room	Ceiling Tile	
2-22-21	48053-56	Room North of old Kitchen	Ceiling Tile	
2-22-21	48053-57	1st floor - 78 Bldg Locker Room Lobby	Floor tile	2%/2%
2-22-21	48053-58	SW Room under Carpet	Linoleum	
2-22-21	48053-59	SW Room	Ceiling Tile	
2-22-21	48053-60	Pool Area	Quarry Tile	
2-22-21	48053-61	2nd floor Gym - on conc.	Felt Layers	
2-22-21	48053-62	3rd floor Running Track	Linoleum	

RESULTS AND INVOICES to be E-mailed to: markemsi@aol.com (OVER)

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EMSL Order: 162103526
Customer ID: CFME50
Customer PO:
Project ID:

Attention: Mark Hogan
Environmental Management Svs. of Iowa
5170 Wolff Rd. #2
Dubuque, IA 52002

Phone: (563) 583-0808
Fax: (563) 583-2206
Received Date: 02/25/2021 12:10 PM
Analysis Date: 02/26/2021
Collected Date: 02/22/2021

Project: (OLD YMCA) 480 SOUTH 3RD ST. CLINTON IA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
48053-31 *162103526-0001*	3RD FLOOR 78 BUILDING ENTRY TO RUNNING TRACK - CEILING TILE	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
48053-32-Linoleum *162103526-0002*	BASEMENT 1962 LOCKER ROOMS (CENTRAL) - LINOLEUM	Tan Fibrous Heterogeneous	30% Synthetic	70% Non-fibrous (Other)	None Detected
48053-32-Mastic *162103526-0002A*	BASEMENT 1962 LOCKER ROOMS (CENTRAL) - LINOLEUM	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-33-Floor Tile *162103526-0003*	SOUTH LOCKER ROOM - FLOOR TILE	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-33-Mastic *162103526-0003A*	SOUTH LOCKER ROOM - FLOOR TILE	Tan/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-34-Floor Tile *162103526-0004*	SOUTH LOCKER ROOM - FLOOR TILE	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-34-Mastic *162103526-0004A*	SOUTH LOCKER ROOM - FLOOR TILE	Black/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-35-Floor Tile *162103526-0005*	SOUTH LOCKER ROOM - FLOOR TILE	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-35-Mastic *162103526-0005A*	SOUTH LOCKER ROOM - FLOOR TILE	Tan/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-35-Mastic *162103526-0005B*	SOUTH LOCKER ROOM - FLOOR TILE	Tan/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-36 *162103526-0006*	STAIRS TO N LOCKER ROOM - CEILING TILE	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
48053-37 *162103526-0007*	NORTH LOCKER ROOM - CEILING TILE	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
48053-38 *162103526-0008*	CENTRAL LOCKER ROOM - CEILING TILE	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
48053-39 *162103526-0009*	CENTRAL LOCKER ROOM - CEILING TILE	Gray/White Fibrous Homogeneous	30% Cellulose 60% Min. Wool	10% Non-fibrous (Other)	None Detected
48053-40 *162103526-0010*	SHOWER CHASE - MUDDED FITTING	Gray Fibrous Homogeneous	50% Min. Wool	45% Non-fibrous (Other)	2% Amosite 3% Chrysotile

Initial report from: 02/26/2021 09:44:30

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EMSL Order:	162103526
Customer ID:	CFME50
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Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
48053-41-Ceramic Tile *162103526-0011*	SHOWER THRESHOLD - QUARRY TILE, GROUT AND ADHESIVE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-41-Grout *162103526-0011A*	SHOWER THRESHOLD - QUARRY TILE, GROUT AND ADHESIVE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-41-Adhesive *162103526-0011B*	SHOWER THRESHOLD - QUARRY TILE, GROUT AND ADHESIVE	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
48053-42 *162103526-0012*	1ST FLOOR SE ROOM - CEILING TILE	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
48053-43 *162103526-0013*	LOBBY AREA AT SE ROOM - DRYWALL MUD	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-44 *162103526-0014*	SOUTH LOBBY - PLASTER	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
48053-45-Floor Tile *162103526-0015*	SE ROOM - FLOOR TILE	Brown Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
48053-45-Mastic *162103526-0015A*	SE ROOM - FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-46 *162103526-0016*	SE ROOM - LINOLEUM	Brown/Black Fibrous Heterogeneous	40% Cellulose 10% Synthetic	50% Non-fibrous (Other)	None Detected
48053-47-Floor Tile *162103526-0017*	EAST STAIRS - FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-47-Mastic *162103526-0017A*	EAST STAIRS - FLOOR TILE	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-48-Floor Tile *162103526-0018*	EAST STAIRS - FLOOR TILE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-48-Mastic *162103526-0018A*	EAST STAIRS - FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-49-Floor Tile *162103526-0019*	EAST STAIRS - FLOOR TILE	Pink Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-49-Mastic *162103526-0019A*	EAST STAIRS - FLOOR TILE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-50-Drywall *162103526-0020*	EAST STAIRS - DRYWALL WITH PANEL ADHESIVE	Brown/White Fibrous Heterogeneous	25% Cellulose	70% Gypsum 5% Non-fibrous (Other)	None Detected
48053-50-Adhesive *162103526-0020A*	EAST STAIRS - DRYWALL WITH PANEL ADHESIVE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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EMSL Order:	162103526
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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
48053-51-Floor Tile *162103526-0021*	1ST FLOOR N. LOBBY AREA - FLOOR TILE	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-51-Mastic *162103526-0021A*	1ST FLOOR N. LOBBY AREA - FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-52-Floor Tile *162103526-0022*	N. LOBBY AREA - FLOOR TILE	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-52-Mastic *162103526-0022A*	N. LOBBY AREA - FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-53-Floor Tile *162103526-0023*	STORE ROOM BEHIND COUNTER - FLOOR TILE	Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
48053-53-Mastic *162103526-0023A*	STORE ROOM BEHIND COUNTER - FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-54 *162103526-0024*	OLD KITCHEN (SPRAYED ON) - LINOLEUM	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-55 *162103526-0025*	NORTH ROOM - CEILING TILE	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
48053-56 *162103526-0026*	ROOM NORTH OF OLD KITCHEN - CEILING TILE	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
48053-57-Floor Tile *162103526-0027*	1ST FLOOR - 78 BLDG LOCKER ROOM LOBBY - FLOOR TILE	White Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
48053-57-Mastic *162103526-0027A*	1ST FLOOR - 78 BLDG LOCKER ROOM LOBBY - FLOOR TILE	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
48053-58 *162103526-0028*	SW ROOM UNDER CARPET - LINOLEUM	Gray Fibrous Heterogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
48053-59 *162103526-0029*	SW ROOM - CEILING TILE	Gray/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
48053-60-Ceramic Tile *162103526-0030*	POOL AREA - QUARRY TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-60-Mortar *162103526-0030A*	POOL AREA - QUARRY TILE	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
48053-61 *162103526-0031*	2ND FLOOR GYM - ON CONR. - FELT LAYERS	Black Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-62-Linoleum *162103526-0032*	3RD FLOOR RUNNING TRACK - LINOLEUM	Tan/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
48053-62-Mastic *162103526-0032A*	3RD FLOOR RUNNING TRACK - LINOLEUM	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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EMSL Order:	162103526
Customer ID:	CFME50
Customer PO:	
Project ID:	

Analyst(s)
Craig Nixon (50)

Richard Harding, Laboratory Manager
or Other Approved Signatory

Initial report from: 02/26/2021 09:44:30

ENVIRONMENTAL MANAGEMENT SERVICES OF IOWA, INC.
5170 Wolff Road, #2
Dubuque, IA 52002
(563) 583-0808 FAX: (563) 583-2206

03537

BULK SAMPLE ANALYSIS REQUEST

DATE: 2-24-21 INSPECTOR: Jeff Stahr

FACILITY: City of Clinton BUILDING #:

BUILDING: 480 South 3rd St. Clinton IA. PROJECT #:

LABORATORY: EMSL Analytical, Inc. (317) 803-2997 FAX: (317) 803-3047
2001 East 52nd Street Main Office: 1-800-220-3675
Indianapolis, IN 46205

DATE SAMPLE TAKEN	SAMPLE NUMBER	LOCATION	SAMPLE DESCRIPTION	
2-23-21	48053-63	Exterior NE Entry	Caulk-White with dirt	2% C
2-23-21	48053-64	East Bsmt Window	Gray Caulk	
2-23-21	48053-65	2nd floor - 1905 Stairs East	Floortile	
2-23-21	48053-66	Storage Room	Drywall mud	
2-23-21	48053-67	Restroom South	Linoleum	
2-23-21	48053-68	Restroom South	Plaster	
2-23-21	48053-69	Room 1	Linoleum	2%/NA
2-23-21	48053-76	Room 2	Linoleum	2%
2-23-21	48053-71	Room 3	Linoleum	2%
2-23-21	48053-72	North Hall	Ceiling Tile	
2-23-21	48053-73	Kitchen	Floortile	3%/NA
2-23-21	48053-74	North Restroom	Floortile	
2-23-21	48053-75	1905 - 2nd floor North Room	Floortile	3%/NA
2-23-21	48053-76	1905 2nd floor North Room	Ceiling tile	
2-23-21	48053-77	1905 3rd floor Room 16	Drywall mud	
2-23-21	48053-78	Room 18	Ceiling Tile	
2-23-21	48053-79	Room 13	Plaster / Texture?	1%/NA
2-23-21	48053-80	Restroom	Ceiling Tile	
2-23-21	48053-81	Restroom	Quarry tile-Grout + Adhesive	

RESULTS AND INVOICES to be E-mailed to: markemsi@aol.com (OVER)

SHIPPING: Ground Next Day Air
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EMSL Order: 162103537
Customer ID: CFME50
Customer PO:
Project ID:

Attention: Mark Hogan
Environmental Management Svs. of Iowa
5170 Wolff Rd. #2
Dubuque, IA 52002

Phone: (563) 583-0808
Fax: (563) 583-2206
Received Date: 02/25/2021 12:10 PM
Analysis Date: 02/26/2021
Collected Date: 02/24/2021

Project: (Old YMCA) 480 South 3rd Street Clinton IA

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
48053-63 *162103537-0001*	Exterior NE Entry - Caulk, White with Dirt	Gray/White Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
48053-64 *162103537-0002*	East Bsmt Window - Gray Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-65-Floor Tile *162103537-0003*	2nd Floor - 1905 Stairs East - Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-65-Mastic *162103537-0003A*	2nd Floor - 1905 Stairs East - Floor Tile	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-66 *162103537-0004*	Storage Room - Drywall Mud	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-67-Linoleum *162103537-0005*	Restroom South - Linoleum	Tan/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-67-Backing *162103537-0005A*	Restroom South - Linoleum	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
48053-68-Finish Coat *162103537-0006*	Restroom South - Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-68-Base Coat *162103537-0006A*	Restroom South - Plaster	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
48053-69-Linoleum *162103537-0007*	Room 1 - Linoleum	Gray/Black Fibrous Homogeneous	20% Cellulose	78% Non-fibrous (Other)	2% Chrysotile
48053-69-Backing *162103537-0007A*	Room 1 - Linoleum	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
48053-70 *162103537-0008*	Room 2 - Linoleum	Black/Green Fibrous Homogeneous	15% Cellulose	83% Non-fibrous (Other)	2% Chrysotile
48053-71 *162103537-0009*	Room 3 - Linoleum	Gray/Black Fibrous Homogeneous	20% Cellulose	78% Non-fibrous (Other)	2% Chrysotile
48053-72 *162103537-0010*	North Hall - Ceiling Tile	Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
48053-73-Floor Tile *162103537-0011*	Kitchen - Floor Tile	White Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
48053-73-Mastic *162103537-0011A*	Kitchen - Floor Tile	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 02/26/2021 12:25:41

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EMSL Order:	162103537
Customer ID:	CFME50
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Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
48053-74-Floor Tile *162103537-0012*	North Restroom - Floor Tile	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-74-Mastic *162103537-0012A*	North Restroom - Floor Tile	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-75-Floor Tile *162103537-0013*	1905 2nd Floor North Room - Floor Tile	Brown Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
48053-75-Mastic *162103537-0013A*	1905 2nd Floor North Room - Floor Tile	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-76 *162103537-0014*	1905 2nd Floor North Room - Ceiling Tile	Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
48053-77 *162103537-0015*	1905 3rd Floor Room 16 - Drywall Mud	White Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
48053-78 *162103537-0016*	Room 18 - Ceiling Tile	Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
48053-79-Texture *162103537-0017*	Room 13 - Plaster	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
48053-79-Plaster *162103537-0017A*	Room 13 - Plaster	Gray Non-Fibrous Homogeneous	<1% Hair	20% Quartz 80% Non-fibrous (Other)	None Detected
48053-80 *162103537-0018*	Restroom - Ceiling Tile	Brown/White Fibrous Heterogeneous	30% Cellulose	60% Gypsum 10% Non-fibrous (Other)	None Detected
48053-81-Tile *162103537-0019*	Restroom - Quarry Tile - Grout + Adhesive	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-81-Grout *162103537-0019A*	Restroom - Quarry Tile - Grout + Adhesive	Gray Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
48053-81-Adhesive *162103537-0019B*	Restroom - Quarry Tile - Grout + Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)
Shannon Clegg (29)

Richard Harding, Laboratory Manager
or Other Approved Signatory

Initial report from: 02/26/2021 12:25:41

OrderID: 162103520

ENVIRONMENTAL MANAGEMENT SERVICES OF IOWA, INC.
5170 Wolff Road, #2
Dubuque, IA 52002
(563) 583-0808 FAX: (563) 583-2206

BULK SAMPLE ANALYSIS REQUEST

DATE: 2-24-21 INSPECTOR: Jeff Stahr

FACILITY: City of Clinton BUILDING #:

BUILDING: 480 South 3rd St Clinton IA PROJECT #:

LABORATORY: EMSL Analytical, Inc.
2001 East 52nd Street
Indianapolis, IN 46205
(317) 803-2997 FAX: (317) 803-3047
Main Office: 1-800-220-3675

DATE SAMPLE TAKEN	SAMPLE NUMBER	LOCATION	SAMPLE DESCRIPTION	
2-24-21	48053-82	Tilt up Conc. joints	Gray Caulk	
2-24-21	48053-83	Base of Tilt up Conc.	Black Tar	
2-24-21	48053-84	Brick joints	white Caulk	
2-24-21	48053-85	Boiler Room Alum. Wind.	Glazing	
2-24-21	48053-86	1905 Building Window open.	Aggregate Panels	
2-24-21	48053-87	1962 Roof Field	Built up roof layers	
2-24-21	48053-88	1962 Roof Flashings	Built up roof layers	3%
2-24-21	48053-89	1978 Roof Field	Built up roof layers	
2-24-21	48053-90	1978 Roof Flashings	Built up roof layers	10%
2-24-21	48053-91	1978 Lower Roof Field	Built up roof layers	
2-24-21	48053-92	1978 Lower Roof Flashings	Built up roof layers	2%
2-24-21	48053-93	1978 Lower Roof New Flashings	Black Tar	

RESULTS AND INVOICES to be E-mailed to: markemsi@aol.com

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Customer ID: CFME50
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Attention: Mark Hogan
Environmental Management Svs. of Iowa
5170 Wolff Rd. #2
Dubuque, IA 52002

Project: 480 S 3RD ST CLINTON IA

Phone: (563) 583-0808
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Received Date: 02/25/2021 12:10 PM
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Collected Date: 02/24/2021

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
48053-82 *162103520-0001*	TILT UP CONC. JOINTS - GRAY CAULK	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-83 *162103520-0002*	BASE OF TILT UP CONC. - BLACK TAR	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-84 *162103520-0003*	BRICK JOINTS - WHITE CAULK	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-85 *162103520-0004*	BOILER ROOM ALUM. WIND. - GLAZING	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48053-86 *162103520-0005*	1905 BUILDING WINDOW OPEN. - AGGREGATE PANELS	Gray Non-Fibrous Homogeneous	<1% Glass	15% Quartz 85% Non-fibrous (Other)	None Detected
48053-87 *162103520-0006*	1962 ROOF FIELD - BUILT UP ROOF LAYERS	Black Fibrous Heterogeneous	25% Cellulose	75% Non-fibrous (Other)	None Detected
48053-88 *162103520-0007*	1962 ROOF FLASHINGS - BUILT UP ROOF LAYERS	Black Fibrous Heterogeneous	25% Cellulose	72% Non-fibrous (Other)	3% Chrysotile
48053-89 *162103520-0008*	1978 ROOF FIELD - BUILT UP ROOF LAYERS	Black/Yellow Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
48053-90 *162103520-0009*	1978 ROOF FLASHINGS - BUILT UP ROOF LAYERS	Black Fibrous Heterogeneous	20% Cellulose	70% Non-fibrous (Other)	10% Chrysotile
48053-91 *162103520-0010*	1978 LOWER ROOF FIELD - BUILT UP ROOF LAYERS	Black Fibrous Heterogeneous	25% Cellulose	75% Non-fibrous (Other)	None Detected
48053-92 *162103520-0011*	1978 LOWER ROOF FLASHINGS - BUILT UP ROOF LAYERS	Black Fibrous Heterogeneous	25% Cellulose	73% Non-fibrous (Other)	2% Chrysotile
48053-93 *162103520-0012*	1978 LOWER ROOF NEW FLASHINGS - BLACK TAR	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 02/26/2021 08:11:52

EMSL Analytical, Inc.
6340 CastlePlace Dr. Indianapolis, IN 46250
Tel/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order:	162103520
Customer ID:	CFME50
Customer PO:	
Project ID:	

Analyst(s)
Craig Nixon (12)

Richard Harding, Laboratory Manager
or Other Approved Signatory

Initial report from: 02/26/2021 08:11:52

OrderID: 162104263

ENVIRONMENTAL MANAGEMENT SERVICES OF IOWA, INC.

5170 Wolff Road, #2
Dubuque, IA 52002
(563) 583-0808 FAX: (563) 583-2206

04263

BULK SAMPLE ANALYSIS REQUEST

DATE: 3-3-21 INSPECTOR: Jeff Stahr

FACILITY: City of Clinton BUILDING #:

BUILDING: 480 South 3rd St Clinton IA PROJECT #:

LABORATORY: EMSL Analytical, Inc.
2001 East 52nd Street
Indianapolis, IN 46205
(317) 803-2997 FAX: (317) 803-3047
Main Office: 1-800-220-3675

DATE SAMPLE TAKEN	SAMPLE NUMBER	LOCATION	SAMPLE DESCRIPTION	
3-2-21	48053-94	Boiler Room T6	mudded fitting	5% chry
3-2-21	48053-95	Boiler Room-Boiler 1	Door gasket	40% chr.
3-2-21	48053-96	Boiler Room Boiler door - refractory cement		ND
3-2-21	48053-97	1905 Basement-SE Chase T6	mudded fittings	5% Am. 10% chry
3-2-21	48053-98	1905 1st floor Restroom T6	mudded fittings	2% amo 5% chry

RESULTS AND INVOICES to be E-mailed to: markemsi@aol.com

(OVER)

SHIPPING: Ground Next Day Air
(circle one)

EMSL Analytical, Inc.
6340 CastlePlace Dr. Indianapolis, IN 46250
Tel/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order: 162104263
Customer ID: CFME50
Customer PO:
Project ID:

Attention: Mark Hogan
Environmental Management Svs. of Iowa
5170 Wolff Rd. #2
Dubuque, IA 52002

Project: (Old YMCA) 480 South 3rd St., Clinton, IA

Phone: (563) 583-0808
Fax: (563) 583-2206
Received Date: 03/05/2021 10:40 AM
Analysis Date: 03/05/2021
Collected Date: 03/02/2021

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
480S3-94 *162104263-0001*	Boiler Room T6 - Mudded Fitting	Gray Fibrous Homogeneous	60% Min. Wool	35% Non-fibrous (Other)	5% Chrysotile
480S3-95 *162104263-0002*	Boiler Room-Boiler 1 - Door Gasket	Brown/Gray Fibrous Homogeneous	20% Cellulose	40% Non-fibrous (Other)	40% Chrysotile
480S3-96 *162104263-0003*	Boiler Room Boiler Door - Refractory Cement	Tan Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
480S3-97 *162104263-0004*	1905 Basement SE Chase T6 - Mudded Fittings	Gray Fibrous Homogeneous	30% Min. Wool	55% Non-fibrous (Other)	5% Amosite 10% Chrysotile
480S3-98 *162104263-0005*	1905 1st Floor Restroom T6 - Mudded Fittings	Gray Fibrous Homogeneous	80% Min. Wool	13% Non-fibrous (Other)	2% Amosite 5% Chrysotile

Analyst(s)
Ross Matlock (5)

Richard Harding, Laboratory Manager
or Other Approved Signatory

Initial report from: 03/05/2021 12:42:29

JEFF STAHR

DOB: 01-02-1965

Issued: 01-06-2021

This person is licensed to perform asbestos work in the State of Iowa. ID card is intended for official use only and must be present on jobsite.

License Type	Number	Expires
INSPECTOR	21-5440	12-29-2021
SUPERVISOR	20-3852	01-27-2021

DIVISION OF IOWA LABOR

Asbestos

Rod A. Roberts

Rod A. Roberts
Labor Commissioner

APPENDIX C

PHASE II ENVIRONMENTAL SITE ASSESSMENT

Phase II Environmental Site Assessment

480 S. 3rd Street
Clinton, Clinton County, Iowa 52732

United States Environmental Protection Agency – Region 7
Brownfields Assessment Grant: BF97782001
Terracon Project No. 07207086 T19

March 3, 2022

Prepared for:
East Central Intergovernmental Association (ECIA)
7600 Commerce Drive
Dubuque, Iowa 52002

&

City of Clinton, Iowa
611 South 3rd Street
Clinton, Iowa 52732

Prepared by:
Terracon Consultants, Inc.
Bettendorf, Iowa

March 3, 2022

East Central Iowa Intergovernmental Association
7600 Commerce Park
Dubuque, IA 52002-9673

Attn: Ms. Dawn Danielson

Re: Phase II Environmental Site Assessment for Brownfields
Clinton YMCA - 480 S. 3rd Street
Clinton, Clinton County, Iowa 52732
Terracon Project No. 07207086 T19
Brownfields Assessment Grant: BF97782001

Dear Ms. Danielson:

Terracon Consultants, Inc. (Terracon) is pleased to submit our report for the Phase II Environmental Site Assessment completed at the site referenced above. The report presents information and data obtained during field activities which included the advancement of soil borings and the collection of soil samples for chemical analysis. Groundwater samples could not be collected since a saturated zone was not encountered in soil borings prior to shallow bedrock resulting in Geoprobe® refusal.

EPA approved Property Specific Sampling and Analysis Plan (PSAP) dated December 13, 2021, the Generic Quality Assurance Project Plan (QAPP), dated April 7, 2021, the Standard Consultant Contract For Qualified Environmental Professional (QEP) dated December 3, 2020, and the ECIA notice to proceed dated January 12, 2022.

We appreciate the opportunity to perform these services for you. If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,
Terracon Consultants, Inc.

Benjamin M. LaPointe, CHMM
Brownfields Project/Contract Manager

Dennis R. Sensenbrenner, PG
Senior Associate/Project Reviewer

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PHASE II ENVIRONMENTAL SITE ASSESSMENT
ECIA BROWNFIELDS ASSESSMENT SERVICES
480 S. 3rd Street
Clinton, Clinton County, Iowa 52732

Terracon Project No. 07207086 T19
March 3, 2022

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted a Phase II Environmental Site Assessment at the site located at 480 S. 3rd Street, Clinton, Iowa. The Phase II was completed in accordance the EPA approved Property Specific Sampling and Analysis Plan (PSAP) dated December 13, 2021, the Generic Quality Assurance Project Plan (QAPP), dated April 7, 2021, the Standard Consultant Contract For Qualified Environmental Professional (QEP) dated December 3, 2020, and the ECIA notice to proceed dated January 12, 2022.

1.1 Site Description

The site is an approximate 0.96-acre commercially zoned property located at 480 S. 3rd Street, Clinton, Clinton County, Iowa. The property is improved with an approximate 27,000 square-feet vacant structure (original portion constructed in 1906 and several building additions between the 1960s and 1970s) and associated paved parking and drives areas. The structure was historically used as a Young Men's Christian Association (YMCA) recreational facility. A topographic map depicting the general site location is included as **Exhibit 1** provided in **Appendix A**. The current site layout is provided as **Exhibit 2** in **Appendix A**.

1.2 Background

A Phase I Environmental Site Assessment (ESA) was conducted at the site in September 2021 in accordance with ASTM E1527-13 to identify recognized environmental conditions associated with the property. The following recognized environmental conditions were identified during the Phase I ESA:

- A historical petroleum filling station adjoined the site to the northeast during the 1950s and 1960s. The petroleum filling station operated prior to the period of regulatory oversight of the state.

Terracon understands that the City of Clinton requested to further assess the property for the presence of potential petroleum impacted soil and/or groundwater below the site. Terracon understands that the future use of the site and demolition/renovation plans of the onsite structure are not yet determined.

1.3 Objectives

The objectives of the proposed Phase II Environmental Site Assessment are to:

1. Identify evidence of a release to the site and assess the potential presence of contaminants of concern commonly associated with the identified RECs and/or site concerns at concentrations above laboratory reporting limits and/or Iowa Statewide Standards;
2. Provide information relevant to understand potential landowner and contractor obligations, as required by CERCLA and OSHA, to limit exposures to hazardous substances that pose a risk to human health or the environment, and/or may pose a risk (or perceived risk) of bodily injury to persons on the property;
3. Provide information to assist the landowner and/or redevelopment contractor to comply with federal, state, and local environmental laws and regulations during construction and post-construction activities when handling impacted media (i.e. legal and proper disposal of impacted excavated media); and,
4. If applicable, provide information necessary to plan and implement corrective/mitigating actions and/or controls necessary to redevelop the site.

1.4 Contaminants of Concern

- Volatile organic compounds (VOCs)
- Total Extractable Hydrocarbons (TEH)
- Lead

2.0 ASSESSMENT ACTIVITIES & METHODS

The Phase II field activities were conducted on January 25, 2022. Field activities included the advancement of three soil borings for the collection of soil and groundwater samples as summarized below. The approximate soil boring locations and areas of concern are shown on **Exhibit 2** provided in **Appendix A**.

The property-specific sampling design was set forth in the Property Specific Sampling and Analysis Plan (PSAP) previously approved by EPA 7. Terracon completed the following tasks as part of the Phase II ESA.

- Advancement of three borings, designated B-1 through B-3, at the locations shown on Exhibit 2 in Appendix A

- Continuous field screening of soils from the probe cores using a photo-ionization detector (PID)

- Collection of soil[1] samples for laboratory analysis; soil samples were collected from a shallow depth and a deeper interval based on the field screening results and/or other field observations

- Submittal of soil samples to Keystone Laboratories, Inc. for analysis

2.1 Methodology

Terracon Standard Operating Procedures (TSOPs) were followed as provided with the EPA Region 7 approved Generic QAPP, dated April 7, 2021, for sampling, physical measurements, equipment cleaning, and equipment calibration. Terracon recorded discrepancies, clarifications, and corrective actions for QA/QC, if applicable, in the field logbook.

Soil Borings and Soil Sampling

Soil borings B-1 through B-3 were advanced using a truck mounted hydraulic direct push drill rig (Geoprobe®). Based on shallow bedrock at the site, probe refusal was encountered prior to encountering the first shallow aquifer. Therefore, the maximum proposed soil boring depths became the refusal point for each boring per the PSAP. To confirm refusal depths, Terracon advanced two additional soil borings, offset within 5-feet, of each of the original soil borings locations as indicated in the PSAP.

Soil borings B-1A and its offset soil borings (B-1B & B-1C) were advanced until probe refusal at 4.5 feet below ground surface (bgs) for each of the boring location. Boring B-2A and its offset soil borings (B-2B & B-2C) were advanced until refusal at 5.5 feet bgs. Boring B-3A was advanced until probe refusal at 7-feet bgs. The first offset soil boring (B-3B) met refusal at 3-feet bgs. It is unknown whether refusal was caused by a below surface obstruction (e.g. boulder, buried construction debris, etc.) or via bedrock. The last offset soil boring (B-3C) met refusal at 7-feet bgs due to suspected bedrock.

Soil lithology (below surfacing and sub-base material) at soil boring locations B-1 and B-2 consisted of clay above the encountered bedrock. Evidence of a historical fill was encountered at the site in soil borings B-3A through B-3C located on the western portion of the site, which included various (inconsistent) amounts of crushed brick in the soil borings. During the advancement of B-3B substantial amounts of brick was encountered resulting in poor recovery likely causing the probe refusal. General soil descriptions including color, relative moisture content, specific boring depths, and pertinent observations are presented on the soil boring logs provided in **Appendix B.**

Each soil core was continuously field-screened in one-foot intervals for ionizable organic vapors using a photo-ionization detector (PID) via a closed container headspace method. Vapor measurements were recorded on the field soil boring logs.

[1] Groundwater samples could not be collected due to shallow competent bedrock.

Two soil samples were collected from each soil boring. One soil sample was collected from the 2-foot interval at surficial/near surface soils. The second soil sample was collected from the 2-foot interval most likely impacted based on highest PID readings or the bottom soil interval (above the bedrock). Due to limited soil available from sample intervals from each soil core and quantity of sample needed for each analysis, soil samples were collected from the appropriate intervals of the original borings and the offset borings. This occurred for each boring location. Soil depth intervals sampled for laboratory analysis of contaminants of concern are summarized in **Table 2-1** below.

Table 2-1 Sampling Program

Boring Number	Sample Interval Depths (feet)
B-1	(0-2), (3-5)
B-2	(0-2), (4-5)
B-3	(0-2), (3-7)
DUP-1 (B-1)	(3-5)

Temporary Monitoring Wells and Sampling

Based on shallow bedrock encountered while advancing soil borings, a saturated zone was not observed in soil cores collected. However, temporary wells were installed to confirm the lack of groundwater recharge in the excavated bore holes at the site. The temporary monitoring wells were constructed utilizing 1-inch diameter, 0.010-inch machine slotted poly-vinyl chloride (PVC) well screen with a threaded bottom cap followed by a 1-inch diameter, threaded, flush-joint PVC riser pipe to the ground surface. Temporary monitoring wells did not produce a measurable amount of groundwater during the duration of field work completed on January 25, 2022.

2.2 Deviations

During the advancement of boring B-1 through B-3 suspected bedrock/subsurface obstruction was encountered at 4.5 to 7 feet bgs. Therefor each boring was offset twice (approximately 5 feet from original boring) and advanced until refusal.

While advancing soil borings at the site, a saturated zone was not encountered within the vadose zone prior to probe refusal at bedrock. Bedrock was encountered between 4.5 and 7 feet at the site (evident based on probe refusal). Therefore, groundwater samples could not be collected as part of this investigation.

There were no other deviations from the approved PSAP.

3.0 DATA FINDINGS

3.1 Physical Measurements and Field Screening

Site-specific soil lithology consisted of damp-moist silty lean clay for soil borings advanced at the northeast and southeast corners of the site building, which extended from the near surface (immediately below surface fill material) to the termination depths (bedrock) of each of the soil borings advanced. The soil lithology for the borings at the southwest corner of the site building consisted of fill material.

Photo-ionizable vapor measurements collected while screening onsite soils using a PID were not evident of an obvious release at the site. PID measurements are presented on soil borings logs provided in **Appendix B**. Observable indicators of a release (i.e. soil staining, oil sheen, free product, odors, etc.) were not observed while advancing soil borings at the site.

3.2 Laboratory Analysis

The soil samples collected were analyzed according to the sampling program provided in the site-specific sampling and analysis plan (P07207086 T11) dated December 13, 2021. Contaminants of concern in the sampling program were based on RECs identified in Terracon's Phase I ESA for the site dated September 10, 2021. The laboratory analysis findings are discussed below and summarized in **Table 1** provided in **Appendix C**. The laboratory analytical reports and executed chain-of-custody forms are provided in **Appendix D**.

Soil samples were analyzed for concentrations of:

- Volatile organic compounds (VOCs) by EPA Method 8260,
- Total Extractable Hydrocarbons (TEH) by Iowa Method OA-2,
- Lead via EPA Method 6010

3.2.1 Soil Samples

Concentrations of detected contaminants of concern in soil samples collected is discussed below and summarized in **Table 1**, provided in **Appendix C**.

Volatile Organic Compounds

Acetone was detected in soil sample B-2 (4-5); however, the concentration (0.061 mg/kg[2]) did not exceed IDNR SWS (68,000 mg/kg) for acetone.

Other VOCs did not exceed laboratory reporting limits in soil samples collected. Laboratory reporting limits did not exceed IDNR SWS.

[2] Milligram of constituent per kilogram of soil (mg/kg)

Total Extractable Hydrocarbons

Total extractable hydrocarbons (TEH) classified within the waste oil range were detected in soil samples B-1 (0–2), B-1 (3-5), B-2 (0–2), and B-3 (0–2). However, concentrations were below the respective IDNR SWS. Gasoline profile hydrocarbons were detected in soil samples collected; however, regulated VOCs attributable to gasoline did not exceed IDNR SWS. Diesel profile hydrocarbons were not detected in soil samples collected exceeding laboratory reporting limits.

RCRA Metals (Lead)

Lead was detected at a concentration (454 mg/kg) exceeding the IDNR SWS (400 mg/kg) in soil sample B-1 (0-2 feet) collected from surface fill material at the site. Lead was detected in borings B-1 (3-5), Dup-1 (B-1, 3-5), B-2 (0-2), B-2 (4-5), B-3 (0-2), and B-3 (3-7). However, concentrations were below the respective IDNR SWS.

Refer to the Laboratory Analytical Report provided in **Appendix B** to review detected concentrations that do not exceed applicable SWSs.

3.2.2 Groundwater Samples

A saturated zone was not encountered in soil borings advanced above presumed bedrock elevations encountered between 4.5 and 7 feet at the site (based on probe refusal). Therefore, groundwater samples could not be collected as part of this investigation.

4.0 DATA VALIDATION & VERIFICATION (QAPP SECTION D1 & D2)

4.1 Field Methods and Measurements Review

To validate the quality and usability of data findings, a review of field activities outcomes included the following:

Table 4-1 – Field Methods and Measurements Review Summary

Review Checklist	Validated	Descriptions
Soil boring and sampling design was conducted in accordance with the approved PSAP	Yes	
Sample collection methods were conducted in accordance to Terracon Standard Operating Procedures (TSOPs) as provided in the Generic QAPP.	Yes	
Quality Assurance / Quality Control (QA/QC) Samples were collected in accordance to TSOPs.	Yes	

Sampling is considered complete if 100% of the soil samples are obtained pursuant to the PSAP design	Yes	
Sampling is considered complete if 100% of the groundwater samples were obtained pursuant to the PSAP design	No	A saturated zone was not encountered during the advancement of soil borings. Therefore, groundwater sampling and analysis could not be included as part of this investigation via the utilized boring methods.
Soil sampling is considered representative if 50% of the sample interval for soil was recovered and submitted	Yes	
Groundwater sampling is considered representative if 100% of the laboratory volume for groundwater samples is extracted and submitted	No	A saturated zone was not encountered in soil borings advanced. Therefore, groundwater sampling and analysis could not be included as part of this investigation via the utilized boring methods.
Chain of custody represents samples collected and submitted and laboratory analysis requests were made pursuant to the PSAP design	Yes	
Holding and transport times were met for the sample to be considered valid	Yes	
Calibration of instruments at bench mobilization and in the field from instrument records and field logs specific to the property eligible and assessed	Yes	The PID was calibrated in the field at 8:25 am on 1/25/2022 and was recorded in the field log book.
Concentrations of VOCs were not detected in the Trip Blank QA/QC sample, which would indicate the potential for cross-contamination between samples or other breach of sample integrity during transport.	No	Trichloroethylene (TCE) was encountered in the laboratory prepared trip blank. However, detectable concentrations of TCE was not encountered in soil samples collected; therefore, the TCE in the trip blank does not affect the viability of soil samples collected. Further discussion of the Trip Blank is presented below.

Trip Blank

The laboratory prepared Trip Blank accompanied the sample jars/cooler from the lab. The Trip Blank is used to evaluate the potential for cross contamination during shipment. The Trip Blank reported a concentration of Trichloroethylene at 5.2 µg/L. Terracon reviewed the soil results and Trichloroethylene was not reported to exceed the method reporting limit. Therefore, the soil analytical results are not considered to be impacted by transport and the results are considered viable for project decisions.

4.2 Laboratory Methods and Measurements Review

Laboratory Validation of Analytical Data

The laboratory is responsible for validating data in accordance with laboratory standard operating procedures. Discussions and notes regarding laboratory data validation; including but not limited to, laboratory surrogate recoveries, matrix spike / matrix spike duplicate (MS/MSD), qualifying statements, etc.; is provided in the laboratory report included as **Appendix D**.

Field Duplicate Sampling

In addition to laboratory provided validation data, Terracon assessed laboratory precision via a duplicate soil sample. Precision is evaluated using the relative percent difference (RPD) between concentrations reported for an actual sample and it's duplicate. A duplicate soil sample was collected from B-1 (3-5) (DUP-1). Lead and TEH relative percent difference exceeded the QA/QC RPD limit as determined in Generic QAPP. However, soils are not homogeneous and actual concentrations can vary within the same depth intervals. VOCs in soil sample B-1 (3-5) and its duplicate were below the laboratory's reporting limits; therefore, an RPD evaluation of VOC laboratory data is not applicable.

Reporting Limits

To validate appropriate sensitivity of the laboratory analysis the laboratory reporting limit must not exceed Iowa SWS. The laboratory reporting limit is the lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Laboratory Reporting Limits were below the primary action limits (i.e. SWS) used for this Phase II ESA.

5.0 DATA EVALUATION (QAPP SECTION A7.3)

5.1 Decision Rule

The City intended to determine whether this property is or is not impacted relative to the IDNR statewide standards. Based on the outcome of the decision, there are two potential Project actions. They are as follows:

- If petroleum contaminants of concern in soil and/or groundwater do not exceed SWS, the site would not be considered environmentally impaired in regard to contaminants of concern assessed during this Phase II ESA. ECIA and the City can consider it feasible for redevelopment per the Iowa Land Recycling Program (LRP) (567 IAC 135) without considering remedy of soils and/or groundwater in regard to contaminants of concern assessed as part of this assessment. Further assessment of contaminants of concern in soil/groundwater will not be necessary.

or,

- If contaminants of concern in soil and/or groundwater exceed SWS, then potential exposure concerns associated with the SWS exceedances would require further evaluation for potential human and/or environmental exposures.

5.2 Project Data Decisions

5.2.1 Project Decision – Soils

Based on measured parameters in soil, levels of lead contamination exceed applicable SWSs in soil sample B-1 (0-2), therefore site conditions may not be suitable at this time for unrestricted land use without remedial efforts.

5.2.2 Project Decision - Groundwater

The saturated zone was not encountered during the field activities on January 25, 2022. If suspected impacted groundwater and/or stormwater (such as by contact with impacted soils) requires dewatering from excavations as part of site development, additional sampling and/or special disposal considerations may need to be considered by the excavation contractor.

5.3 Exposure Risk Evaluation

The Phase II ESA soil analytical results were evaluated for exposure risk using the IDNR LRP risk-based Statewide Standards (SWS). Maximum reported concentrations for detected analytes were entered into IDNR's cumulative risk calculator, and the results were evaluated for the following conditions.

- Impacts in soil considering site occupants
- Impacts in soil considering site workers

The comparisons were made with the following considerations.

- The property is not enrolled in the LRP, and this comparison is for planning purposes only.
- At the time of assessment, the property was mostly covered with concrete paved parking which acts as an engineered barrier. However, the green space on the property does not have restricted access to control exposures; there are no existing significant security structures, engineered barriers, or remoteness of location pursuant to the LRP rules. Additional control measures and/or considerations may be necessary where existing engineered barriers are removed (e.g. redevelopment activities, or other excavations).

Terracon entered the maximum concentrations for soil and ran the calculator for the above scenarios. Results were as follows:

Soil Calculator Results

	Cancer Risk	Non-Cancer Risk
Residential Use	0.00	1.13
Site Worker	0.00	0.41
Construction Worker	0.00	0.23

6.0 CONCLUSIONS AND RECOMMENDATIONS

This Phase II ESA was conducted to assess whether petroleum and/or hazardous substance contaminants of concern associated with the identified RECs are present at the site, to identify potential human or environment exposure concerns associated with identified contaminants, and to provide information to the landowner and redevelopment contractor regarding federal, state, and local regulations associated with site redevelopment and use (i.e. handling and disposal of contaminated media).

Conclusions

Contaminants of concern in soil samples collected that exceed IDNR's SWS for soil include lead. Therefore, soil data collected represent the following exposure concerns:

1. Occupant dermal/ingestion exposure (surface contamination)
2. Contractor dermal/ingestion exposure (during excavation)

Potential exposure concerns associated with the SWS exceedances listed above will require additional assessment and/or mitigation before or as part of site development activities to adequately address potential exposures.

Concentrations of VOCs were not encountered in soil samples collected at levels exceeding a reporting limit or Iowa SWS; therefore, VOCs do not represent a vapor intrusion concern into proposed onsite structures.

Recommendations

- Engineered controls should be implemented and maintained to mitigate the potential of dermal/ingestion exposure to site occupants. Terracon recommends that impacted soils not removed from the site during redevelopment be capped with an impermeable surface (i.e. asphalt/concrete pavement, concrete foundation, and/or 3 feet of "uncontaminated" clay) to mitigate the potential for human and/or environmental exposures to impacted soils.

- Excavation of impacted soils at the site (from site development, etc.), should be done in a manner does not present a threat to human health or the environment, and which limits potential for spread of contaminants. Excavated impacted soils should not be relocated as backfill to other areas onsite (unless the onsite area has engineering controls in place

to cap impacted soils) or offsite. Excavated soil waste should be disposed per local, state, and federal regulations at a municipal landfill permitted to accept the waste.

- Soil Management Plan: Terracon understands that proposed redevelopment at the site will include excavation activities and disposal of excavated media. Redevelopment contractors are potentially at risk of exposure to contaminated soil and groundwater during redevelopment activities. Disposal of impacted excavated media will also be subject to local disposal regulations. Because of these factors, Terracon recommends that a site-specific soil and groundwater management plan be prepared prior to groundbreaking activities.

  The purpose of the soil and groundwater management plan is to provide information necessary for redevelopment contractors to plan appropriate site development activities and incorporate health and safety into their bid package for the construction. The plan will discuss appropriate onsite soil profiling/screening, proper handling, best practices, backfilling, and disposal of excavated soil during site redevelopment activities.

7.0 REGULATORY SETTING

7.1 IDNR Land Recycling Program

The LRP is a voluntary, risk-based cleanup program for properties with environmental impacts. The LRP is designed to meet the dual objectives of addressing contaminated sites and promoting the redevelopment of these sites. The primary means of meeting these objectives are by encouraging voluntary participation to address contamination by establishing a set of risk-based response action standards, and by providing a measure of liability protection to participants and future property owners. Iowa has finalized a MOA with the EPA. Under the MOA, the EPA agrees not to act at sites enrolled in the LRP.

7.2 Iowa Statewide Comparison

The LRP establishes statewide standards that represent concentrations of contaminants in specific media of an affected area. These are values at which normal, unrestricted exposure through a specific exposure pathway are considered unlikely to pose a threat to human health, safety, or the environment. Risk-based contaminant concentrations for soil and groundwater are calculated using a formula that considers chemical specific properties concerning toxicity and assumptions about human exposure. The formula is used for each contaminant at a site, except for lead, which has default values specified in the regulations.

The comparison of reported chemical concentrations to the statewide standards is the primary project decision.

7.3 Statewide Soil Standards

Equation (1) is used to calculate the risk-based concentrations for compounds (other than lead).

$$C = \frac{RF \times AT \times 365\ days/year}{Abs \times \left[\left(ER_c \times EF_c \times ED_c\right) \div BW_c + \left(ER_a \times EF_a \times ED_a\right) \div BW_a\right] \times CF} \quad (1)$$

Where:

C = Risk-based concentration of contaminant
RF = Risk factor, which differs for carcinogenic and noncarcinogenic effects
AT = Averaging time (in years)
Abs = Absorption factor
ER_c = Exposure rate by a child
EF_c = Exposure frequency by a child
ED_c = Exposure duration by a child
BW_c = Body weight of exposed child
ER_a = Exposure rate by an adult
EF_a = Exposure frequency by an adult
ED_a = Exposure duration by an adult
BW_a = Body weight of exposed adult
CF = Conversion Factor

For lead, the IDNR has established a statewide standard of 400 mg/kg and a non-residential site-specific standard of 1,100 mg/kg for soil less than two feet in depth. For non-residential site-specific standards for soil deeper than two feet and residential site-specific standards for soil deeper than ten feet, the IDNR standard is based on EPA's Exposure Model for Assessing Risk Associated with Adult Exposures to Lead in Soil.

7.4 Statewide Groundwater Standards

Statewide groundwater standards are determined as being:

- The Safe Drinking Water Act (SDWA) Maximum Contamination Limit (MCL) established by the EPA, if one exists, or
- If no enforceable MCL exists, the lifetime HAL, or
- If no MCL or HAL exists, the standard is calculated using Equation (1) with input variables specified in the rule.

The statewide groundwater standard for a non-protected groundwater source is based on a series of tests and iterations of the formula used for soil standards, with input values that are dependent on the properties of the specific compound being evaluated.

A Protected Groundwater Source is defined as "…a saturated bed, formation, or group of formations which has a hydraulic conductivity of at least 0.44 m/day and a TDS concentration of

less than 2,500 mg/L." A Non-protected Groundwater Source is, by definition, a saturated bed, formation, or group of formations that has a hydraulic conductivity of less than 0.44 m/day or a TDS concentration in excess of 2,500 mg/L. The aquifer at the Site is conservatively assumed to be a Protected Groundwater Source; however, Terracon compared the Site chemistry in groundwater to statewide standards for both Protected and Non-protected Groundwater Sources.

The LRP requires multiple sampling and testing events before making the comparisons of groundwater chemistry to standards for final determination of compliance. The period of monitoring may vary dependent on IDNR approvals if enrolled in the LRP. A "favorable" comparison is not necessarily sufficient for enrollment and closure in the LRP.

7.5 Iowa Site-Specific Comparison – Cumulative Risk Calculator

The statewide standards assume that the property will be restored to unrestricted land use. They are protective of the most sensitive member of the population for the public exposures defined in the LRP rules. In general, this is sufficient for redevelopment or restoration for residential land use and residential occupancy by children.

The City may not require restoration to levels of chemical risk so that future residence by families can occur. Land use for commercial/industrial use must also be considered and is in fact often the primary consideration for reuse. The LRP rules recognize these considerations and include processes whereby site-specific standards can be determined for property-specific conditions of residential or non-residential land use. For sites in the LRP, IDNR requires parties to use its on-line cumulative risk calculator (http://programs.iowadnr.com/riskcalc/pages/calculator.aspx) to achieve compliance. The risk calculator allows for calculation of cumulative risk for residents, site workers, and site construction workers resulting from hypothetical exposure to contaminated groundwater, soil, or air. Site-specific data are entered into the calculator, and if the values of the "cumulative cancer risk" or non-carcinogenic "sum" are less than or equal to 1.00, the site is within acceptable risk levels. If the values exceed 1.00, IDNR allows parties to establish institutional and/or technological controls under sub rules 567 IAC 137.6(10) and (11) to prevent exposure to contaminants.

7.6 Application of the Standards

The user of this document must understand the limited applicability of the standards adopted under the authority of the LRP. The standards were developed within the narrow focus and constraints of the LRP. While the standards are based on a consideration of risk, they are different from other "risk-based" approaches.

The LRP does not contain standards that are established based on the migration of contaminants from one medium to another, which then becomes the basis for subsequent exposure. This does not mean the IDNR has no concern for these cross-media transfers. IDNR chooses to address them through direct measurement of the medium in which the exposure takes place or through

the calculation of such cross-media transfer standards only when it is determined that such an approach is appropriate in a site-specific context. The intent is to avoid the application of needlessly restrictive standards to situations where they are not a relevant concern. Implicit in the final application of the standards is IDNR concurrence that the standards applied in any given situation address all exposure pathways that are deemed to be of concern. This can only take place when the IDNR is adequately informed of the particulars of a situation. Without IDNR concurrence there should be no presumption that a standard is sufficiently protective or that it will meet the requirements of the LRP.

Most of the standards entail very specific exposure assumptions. Site-specific standards assume that institutional controls will be put in place in order to preserve those exposure assumptions (e.g., a prohibition of residential use or well installation). Implicit in the use of such standards is the assumption that the IDNR has evaluated the exposure assumptions, along with necessary institutional controls, and determined that they are appropriate to the situation.

As a result of the integral role of IDNR in determining and approving the appropriate use of the standards, they should not routinely be used for purposes outside of the LRP, including screening to determine whether a situation is a significant problem or whether it is reportable. Exceptions to this are the statewide standards for a Protected Groundwater Source. These standards may be used in lieu of action levels set by 567 IAC Chapter 133: *Rules for Determining Cleanup Actions and Responsible Parties*. This does not prevent IDNR from making use of the standards outside of the LRP when applicable and appropriate to projects under their supervision.

8.0 GENERAL COMMENTS

The analysis presented in this report is based upon data obtained from field activities and from other information discussed in this report. This report does not reflect any variations in subsurface stratigraphy that may occur between sampling locations or across the Site. Actual subsurface conditions may vary. The extent of such variations may not become evident without additional exploration.

This report is prepared for the exclusive use of ECIA and the City of Clinton, Iowa for the specific application to this project and has been prepared in accordance with generally accepted environmental engineering practices. No warranties, express or implied, are intended or made. In the event any changes in nature or location of subsurface conditions as outlined in this report are observed, the conclusions contained in this report cannot be considered valid unless the changes are reviewed, and the conclusions of this report are modified or verified in writing by Terracon.

8.1 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the onsite activities and other services performed under this scope of

work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable or not present during these services, and we cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this Phase II ESA. Subsurface conditions may vary from those encountered at specific borings or test pits or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

8.2 Reliance

ECIA and the City of Clinton, Iowa are the principal end users of this information. Although the report may become available for review by the public, further reliance by others is beyond the scope of the grant and EPA funding.

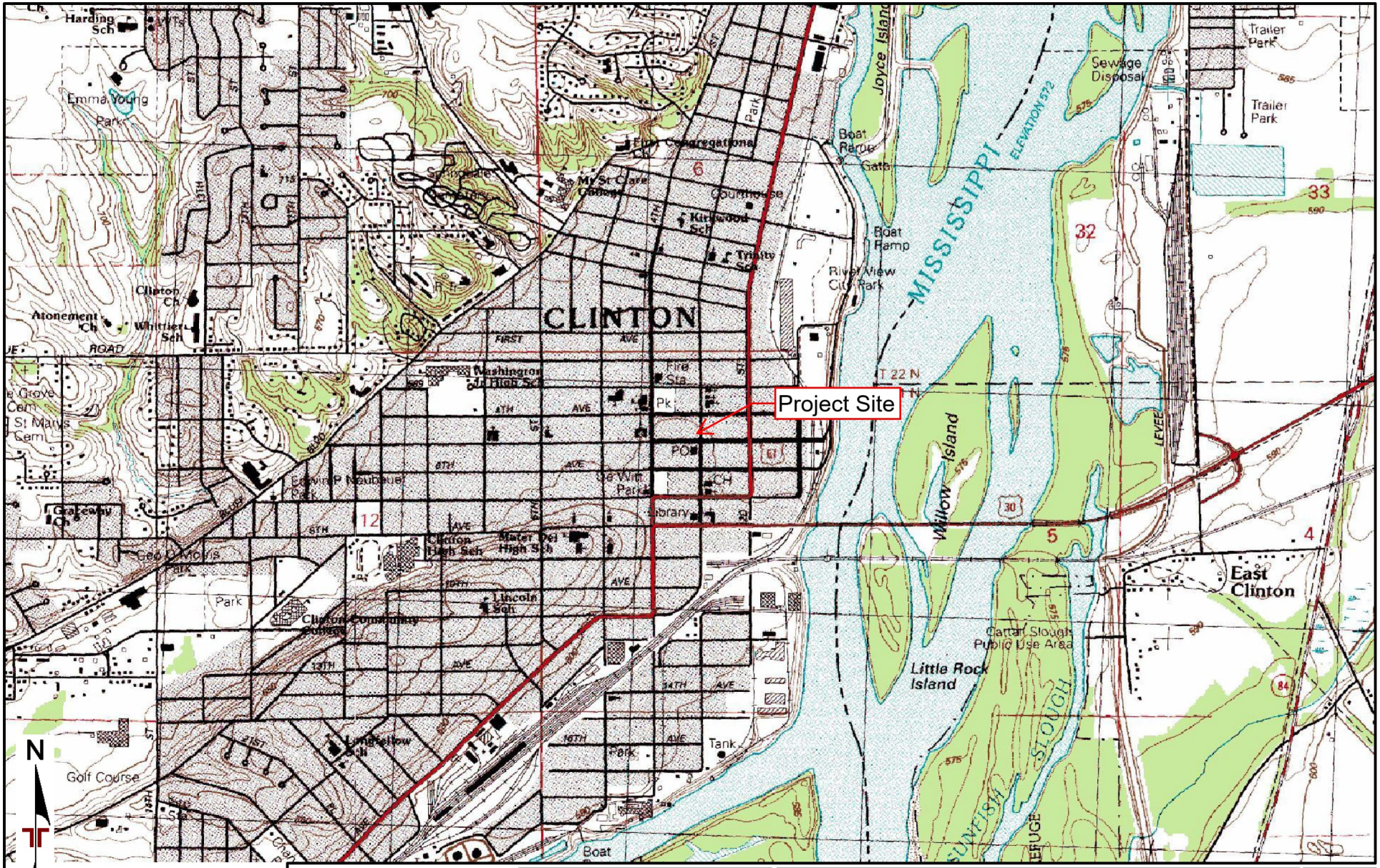
ECIA and/or the City of Clinton, Iowa will make primary use of the data to aid in decision-making relative to considering properties for redevelopment. The data will not constitute the sole or final factor in the positive or negative feasibility determination for redevelopment. It is anticipated that this Phase II ESA is for preliminary characterization and, if needed, will be used as the basis for secondary phases of remedial investigation.

The information contained in this report is for the sole benefit of the ECIA and the City of Clinton, Iowa in determining feasibility for redevelopment and restoration of the property. The information and funding expended to produce the information does not provide windfall or extraneous benefits to property owners.

APPENDIX A

Exhibit 1– Topographic Map

Exhibit 2– Soil Boring Locations Map



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY QUADRANGLES INCLUDE: CLINTON, IA (1/1/1991).

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	BML
Drawn by:	JFC
Checked by:	BML
Approved by:	BML

Project No.	07207086
Scale:	1"=2,000'
File Name:	Site Map
Date:	2/22/2022

Terracon
870 40th Ave
Bettendorf, IA 52722-1607

TOPOGRAPHIC MAP

ECIA Brownfields Assessment Services

480 S. 3rd Street
Clinton, Iowa

Exhibit 1

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	BMl
Drawn by:	JFC
Checked by:	BML
Approved by:	BML

Project No.	07207086
Scale:	AS SHOWN
File Name:	Site Map
Date:	2/22/2022

Terracon
870 40th Ave
Bettendorf, IA 52722-1607

SITE DIAGRAM

ECIA Brownfields Assessment Services

480 S. 3rd Street
Clinton, Iowa

Exhibit

2

APPENDIX B

Boring Logs

BORING LOG NO. B-1

PROJECT: Clinton YMCA Phase II

CLIENT: East Central Intergovernmental Association
7600 Commerce Drive, Dubuque, Iowa

SITE: 480 South 3rd Street
Clinton, Iowa

LOCATION See Exhibit A-2

GRAPHIC LOG	DEPTH		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	SOIL SAMPLE	PID (ppm)
	1.0	**CONCRETE**, Approximately 5.5 inches of concrete followed by 4.5 inches of crushed limestone subbase				9	X	0.0
	2.5	**FILL**, dark brown FILL with construction debris and gravel				9		0.0
		No construction debris or gravel below 1.9'				9	X	0.0
	4.1	**CL**, brown, silty, lean CLAY - native soil				9		0.1
	4.5	**HWL**, Highly weathered LIMESTONE				4.5		0.1
		Refusal						
		Boring Terminated at 4.5 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Direct Push

Abandonment Method:
Boring backfilled with Bentonite

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.

Notes:

Terracon
870 40th Ave
Bettendorf, IA

Boring Started: 01-25-2022 | Boring Completed: 01-25-2022
Drill Rig: Geoprobe | Driller: Direct Push
Project No.: 07207086 | Exhibit: B-1

BORING LOG NO. B-2

PROJECT: Clinton YMCA Phase II

CLIENT: East Central Intergovernmental Association
7600 Commerce Drive, Dubuque, Iowa

SITE: 480 South 3rd Street
Clinton, Iowa

LOCATION See Exhibit A-2

GRAPHIC LOG	DEPTH		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	SOIL SAMPLE	PID (ppm)
	1.0	**CONCRETE**, Approximately 5.5 inches of concrete followed by 4.5 inches of crushed limestone subbase				8	X	0.2
	2.3	**CL**, Red-brown silty CLAY - native soil				8		0.1
	2.9	**SW**, Red-brown, fine-medium, well graded SAND				8		0.0
	5.5	**CL**, Red-Brown silty CLAY	5			8		0.1
						8	X	0.3
	6.0	**HWL**, Highly weathered LIMESTONE				8		0.0
		Refusal						
		Boring Terminated at 6 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Direct Push

Abandonment Method:
Boring backfilled with Bentonite

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.

Notes:

Terracon
870 40th Ave
Bettendorf, IA

Boring Started: 01-25-2022	Boring Completed: 01-25-2022
Drill Rig: Geoprobe	Driller: Direct Push
Project No.: 07207086	Exhibit: B-2

BORING LOG NO. B-3

PROJECT: Clinton YMCA Phase II

CLIENT: East Central Intergovernmental Association
7600 Commerce Drive, Dubuque, Iowa

SITE: 480 South 3rd Street
Clinton, Iowa

LOCATION See Exhibit A-2

GRAPHIC LOG	DEPTH		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	SOIL SAMPLE	PID (ppm)
	1.0	**CONCRETE**, Approximately 5.5 inches of concrete followed by 4.5 inches of crushed limestone subbase				8	X	0.1
		FILL, Brown, silty, lean clay FILL with brick				8		0.1
						8		0.1
						8		0.1
		Red-brown below 4'	5			12	X	0.1
						12		0.2
	6.5					12		0.1
	7.0	**HWL**, Highly weathered LIMESTONE						
		Refusal						
		Boring Terminated at 7 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Direct Push

Abandonment Method:
Boring backfilled with Bentonite

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.

Notes:

Terracon
870 40th Ave
Bettendorf, IA

Boring Started: 01-25-2022 | Boring Completed: 01-25-2022
Drill Rig: Geoprobe | Driller: Direct Push
Project No.: 07207086 | Exhibit: B-3

APPENDIX C

Analytical Results Summary Tables

Table 1 - Soil Analytical Results
ECIA YMCA Clinton Iowa
480 S. 3rd Street
Clinton, Clinton County, Iowa

Analyte	Units	Iowa Statewide Standards (SWS)	B-1 0-2	B-1 3-5	B-2 0-2	B-2 4-5	B-3 0-2	B-3 3-7	DUP-1 B-1 3-5
		For Soil	1/25/2022	1/25/2022	1/25/2022	1/25/2022	1/25/2022	1/25/2022	1/25/2022
Volatile Organic Compounds									
Acetone	mg/kg	68000	BRL	BRL	BRL	**0.061**	BRL	BRL	BRL
Other VOCs	mg/kg		BRL	BRL	BRL	BRL	BRL	BRL	BRL
Target Analyte List (TAL) Metals									
Lead	mg/kg	400	**454**	**105**	**6.2**	**7.2**	**180**	**94.7**	**181**
Total Extractable Hydrocarbons (TEH)									
Gasoline	mg/kg	---	BRL	**67**	**24**	BRL	**22**	BRL	**53**
Diesel	mg/kg	28000	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Waste Oil	mg/kg	9400	**113**	**43**	**5**	BRL	**7**	BRL	**11**
Total Extractable Hydrocarbons	mg/kg	---	**113**	**110**	**29**	BRL	**29**	BRL	**63**

BRL	= Below Reporting Limits
Bold	= Exceeds Laboratory Reporting Limits
Bold	= Exceeds SWS

APPENDIX D

Laboratory Analytical Reports

February 09 2022

Joshua F. Cox
Terracon Environmental-Bettendorf
870 40th Ave
Bettendorf, IA 52722

RE: Clinton County
07207086 T11

Enclosed are the results of analyses for samples received by the laboratory on 01/26/22 12:20. If you have any questions concerning this report, please feel free to contact me at 1-800-858-5227.

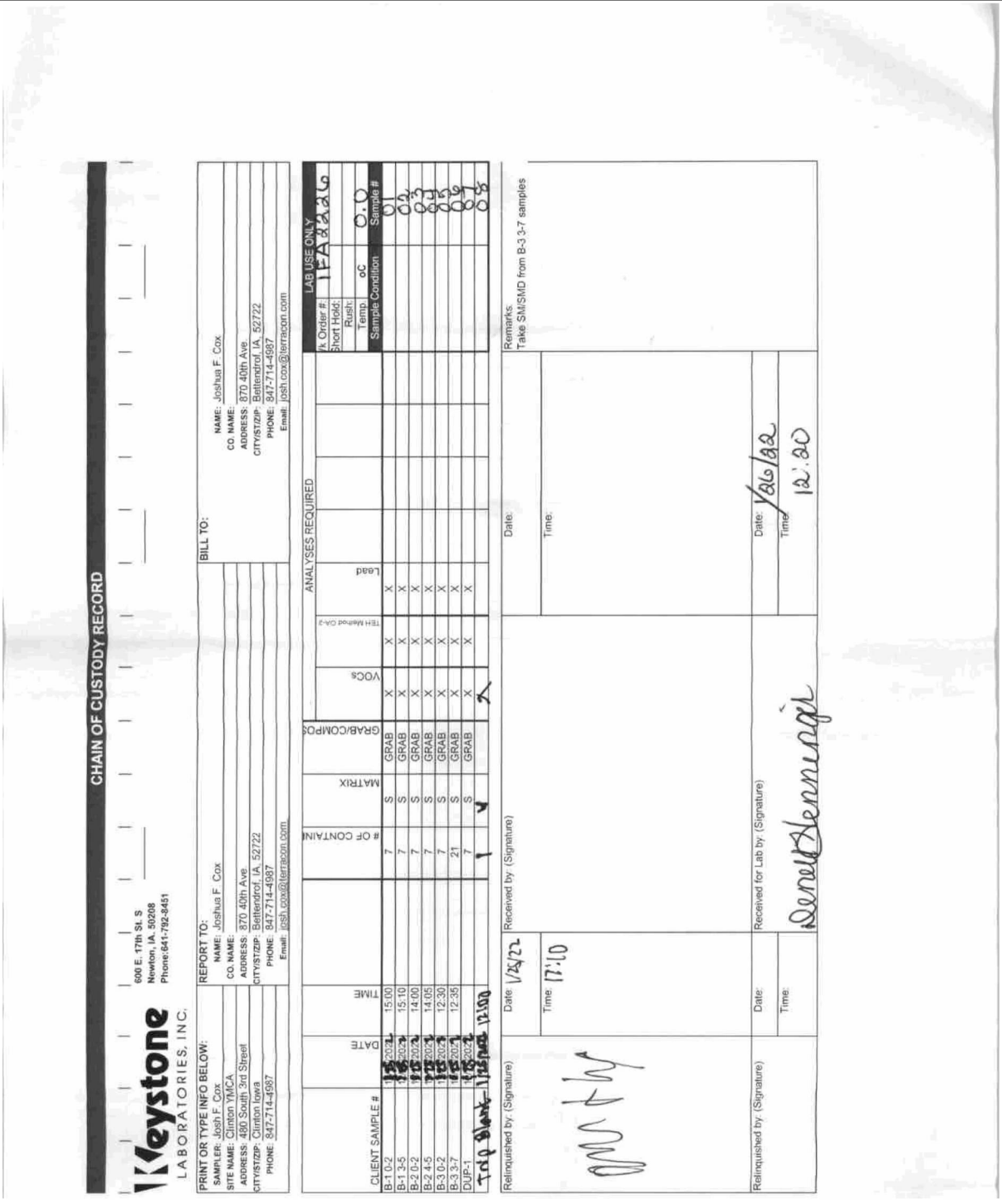
ANALYTICAL REPORT FOR SAMPLES

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1 0-2	1FA2226-01	Soil	01/25/22 15:00	01/26/22 12:20
B-1 3-5	1FA2226-02	Soil	01/25/22 15:10	01/26/22 12:20
B-2 0-2	1FA2226-03	Soil	01/25/22 14:00	01/26/22 12:20
B-2 4-5	1FA2226-04	Soil	01/25/22 14:05	01/26/22 12:20
B-3 0-2	1FA2226-05	Soil	01/25/22 12:30	01/26/22 12:20
B-3 3-7	1FA2226-06	Soil	01/25/22 12:35	01/26/22 12:20
DUP-1	1FA2226-07	Soil	01/25/22 00:00	01/26/22 12:20
Trip Blank	1FA2226-08	Water	01/25/22 12:00	01/26/22 12:20

Phone 641-792-8451
600 East 17th Street South
Newton, IA 50208
Fax 641-792-7989

Terracon Environmental-Bettendorf	Project:	Clinton County
870 40th Ave	Project Number:	07207086 T11
Bettendorf, IA 52722	Project Manager:	Joshua F. Cox

Reported
02/09/22 19:24



CHAIN OF CUSTODY RECORD

Keystone LABORATORIES, INC.
600 E. 17th St. S
Newton, IA. 50208
Phone:641-792-8451

PRINT OR TYPE INFO BELOW:
SAMPLER: Josh F. Cox
SITE NAME: Clinton YMCA
ADDRESS: 480 South 3rd Street
CITY/ST/ZIP: Clinton Iowa
PHONE: 847-714-4987

REPORT TO:
NAME: Joshua F. Cox
CO. NAME:
ADDRESS: 870 40th Ave
CITY/ST/ZIP: Bettendrof, IA. 52722
PHONE: 847-714-4987
Email: josh.cox@terracon.com

BILL TO:
NAME: Joshua F. Cox
CO. NAME:
ADDRESS: 870 40th Ave.
CITY/ST/ZIP: Bettendrof, IA. 52722
PHONE: 847-714-4987
Email: josh.cox@terracon.com

ANALYSES REQUIRED

LAB USE ONLY
Pk Order #: 11A8826
Short Hold:
Rush:
Temp oC: 0.0
Sample Condition:

CLIENT SAMPLE #	DATE	TIME	# OF CONTAINERS	MATRIX	GRAB/COMPOS	VOCs	TEH Method OA-2	Lead	Sample #
B-1 0-2	1/25/2022	15:00	7	S	GRAB	X	X	X	01
B-1 3-5	1/25/2022	15:10	7	S	GRAB	X	X	X	02
B-2 0-2	1/25/2022	14:00	7	S	GRAB	X	X	X	03
B-2 4-5	1/25/2022	14:05	7	S	GRAB	X	X	X	04
B-3 0-2	1/25/2022	12:30	7	S	GRAB	X	X	X	05
B-3 3-7	1/25/2022	12:35	21	S	GRAB	X	X	X	06
DUP-1	1/25/2022		7	S	GRAB	X	X	X	07
TRIP Blank 1/25/22 12:00			1	W		X			08

Relinquished by: (Signature) — Date: 1/25/22 Time: 17:10 — Received by: (Signature) — Date: — Time:

Relinquished by: (Signature) — Date: — Time: — Received for Lab by: (Signature) — Date: 1/26/22 Time: 12:30

Remarks:
Take SM/SMD from B-3 3-7 samples

Phone 641-792-8451
600 East 17th Street South
Newton, IA 50208
Fax 641-792-7989

Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-1 0-2

1FA2226-01 (Soil)

Date Sampled:1/25/2022 3:00:00PM

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Determination of Volatile Organic Compounds									
Chloromethane	ND	0.002	mg/kg dry	1	1FB0273	02/04/22	02/04/22 15:55	EPA 8260B	
Vinyl Chloride	ND	0.002	"	"	"	"	"	"	
Bromomethane	ND	0.002	"	"	"	"	"	"	
Chloroethane	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Acetone	ND	0.050	"	"	"	"	"	"	
Carbon Disulfide	ND	0.005	"	"	"	"	"	"	
Methylene Chloride	ND	0.050	"	"	"	"	"	"	
trans-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Methyl-t-butyl Ether (MTBE)	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.002	"	"	"	"	"	"	
cis-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.005	"	"	"	"	"	"	
Chloroform	ND	0.002	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.002	"	"	"	"	"	"	
Carbon Tetrachloride	ND	0.002	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*98.6 %*	*63-132*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*55-137*		"	"	"	"	
Surrogate: Toluene-d8		*90.4 %*	*73-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*56.0 %*	*65-127*		"	"	"	"	*S-GC*
Determination of Extractable Petroleum Hydrocarbons									
TEH, as gasoline	ND	25	mg/kg	1	1FB0043	02/01/22	02/04/22 19:58	Iowa OA-2	
TEH, as #2 diesel fuel	ND	25	"	"	"	"	"	"	
TEH, as waste oil	**113**	25	"	"	"	"	"	"	
Total Extractable Hydrocarbons	**113**	25	"	"	"	"	"	"	
Surrogate: Pentacosane		*83.8 %*	*15-180*		"	"	"	"	

Phone 641-792-8451 | 600 East 17th Street South, Newton, IA 50208 | Fax 641-792-7989

Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-1 0-2

1FA2226-01 (Soil)

Date Sampled:1/25/2022 3:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
% Solids	**76.8**	0.10	%	1	1FA1215	01/27/22	01/27/22 13:07	SM 2540 G	

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-7989

Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-1 0-2

1FA2226-01RE1 (Soil)

Date Sampled:1/25/2022 3:00:00PM

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Determination of Volatile Organic Compounds									
Benzene	ND	0.003	mg/kg dry	1	1FB0273	02/04/22	02/07/22 15:00	EPA 8260B	
1,2-Dichloroethane	ND	0.003	"	"	"	"	"	"	
Trichloroethylene	ND	0.003	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.003	"	"	"	"	"	"	
Bromodichloromethane	ND	0.003	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.001	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.007	"	"	"	"	"	"	
Toluene	ND	0.003	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.001	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.001	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*60.5 %*	*63-132*		"	"	"	"	*S-GC*
Surrogate: 1,2-Dichloroethane-d4		*65.2 %*	*55-137*		"	"	"	"	
Surrogate: Toluene-d8		*96.6 %*	*73-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*65.6 %*	*65-127*		"	"	"	"	
Determination of Total Metals									
Lead, total	**454**	5.0	mg/kg dry	1	1FB0068	02/02/22	02/03/22 04:47	EPA 6010B	

Phone 641-792-8451 600 East 17th Street South Newton, IA 50208 Fax 641-792-7989

Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-1 0-2

1FA2226-01RE2 (Soil)

Date Sampled:1/25/2022 3:00:00PM

Keystone Laboratories, Inc. - Newton

Determination of Volatile Organic Compounds

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Tetrachloroethylene	ND	0.008	mg/kg dry	1	1FB0273	02/04/22	02/08/22 13:22	EPA 8260B	
2-Hexanone (MBK)	ND	0.020	"	"	"	"	"	"	
Dibromochloromethane	ND	0.004	"	"	"	"	"	"	
Chlorobenzene	ND	0.008	"	"	"	"	"	"	
Ethylbenzene	ND	0.008	"	"	"	"	"	"	
Xylenes, total	ND	0.016	"	"	"	"	"	"	
Bromoform	ND	0.004	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.008	"	"	"	"	"	"	IS-01
1,3-Dichlorobenzene	ND	0.008	"	"	"	"	"	"	IS-01
1,4-Dichlorobenzene	ND	0.008	"	"	"	"	"	"	IS-01
1,2-Dichlorobenzene	ND	0.008	"	"	"	"	"	"	IS-01
Surrogate: Dibromofluoromethane		*94.3 %*	*63-132*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*55-137*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*73-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.4 %*	*65-127*		"	"	"	"	

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-7989

Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-1 3-5

1FA2226-02 (Soil)

Date Sampled:1/25/2022 3:10:00PM

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Determination of Volatile Organic Compounds									
Benzene	ND	0.002	mg/kg dry	1	1FB0273	02/04/22	02/04/22 16:42	EPA 8260B	
1,2-Dichloroethane	ND	0.002	"	"	"	"	"	"	
Trichloroethylene	ND	0.002	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.002	"	"	"	"	"	"	
Bromodichloromethane	ND	0.002	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0008	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.004	"	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0008	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0008	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*63-132*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*130 %*	*55-137*		"	"	"	"	
Surrogate: Toluene-d8		*103 %*	*73-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.5 %*	*65-127*		"	"	"	"	
Determination of Extractable Petroleum Hydrocarbons									
TEH, as gasoline	**67**	5	mg/kg	1	1FB0043	02/01/22	02/04/22 20:41	Iowa OA-2	D-03
TEH, as #2 diesel fuel	ND	5	"	"	"	"	"	"	
TEH, as waste oil	**43**	5	"	"	"	"	"	"	
Total Extractable Hydrocarbons	**110**	5	"	"	"	"	"	"	
Surrogate: Pentacosane		*82.0 %*	*15-180*		"	"	"	"	
Determination of Conventional Chemistry Parameters									
% Solids	**82.9**	0.10	%	1	1FA1215	01/27/22	01/27/22 13:07	SM 2540 G	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-1 3-5

1FA2226-02RE1 (Soil)

Date Sampled:1/25/2022 3:10:00PM

Keystone Laboratories, Inc. - Newton

Determination of Volatile Organic Compounds

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloromethane	ND	0.002	mg/kg dry	1	1FB0273	02/04/22	02/07/22 20:16	EPA 8260B	
Vinyl Chloride	ND	0.002	"	"	"	"	"	"	
Bromomethane	ND	0.002	"	"	"	"	"	"	
Chloroethane	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Acetone	ND	0.050	"	"	"	"	"	"	
Carbon Disulfide	ND	0.005	"	"	"	"	"	"	
Methylene Chloride	ND	0.050	"	"	"	"	"	"	
trans-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Methyl-t-butyl Ether (MTBE)	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.002	"	"	"	"	"	"	
cis-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.005	"	"	"	"	"	"	
Chloroform	ND	0.002	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.002	"	"	"	"	"	"	
Carbon Tetrachloride	ND	0.002	"	"	"	"	"	"	
Tetrachloroethylene	ND	0.002	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.005	"	"	"	"	"	"	
Dibromochloromethane	ND	0.001	"	"	"	"	"	"	
Chlorobenzene	ND	0.002	"	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	"	
Xylenes, total	ND	0.004	"	"	"	"	"	"	
Bromoform	ND	0.001	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*79.9 %*	*63-132*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*89.3 %*	*55-137*		"	"	"	"	
Surrogate: Toluene-d8		*95.8 %*	*73-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.3 %*	*65-127*		"	"	"	"	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-1 3-5

1FA2226-02RE1 (Soil)

Date Sampled:1/25/2022 3:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Total Metals									
Lead, total	**105**	5.0	mg/kg dry	1	1FB0068	02/02/22	02/03/22 04:57	EPA 6010B	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-1 3-5

1FA2226-02RE2 (Soil)

Date Sampled:1/25/2022 3:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Volatile Organic Compounds									
1,1,2,2-Tetrachloroethane	ND	0.005	mg/kg dry	1	1FB0273	02/04/22	02/08/22 14:14	EPA 8260B	
1,3-Dichlorobenzene	ND	0.005	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.005	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.005	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*90.6 %*		*63-132*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*110 %*		*55-137*	"	"	"	"	
Surrogate: Toluene-d8		*97.3 %*		*73-130*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.6 %*		*65-127*	"	"	"	"	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-2 0-2

1FA2226-03 (Soil)

Date Sampled:1/25/2022 2:00:00PM

Keystone Laboratories, Inc. - Newton

Determination of Volatile Organic Compounds

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloromethane	ND	0.001	mg/kg dry	1	1FB0273	02/04/22	02/04/22 17:29	EPA 8260B	
Vinyl Chloride	ND	0.001	"	"	"	"	"	"	
Bromomethane	ND	0.001	"	"	"	"	"	"	
Chloroethane	ND	0.001	"	"	"	"	"	"	
1,1-Dichloroethylene	ND	0.001	"	"	"	"	"	"	
Acetone	ND	0.033	"	"	"	"	"	"	
Carbon Disulfide	ND	0.003	"	"	"	"	"	"	
Methylene Chloride	ND	0.033	"	"	"	"	"	"	
trans-1,2-Dichloroethylene	ND	0.001	"	"	"	"	"	"	
Methyl-t-butyl Ether (MTBE)	ND	0.001	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.001	"	"	"	"	"	"	
cis-1,2-Dichloroethylene	ND	0.001	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.003	"	"	"	"	"	"	
Chloroform	ND	0.001	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.001	"	"	"	"	"	"	
Carbon Tetrachloride	ND	0.001	"	"	"	"	"	"	
Benzene	ND	0.001	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.001	"	"	"	"	"	"	
Trichloroethylene	ND	0.001	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.001	"	"	"	"	"	"	
Bromodichloromethane	ND	0.001	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0007	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.003	"	"	"	"	"	"	
Toluene	ND	0.001	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0007	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0007	"	"	"	"	"	"	
Tetrachloroethylene	ND	0.001	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.003	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0007	"	"	"	"	"	"	
Chlorobenzene	ND	0.001	"	"	"	"	"	"	
Ethylbenzene	ND	0.001	"	"	"	"	"	"	
Xylenes, total	ND	0.003	"	"	"	"	"	"	
Bromoform	ND	0.0007	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.001	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.001	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.001	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.001	"	"	"	"	"	"	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-2 0-2

1FA2226-03 (Soil)

Date Sampled:1/25/2022 2:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Volatile Organic Compounds									
Surrogate: Dibromofluoromethane		*95.6 %*	*63-132*		*1FB0273*	*02/04/22*	*02/04/22 17:29*	*EPA 8260B*	
Surrogate: 1,2-Dichloroethane-d4		*117 %*	*55-137*		"	"	"	"	
Surrogate: Toluene-d8		*93.6 %*	*73-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.6 %*	*65-127*		"	"	"	"	
Determination of Extractable Petroleum Hydrocarbons									
TEH, as gasoline	**24**	5	mg/kg	1	1FB0043	02/01/22	02/04/22 21:25	Iowa OA-2	D-03
TEH, as #2 diesel fuel	ND	5	"	"	"	"	"	"	
TEH, as waste oil	**5**	5	"	"	"	"	"	"	
Total Extractable Hydrocarbons	**29**	5	"	"	"	"	"	"	
Surrogate: Pentacosane		*86.1 %*	*15-180*		"	"	"	"	
Determination of Conventional Chemistry Parameters									
% Solids	**85.7**	0.10	%	1	1FA1215	01/27/22	01/27/22 13:07	SM 2540 G	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-2 0-2

1FA2226-03RE1 (Soil)

Date Sampled:1/25/2022 2:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Total Metals									
Lead, total	**6.2**	5.0	mg/kg dry	1	1FB0068	02/02/22	02/03/22 05:03	EPA 6010B	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-2 4-5

1FA2226-04 (Soil)

Date Sampled:1/25/2022 2:05:00PM

Keystone Laboratories, Inc. - Newton

Determination of Volatile Organic Compounds

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloromethane	ND	0.002	mg/kg dry	1	1FB0273	02/04/22	02/07/22 19:23	EPA 8260B	
Vinyl Chloride	ND	0.002	"	"	"	"	"	"	
Bromomethane	ND	0.002	"	"	"	"	"	"	
Chloroethane	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Acetone	**0.061**	0.050	"	"	"	"	"	"	
Carbon Disulfide	ND	0.005	"	"	"	"	"	"	
Methylene Chloride	ND	0.050	"	"	"	"	"	"	
trans-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Methyl-t-butyl Ether (MTBE)	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.002	"	"	"	"	"	"	
cis-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.005	"	"	"	"	"	"	
Chloroform	ND	0.002	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.002	"	"	"	"	"	"	
Carbon Tetrachloride	ND	0.002	"	"	"	"	"	"	
Benzene	ND	0.002	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.002	"	"	"	"	"	"	
Trichloroethylene	ND	0.002	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.002	"	"	"	"	"	"	
Bromodichloromethane	ND	0.002	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.001	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.005	"	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.001	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.001	"	"	"	"	"	"	
Tetrachloroethylene	ND	0.002	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.005	"	"	"	"	"	"	
Dibromochloromethane	ND	0.001	"	"	"	"	"	"	
Chlorobenzene	ND	0.002	"	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	"	
Xylenes, total	ND	0.004	"	"	"	"	"	"	
Bromoform	ND	0.001	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.002	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-2 4-5

1FA2226-04 (Soil)

Date Sampled:1/25/2022 2:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Volatile Organic Compounds									
Surrogate: Dibromofluoromethane		*57.5 %*	*63-132*		*1FB0273*	*02/04/22*	*02/07/22 19:23*	*EPA 8260B*	*S-GC*
Surrogate: 1,2-Dichloroethane-d4		*67.7 %*	*55-137*		"	"	"	"	
Surrogate: Toluene-d8		*99.1 %*	*73-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.5 %*	*65-127*		"	"	"	"	
Determination of Extractable Petroleum Hydrocarbons									
TEH, as gasoline	ND	5	mg/kg	1	1FB0043	02/01/22	02/04/22 22:08	Iowa OA-2	
TEH, as #2 diesel fuel	ND	5	"	"	"	"	"	"	
TEH, as waste oil	ND	5	"	"	"	"	"	"	
Total Extractable Hydrocarbons	ND	5	"	"	"	"	"	"	
Surrogate: Pentacosane		*94.7 %*	*15-180*		"	"	"	"	
Determination of Conventional Chemistry Parameters									
% Solids	**79.9**	0.10	%	1	1FA1215	01/27/22	01/27/22 13:07	SM 2540 G	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-2 4-5

1FA2226-04RE1 (Soil)

Date Sampled:1/25/2022 2:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Total Metals									
Lead, total	**7.2**	5.0	mg/kg dry	1	1FB0068	02/02/22	02/03/22 05:12	EPA 6010B	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-3 0-2

1FA2226-05 (Soil)

Date Sampled:1/25/2022 12:30:00PM

Keystone Laboratories, Inc. - Newton

Determination of Volatile Organic Compounds

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloromethane	ND	0.002	mg/kg dry	1	1FB0273	02/04/22	02/04/22 19:03	EPA 8260B	
Vinyl Chloride	ND	0.002	"	"	"	"	"	"	
Bromomethane	ND	0.002	"	"	"	"	"	"	
Chloroethane	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Acetone	ND	0.050	"	"	"	"	"	"	
Carbon Disulfide	ND	0.005	"	"	"	"	"	"	
Methylene Chloride	ND	0.050	"	"	"	"	"	"	
trans-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Methyl-t-butyl Ether (MTBE)	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.002	"	"	"	"	"	"	
cis-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.005	"	"	"	"	"	"	
Chloroform	ND	0.002	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.002	"	"	"	"	"	"	
Carbon Tetrachloride	ND	0.002	"	"	"	"	"	"	
Benzene	ND	0.002	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.002	"	"	"	"	"	"	
Trichloroethylene	ND	0.002	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.002	"	"	"	"	"	"	
Bromodichloromethane	ND	0.002	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.001	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.005	"	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.001	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.001	"	"	"	"	"	"	
Tetrachloroethylene	ND	0.002	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.005	"	"	"	"	"	"	
Dibromochloromethane	ND	0.001	"	"	"	"	"	"	
Chlorobenzene	ND	0.002	"	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	"	
Xylenes, total	ND	0.004	"	"	"	"	"	"	
Bromoform	ND	0.001	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.002	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-3 0-2

1FA2226-05 (Soil)

Date Sampled:1/25/2022 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Volatile Organic Compounds									
Surrogate: Dibromofluoromethane		*101 %*	*63-132*		*1FB0273*	*02/04/22*	*02/04/22 19:03*	*EPA 8260B*	
Surrogate: 1,2-Dichloroethane-d4		*123 %*	*55-137*		"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*73-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.8 %*	*65-127*		"	"	"	"	
Determination of Extractable Petroleum Hydrocarbons									
TEH, as gasoline	**22**	5	mg/kg	1	1FB0043	02/01/22	02/04/22 22:51	Iowa OA-2	D-03
TEH, as #2 diesel fuel	ND	5	"	"	"	"	"	"	
TEH, as waste oil	**7**	5	"	"	"	"	"	"	
Total Extractable Hydrocarbons	**29**	5	"	"	"	"	"	"	
Surrogate: Pentacosane		*94.1 %*	*15-180*		"	"	"	"	
Determination of Conventional Chemistry Parameters									
% Solids	**90.2**	0.10	%	1	1FA1215	01/27/22	01/27/22 13:07	SM 2540 G	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-3 0-2

1FA2226-05RE1 (Soil)

Date Sampled:1/25/2022 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Total Metals									
Lead, total	**180**	5.0	mg/kg dry	1	1FB0068	02/02/22	02/03/22 05:21	EPA 6010B	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-3 3-7

1FA2226-06 (Soil)

Date Sampled:1/25/2022 12:35:00PM

Keystone Laboratories, Inc. - Newton

Determination of Volatile Organic Compounds

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloromethane	ND	0.002	mg/kg dry	1	1FB0273	02/04/22	02/04/22 15:08	EPA 8260B	
Vinyl Chloride	ND	0.002	"	"	"	"	"	"	
Bromomethane	ND	0.002	"	"	"	"	"	"	
Chloroethane	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Acetone	ND	0.050	"	"	"	"	"	"	
Carbon Disulfide	ND	0.005	"	"	"	"	"	"	
Methylene Chloride	ND	0.050	"	"	"	"	"	"	
trans-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Methyl-t-butyl Ether (MTBE)	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.002	"	"	"	"	"	"	
cis-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.005	"	"	"	"	"	"	
Chloroform	ND	0.002	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.002	"	"	"	"	"	"	
Carbon Tetrachloride	ND	0.002	"	"	"	"	"	"	
Benzene	ND	0.002	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.002	"	"	"	"	"	"	
Trichloroethylene	ND	0.002	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.002	"	"	"	"	"	"	
Bromodichloromethane	ND	0.002	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.001	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.005	"	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.001	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.001	"	"	"	"	"	"	
Tetrachloroethylene	ND	0.002	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.005	"	"	"	"	"	"	
Dibromochloromethane	ND	0.001	"	"	"	"	"	"	
Chlorobenzene	ND	0.002	"	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	"	
Xylenes, total	ND	0.004	"	"	"	"	"	"	
Bromoform	ND	0.001	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.002	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-3 3-7

1FA2226-06 (Soil)

Date Sampled:1/25/2022 12:35:00PM

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Determination of Volatile Organic Compounds									
Surrogate: Dibromofluoromethane		*92.1 %*	*63-132*		*1FB0273*	*02/04/22*	*02/04/22 15:08*	*EPA 8260B*	
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*55-137*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*73-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.7 %*	*65-127*		"	"	"	"	
Determination of Extractable Petroleum Hydrocarbons									
TEH, as gasoline	ND	5	mg/kg	1	1FB0043	02/01/22	02/04/22 23:34	Iowa OA-2	
TEH, as #2 diesel fuel	ND	5	"	"	"	"	"	"	
TEH, as waste oil	ND	5	"	"	"	"	"	"	
Total Extractable Hydrocarbons	ND	5	"	"	"	"	"	"	
Surrogate: Pentacosane		*98.6 %*	*15-180*		"	"	"	"	
Determination of Conventional Chemistry Parameters									
% Solids	**85.8**	0.10	%	1	1FA1215	01/27/22	01/27/22 13:07	SM 2540 G	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

B-3 3-7

1FA2226-06RE1 (Soil)

Date Sampled:1/25/2022 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Total Metals									
Lead, total	**94.7**	5.0	mg/kg dry	1	1FB0068	02/02/22	02/03/22 05:30	EPA 6010B	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

DUP-1

1FA2226-07 (Soil)

Date Sampled:1/25/2022 12:00:00AM

Keystone Laboratories, Inc. - Newton

Determination of Volatile Organic Compounds

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloromethane	ND	0.002	mg/kg dry	1	1FB0273	02/04/22	02/04/22 19:49	EPA 8260B	
Vinyl Chloride	ND	0.002	"	"	"	"	"	"	
Bromomethane	ND	0.002	"	"	"	"	"	"	
Chloroethane	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Acetone	ND	0.050	"	"	"	"	"	"	
Carbon Disulfide	ND	0.005	"	"	"	"	"	"	
Methylene Chloride	ND	0.050	"	"	"	"	"	"	
trans-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
Methyl-t-butyl Ether (MTBE)	ND	0.002	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.002	"	"	"	"	"	"	
cis-1,2-Dichloroethylene	ND	0.002	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.005	"	"	"	"	"	"	
Chloroform	ND	0.002	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.002	"	"	"	"	"	"	
Carbon Tetrachloride	ND	0.002	"	"	"	"	"	"	
Benzene	ND	0.002	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.002	"	"	"	"	"	"	
Trichloroethylene	ND	0.002	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.002	"	"	"	"	"	"	
Bromodichloromethane	ND	0.002	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.001	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.005	"	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.001	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.001	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*		*63-132*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*132 %*		*55-137*	"	"	"	"	
Surrogate: Toluene-d8		*97.5 %*		*73-130*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*79.0 %*		*65-127*	"	"	"	"	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

DUP-1

1FA2226-07 (Soil)

Date Sampled:1/25/2022 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Extractable Petroleum Hydrocarbons									
TEH, as gasoline	**53**	5	mg/kg	1	1FB0043	02/01/22	02/05/22 00:17	Iowa OA-2	D-03
TEH, as #2 diesel fuel	ND	5	"	"	"	"	"	"	
TEH, as waste oil	**11**	5	"	"	"	"	"	"	
Total Extractable Hydrocarbons	**63**	5	"	"	"	"	"	"	
Surrogate: Pentacosane		*87.0 %*		*15-180*	"	"	"	"	
Determination of Conventional Chemistry Parameters									
% Solids	**83.8**	0.10	%	1	1FA1215	01/27/22	01/27/22 13:07	SM 2540 G	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

DUP-1

1FA2226-07RE1 (Soil)

Date Sampled:1/25/2022 12:00:00AM

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Determination of Volatile Organic Compounds									
Tetrachloroethylene	ND	0.002	mg/kg dry	1	1FB0273	02/04/22	02/07/22 21:08	EPA 8260B	
2-Hexanone (MBK)	ND	0.005	"	"	"	"	"	"	
Dibromochloromethane	ND	0.001	"	"	"	"	"	"	
Chlorobenzene	ND	0.002	"	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	"	
Xylenes, total	ND	0.004	"	"	"	"	"	"	
Bromoform	ND	0.001	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.002	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.002	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*62.3 %*	*63-132*		"	"	"	"	*S-GC*
Surrogate: 1,2-Dichloroethane-d4		*75.2 %*	*55-137*		"	"	"	"	
Surrogate: Toluene-d8		*106 %*	*73-130*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.3 %*	*65-127*		"	"	"	"	
Determination of Total Metals									
Lead, total	**181**	5.0	mg/kg dry	1	1FB0068	02/02/22	02/03/22 06:16	EPA 6010B	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Trip Blank

1FA2226-08 (Water)

Date Sampled:1/25/2022 12:00:00PM

Keystone Laboratories, Inc. - Newton

Determination of Volatile Organic Compounds

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloromethane	ND	1.0	ug/L	1	1FB0061	02/01/22	02/01/22 13:41	EPA 8260B	
Vinyl Chloride	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethylene	ND	1.0	"	"	"	"	"	"	
Acetone	ND	10.0	"	"	"	"	"	"	
Carbon Disulfide	ND	1.0	"	"	"	"	"	"	
Methylene Chloride	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethylene	ND	1.0	"	"	"	"	"	"	
Methyl-t-butyl Ether (MTBE)	ND	2.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethylene	ND	1.0	"	"	"	"	"	"	
2-Butanone (MEK)	ND	10.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Carbon Tetrachloride	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethylene	**5.2**	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	5.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethylene	ND	1.0	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes, total	ND	2.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Trip Blank

1FA2226-08 (Water)

Date Sampled:1/25/2022 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Volatile Organic Compounds									
Surrogate: Dibromofluoromethane		*108 %*	*79-130*		*1FB0061*	*02/01/22*	*02/01/22 13:41*	*EPA 8260B*	
Surrogate: 1,2-Dichloroethane-d4		*111 %*	*68-134*		*"*	*"*	*"*	*"*	
Surrogate: Toluene-d8		*104 %*	*87-116*		*"*	*"*	*"*	*"*	
Surrogate: 4-Bromofluorobenzene		*100 %*	*84-112*		*"*	*"*	*"*	*"*	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0061 - EPA 5030B										
Blank (1FB0061-BLK1)				Prepared & Analyzed: 02/01/22						
Chloromethane	ND	1.0	ug/L							
Vinyl Chloride	ND	1.0	"							
Bromomethane	ND	1.0	"							
Chloroethane	ND	1.0	"							
1,1-Dichloroethylene	ND	1.0	"							
Acetone	ND	10.0	"							
Carbon Disulfide	ND	1.0	"							
Methylene Chloride	ND	5.0	"							
trans-1,2-Dichloroethylene	ND	1.0	"							
Methyl-t-butyl Ether (MTBE)	ND	2.0	"							
1,1-Dichloroethane	ND	1.0	"							
cis-1,2-Dichloroethylene	ND	1.0	"							
2-Butanone (MEK)	ND	10.0	"							
Chloroform	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
Carbon Tetrachloride	ND	1.0	"							
Benzene	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
Trichloroethylene	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
4-Methyl-2-pentanone (MIBK)	ND	5.0	"							
Toluene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	1.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
Tetrachloroethylene	ND	1.0	"							
2-Hexanone (MBK)	ND	5.0	"							
Dibromochloromethane	ND	1.0	"							
Chlorobenzene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	2.0	"							
Bromoform	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,3-Dichlorobenzene	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
Surrogate: Dibromofluoromethane	*54.2*		"	*50.2280*		*108*	*79-130*			
Surrogate: 1,2-Dichloroethane-d4	*56.2*		"	*50.3120*		*112*	*68-134*			
Surrogate: Toluene-d8	*52.0*		"	*50.2360*		*104*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*50.5*		"	*50.4000*		*100*	*84-112*			

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0061 - EPA 5030B										
LCS (1FB0061-BS1)				Prepared & Analyzed: 01/31/22						
Chloromethane	31.43	1.0	ug/L	30.0000		105	57-130			
Vinyl Chloride	35.94	1.0	"	30.0000		120	61-134			
Bromomethane	37.02	1.0	"	30.0000		123	61-140			
Chloroethane	32.58	1.0	"	30.0000		109	68-135			
1,1-Dichloroethylene	53.57	1.0	"	50.0000		107	77-136			
Acetone	120.6	10.0	"	102.200		118	54-150			
Carbon Disulfide	124.2	1.0	"	104.400		119	73-147			
Methylene Chloride	50.12	5.0	"	50.0000		100	70-138			
trans-1,2-Dichloroethylene	58.84	1.0	"	50.0000		118	71-134			
Methyl-t-butyl Ether (MTBE)	123.2	2.0	"	103.000		120	72-140			
1,1-Dichloroethane	51.61	1.0	"	50.0000		103	70-131			
cis-1,2-Dichloroethylene	59.46	1.0	"	49.4750		120	76-138			
2-Butanone (MEK)	104.1	10.0	"	100.000		104	63-137			
Chloroform	57.91	1.0	"	50.0000		116	77-130			
1,1,1-Trichloroethane	52.86	1.0	"	49.9750		106	66-120			
Carbon Tetrachloride	56.81	1.0	"	50.0000		114	72-131			
Benzene	56.38	1.0	"	50.0000		113	77-124			
1,2-Dichloroethane	55.83	1.0	"	50.0000		112	78-122			
Trichloroethylene	57.38	1.0	"	50.0000		115	78-123			
1,2-Dichloropropane	56.86	1.0	"	50.0000		114	77-125			
Bromodichloromethane	54.35	1.0	"	50.0000		109	76-120			
cis-1,3-Dichloropropene	49.42	1.0	"	50.3250		98.2	76-119			
4-Methyl-2-pentanone (MIBK)	119.9	5.0	"	104.100		115	70-134			
Toluene	56.81	1.0	"	50.0000		114	75-128			
trans-1,3-Dichloropropene	50.46	1.0	"	50.4250		100	76-122			
1,1,2-Trichloroethane	54.08	1.0	"	50.0000		108	75-125			
Tetrachloroethylene	50.86	1.0	"	50.0000		102	76-121			
2-Hexanone (MBK)	115.1	5.0	"	111.800		103	64-136			
Dibromochloromethane	51.62	1.0	"	49.5000		104	78-126			
Chlorobenzene	54.10	1.0	"	50.0000		108	77-119			
Ethylbenzene	50.81	1.0	"	50.0000		102	72-119			
Xylenes, total	151.4	2.0	"	150.000		101	73-118			
Bromoform	53.56	1.0	"	50.0000		107	76-123			
1,1,2,2-Tetrachloroethane	52.52	1.0	"	49.8500		105	63-129			
1,3-Dichlorobenzene	47.79	1.0	"	50.0000		95.6	72-125			
1,4-Dichlorobenzene	49.50	1.0	"	50.0000		99.0	72-127			
1,2-Dichlorobenzene	47.54	1.0	"	50.0000		95.1	72-123			
Surrogate: Dibromofluoromethane	*49.4*		"	*50.2280*		*98.4*	*79-130*			
Surrogate: 1,2-Dichloroethane-d4	*49.8*		"	*50.3120*		*99.0*	*68-134*			
Surrogate: Toluene-d8	*50.4*		"	*50.2360*		*100*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*51.0*		"	*50.4000*		*101*	*84-112*			

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0061 - EPA 5030B										
LCS Dup (1FB0061-BSD1)				Prepared & Analyzed: 01/31/22						
Chloromethane	31.41	1.0	ug/L	30.0000		105	57-130	0.0637	24	
Vinyl Chloride	35.64	1.0	"	30.0000		119	61-134	0.838	25	
Bromomethane	35.16	1.0	"	30.0000		117	61-140	5.15	25	
Chloroethane	32.39	1.0	"	30.0000		108	68-135	0.585	26	
1,1-Dichloroethylene	52.82	1.0	"	50.0000		106	77-136	1.41	24	
Acetone	120.0	10.0	"	102.200		117	54-150	0.507	30	
Carbon Disulfide	120.0	1.0	"	104.400		115	73-147	3.44	24	
Methylene Chloride	48.82	5.0	"	50.0000		97.6	70-138	2.63	22	
trans-1,2-Dichloroethylene	56.87	1.0	"	50.0000		114	71-134	3.41	23	
Methyl-t-butyl Ether (MTBE)	124.3	2.0	"	103.000		121	72-140	0.864	23	
1,1-Dichloroethane	50.85	1.0	"	50.0000		102	70-131	1.48	25	
cis-1,2-Dichloroethylene	58.90	1.0	"	49.4750		119	76-138	0.946	23	
2-Butanone (MEK)	47.75	10.0	"	100.000		47.8	63-137	74.3	25	QS-01
Chloroform	56.31	1.0	"	50.0000		113	77-130	2.80	24	
1,1,1-Trichloroethane	50.10	1.0	"	49.9750		100	66-120	5.36	24	
Carbon Tetrachloride	53.89	1.0	"	50.0000		108	72-131	5.28	24	
Benzene	54.54	1.0	"	50.0000		109	77-124	3.32	23	
1,2-Dichloroethane	55.40	1.0	"	50.0000		111	78-122	0.773	23	
Trichloroethylene	54.34	1.0	"	50.0000		109	78-123	5.44	23	
1,2-Dichloropropane	55.20	1.0	"	50.0000		110	77-125	2.96	22	
Bromodichloromethane	53.02	1.0	"	50.0000		106	76-120	2.48	21	
cis-1,3-Dichloropropene	48.91	1.0	"	50.3250		97.2	76-119	1.04	21	
4-Methyl-2-pentanone (MIBK)	120.6	5.0	"	104.100		116	70-134	0.574	21	
Toluene	54.50	1.0	"	50.0000		109	75-128	4.15	25	
trans-1,3-Dichloropropene	52.05	1.0	"	50.4250		103	76-122	3.10	21	
1,1,2-Trichloroethane	53.84	1.0	"	50.0000		108	75-125	0.445	22	
Tetrachloroethylene	46.90	1.0	"	50.0000		93.8	76-121	8.10	25	
2-Hexanone (MBK)	107.6	5.0	"	111.800		96.2	64-136	6.76	25	
Dibromochloromethane	51.24	1.0	"	49.5000		104	78-126	0.739	21	
Chlorobenzene	52.70	1.0	"	50.0000		105	77-119	2.62	22	
Ethylbenzene	48.56	1.0	"	50.0000		97.1	72-119	4.53	25	
Xylenes, total	147.6	2.0	"	150.000		98.4	73-118	2.58	25	
Bromoform	54.03	1.0	"	50.0000		108	76-123	0.874	21	
1,1,2,2-Tetrachloroethane	55.14	1.0	"	49.8500		111	63-129	4.87	24	
1,3-Dichlorobenzene	49.02	1.0	"	50.0000		98.0	72-125	2.54	26	
1,4-Dichlorobenzene	50.92	1.0	"	50.0000		102	72-127	2.83	26	
1,2-Dichlorobenzene	49.83	1.0	"	50.0000		99.7	72-123	4.70	24	
Surrogate: Dibromofluoromethane	*49.4*		"	*50.2280*		*98.3*	*79-130*			
Surrogate: 1,2-Dichloroethane-d4	*49.2*		"	*50.3120*		*97.8*	*68-134*			
Surrogate: Toluene-d8	*49.8*		"	*50.2360*		*99.1*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*50.7*		"	*50.4000*		*101*	*84-112*			

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0061 - EPA 5030B										
Matrix Spike (1FB0061-MS1)	**Source: 1FB0055-01**			Prepared & Analyzed: 02/01/22						
Chloromethane	342.0	10.0	ug/L	300.000	ND	114	51-129			
Vinyl Chloride	372.4	10.0	"	300.000	ND	124	59-132			
Bromomethane	382.9	10.0	"	300.000	ND	128	51-142			
Chloroethane	342.2	10.0	"	300.000	ND	114	70-133			
1,1-Dichloroethylene	556.6	10.0	"	500.000	ND	111	79-132			
Acetone	1193	100	"	1022.00	ND	117	53-160			
Carbon Disulfide	1235	10.0	"	1044.00	ND	118	76-141			
Methylene Chloride	501.3	50.0	"	500.000	ND	100	71-137			
trans-1,2-Dichloroethylene	598.6	10.0	"	500.000	ND	120	75-127			
Methyl-t-butyl Ether (MTBE)	1239	20.0	"	1030.00	ND	120	66-142			
1,1-Dichloroethane	519.8	10.0	"	500.000	ND	104	73-125			
cis-1,2-Dichloroethylene	690.7	10.0	"	494.750	ND	140	74-136			QS-02
2-Butanone (MEK)	1244	100	"	1000.00	ND	124	71-136			
Chloroform	576.5	10.0	"	500.000	ND	115	77-128			
1,1,1-Trichloroethane	523.3	10.0	"	499.750	ND	105	69-115			
Carbon Tetrachloride	558.1	10.0	"	500.000	ND	112	75-126			
Benzene	541.4	10.0	"	500.000	ND	108	77-121			
1,2-Dichloroethane	565.3	10.0	"	500.000	ND	113	79-119			
Trichloroethylene	557.8	10.0	"	500.000	ND	112	82-115			
1,2-Dichloropropane	554.4	10.0	"	500.000	ND	111	80-118			
Bromodichloromethane	528.0	10.0	"	500.000	ND	106	76-116			
cis-1,3-Dichloropropene	487.0	10.0	"	503.250	ND	96.8	74-113			
4-Methyl-2-pentanone (MIBK)	1208	50.0	"	1041.00	ND	116	69-134			
Toluene	550.1	10.0	"	500.000	ND	110	76-124			
trans-1,3-Dichloropropene	481.3	10.0	"	504.250	ND	95.4	76-113			
1,1,2-Trichloroethane	540.1	10.0	"	500.000	ND	108	77-120			
Tetrachloroethylene	498.8	10.0	"	500.000	ND	99.8	80-114			
2-Hexanone (MBK)	1216	50.0	"	1118.00	ND	109	66-133			
Dibromochloromethane	510.5	10.0	"	495.000	ND	103	80-119			
Chlorobenzene	540.0	10.0	"	500.000	ND	108	80-112			
Ethylbenzene	503.0	10.0	"	500.000	ND	101	74-113			
Xylenes, total	1525	20.0	"	1500.00	ND	102	76-112			
Bromoform	525.7	10.0	"	500.000	ND	105	76-120			
1,1,2,2-Tetrachloroethane	571.4	10.0	"	498.500	ND	115	61-129			
1,3-Dichlorobenzene	522.7	10.0	"	500.000	ND	105	71-122			
1,4-Dichlorobenzene	536.6	10.0	"	500.000	ND	107	71-125			
1,2-Dichlorobenzene	538.0	10.0	"	500.000	ND	108	70-123			
Surrogate: Dibromofluoromethane	*508*		"	*502.280*		*101*	*79-130*			
Surrogate: 1,2-Dichloroethane-d4	*518*		"	*503.120*		*103*	*68-134*			
Surrogate: Toluene-d8	*496*		"	*502.360*		*98.7*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*505*		"	*504.000*		*100*	*84-112*			

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0061 - EPA 5030B										
Matrix Spike Dup (1FB0061-MSD1)	**Source: 1FB0055-01**			Prepared & Analyzed: 02/01/22						
Chloromethane	342.8	10.0	ug/L	300.000	ND	114	51-129	0.234	23	
Vinyl Chloride	383.0	10.0	"	300.000	ND	128	59-132	2.81	22	
Bromomethane	378.2	10.0	"	300.000	ND	126	51-142	1.24	30	
Chloroethane	343.3	10.0	"	300.000	ND	114	70-133	0.321	27	
1,1-Dichloroethylene	556.9	10.0	"	500.000	ND	111	79-132	0.0539	19	
Acetone	1174	100	"	1022.00	ND	115	53-160	1.66	21	
Carbon Disulfide	1247	10.0	"	1044.00	ND	119	76-141	1.03	18	
Methylene Chloride	507.4	50.0	"	500.000	ND	101	71-137	1.21	16	
trans-1,2-Dichloroethylene	603.9	10.0	"	500.000	ND	121	75-127	0.882	16	
Methyl-t-butyl Ether (MTBE)	1256	20.0	"	1030.00	ND	122	66-142	1.35	15	
1,1-Dichloroethane	527.1	10.0	"	500.000	ND	105	73-125	1.39	15	
cis-1,2-Dichloroethylene	629.6	10.0	"	494.750	ND	127	74-136	9.26	16	
2-Butanone (MEK)	1228	100	"	1000.00	ND	123	71-136	1.31	12	
Chloroform	574.6	10.0	"	500.000	ND	115	77-128	0.330	13	
1,1,1-Trichloroethane	520.9	10.0	"	499.750	ND	104	69-115	0.460	13	
Carbon Tetrachloride	572.9	10.0	"	500.000	ND	115	75-126	2.62	13	
Benzene	548.9	10.0	"	500.000	ND	110	77-121	1.38	12	
1,2-Dichloroethane	563.9	10.0	"	500.000	ND	113	79-119	0.248	11	
Trichloroethylene	548.1	10.0	"	500.000	ND	110	82-115	1.75	12	
1,2-Dichloropropane	554.5	10.0	"	500.000	ND	111	80-118	0.0180	10	
Bromodichloromethane	534.9	10.0	"	500.000	ND	107	76-116	1.30	11	
cis-1,3-Dichloropropene	489.0	10.0	"	503.250	ND	97.2	74-113	0.410	11	
4-Methyl-2-pentanone (MIBK)	1180	50.0	"	1041.00	ND	113	69-134	2.40	13	
Toluene	545.0	10.0	"	500.000	ND	109	76-124	0.931	10	
trans-1,3-Dichloropropene	489.3	10.0	"	504.250	ND	97.0	76-113	1.65	10	
1,1,2-Trichloroethane	533.9	10.0	"	500.000	ND	107	77-120	1.15	11	
Tetrachloroethylene	479.7	10.0	"	500.000	ND	95.9	80-114	3.90	17	
2-Hexanone (MBK)	1144	50.0	"	1118.00	ND	102	66-133	6.12	13	
Dibromochloromethane	506.1	10.0	"	495.000	ND	102	80-119	0.866	14	
Chlorobenzene	526.3	10.0	"	500.000	ND	105	80-112	2.57	14	
Ethylbenzene	488.5	10.0	"	500.000	ND	97.7	74-113	2.92	15	
Xylenes, total	1490	20.0	"	1500.00	ND	99.4	76-112	2.29	15	
Bromoform	508.3	10.0	"	500.000	ND	102	76-120	3.37	15	
1,1,2,2-Tetrachloroethane	532.0	10.0	"	498.500	ND	107	61-129	7.14	26	
1,3-Dichlorobenzene	494.2	10.0	"	500.000	ND	98.8	71-122	5.61	26	
1,4-Dichlorobenzene	508.5	10.0	"	500.000	ND	102	71-125	5.38	23	
1,2-Dichlorobenzene	493.4	10.0	"	500.000	ND	98.7	70-123	8.65	25	
Surrogate: Dibromofluoromethane	*515*		"	*502.280*		*103*	*79-130*			
Surrogate: 1,2-Dichloroethane-d4	*517*		"	*503.120*		*103*	*68-134*			
Surrogate: Toluene-d8	*497*		"	*502.360*		*99.0*	*87-116*			
Surrogate: 4-Bromofluorobenzene	*506*		"	*504.000*		*100*	*84-112*			

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
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Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0273 - EPA 5035										
Blank (1FB0273-BLK1)			Prepared & Analyzed: 02/04/22							
Chloromethane	ND	0.002	mg/kg wet							
Vinyl Chloride	ND	0.002	"							
Bromomethane	ND	0.002	"							
Chloroethane	ND	0.002	"							
1,1-Dichloroethylene	ND	0.002	"							
Acetone	ND	0.050	"							
Carbon Disulfide	ND	0.005	"							
Methylene Chloride	ND	0.050	"							
trans-1,2-Dichloroethylene	ND	0.002	"							
Methyl-t-butyl Ether (MTBE)	ND	0.002	"							
1,1-Dichloroethane	ND	0.002	"							
cis-1,2-Dichloroethylene	ND	0.002	"							
2-Butanone (MEK)	ND	0.005	"							
Chloroform	ND	0.002	"							
1,1,1-Trichloroethane	ND	0.002	"							
Carbon Tetrachloride	ND	0.002	"							
Benzene	ND	0.002	"							
1,2-Dichloroethane	ND	0.002	"							
Trichloroethylene	ND	0.002	"							
1,2-Dichloropropane	ND	0.002	"							
Bromodichloromethane	ND	0.002	"							
cis-1,3-Dichloropropene	ND	0.001	"							
4-Methyl-2-pentanone (MIBK)	ND	0.005	"							
Toluene	ND	0.002	"							
trans-1,3-Dichloropropene	ND	0.001	"							
1,1,2-Trichloroethane	ND	0.001	"							
Tetrachloroethylene	ND	0.002	"							
2-Hexanone (MBK)	ND	0.005	"							
Dibromochloromethane	ND	0.001	"							
Chlorobenzene	ND	0.002	"							
Ethylbenzene	ND	0.002	"							
Xylenes, total	ND	0.004	"							
Bromoform	ND	0.001	"							
1,1,2,2-Tetrachloroethane	ND	0.002	"							
1,3-Dichlorobenzene	ND	0.002	"							
1,4-Dichlorobenzene	ND	0.002	"							
1,2-Dichlorobenzene	ND	0.002	"							
Surrogate: Dibromofluoromethane	*0.04296*		"	*0.0502280*		*85.5*	*63-132*			
Surrogate: 1,2-Dichloroethane-d4	*0.04382*		"	*0.0503120*		*87.1*	*55-137*			
Surrogate: Toluene-d8	*0.04896*		"	*0.0502360*		*97.5*	*73-130*			
Surrogate: 4-Bromofluorobenzene	*0.04789*		"	*0.0504000*		*95.0*	*65-127*			

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0273 - EPA 5035										
LCS (1FB0273-BS1)				Prepared & Analyzed: 02/04/22						
Chloromethane	0.0298	0.002	mg/kg wet	0.0300000		99.2	47-145			
Vinyl Chloride	0.0286	0.002	"	0.0300000		95.5	43-160			
Bromomethane	0.0338	0.002	"	0.0300000		113	35-151			
Chloroethane	0.0293	0.002	"	0.0300000		97.6	23-155			
1,1-Dichloroethylene	0.0463	0.002	"	0.0500000		92.7	59-151			
Acetone	0.1252	0.050	"	0.102200		123	31-180			
Carbon Disulfide	0.0991	0.005	"	0.104400		94.9	54-154			
Methylene Chloride	0.0453	0.050	"	0.0500000		90.5	62-134			
trans-1,2-Dichloroethylene	0.0437	0.002	"	0.0500000		87.5	55-143			
Methyl-t-butyl Ether (MTBE)	0.1010	0.002	"	0.103000		98.1	62-143			
1,1-Dichloroethane	0.0443	0.002	"	0.0500000		88.6	52-142			
cis-1,2-Dichloroethylene	0.0460	0.002	"	0.0494750		92.9	65-139			
2-Butanone (MEK)	0.1143	0.005	"	0.100000		114	66-137			
Chloroform	0.0470	0.002	"	0.0500000		94.1	57-144			
1,1,1-Trichloroethane	0.0419	0.002	"	0.0499750		83.8	59-123			
Carbon Tetrachloride	0.0458	0.002	"	0.0500000		91.5	60-137			
Benzene	0.0512	0.002	"	0.0500000		102	73-128			
1,2-Dichloroethane	0.0474	0.002	"	0.0500000		94.7	68-123			
Trichloroethylene	0.0488	0.002	"	0.0500000		97.6	72-124			
1,2-Dichloropropane	0.0488	0.002	"	0.0500000		97.7	72-123			
Bromodichloromethane	0.0473	0.002	"	0.0500000		94.5	71-117			
cis-1,3-Dichloropropene	0.0478	0.001	"	0.0503250		95.0	72-118			
4-Methyl-2-pentanone (MIBK)	0.1046	0.005	"	0.104100		100	70-125			
Toluene	0.0528	0.002	"	0.0500000		106	70-132			
trans-1,3-Dichloropropene	0.0490	0.001	"	0.0504250		97.1	74-118			
1,1,2-Trichloroethane	0.0502	0.001	"	0.0500000		100	74-120			
Tetrachloroethylene	0.0482	0.002	"	0.0500000		96.3	70-129			
2-Hexanone (MBK)	0.1105	0.005	"	0.111800		98.8	56-142			
Dibromochloromethane	0.0492	0.001	"	0.0495000		99.4	70-124			
Chlorobenzene	0.0492	0.002	"	0.0500000		98.3	70-122			
Ethylbenzene	0.0498	0.002	"	0.0500000		99.7	62-129			
Xylenes, total	0.1376	0.004	"	0.150000		91.8	66-124			
Bromoform	0.0527	0.001	"	0.0500000		105	68-124			
1,1,2,2-Tetrachloroethane	0.0624	0.002	"	0.0498500		125	52-128			
1,3-Dichlorobenzene	0.0598	0.002	"	0.0500000		120	59-127			
1,4-Dichlorobenzene	0.0610	0.002	"	0.0500000		122	61-130			
1,2-Dichlorobenzene	0.0577	0.002	"	0.0500000		115	60-127			
Surrogate: Dibromofluoromethane	*0.05125*		"	*0.0502280*		*102*	*63-132*			
Surrogate: 1,2-Dichloroethane-d4	*0.04975*		"	*0.0503120*		*98.9*	*55-137*			
Surrogate: Toluene-d8	*0.04928*		"	*0.0502360*		*98.1*	*73-130*			
Surrogate: 4-Bromofluorobenzene	*0.04456*		"	*0.0504000*		*88.4*	*65-127*			

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0273 - EPA 5035										
Matrix Spike (1FB0273-MS1)	**Source: 1FA2226-06**			Prepared: 02/04/22 Analyzed: 02/07/22						
Chloromethane	0.0382	0.002	mg/kg dry	0.0423154	ND	90.4	39-144			
Vinyl Chloride	0.0290	0.002	"	0.0423154	ND	68.6	34-155			
Bromomethane	0.0374	0.002	"	0.0423154	ND	88.4	21-148			
Chloroethane	0.0300	0.002	"	0.0423154	ND	70.8	10-155			
1,1-Dichloroethylene	0.0364	0.002	"	0.0705256	ND	51.7	46-149			
Acetone	0.2321	0.050	"	0.144154	ND	161	22-193			
Carbon Disulfide	0.0910	0.005	"	0.147258	ND	61.8	24-162			
Methylene Chloride	0.0465	0.050	"	0.0705256	0.0034	61.2	42-147			
trans-1,2-Dichloroethylene	0.0391	0.002	"	0.0705256	ND	55.4	44-141			
Methyl-t-butyl Ether (MTBE)	0.0909	0.002	"	0.145283	ND	62.5	53-145			
1,1-Dichloroethane	0.0402	0.002	"	0.0705256	ND	57.0	39-143			
cis-1,2-Dichloroethylene	0.0462	0.002	"	0.0697851	ND	66.2	55-137			
2-Butanone (MEK)	0.1346	0.005	"	0.141051	ND	95.4	21-173			
Chloroform	0.0435	0.002	"	0.0705256	ND	61.6	54-135			
1,1,1-Trichloroethane	0.0361	0.002	"	0.0704904	ND	51.2	47-122			
Carbon Tetrachloride	0.0380	0.002	"	0.0705256	ND	53.8	51-132			
Benzene	0.0679	0.002	"	0.0705256	ND	96.3	59-127			
1,2-Dichloroethane	0.0717	0.002	"	0.0705256	ND	102	59-124			
Trichloroethylene	0.0600	0.002	"	0.0705256	ND	85.1	40-151			
1,2-Dichloropropane	0.0720	0.002	"	0.0705256	ND	102	62-124			
Bromodichloromethane	0.0673	0.002	"	0.0705256	ND	95.4	62-117			
cis-1,3-Dichloropropene	0.0651	0.001	"	0.0709840	ND	91.7	60-118			
4-Methyl-2-pentanone (MIBK)	0.1710	0.005	"	0.146834	ND	116	66-134			
Toluene	0.0737	0.002	"	0.0705256	ND	105	61-128			
trans-1,3-Dichloropropene	0.0776	0.001	"	0.0711251	ND	109	61-119			
1,1,2-Trichloroethane	0.0786	0.001	"	0.0705256	ND	111	66-121			
Tetrachloroethylene	0.0542	0.002	"	0.0705256	ND	76.9	51-130			
2-Hexanone (MBK)	0.1784	0.005	"	0.157695	ND	113	37-168			
Dibromochloromethane	0.0655	0.001	"	0.0698204	ND	93.9	67-122			
Chlorobenzene	0.0661	0.002	"	0.0705256	ND	93.7	57-120			
Ethylbenzene	0.0635	0.002	"	0.0705256	ND	90.0	42-137			
Xylenes, total	0.1777	0.004	"	0.211577	ND	84.0	53-123			
Bromoform	0.0796	0.001	"	0.0705256	ND	113	57-129			
1,1,2,2-Tetrachloroethane	0.0820	0.002	"	0.0703140	ND	117	33-141			
1,3-Dichlorobenzene	0.0637	0.002	"	0.0705256	ND	90.3	49-124			
1,4-Dichlorobenzene	0.0656	0.002	"	0.0705256	ND	93.0	50-128			
1,2-Dichlorobenzene	0.0671	0.002	"	0.0705256	ND	95.2	44-126			
Surrogate: Dibromofluoromethane	*0.04608*		"	*0.0708472*		*65.0*	*63-132*			
Surrogate: 1,2-Dichloroethane-d4	*0.05395*		"	*0.0709657*		*76.0*	*55-137*			
Surrogate: Toluene-d8	*0.07782*		"	*0.0708585*		*110*	*73-130*			
Surrogate: 4-Bromofluorobenzene	*0.07452*		"	*0.0710898*		*105*	*65-127*			

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Volatile Organic Compounds - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0273 - EPA 5035										
Matrix Spike Dup (1FB0273-MSD1)	**Source: 1FA2226-06**			Prepared: 02/04/22 Analyzed: 02/07/22						
Chloromethane	0.0405	0.002	mg/kg dry	0.0342822	ND	118	39-144	5.80	30	
Vinyl Chloride	0.0355	0.002	"	0.0342822	ND	103	34-155	19.9	30	
Bromomethane	0.0383	0.002	"	0.0342822	ND	112	21-148	2.36	30	
Chloroethane	0.0381	0.002	"	0.0342822	ND	111	10-155	24.0	30	
1,1-Dichloroethylene	0.0469	0.002	"	0.0571370	ND	82.1	46-149	25.2	30	
Acetone	0.3154	0.050	"	0.116788	ND	270	22-193	30.4	30	QM-07
Carbon Disulfide	0.1155	0.005	"	0.119302	ND	96.8	24-162	23.7	30	
Methylene Chloride	0.0607	0.050	"	0.0571370	0.0034	100	42-147	26.4	30	
trans-1,2-Dichloroethylene	0.0516	0.002	"	0.0571370	ND	90.3	44-141	27.6	30	
Methyl-t-butyl Ether (MTBE)	0.1357	0.002	"	0.117702	ND	115	53-145	39.6	30	QR-02
1,1-Dichloroethane	0.0545	0.002	"	0.0571370	ND	95.3	39-143	30.1	30	QR-02
cis-1,2-Dichloroethylene	0.0514	0.002	"	0.0565370	ND	90.9	55-137	10.6	30	
2-Butanone (MEK)	0.1807	0.005	"	0.114274	ND	158	21-173	29.2	30	
Chloroform	0.0551	0.002	"	0.0571370	ND	96.4	54-135	23.6	30	
1,1,1-Trichloroethane	0.0486	0.002	"	0.0571084	ND	85.2	47-122	29.7	30	
Carbon Tetrachloride	0.0508	0.002	"	0.0571370	ND	88.9	51-132	28.9	30	
Benzene	0.0656	0.002	"	0.0571370	ND	115	59-127	3.54	30	
1,2-Dichloroethane	0.0594	0.002	"	0.0571370	ND	104	59-124	18.8	25	
Trichloroethylene	0.0564	0.002	"	0.0571370	ND	98.7	40-151	6.18	30	
1,2-Dichloropropane	0.0676	0.002	"	0.0571370	ND	118	62-124	6.18	29	
Bromodichloromethane	0.0583	0.002	"	0.0571370	ND	102	62-117	14.4	29	
cis-1,3-Dichloropropene	0.0596	0.001	"	0.0575084	ND	104	60-118	8.79	28	
4-Methyl-2-pentanone (MIBK)	0.1621	0.005	"	0.118959	ND	136	66-134	5.33	30	QS-02
Toluene	0.0644	0.002	"	0.0571370	ND	113	61-128	13.6	28	
trans-1,3-Dichloropropene	0.0656	0.001	"	0.0576226	ND	114	61-119	16.8	28	
1,1,2-Trichloroethane	0.0690	0.001	"	0.0571370	ND	121	66-121	13.0	27	
Tetrachloroethylene	0.0609	0.002	"	0.0571370	ND	107	51-130	11.6	30	
2-Hexanone (MBK)	0.2240	0.005	"	0.127758	ND	175	37-168	22.6	30	QS-02
Dibromochloromethane	0.0672	0.001	"	0.0565656	ND	119	67-122	2.45	26	
Chlorobenzene	0.0638	0.002	"	0.0571370	ND	112	57-120	3.44	30	
Ethylbenzene	0.0649	0.002	"	0.0571370	ND	114	42-137	2.26	30	
Xylenes, total	0.1881	0.004	"	0.171411	ND	110	53-123	5.65	30	
Bromoform	0.0705	0.001	"	0.0571370	ND	123	57-129	12.2	29	
1,1,2,2-Tetrachloroethane	0.0829	0.002	"	0.0569655	ND	146	33-141	1.04	30	QS-02
1,3-Dichlorobenzene	0.0645	0.002	"	0.0571370	ND	113	49-124	1.22	30	
1,4-Dichlorobenzene	0.0700	0.002	"	0.0571370	ND	122	50-128	6.48	29	
1,2-Dichlorobenzene	0.0692	0.002	"	0.0571370	ND	121	44-126	3.14	27	
Surrogate: Dibromofluoromethane	*0.04973*		"	*0.0573975*		*86.6*	*63-132*			
Surrogate: 1,2-Dichloroethane-d4	*0.06386*		"	*0.0574935*		*111*	*55-137*			
Surrogate: Toluene-d8	*0.05199*		"	*0.0574066*		*90.6*	*73-130*			
Surrogate: 4-Bromofluorobenzene	*0.05991*		"	*0.0575940*		*104*	*65-127*			

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
870 40th Ave	Project Number: 07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Extractable Petroleum Hydrocarbons - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0043 - 3550B OA-2 Sonic										
Blank (1FB0043-BLK1)				Prepared: 02/01/22 Analyzed: 02/04/22						
TEH, as gasoline	ND	5	mg/kg							
TEH, as #2 diesel fuel	ND	5	"							
TEH, as waste oil	ND	5	"							
Total Extractable Hydrocarbons	ND	5	"							
Surrogate: Pentacosane	*1.29*		"	*2.50000*		*51.4*	*15-180*			
LCS (1FB0043-BS1)				Prepared: 02/01/22 Analyzed: 02/04/22						
TEH, as #2 diesel fuel	50.7	5	mg/kg	101.680		49.9	29-114			
Surrogate: Pentacosane	*1.77*		"	*2.50000*		*71.0*	*15-180*			
MRL Check (1FB0043-MRL1)				Prepared: 02/01/22 Analyzed: 02/04/22						
TEH, as gasoline	25.4	5	mg/kg	51.2300		49.7	0-200			
TEH, as waste oil	41.5	5	"	51.5300		80.6	0-200			
Surrogate: Pentacosane	*2.27*		"	*2.50000*		*90.7*	*15-180*			
MRL Check (1FB0043-MRL2)				Prepared: 02/01/22 Analyzed: 02/04/22						
TEH, as #2 diesel fuel	20.1	5	mg/kg	52.8600		38.0	0-200			
Surrogate: Pentacosane	*2.06*		"	*2.50000*		*82.3*	*15-180*			
Matrix Spike (1FB0043-MS1)	**Source: 1FA2226-06**			Prepared: 02/01/22 Analyzed: 02/05/22						
TEH, as #2 diesel fuel	37.1	5	mg/kg	101.680	ND	36.5	13-114			
Surrogate: Pentacosane	*1.62*		"	*2.50000*		*64.6*	*15-180*			
Matrix Spike Dup (1FB0043-MSD1)	**Source: 1FA2226-06**			Prepared: 02/01/22 Analyzed: 02/05/22						
TEH, as #2 diesel fuel	44.0	5	mg/kg	101.680	ND	43.2	13-114	17.0	30	
Surrogate: Pentacosane	*1.88*		"	*2.50000*		*75.2*	*15-180*			
Reference (1FB0043-SRM1)				Prepared: 02/01/22 Analyzed: 02/05/22						
TEH, as #2 diesel fuel	103.8	5	mg/kg	101.680		102	0-200			
Surrogate: Pentacosane	*2.75*		"	*2.50000*		*110*	*15-180*			

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
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Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Conventional Chemistry Parameters - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FA1215 - Wet Chem Preparation										
Duplicate (1FA1215-DUP1)		**Source: 1FA2226-01**		Prepared & Analyzed: 01/27/22						
% Solids	81.0	0.10	%		76.8			5.35	11	

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
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Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Total Metals - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FA1306 - EPA 3050B Digestion										
Blank (1FA1306-BLK1)				Prepared: 01/31/22 Analyzed: 02/01/22						
Lead, total	ND	5.0	mg/kg wet							
LCS (1FA1306-BS1)				Prepared: 01/31/22 Analyzed: 02/01/22						
Lead, total	50.8	5.0	mg/kg wet	60.0000		84.7	80-120			
Matrix Spike (1FA1306-MS1)		**Source: 1FA2226-06**		Prepared: 01/31/22 Analyzed: 02/01/22						
Lead, total	118	5.0	mg/kg dry	65.3354	466	NR	75-125			QM-07
Matrix Spike Dup (1FA1306-MSD1)		**Source: 1FA2226-06**		Prepared: 01/31/22 Analyzed: 02/01/22						
Lead, total	384	5.0	mg/kg dry	63.3351	466	NR	75-125	106	20	QM-07
Post Spike (1FA1306-PS1)		**Source: 1FA2226-06**		Prepared: 01/31/22 Analyzed: 02/01/22						
Lead, total	8.11		mg/kg dry	4.00000	4.09	101	80-120			
Batch 1FB0068 - EPA 3050B Digestion										
Blank (1FB0068-BLK1)				Prepared: 02/02/22 Analyzed: 02/03/22						
Lead, total	ND	5.0	mg/kg wet							
LCS (1FB0068-BS1)				Prepared: 02/02/22 Analyzed: 02/03/22						
Lead, total	54.8	5.0	mg/kg wet	60.0000		91.3	80-120			
Matrix Spike (1FB0068-MS1)		**Source: 1FA2226-06RE1**		Prepared: 02/02/22 Analyzed: 02/03/22						
Lead, total	91.6	5.0	mg/kg dry	66.2265	94.7	NR	75-125			QM-07
Matrix Spike Dup (1FB0068-MSD1)		**Source: 1FA2226-06RE1**		Prepared: 02/02/22 Analyzed: 02/03/22						
Lead, total	83.8	5.0	mg/kg dry	68.5912	94.7	NR	75-125	NR	20	QM-07

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Terracon Environmental-Bettendorf	Project: Clinton County	Reported
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Bettendorf, IA 52722	Project Manager: Joshua F. Cox	

Determination of Total Metals - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1FB0068 - EPA 3050B Digestion										
Post Spike (1FB0068-PS1)	**Source: 1FA2226-06RE1**			Prepared: 02/02/22 Analyzed: 02/03/22						
Lead, total	5.0		mg/kg dry	4.00000	0.8	105	80-120			

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Terracon Environmental-Bettendorf	Project:	Clinton County	Reported
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Bettendorf, IA 52722	Project Manager:	Joshua F. Cox	

Certified Analyses Included in This Report

Method/Matrix	Analyte	Certifications
EPA 6010B in Sludge		
	Lead, total	SIA1X,KS-NT
EPA 6010B in Soil		
	Lead, total	SIA1X,KS-NT
EPA 8260B in Soil		
	Chloromethane	KS-NT,SIA1X
	Vinyl Chloride	KS-NT,SIA1X
	Bromomethane	KS-NT,SIA1X
	Chloroethane	KS-NT,SIA1X
	1,1-Dichloroethylene	KS-NT,SIA1X
	Acetone	KS-NT,SIA1X
	Carbon Disulfide	KS-NT,SIA1X
	Methylene Chloride	KS-NT,SIA1X
	trans-1,2-Dichloroethylene	KS-NT,SIA1X
	Methyl-t-butyl Ether (MTBE)	KS-NT,SIA1X
	1,1-Dichloroethane	KS-NT,SIA1X
	cis-1,2-Dichloroethylene	KS-NT,SIA1X
	2-Butanone (MEK)	KS-NT,SIA1X
	Chloroform	KS-NT,SIA1X
	1,1,1-Trichloroethane	KS-NT,SIA1X
	Carbon Tetrachloride	KS-NT,SIA1X
	Benzene	KS-NT,SIA1X
	1,2-Dichloroethane	KS-NT,SIA1X
	Trichloroethylene	KS-NT,SIA1X
	1,2-Dichloropropane	KS-NT,SIA1X
	Bromodichloromethane	KS-NT,SIA1X
	cis-1,3-Dichloropropene	KS-NT,SIA1X
	4-Methyl-2-pentanone (MIBK)	KS-NT,SIA1X
	Toluene	KS-NT,SIA1X
	trans-1,3-Dichloropropene	KS-NT,SIA1X
	1,1,2-Trichloroethane	KS-NT,SIA1X
	Tetrachloroethylene	KS-NT,SIA1X
	2-Hexanone (MBK)	KS-NT,SIA1X
	Dibromochloromethane	KS-NT,SIA1X
	Chlorobenzene	KS-NT,SIA1X
	Ethylbenzene	KS-NT,SIA1X
	Xylenes, total	KS-NT,SIA1X
	Bromoform	KS-NT,SIA1X
	1,1,2,2-Tetrachloroethane	KS-NT,SIA1X
	1,3-Dichlorobenzene	KS-NT,SIA1X
	1,4-Dichlorobenzene	KS-NT,SIA1X
	1,2-Dichlorobenzene	KS-NT,SIA1X
EPA 8260B in Water		
	Chloromethane	KS-NT,SIA1X
	Vinyl Chloride	KS-NT,SIA1X
	Bromomethane	KS-NT,SIA1X

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	Chloroethane	KS-NT,SIA1X
	1,1-Dichloroethylene	KS-NT,SIA1X
	Acetone	KS-NT,SIA1X
	Carbon Disulfide	KS-NT,SIA1X
	Methylene Chloride	KS-NT,SIA1X
	trans-1,2-Dichloroethylene	KS-NT,SIA1X
	Methyl-t-butyl Ether (MTBE)	KS-NT,SIA1X
	1,1-Dichloroethane	KS-NT,SIA1X
	cis-1,2-Dichloroethylene	KS-NT,SIA1X
	2-Butanone (MEK)	KS-NT,SIA1X
	Chloroform	KS-NT,SIA1X
	1,1,1-Trichloroethane	KS-NT,SIA1X
	Carbon Tetrachloride	KS-NT,SIA1X
	Benzene	KS-NT,SIA1X
	1,2-Dichloroethane	KS-NT,SIA1X
	Trichloroethylene	KS-NT,SIA1X
	1,2-Dichloropropane	KS-NT,SIA1X
	Bromodichloromethane	KS-NT,SIA1X
	cis-1,3-Dichloropropene	KS-NT,SIA1X
	4-Methyl-2-pentanone (MIBK)	KS-NT,SIA1X
	Toluene	KS-NT,SIA1X
	trans-1,3-Dichloropropene	KS-NT,SIA1X
	1,1,2-Trichloroethane	KS-NT,SIA1X
	Tetrachloroethylene	KS-NT,SIA1X
	2-Hexanone (MBK)	KS-NT,SIA1X
	Dibromochloromethane	KS-NT,SIA1X
	Chlorobenzene	KS-NT,SIA1X
	Ethylbenzene	KS-NT,SIA1X
	Xylenes, total	KS-NT,SIA1X
	Bromoform	KS-NT,SIA1X
	1,1,2,2-Tetrachloroethane	KS-NT,SIA1X
	1,3-Dichlorobenzene	KS-NT,SIA1X
	1,4-Dichlorobenzene	KS-NT,SIA1X
	1,2-Dichlorobenzene	KS-NT,SIA1X
Iowa OA-2 in Soil		
	Total Extractable Hydrocarbons	SIA1X
SM 2540 G in Soil		
	% Solids	SIA1X

Code	Certifying Authority	Certificate Number	Expires
KS-KC	Kansas Department of Health and Environment-KC	E-10110	04/30/2022
KS-NT	Kansas Department of Health and Environment (NELAP	E-10287	10/31/2022
MO-KC	Missouri Department of Natural Resources	140	04/30/2022
SIA1X	Iowa Dept. of Natural Resources (updated certifica	95	02/01/2024

Phone 641-792-8451 | 600 East 17th Street South, Newton, IA 50208 | Fax 641-792-7989

Terracon Environmental-Bettendorf	Project:	Clinton County	Reported
870 40th Ave	Project Number:	07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager:	Joshua F. Cox	

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QS-02	The spike recovery for this QC sample exceeded established acceptance limits. However, all samples were below the reporting and/or regulatory limit so the data is acceptable.
QS-01	The blank spike recovery and/or blank spike duplicate recovery were outside the established acceptance limits. Batch was accepted based on acceptable MS/MSD/RPD results.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-07	The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
IS-01	The recovery for this internal standard was outside the established acceptance limits. The analytes associated with this internal standard were re-assigned to another internal standard with a passing recovery that met the method criteria.
D-03	The result for this hydrocarbon is elevated due to the presence of single analyte peak(s) in the quantitation range.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Terracon Environmental-Bettendorf	Project:	Clinton County	Reported
870 40th Ave	Project Number:	07207086 T11	02/09/22 19:24
Bettendorf, IA 52722	Project Manager:	Joshua F. Cox	

Sue Thompson

Sue Thompson

Client Services Manager

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APPENDIX D

MOISTURE AND MICROBIAL ASSESSMENT REPORT

Moisture and Microbial Investigation Report

Former YMCA Building
480 South 3rd Street
Clinton, Clinton County, Iowa

September 29, 2022

Terracon Project No. 07207086; Task 32

Prepared for:

East Central Intergovernmental Association (ECIA)
7600 Commerce Drive
Dubuque, Iowa
&
The City of Clinton, Iowa
611 South 3rd Street
Clinton, Iowa

Prepared by:

Terracon Consultants, Inc.
Bettendorf, Iowa

September 29, 2022

East Central Intergovernmental Association
7600 Commerce Park
Dubuque, Iowa 52002-9673

Attn: Ms. Dawn Danielson
P: (563) 690-5772
E: ddanielson@ecia.org

Re: Moisture and Microbial Investigation Report
Former YMCA Building
480 South 3rd Street
Clinton, Clinton County, Iowa 52732
Terracon Project No. 07207086; Task 32
Brownfields Assessment Grant: BF97782001

Dear Ms. Danielson:

Terracon Consultants, Inc. (Terracon) is pleased to submit the attached report for the above-referenced site to East Central Intergovernmental Association (ECIA). The purpose of this report is to present the results of the moisture and microbial investigation conducted on August 18, 2022 and August 22, 2022. The assessment was conducted in general accordance with the Standard Consultant Contract *For Qualified Environmental Professional (QEP) Consultant Contract, ECIA Brownfield Coalition* (The Agreement) dated December 3, 2020, the Microbial Assessment Sampling and Analysis Plan – Revision 1 dated July 15, 2022 (the PSAP), and the email Notice to Proceed dated August 13, 2022.

These services were requested to identify moisture and microbial growth in the original site building (constructed circa 1905) of the Former YMCA structure located at 480 South 3rd Street Clinton, Iowa. Please refer to the attached report for additional information.

Terracon appreciates the opportunity to provide this service to the ECIA and the City of Clinton, Iowa. If you have questions regarding this report, please contact James at 563-468-4271.

Sincerely,
Terracon Consultants, Inc.

James R. Baxter
Environmental Group Manager

For
Dennis R. Sensenbrenner, PG
Senior Associate

TABLE OF CONTENTS

MOISTURE AND MICROBIAL INVESTIGATION REPORT
Former YMCA Building
480 South 3rd Street
Clinton, Clinton County, Iowa 52732

Terracon Project No. 07207086; Task T32

September 29, 2022

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted a moisture and microbial investigation of the former Young Men's Christian Association (YMCA) building located at 480 South 3rd Street, Clinton, Clinton County, Iowa for East Central Intergovernmental Association (ECIA). The survey was conducted on August 18, 2022 and August 22, 2022, in general accordance with the Standard Consultant Contract *For Qualified Environmental Professional (QEP) Consultant Contract, ECIA Brownfield Coalition* (The Agreement) dated December 3, 2020, the Microbial Assessment Sampling and Analysis Plan – Revision 1 dated July 15, 2022 (the PSAP), and the email Notice to Proceed dated August 13, 2022.

1.1 Project Objectives

We understand the moisture and microbial investigation was requested in support of the future use of the site. The demolition/renovation plans of the onsite structure are not yet determined; however, these services were based on the following assumptions:

- The 1905 (original) building will be renovated (assuming gut-renovated).
- The 1961 and 1978 building additions will be demolished.

Terracon also understands that the intent of the assessment is to assist the client with communicating the presence and location of moisture and microbes to employees, vendors, and contractors that may be associated with future plans for the site. The purpose of this survey was to evaluate the original site building (constructed circa 1905) for moisture intrusion and determine the location(s) of apparent microbial growth, if any.

In support of the project, Terracon's services included the following:

- Physical inspection of the interior of the project area to determine potential moisture intrusion locations and to identify areas of potential microbial growth;
- Measurements of air temperature and relative humidity;
- Determination of moisture content in accessible building materials based on the physical inspection;
- Fungal spore trap air testing;
- Tape lift samples of suspect microbial growth; and
- Preparation of this report.

1.2 Reliance

This report is for the exclusive use of ECIA and the City of Clinton, Iowa for the project being discussed. Reliance by other parties on this report is prohibited without written authorization of Terracon and ECIA. Reliance on this report by ECIA, the City of Clinton, Iowa, and all authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, this report, and the Standard Consultant Contract. The limitations of liability defined in The Agreement is the aggregate limit of Terracon's liability to ECIA.

1.3 Standard of Care

This investigation was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions, and recommendations expressed in this report are based on conditions observed during our investigation. Many factors, such as weather conditions, building occupancy, ventilation patterns, and seasonal variations in fungal concentrations, can affect the conditions observed. The information contained in this report should not be relied upon to represent conditions that existed prior to or after this investigation. Terracon does not warrant the services of regulatory agencies, laboratories, or other third parties supplying information that may have been used in the preparation of this report.

2.0 SITE DESCRIPTION

Based on information obtained from the Clinton County Assessor's Office[1], the original multi-story site building was constructed circa 1905, with reported additions in 1960 and 1978. The following table provides a summary of pertinent building information and construction information such as structure and finishes used within the building(s). As indicated above, Terracon's scope for this portion of the project was focused only on the 1905 portion of the structure.

[1] Posted at: https://clintoncity.iowaassessors.com/parcel.php?gid=260951.

Table 1. YMCA Building Description and Information

Building Description and Information			
Building Use	Former YMCA, currently unoccupied		
Owned/Leased	Owned by the City of Clinton, Iowa		
Building Square Footage	Approximately 70,000 square feet (SF)	Number of Floors	3
Construction Date	Circa 1905, additions in 1961 and 1978	Renovation Date(s)	Unknown
Basement:	Partial basement: 8,000 SF	Tunnels: Yes	Attic: No

*HVAC – Heating, Ventilation and Air Conditioning

The building is currently unoccupied and is in poor condition. Trash and debris were observed throughout the building including furniture, appliances, and miscellaneous building materials. Significant water and structural damage were observed throughout the building at the time of the site reconnaissance. During Terracon's visit to the site in January 2022, City personnel were on-site and indicated that the building had been broken into several times and that numerous copper pipes had been cut/removed from the site; Terracon personnel observed sections of copper pipe on the main level of the 1905 building and in the tunnel spaces around the large pool during the January 2022 field services, some of which still remained as observed during the August 2022 services.

3.0 MICROBIAL INVESTIGATION CRITERIA AND METHODS

3.1 Physical Inspection

The physical inspection was conducted to evaluate general indoor hygiene, building maintenance practices, areas of moisture intrusion, uncontrolled condensate formation, odors, and the presence of visible fungal growth. The inspection focused primarily on collecting observational data (i.e., information obtained by physical inspection of the building and interviews with the building management, owners, and occupants).

The physical inspection included:

- An examination of the physical structure and potential point sources of moisture intrusion;
- The identification of any discoloration or odor that could indicate moisture intrusion, water damage and microbial growth;
- Using a moisture meter and infrared (IR) imaging camera to detect moisture impacted materials;

3.2 Moisture Content in Building Materials

Excess moisture in building materials may result in the growth of fungi or bacteria. There are no regulations or standards for moisture content in installed building materials. Moisture content will vary building-to-building and across geography, depending largely on relative humidity and indoor environmental conditions. Terracon applied industry best practices and equipment manufacturer guidelines to determine the moisture content of materials in the project area.

A moisture meter and infrared (IR) camera were used to identify suspect water-impacted materials in the project area. Building materials have different absorptive and moisture retention properties and will come into equilibrium with environmental moisture (as indicated by relative humidity levels) or become wet by contact with water.

Our investigation was limited to accessible surfaces in the project area. Terracon did not perform intrusive investigation to inspect interior wall cavity spaces in the building. Terracon did not attempt to identify every potential source of potential moisture intrusion.

3.2.1 Infrared Camera

Some moisture-impacted materials, such as those inside wall cavities or interstitial spaces, or materials that show no visible signs of impact may not be detected by a physical inspection or by using a moisture meter. Infrared (IR) imaging allows the user to visualize temperature gradients in building materials, and moist areas are typically cooler than adjacent dry areas as a result of evaporative cooling. Terracon attempted to utilize a FLIR C2 IR camera (S/N 720097608) to scan the project areas to identify potential areas of moisture intrusion.

During Terracon's field services, the IR camera did not appear to be operating as expected as the aperture was not opening and closing properly during attempts to take photographs. Additional information on this deviation is included in Section 7.1.3. To compensate for the deviation, Terracon collected additional moisture meter measurements as detailed in the following section.

3.2.2 Moisture Meter Measurements

Following the visual inspection and Terracon's limited utilization of the IR camera, Terracon used a General® MMD900 moisture meter to assess the majority of the 1905 building for moisture intrusion. A calibration check was conducted onsite prior to the assessment. This instrument has two modes of operation:

- Search mode is used to measure relative moisture beneath the surface of materials by means of radio frequency, and
- Measure mode uses electrical conductivity to measure the moisture level of building materials between two electrodes. The moisture level value is reported as percent wood moisture equivalent (%WME).

The search mode was utilized at the base of walls and carpets to locate potential areas of moisture in each general area of the 1905 Building. Terracon also used the measure mode to assess materials and a majority of the walls at varying heights and locations throughout the building. The general locations of moisture meter readings exceeding 17% WME are shown in Exhibits 5-7 in Appendix A and copies of the moisture reading worksheets are included in Appendix B.

3.3 Temperature and Relative Humidity Monitoring

Indoor air temperature and relative humidity are physical conditions important to the perception of comfort. American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 55-2017 *Thermal Environmental Conditions for Human Occupancy* identifies six primary factors that affect comfort: metabolic rate (affected by the activity being conducted), clothing insulation, air temperature, radiant temperature, air speed, and humidity. The relationships are complex, but to summarize, a temperature range between 68- and 79-degrees Fahrenheit (°F) with relative humidity below 60 percent (%) is recommended for persons working at sedentary to moderately elevated physical activity levels. To avoid conditions sufficiently moist to promote the growth of molds or other bio growth, relative humidity should not exceed 60%.

Terracon measured temperature and relative humidity (RH) using an EXTECH Instruments Humidity/Temperature Pen (Model 445580), an electronic monitoring instrument. The instrument provides direct-reading measurements of temperature within the range of 14 to 122 degrees Fahrenheit (°F) and RH within the range of 10% to 90%. Measurements were conducted in the ambient environment outside the building and in various areas of the building interior during the site walkthrough.

3.4 Microbial Sampling

No state or federal exposure limits have been established for fungal bioaerosols, and regulatory standards or medically based threshold limit or dose-response relationships do not currently exist for exposure to airborne or surface concentrations of fungal spores. Terracon relies upon experience, professional judgment, current scientific literature, guidelines, and recommendations made by professional organizations and experts, and statistical methods in interpreting microbial sampling results.

High variability in airborne fungal spore concentrations can exist in different geographic locations, during different seasons, and weather patterns, and over the course of a given day. Generally, indoor air fungal spore concentrations in an HVAC-supplied building are typically less than, but qualitatively similar to, fungal spore concentrations found in the outside environment. To help interpret the sampling results, we compared indoor air and outdoor air measurements.

Terracon collected fungal spore trap samples using Air-O-Cell™ sampling cassettes and Zefon Bio-Pump® Plus Model ZDP-200 (S/N 6034) at a flow rate of 15 liters per minute for five minutes per

sample. As indicated in the Sampling and Analysis Plan for the site, a second pump (S/N 3974) was used to collect duplicate (side-by-side) samples at select locations. The locations of the spore trap sample locations are shown on Exhibits 1-4 in Appendix A. Spore trap air samples were collected at representative indoor and outdoor sample locations including:

1. Outside main entrance to 1905 building
2. Main level, southwest area near hallway to 1961 building[2]
3. Main level, approximate center of main lobby/Room 1
4. Main level, south-center portion of Room 5, near entrance to Room 6
5. Main level, northwest portion of Room 6 near wall staining
6. Lower stairwell landing between main level and basement
7. Basement, approximate center of Room B1
8. Basement, entrance of Room B3[2]
9. Basement, southwest corner of Room B2
10. Basement, approximate center of Room B8
11. Basement, approximate center of Room B6
12. Stairwell landing between Main Level and second floor
13. Second floor, approximate center of Room 11
14. Second floor, approximate center of north hallway, near entrance to Room 8 (kitchen)
15. Second floor, south-center portion of Room 8 (former kitchen)
16. Second floor, Room 10, near the doorway to Room 9
17. Second floor, inside Unit 207
18. Second floor, inside Unit 205
19. Second floor, south portion of east hallway
20. Second floor, south portion of east hallway[2]
21. Second floor, just inside entrance to south restroom
22. Second floor, inside Unit 201
23. Second floor, just inside north restroom
24. Stairwell between second floor and third floor
25. Third floor, inside Unit 328
26. Third floor, inside Unit 324
27. Third floor, inside Unit 320
28. Third floor, inside Unit 318
29. Third floor, southwest corner of open/common area
30. Third floor, north-center portion of open/common area
31. Third floor, inside Unit 313
32. Third floor, inside Unit 309
33. Outside main entrance to 1905 building

[2] Duplicate sample collected from this location

Utilizing laboratory-provided tape lift samplers, Terracon also collected six tape lift samples (tape lift sample locations are noted on Exhibits 1-4 in Appendix A) from the following surfaces that exhibited suspect microbial growth:

1. Main level, east side counter, water damaged/stained area
2. Basement, ceiling tile located immediately at bottom of steps
3. Basement, southeast portion from lower water damaged brick wall
4. Second floor, east lower portion of north hallway wall
5. Third floor, wall-mounted shelf on north side of open common area
6. Stairwell between first floor and second floor, on south side handrail near the lower set of steps

After the microbial sample collection, the sample cassettes and tape lift samples were shipped under chain-of-custody (COC) protocol to Eurofins EMLab P&K (EMLab), Marlton, New Jersey. EMLab is accredited by the AIHA® Laboratory Accreditation Programs, LLC under the Environmental Microbiology Laboratory Accreditation Program (EMLAP). Copies of the sampling worksheets, including pump calibration data are provided in Appendix B.

4.0 FINDINGS

This section includes the findings and a discussion of our physical inspection and sampling results. Appendix D includes photos of notable features and/or findings associated with this inspection.

4.1 Physical Inspection

Table 2 contains an overview of findings from the physical inspection. Significant findings are discussed in the section that follows.

Table 2. Physical Inspection Findings

Inspection Parameter	Observation Comments
Type of Occupancy	Former YMCA and living space; currently unoccupied
Type of Enclosure	Brick and concrete
Types of Finishes ■ Walls ■ Ceilings ■ Floors ■ Exterior	 ■ Plaster, drywall, glazed block ■ Plaster, acoustical ceiling tile, or cement ■ Terrazzo, vinyl floor tile, concrete, carpeting ■ Brick and concrete
Discoloration / Water Staining / Suspect Microbial Growth	Apparent water staining or suspect microbial growth was observed in the following areas: ■ Countertops in the main room of the first floor of the 1905 structure ■ Northwest lower wall in Room 4 on the first floor ■ Countertops in Room 6 on the first floor ■ Ceiling tiles throughout the basement ■ Exterior walls and flooring throughout the basement ■ Handrails and horizontal surfaces throughout the stairwells ■ Flooring in Room 11 and the second-floor north hallway ■ Counters in Room 8 on the second floor ■ Select west side walls on the second and third floors that are adjoining (and in some cases, generally open to) the 1961 portion of the building

Following a brief walkthrough, Terracon performed a physical inspection of the interior of the 1905 portion of the structure. Terracon did not perform an intrusive investigation in the building.

Based on our observations, “musty” odors were generally present throughout the building and were noted to be strongest in the basement and first floor areas, as well as the west side of the second floor (second floor north hallway area). As previously indicated, the building has not been occupied or utilized for an extended period of time and is not fully enclosed or tempered. Terracon observed suspect visible fungal growth as indicated in the above table. Miscellaneous materials, debris, and other trash throughout the building appeared to be impacted by either microbial growth or moisture; Terracon also observed that field paperwork utilized during the survey became damp after a short period of time within the building indicating elevated air moisture.

During Terracon's walkthrough and physical inspection Terracon noted the following observations. Please refer to Appendix B for detailed findings of the moisture evaluation.

First floor:

Terracon observed water staining on the ceiling and in corresponding spots on the floor near the center of the of the main room on the first floor. The spots and stains that were observed appear to be related to a reported previous leak from the restroom on the second floor (south restroom) as noted by City personnel during Terracon's previous site investigation activities. Additional moisture impacts were noted in Room 3 (water staining on walls), heavy microbial growth along the northwest portion of the wall in Room 4, and water staining along the lower walls throughout Room 5.

Second floor:

Terracon noted visible suspect microbial growth and water staining in the stairwells leading from the first floor the second floor. The majority of the former rooms/units on the second floor were observed to have moisture-impacted or water-stained ceiling tiles and light oxidation of the ceiling tile gridwork, and the flooring in the south restroom was observed to have heavy water staining (presumably related to the former leak as indicated above). Rooms 8-10 had noticeable water staining and suspect microbial growth along the walls, and the north hallway (which is generally open the 1961 portion of the building) had a significant amount of water-damaged materials (including ceiling tiles) on the floor of the hallway and the surface coatings were observed to have significant delamination from the substrate. Additional water damage was observed on the floors and ceilings in the northeast portion of the floor (Room 11, the north restroom, and the storage rooms).

Third floor:

Terracon noted visible suspect microbial growth and water staining in the stairwells leading from the second floor to the third floor. The majority of the former rooms/units on the third floor were observed to have moisture-impacted or water-stained ceiling tiles and light oxidation of the ceiling tile gridwork, and corresponding water staining on the carpeting and flooring. The emergency exit door at the north end of the third floor has broken into several times, and large gaps along the side and bottom of the door were observed, which could contribute to moisture intrusion issues.

Basement:

The basement and associated rooms/areas were generally observed to be heavily impacted by both moisture and microbial growth. The ceiling tiles in the main room (B1) were almost completely black with observed microbial growth and the majority of the outer walls (generally observed to be brick) and the flooring materials throughout the basement rooms had significant water damage and observed microbial growth from excess moisture exposure. It should be noted

that Terracon also conducted limited visual observations in the tunnel space in the northwest corner of the basement which leads further down into the sub-grade area that is part of the 1961 portion of the Site Building.

4.2 Moisture Content in Building Materials

Following Terracon's limited use of the IR camera, Terracon used a moisture meter throughout the building to confirm materials that may have been impacted by moisture intrusion. It should be noted that brick and concrete may not retain moisture the same way as wood or sheetrock and moisture meter measurements may not adequately detect moisture in these materials. Moisture reading measurements can be used to directly establish if materials are in a Dry (below 17% WME), At Risk (17%-20% WME), or Wet (above 20% WME) condition. The locations of the moisture content readings recorded above 17% are presented in Exhibits 5-7 Appendix A in, and a full summary of all the moisture readings collected are included in Appendix B.

A summary of key moisture readings for each floor is included below.

First floor:

The west wall of Room 3 and each of the four walls in Room 6 had moisture content readings in excess of 20% WME and are interpreted as Wet. At Risk moisture readings above 17% WME but below 20% WME were noted along the west and north walls and the northeast wall in Room 1, the northwest wall in Room 4, the south wall of Room 5 and the lower stairwell wall leading to the basement.

Second floor:

The west wall of Room 10 had a moisture content reading in excess of 20% WME and is interpreted as Wet. At Risk moisture readings above 17% WME but below 20% WME were recorded along the south wall and the northeast portion of the north wall in the south restroom, the south wall of Room 10, and the north wall of Room 11.

Third floor:

The third floor did not have moisture content readings above 17% WME. The highest reported moisture content was 12% WME and was located along the north wall of Room 3-318, and several locations with 11.9% WME located in Rooms 3-312 (east, south, and west walls) and 3-326 (west wall).

Basement:

As indicated on Exhibit 6 in Appendix A, the majority of the basement walls had moisture content readings exceeding 20% WME, with several locations including the east and west walls of Room

B1, the west wall of B3, the east and south walls of both B2 and B8, and the north wall of B6 at 87.6% WME, which is the maximum reading on the meter used for the survey. At Risk moisture readings above 17% WME but below 20% WME were recorded along the west wall in B7, the north, east, and west walls in B5, the east and west walls in B4, and the northeast and southeast walls in B3.

4.3 Temperature and Relative Humidity Measurements

The National Weather Service Forecast Office website[3] for the Davenport, Iowa, station indicated the following weather conditions on August 22, 2022: high temperature of 81°F, an average of 69°F; clear skies; an average wind speed of 4.7 miles per hour from the northwest; and a relative humidity average of 72%.

Temperature and relative humidity readings were collected at the indoor and outdoor spore trap sampling locations. A summary of indoor temperature and humidity levels obtained during this assessment is provided in Table 3 below.

Table 3. Temperature and Relative Humidity Levels

Location	Temperature	Relative Humidity
Outside main entrance to 1905 building	96.9°F	28.0%
Main level, southwest area near hallway to 1961 building[4]	84.0°F	48.9%
Main level, approximate center of main lobby/Room 1	82.9°F	59.2%
Main level, south-center portion of Room 5, near entrance to Room 6	75.9°F	68.7%
Main level, northwest portion of Room 6 near wall staining	75.3°F	73.4%
Lower stairwell landing between main level and basement	82.0°F	57.4%
Basement, approximate center of Room B1	75.9°F	66.9%
Basement, entrance of Room B3[6]	70.8°F	84.7%
Basement, southwest corner of Room B2	71.2°F	84.6%
Basement, approximate center of Room B8	70.7°F	83.4%
Basement, approximate center of Room B6	74.4°F	71.3%
Stairwell landing between Main Level and second floor	78.8°F	66.6%
Second floor, approximate center of Room 11	77.0°F	73.8%
Second floor, approximate center of north hallway, near entrance to Room 8 (kitchen)	78.0°F	67.5%
Second floor, south-center portion of Room 8 (former kitchen)	83.4°F	59.5%

[3] Posted at: https://w2.weather.gov/climate/index.php?wfo=dvn; accessed August 24, 2022.
[4] Indicates duplicate sample collected at this location

Location	Temperature	Relative Humidity
Second floor, Room 10, near the doorway to Room 9	80.4°F	65.9%
Second floor, inside Unit 207	76.8°F	77.0%
Second floor, inside Unit 205	77.5°F	70.5%
Second floor, south portion of east hallway[5]	84.9°F	66.6%
Second floor, just inside entrance to south restroom	82.0°F	61.2%
Second floor, inside Unit 201	80.2°F	66.1%
Second floor, just inside north restroom	80.4°F	68.3%
Stairwell between second floor and third floor	81.8°F	61.7%
Third floor, inside Unit 328	80.4°F	59.8%
Third floor, inside Unit 324	80.9°F	64.0%
Third floor, inside Unit 320	80.7°F	61.9%
Third floor, inside Unit 318	78.0°F	64.6%
Third floor, southwest corner of open/common area	78.4°F	73.4%
Third floor, north-center portion of open/common area	78.6°F	73.1%
Third floor, inside Unit 313	81.3°F	64.6%
Third floor, inside Unit 309	82.5°F	62.0%
Outside main entrance to 1905 building	84.2°F	47.4%

4.4 Tape-Lift Sample Results

Terracon collected tape-lift samples of suspect microbial growth on six surfaces to determine if fungal contamination was present. Terracon did not observe heavy dust accumulations on visible surfaces. Sampling locations are indicated on Exhibits 1-4 in Appendix A. Table 4 summarizes the results of the tape-lift sampling. The results of the tape-lift sampling confirmed that microbial growth was present.

[5] Indicates duplicate sample collected at this location

Table 4. Tape-Lift Sample Results

Sample #	Location	Substrate	Results[6]	Comments
TL1	Main level, east side counter, water damaged/stained area	Countertop	None	Normal trapping
TL2	Basement, ceiling tile located immediately at bottom of steps	Ceiling tile	4+ *Ascotricha* species (ascospores, ascomata, hyphae)	Mold growth
TL3	Basement, southeast portion from lower water damaged brick wall	Brick	None	Normal trapping
TL4	Second floor, east lower portion of north hallway wall	Drywall	None	Normal trapping
TL5	Third floor, wall-mounted shelf on north side of open common area	Countertop	None	Normal trapping
TL6	Stairwell between first floor and second floor, on south side handrail near the lower set of steps	Wood handrail	4+ *Aspergillus* species (spores, hyphae, conidiophores)	Mold growth

Laboratory analytical results of the tape-lift samples are provided in Appendix C. Photographic documentation of select sample locations is provided in Appendix D.

4.5 Fungal Spore Trap Sample Results

Terracon collected fungal spore trap air samples at 30 locations inside the building and two locations outside of the building. Duplicate samples were also collected at three of the aforementioned sample locations. Table 5 summarizes the results of the spore trap sampling. The results are reported in spores per cubic meter (spores/m^3).

[6] Quantities of molds graded <1+ to 4+, with 4+ denoting the highest numbers.

Table 5. Spore Trap Air Sampling Results

Laboratory Sample ID #	Terracon Sample ID	Sample Location	Total Concentration (spores/m^3)	Fungal Spore Types and Concentrations (spores/m^3)
3483 3307	ST-1	Outside main entrance to 1905 building	6,000	*Alternaria* (110) Ascospores (850) Basidiospores (2,800) *Cercospora* (27) *Cladosporium* (2,200) *Epicoccum* (13) Smuts, *Periconia*, Myxomycetes (27)
3483 3298	ST-2	Main level, southwest area near hallway to 1961 building	<13	NA
3483 3293	ST-3		210	Basidiospores (210)
3483 3293	ST-4	Main level, approximate center of main lobby/Room 1	530	Basidiospores (110) *Cladosporium* (53) *Penicillium/Aspergillus* types (210) *Stachybotrys* (160)
3483 3281	ST-5	Main level, south-center portion of Room 5, near entrance to Room 6	690	Ascospores (110) Basidiospores (430) *Cladosporium* (53) *Penicillium/Aspergillus* types (110)
3483 3302	ST-6	Main level, northwest portion of Room 6 near wall staining	1,800	Basidiospores (210) *Penicillium/Aspergillus* types (1,500)
3483 3301	ST-7	Lower stairwell landing between main level and basement	110	Basidiospores (53) *Penicillium/Aspergillus* types (53)
3483 3287	ST-8	Basement, approximate center of Room B1	1,300	Ascospores (110) Basidiospores (370) *Penicillium/Aspergillus* types (850)
3483 3289	ST-9	Basement, entrance of Room B3	3,300	Ascospores (110) Basidiospores (430) *Cladosporium* (160) *Penicillium/Aspergillus* types (2,600)
3483 3284	ST-10		6,700	Ascospores (110) Basidiospores (110) *Penicillium/Aspergillus* types (6,500) Smuts, *Periconia*, Myxomycetes (13)

Laboratory Sample ID #	Terracon Sample ID	Sample Location	Total Concentration (spores/m^3)	Fungal Spore Types and Concentrations (spores/m^3)
3483 3303	ST-11	Basement, southwest corner of Room B2	320	Basidiospores (210) *Penicillium/Aspergillus* types (110)
3483 3309	ST-12	Basement, approximate center of Room B8	210,000	*Chrysosporium*-like (31,000) *Penicillium/Aspergillus* types (180,000)
3483 3294	ST-13	Basement, approximate center of Room B6	960	Basidiospores (270) *Penicillium/Aspergillus* types (690)
3483 3291	ST-14	Stairwell landing between Main Level and second floor	4,700	Ascospores (110) Basidiospores (210) *Penicillium/Aspergillus* types (4,400)
3483 3574	ST-15	Second floor, approximate center of Room 11	850	Basidiospores (110) *Penicillium/Aspergillus* types (750)
3483 3308	ST-16	Second floor, approximate center of north hallway, near entrance to Room 8 (kitchen)	11,000	Ascospores (53) Basidiospores (320) *Epicoccum* (13) *Penicillium/Aspergillus* types (10,000) Smuts, *Periconia*, Myxomycetes (13)
3483 3313	ST-17	Second floor, south-center portion of Room 8 (former kitchen)	23,000	*Penicillium/Aspergillus* types (23,000)
3483 3310	ST-18	Second floor, Room 10, near the doorway to Room 9	1,200	Basidiospores (110) *Penicillium/Aspergillus* types (1,100)
3483 3685	ST-19	Second floor, inside Unit 207	41,000	Basidiospores (110) *Cladosporium* (110) *Penicillium/Aspergillus* types (40,000)
3483 3278	ST-20	Second floor, inside Unit 205	14,000	Basidiospores (110) *Penicillium/Aspergillus* types (14,000)
3483 3306	ST-21	Second floor, south portion of east hallway	3,700	Basidiospores (110) *Penicillium/Aspergillus* types (3,600)
3483 3296	ST-22		3,600	*Penicillium/Aspergillus* types (3,600)
3483 3300	ST-23	Second floor, just inside entrance to south restroom	3,300	Ascospores (53) Basidiospores (110) *Penicillium/Aspergillus* types (3,100)

Laboratory Sample ID #	Terracon Sample ID	Sample Location	Total Concentration (spores/m^3)	Fungal Spore Types and Concentrations (spores/m^3)
3483 3600	ST-24	Second floor, inside Unit 201	6,600	Ascospores (110) Basidiospores (160) *Penicillium/Aspergillus* types (6,300) *Pithomyces* (13) Smuts, *Periconia*, Myxomycetes (13)
3483 3658	ST-25	Second floor, just inside north restroom	2,000	Basidiospores (370) *Penicillium/Aspergillus* types (1,600)
3483 3359	ST-26	Stairwell between second floor and third floor	11,000	Ascospores (110) Basidiospores (110) *Nigrospora* (13) *Penicillium/Aspergillus* types (11,000) Smuts, *Periconia*, Myxomycetes (13)
3483 3323	ST-27	Third floor, inside Unit 328	6,300	*Alternaria* (13) *Epicoccum* (13) *Penicillium/Aspergillus* types (6,300) Smuts, *Periconia*, Myxomycetes (13)
3483 3326	ST-28	Third floor, inside Unit 324	1,000	Ascospores (53) Basidiospores (53) *Cladosporium* (53) *Penicillium/Aspergillus* types (850)
3483 3299	ST-29	Third floor, inside Unit 320	1,300	*Alternaria* (13) Ascospores (110) Basidiospores (110) *Penicillium/Aspergillus* types (1,000) Smuts, *Periconia*, Myxomycetes (13)
3483 3311	ST-30	Third floor, inside Unit 318	170	Basidiospores (53) *Penicillium/Aspergillus* types (110) Smuts, *Periconia*, Myxomycetes (13)
3483 3593	ST-31	Third floor, southwest corner of open/common area	1,500	Basidiospores (110) *Penicillium/Aspergillus* types (1,400)
3482 3327	ST-32	Third floor, north-center portion of open/common area	1,400	Ascospores (53) Basidiospores (270) *Penicillium/Aspergillus* types (1,100)
3483 3325	ST-33	Third floor, inside Unit 313	270	Basidiospores (160) *Penicillium/Aspergillus* types (110)
3483 3292	ST-34	Third floor, inside Unit 309	3,800	Ascospores (110) Basidiospores (160) *Penicillium/Aspergillus* types (3,500)

Laboratory Sample ID #	Terracon Sample ID	Sample Location	Total Concentration (spores/m^3)	Fungal Spore Types and Concentrations (spores/m^3)
3483 3312	ST-35	Outside main entrance to 1905 building	5,800	*Alternaria* (150) Ascospores (1,100) Basidiospores (2,800) *Cercospora* (150) *Cladosporium* (1,600) *Oidium* (13) *Pithomyces* (27) Rusts (13) Smuts, *Periconia*, Myxomycetes (13)

Sampling results from the interior areas were compared to those collected outside the building. A comparison of the sampling results yielded the following findings:

1. Total airborne fungal spore concentrations inside of the building ranged from <13 spores/m^3 to 210,000 spores/m^3.

2. The total outdoor fungal spore concentrations were 5,800 spores/m^3 and 6,000 spores/m^3. The types of outdoor fungal spores identified were considered by the analytical laboratory as typical for the outdoor environment and were in the low to high concentration ranges for August in Iowa climate code.

3. Although fungal spore concentrations indoors were generally lower than those found outdoors, certain fungal spore types were present in higher percentages compared to the outdoor samples; this indicates indoor amplification.

4. The types of fungal spore types identified inside the building were generally similar to those found outdoors, except for *Penicillium/Aspergillus* type of spores, *Stachybotrys* spores, *Chrysosporium*-like spores, and *Nigrospora* spores.

5. In 31 of the 33 indoor samples *Penicillium/Aspergillus* types of spores were identified. Of those samples, 26 spaces had concentrations of *Penicillium/Aspergillus* types of spores that dominated the total sample concentration and had elevated concentrations compared to outdoor samples, indicating the presence of fungal growth. Note: *Penicillium/Aspergillus* types can grow on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture levels and type of materials, in addition to other factors.

6. Total airborne fungal spore concentrations for the duplicate sample sets ranged from: <13 spores/m^3 to 210 spores/m^3 for set 1; 3,700 spores/m^3 to 6,700 spores/m^3 for set 2; and 3,600 spores/m^3 to 3,700 spores/m^3 for set three. Generally, the same types of spores were identified in the duplicate sample sets, although *Cladosporium* (160 spores/m^3) was

detected in one of the samples from the second set and the reported concentration of the *Penicillium/Aspergillus* strain was lower (basement, Room B1), and *Basidiospores* (110 spores/m^3) were reported in one of the samples from the third set (located in the south hallway on the second floor).

The locations of the fungal spore trap air samples can be found in Exhibits 1-4 in Appendix A. Air sampling worksheets, pump calibration records are included in Appendix B. The laboratory analytical results for the spore trap sampling are included in Appendix C. Photographic documentation is provided in Appendix D.

5.0 CONCLUSIONS

Based on our investigation, our conclusions are presented below:

- Although many fungal spore concentrations indoors were lower than those found outdoors, certain fungi were present in higher percentages compared to the outdoor samples; this indicates indoor amplification.
- Thirty one of the 33 indoor samples *Penicillium/Aspergillus* types of spores were identified. Of those samples, 26 samples had concentrations of *Penicillium/Aspergillus* types of spores that dominated the total sample concentration and had elevated concentrations compared to outdoor samples, indicating the presence of fungal growth.
- Two tape lift samples confirmed fungal growth in the following spaces:
  - Basement, ceiling tile located immediately at bottom of steps
  - Stairwell between first floor and second floor, on south side handrail near the lower set of steps
- Visual observations consistent with fungal growth were noted in Rooms 4 and 5 on the first floor, in the stairwells, in the north hallway of the second floor, and throughout the drywall and ceiling tiles in the basement.
- Water staining and apparent water damage was noted in several areas of the building, including the ceiling and floors throughout the first floor, the ceiling tiles and ceiling tile grid on the second and third floors, the flooring in the south restroom and in the north hallway area of the second floor, and the generally throughout the basement.
- While Terracon's scope of services for this portion of the project were focused on the 1905 Building, it should be noted that significant moisture intrusion, water damaged materials, and microbial growth have also been observed by Terracon in the 1961 and 1978 portions of the structure (both of these structures have reported roof leaks, and the tunnel spaces were previously observed to have varying amounts of standing water). Since the structures are generally open and accessible to each other on each floor/level of the building, these conditions could

contribute to the continued deterioration of the conditions of the Site Building as a whole.

6.0 RECOMMENDATIONS

Terracon recommends the following:

- A mold and moisture remediation guidance document should be prepared to assist with providing direction to contractors engaged in remediating building materials affected by moisture or microbial growth.
- Efforts should be made to seal off the 1905 Building from the remainder of the structure. At a minimum, this should consist of polyethylene sheeting installed along the doorways and observed openings between the spaces, including the west portion of the first floor, the doorways in the basement that lead to the tunnel spaces and stairwells, the doorways and hall areas on the second floor, and the doorway at the west end of the third floor.
- Observed mold and moisture-impacted materials (both porous and lightly porous or semi-porous materials, such as ceiling tiles, drywall, plaster, and wood) should be removed from the 1905 portion of the structure during planned renovation activities.
    - Due to the presence of asbestos-containing materials and lead-containing paints, it is presumed that these efforts will be combined and performed concurrently using appropriate work methods, the establishment of contained work areas, and the use of negative air machines equipped with high efficiency particulate air (HEPA) filters, where appropriate.
- While it is assumed that non-porous materials (such as plastic, metal, glass, etc.) will be removed from the structure during renovation, any non-porous materials that the City or contractors working at the site may consider for reuse at the site should be thoroughly cleaned using a detergent/disinfectant and water solution (such as Fiber lock Technologies Shockwave™ or similar product) or biocide and allowed to thoroughly dry. If a biocide solution is used, select one that will not leave a residue.
- Disinfection is not a substitute for the removal of water-damaged or fungal-containing porous materials since non-viable fungal spores remain allergenic. Dry all surfaces thoroughly after cleaning.

7.0 QUALITY CONTROL AND DATA VALIDATION

7.1 Microbial Quality Control and Data Validation

7.1.1 Sample Selection and Methods

Based upon the results of the visual assessment and at the discretion of the IH professional, Terracon collected fungal spore trap samples from various locations of the original portion of the building, including the basement and common areas such as hallways and stairwells. Spore trap air samples were also collected contemporaneously in the outdoor environment to provide comparison results.

Terracon used Air-O-Cell™ sampling cassettes and a Zefon Bio-Pump® Plus, calibrated to a flow rate of 15 liters per minute (LPM), for five minutes per sample to collect the spore trap samples. A second pump, which was also calibrated, was used to collect the duplicate samples as indicated in this report. Each spore trap sample collected was given a unique, sequential field sample number and corresponding laboratory-provided sample code. The sample ports on the cassettes were sealed with the laboratory-provided stickers, and each sample was placed into an unused, dedicated, and disposable sealable bag. The objective of the air sampling utilizing the Air-O-Cell® sampling cassettes was as follows:

- To capture and quantify a broad spectrum of fungal spores present in the air.
- To assess whether the levels present suggest a fungal problem in the indoor locations.

Terracon also collected surface samples using laboratory-provided tape lift samplers of observed suspect microbial growth. Surface samples collected were given a unique, sequential field sample number and were placed into a plastic case to prevent breakage during transport. Each case was also placed into an unused, dedicated, and disposable sealable bag. The objective of the surface sampling utilizing the tape samplers was as follows:

- To determine whether or not the visible stain, discoloration, etc. is indicative of microbial growth at the sample location.
- To determine and identify fungal organisms actually growing on the surface sampled, as opposed to the mere presence of fungal spores.
- To determine whether the spore population on the surface represents a normal population or a skewed population of spore type and also to note “marker” spore types that may indicate indoor fungal growth.

Concurrent with the spore trap and surface sampling, Terracon’s IH professionals collected temperature and relative humidity measurements at each spore trap sampling location. Indoor air temperature and relative humidity are physical conditions that can exacerbate microbial growth. Terracon measured temperature and relative humidity (RH) using an EXTECH Instruments Humidity/Temperature Pen (Model 445580), an electronic monitoring instrument. The instrument provides direct-reading measurements of temperature within the range of 14 to 122 degrees Fahrenheit (°F) and RH within the range of 10% to 90%.

7.1.2 Microbial Methods and Measurements

After sample collection, the air sample cassettes (and surface samples) were shipped under chain-of-custody (COC) protocol to EMLab P&K, LLC (EMLab) in Marlton, New Jersey. EMLab is accredited by the AIHA Laboratory Accreditation Programs, LLC under the Environmental Microbiology Laboratory Accreditation Program (EMLAP). The samples collected were submitted for standard laboratory analytical turnaround time (approximately five business days). Holding times and preservation requirements do not apply to microbial sampling. The laboratory analyzed the spore trap samples collected by direct microscopic visual estimation. The laboratory analysis includes identification to genus or group of fungal spores present, quantification as spores per cubic meter (spores/m^3), and a general assessment of background debris (non-biological particulate matter) present. It should be noted that some spores are very small, with very few distinguishing characteristics and cannot be differentiated by non-viable sampling methods. The laboratory analyzed the tape samples utilizing direct microscopic exam (qualitative) methodology. The direct microscopic exam directly identifies fungal growth (and doesn't just count the number of spores).

7.1.3 Quality Control and Data Validation

To ensure sample representativeness, Terracon collected three duplicate spore trap samples (approximately 10%) for quality control purposes. For the duplicate sampling, Terracon collected two concurrent samples side by side (using two Zefon Bio-Pump® Plus sampling pumps). It should be noted that analytical sensitivity can vary significantly with spore trap samples, even for samples collected side by side at the same time. Variability in direct measurement is influenced by a number of factors, including condition of the sample space, air flow around the sample pumps, and activity near the sampling pumps prior to and during sample collection, which adds to the considerations that must be given when interpreting spore trap sample results. Terracon's duplicate samples collected in the basement and on the second floor were reported to generally contain similar concentrations and fungal spore types. One of the samples from the first floor had an extremely low reported concentration (less than 13 spores/m^3) and thus, the total count was too low to distinguish a specific fungal spore type; the other duplicate sample from the first floor had a relatively low concentration of *basidiospores* (210 spores/m^3).

Due to the nature of variability that exists between observed microbial colonies growing on a substrate, the collection of duplicate surface samples was not conducted as a part of this investigation and was not part of the site-specific SAP.

Laboratory data validation (including precision and accuracy) was conducted by the EMLAP-accredited laboratory conducting the analysis in accordance with laboratory standard operating procedures included in the ECIA-approved generic QAPP. EMLab's internal reporting system includes automated fail-safes to ensure that all quality requirements are met, and notifications are added to the reports when any quality steps remain pending. Ongoing blind duplicate comparisons amongst analysts are performed to assure consistent, reliable, and documented

analytical quality along with internal reviews by senior laboratory QA staff who are not analysts and are 100% dedicated to quality assurance.

Upon receiving laboratory analytical data, Terracon confirmed that the COC received with laboratory analytical data indicated that the samples were received intact. Terracon also confirmed that the laboratory data received correlated to samples submitted as indicated on the COC and agree with Terracon's sample submissions. Terracon did not identify potential data discrepancies with the laboratory analytical data.

As indicated in Section 3.2.1, Terracon had one deviation from the PSAP as the IR camera did not appear to function normally while attempting to take photographs as part of the visual assessment. As a result, photographs of the areas observed are not included in the report. To supplement, Terracon collected approximately 375 total moisture readings from walls and other materials within the structure as indicated in the field worksheets in Appendix B.

8.0 LIMITATIONS / GENERAL COMMENTS

Terracon did not perform limited demolition or destructive activities during sampling. Reasonable efforts to visually assess materials within known areas of restricted access of the 1905 building (e.g., crawl spaces) were made; however, confined spaces or areas which may pose a health or safety risk to Terracon personnel were not accessed or sampled. Several areas, such as the subspace levels and tunnel spaces, are present in the adjoining structures and are accessible from various levels of the 1905 portion of the building but were not specifically accessed as part of the scope of services, and samples were not collected from these areas.

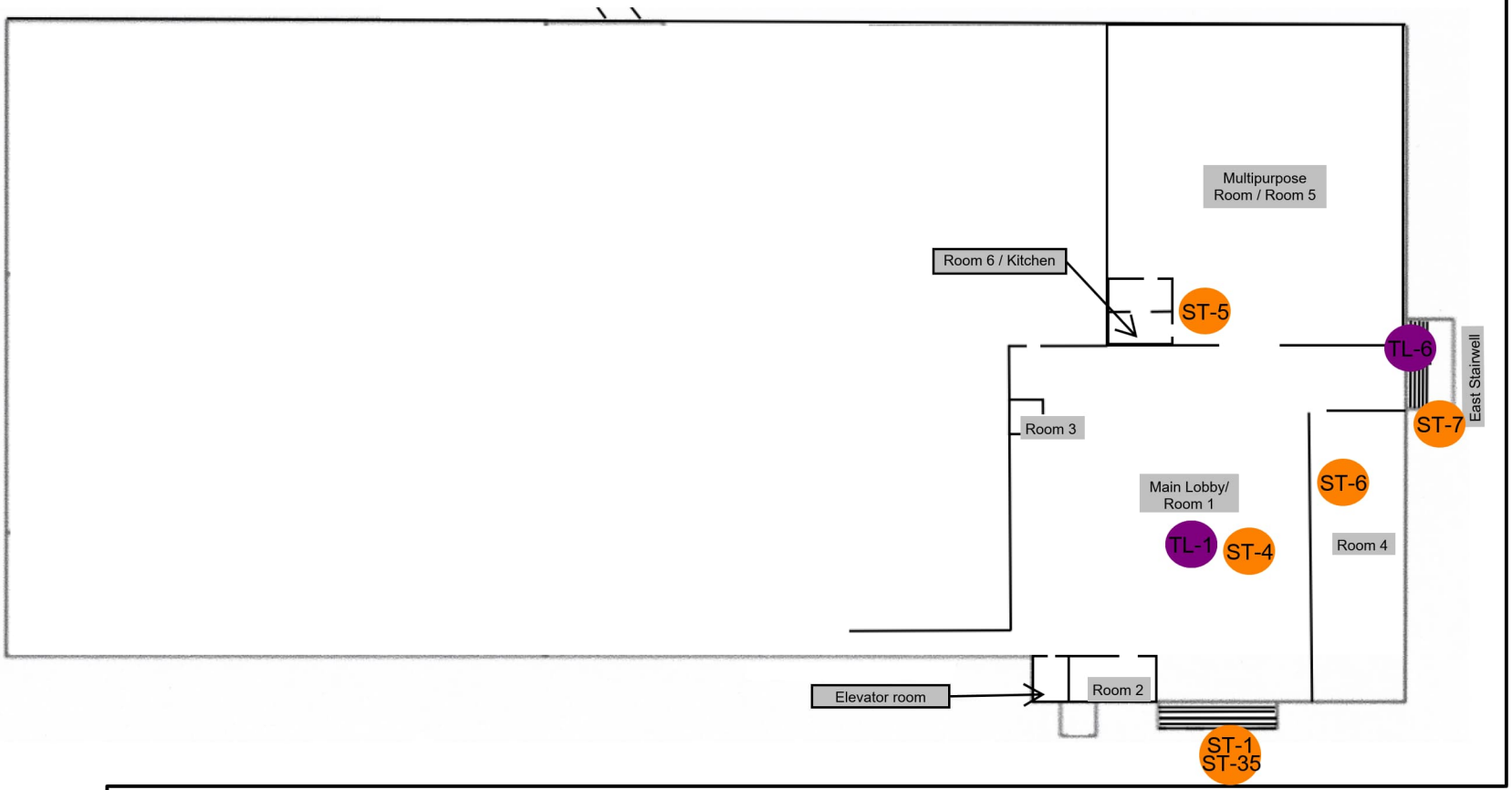
This survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions, and recommendations expressed in this report are based on the specific conditions during our sampling. The information contained in this report is relevant to the date on which the sampling was conducted and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by ECIA and the City of Clinton, Iowa for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories, or other third parties supplying information used in the preparation of this report. No warranty, express or implied is made.

APPENDIX A

Exhibits

ST-1 Approximate Spore Trap Sample Location

TL-1 Approximate Tape Lift Sample Location



N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	JRB
Drawn by:	SMM
Checked by:	JRB
Approved by:	JRB
Project No.	07207086; T32
Scale:	N.T.S.
File Name:	Former YMCA
Date:	September 2022

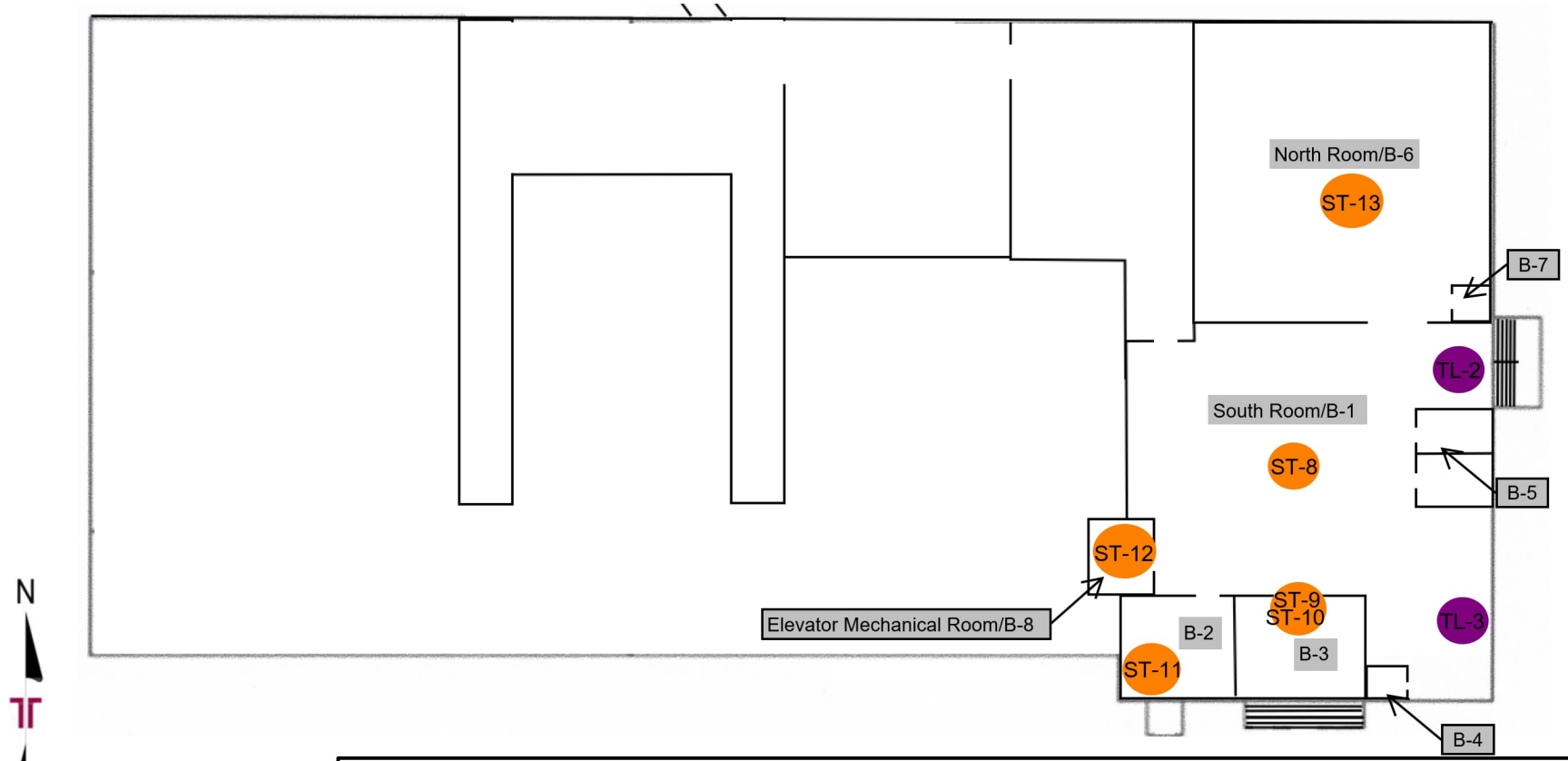
Terracon
Consulting Engineers & Scientists
870 40th Avenue Bettendorf, Iowa 52722
PH. (563) 355-0702 FAX. (563) 355-4789

SPORE TRAP SAMPLE LOCATION MAP

1905 Building - Main Level
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 1

Approximate Spore Trap Sample Location



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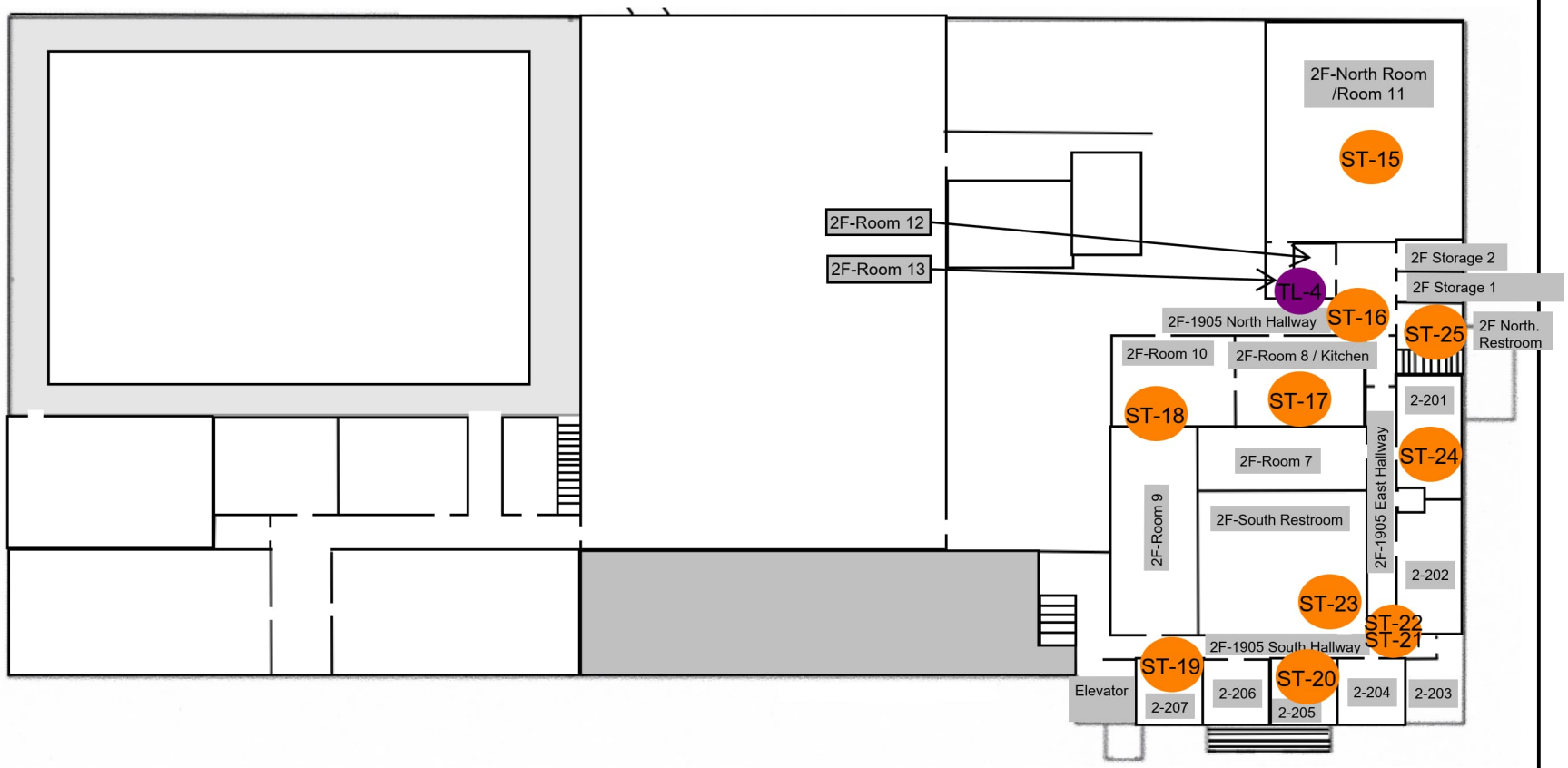
SPORE TRAP SAMPLE LOCATION MAP

1905 Building - Basement
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 2

Approximate Spore Trap Sample Location



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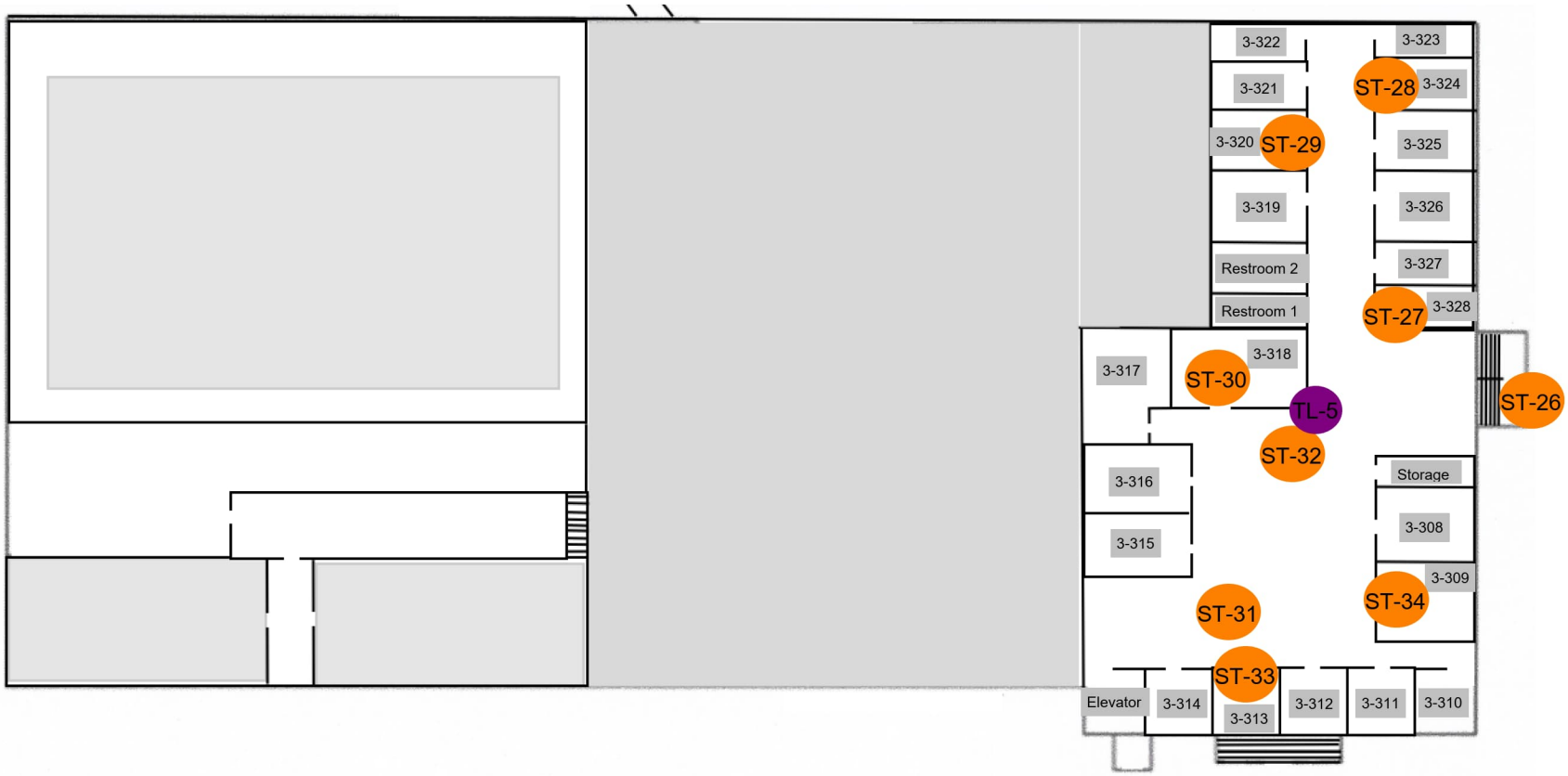
SPORE TRAP SAMPLE LOCATION MAP

1905 Building - Second Floor
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 3

Approximate Spore Trap Sample Location



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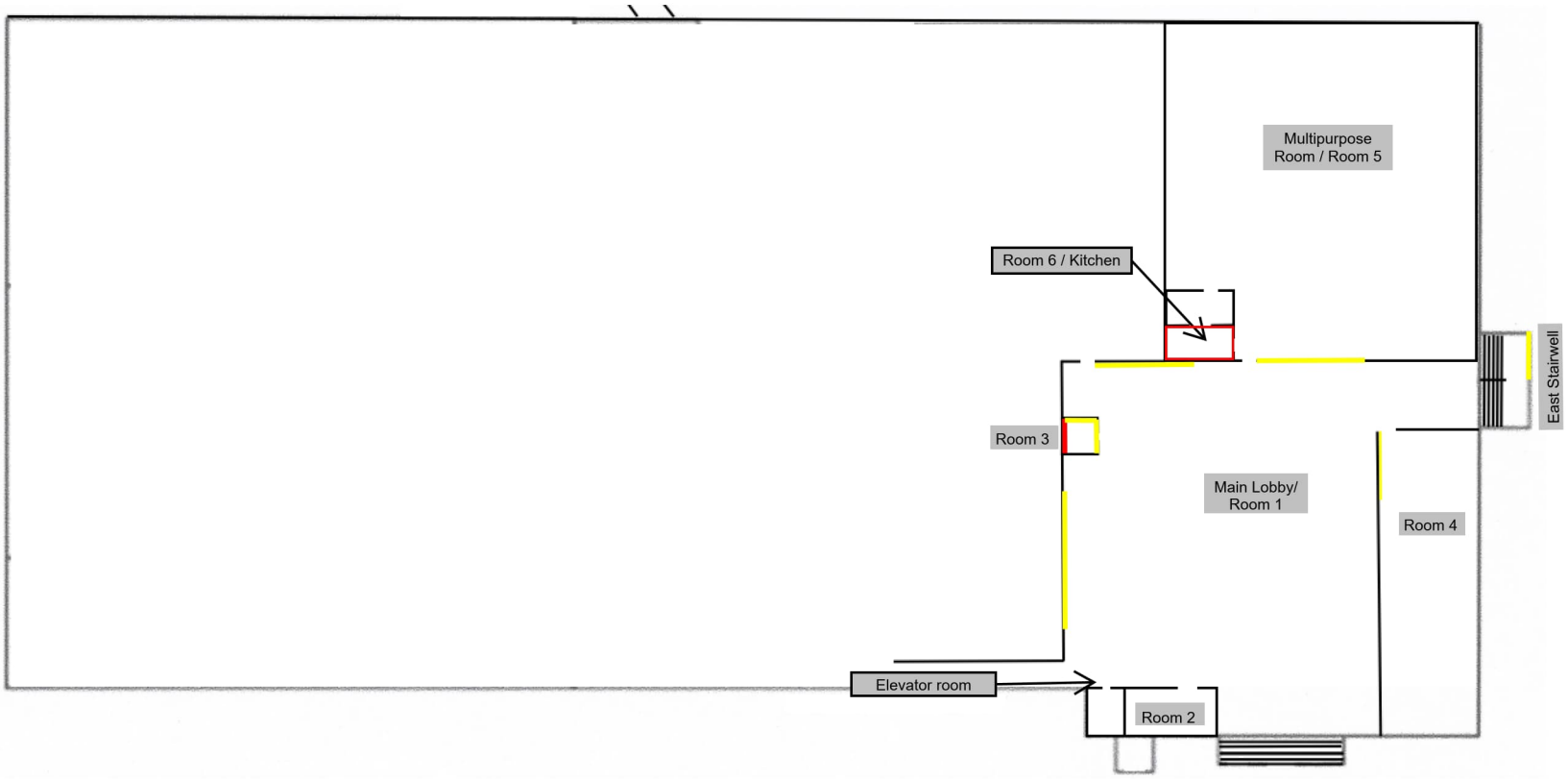
SPORE TRAP SAMPLE LOCATION MAP

1905 Building - Third Floor
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 4

Moisture reading results above 20% WME

Moisture reading results between 17-20% WME



N

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Project Manager:	JRB
Drawn by:	SMM
Checked by:	JRB
Approved by:	JRB

Project No.	07207086; T32
Scale:	N.T.S.
File Name:	Former YMCA
Date:	September 2022

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MOISTURE LOCATION MAP

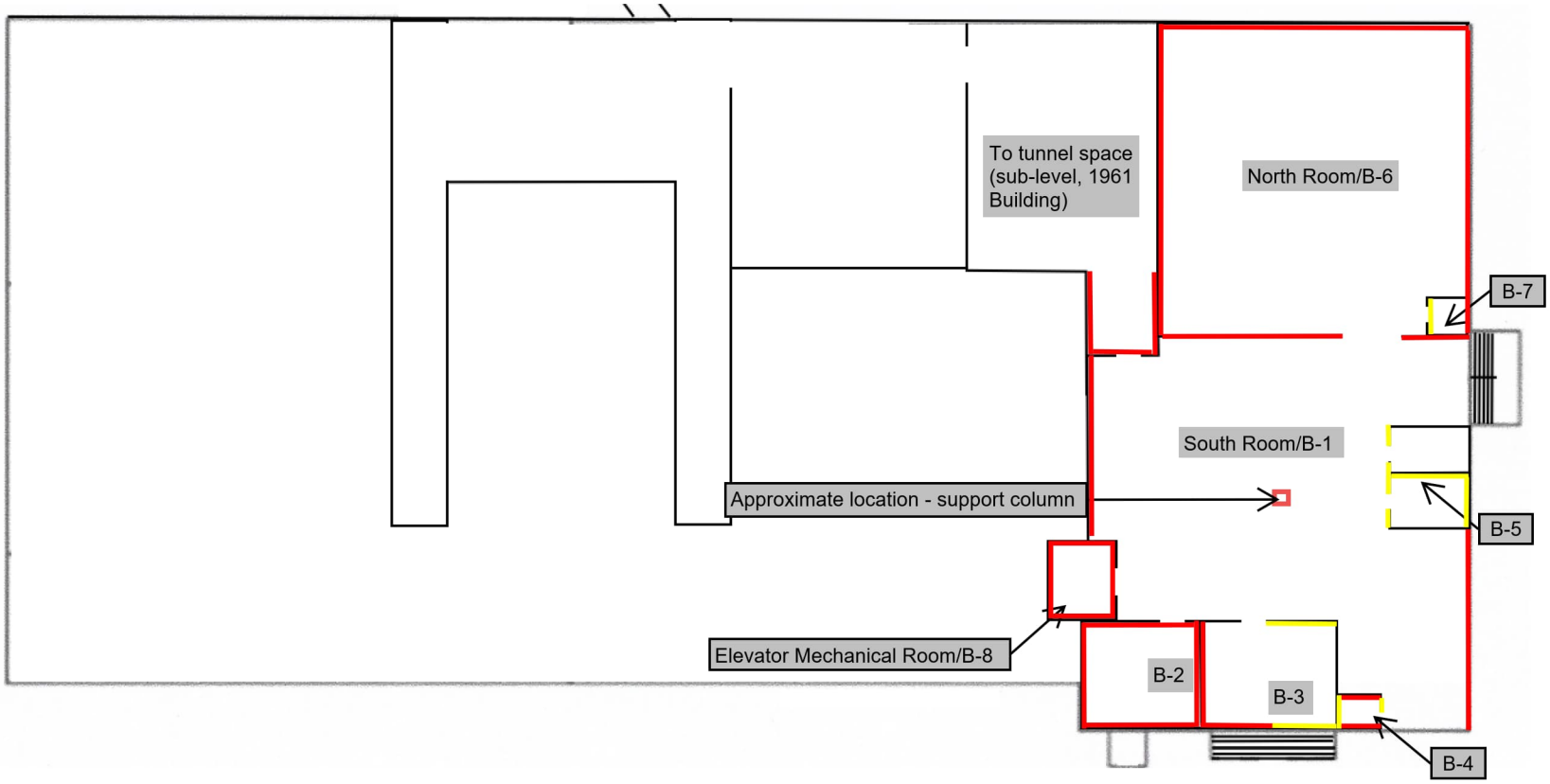
1905 Building - Main Level
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT

5

Moisture reading results above 20% WME

Moisture reading results between 17-20% WME



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Checked by:	JRB
Approved by:	JRB

Project No.	07207086; T32
Scale:	N.T.S.
File Name:	Former YMCA
Date:	September 2022

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MOISTURE LOCATION MAP

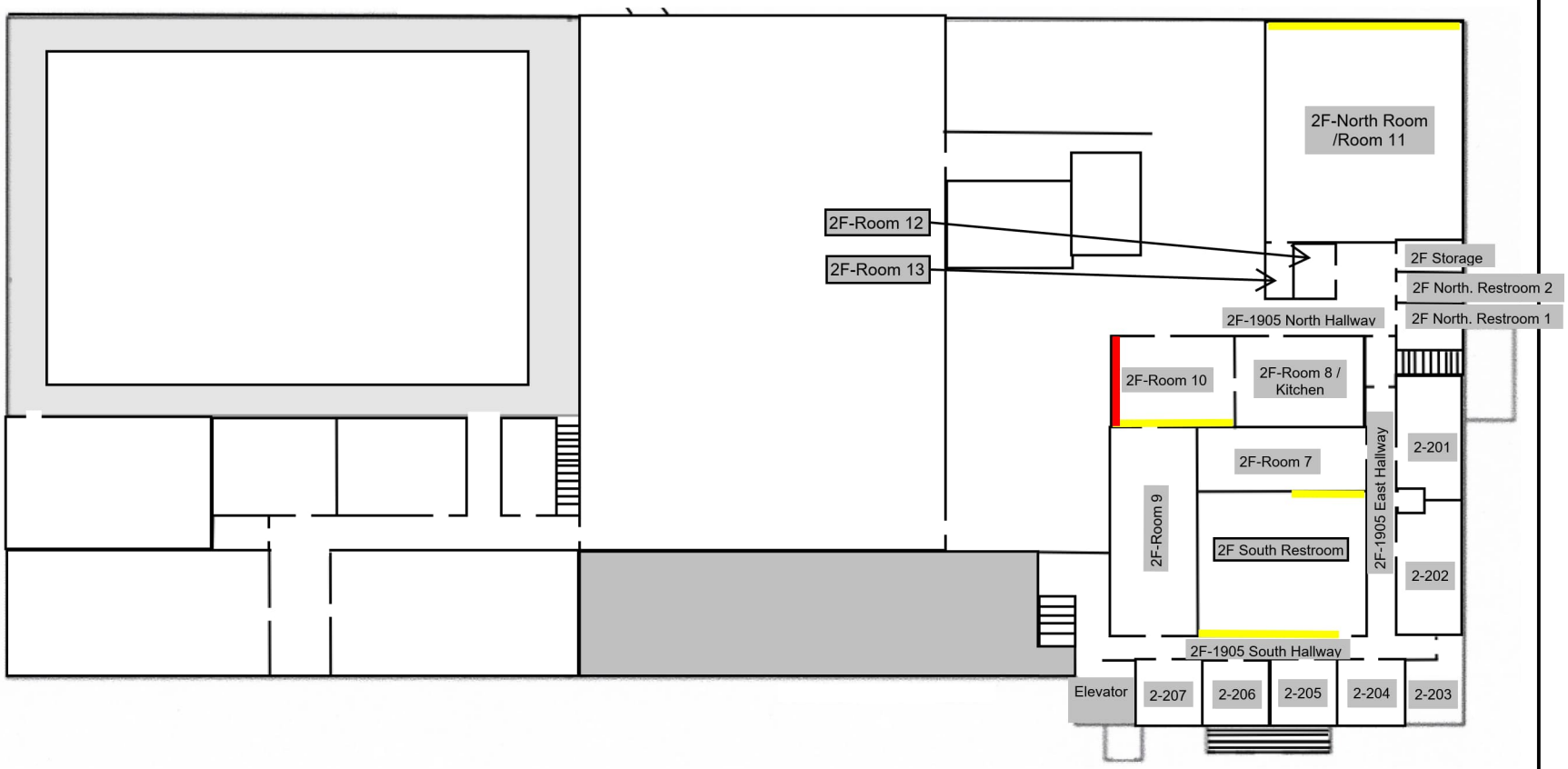
1905 Building - Basement
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT

6

Moisture reading results above 20% WME

Moisture reading results between 17-20% WME



N

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Project No.	07207086; T32
Scale:	N.T.S.
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Date:	September 2022

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MOISTURE LOCATION MAP

1905 Building - Second Floor
Former YMCA – 480 South 3rd Street
Clinton, Iowa

EXHIBIT 7

APPENDIX B

Mold Sampling Worksheets
Pump Calibration Data

LOCATION: Former YMCA – 1905 Building **DATE:** August 22, 2022

ADDRESS: 480 South 3rd Street, Clinton, Iowa

CONTACT NAME: Mr. Jason Craft, City of Clinton, Iowa **PHONE:** 563.242.2144

TERRACON TEAM: James R. Baxter, Alex J. Davis

SAMPLE TYPE (one type / worksheet):					
AIR:	**PUMP ID:**	Bio-Pump Plus SN 6034	☑ **SPORE TRAP**		
☐ **CULTURE MEDIA:**	☐ **MEA**	☐ **TSA Blood**	☐ **Cornmeal**	☐ **Other**	
	SAMPLER TYPE:				
OTHER:	☑ **Tape lift**	☐ **Swab**	☐ **Bulk**	☐ **Dust**	☐ **Other**
TEMPERATURE/RELATIVE HUMIDITY METER:					
Extech Humidity/Temperature Pen 445580					
MANUFACTURER, MODEL, SERIAL #					MANUFACTURER, MODEL, SERIAL #

SAMPLE # ST-1 / 3483 3307 **ON** 09:03 **OFF** 09:08 /// 5 **MIN** 75 **L**
LOCATION # 1 **PHOTO #:** **TEMP:** 96.9 °F **RH:** 28.0 %
LOCATION DESCRIPTION: Outside main entrance to 1905 building

SAMPLE # ST-2 / 3483 3298 **ON** 09:12 **OFF** 09:17 /// 5 **MIN** 75 **L**
LOCATION # 2 **PHOTO #:** **TEMP:** 84.0 °F **RH:** 48.9 %
LOCATION DESCRIPTION: Main level, southwest area near hallway to 1961 building

SAMPLE # ST-3 / 3483 3571 **ON** 09:12 **OFF** 09:17 /// 5 **MIN** 75 **L**
LOCATION # 3 **PHOTO #:** **TEMP:** 84.0 °F **RH:** 48.9 %
LOCATION DESCRIPTION: Main level, southwest area near hallway to 1961 building

SAMPLE # ST-4 / 3483 3293 **ON** 09:20 **OFF** 09:25 /// 5 **MIN** 75 **L**
LOCATION # 4 **PHOTO #:** **TEMP:** 82.9 °F **RH:** 59.2 %
LOCATION DESCRIPTION: Main level, approximate center of main lobby/Room 1

SAMPLE # ST-5 / 3483 3281 **ON** 09:29 **OFF** 09:34 /// 5 **MIN** 75 **L**
LOCATION # 5 **PHOTO #:** **TEMP:** 75.9 °F **RH:** 68.7 %
LOCATION DESCRIPTION: Main level, south-center portion of Room 5, near entrance to Room 6

CALIBRATOR: Air-O-Cell flow meter (MANUFACTURER, MODEL, SERIAL #) **PUMP IDs:** #6034 and #3974 Zefon Bio-Pump Plus (ID #, MANUFACTURER, MODEL)

PRE-CALIBRATION	POST-CALIBRATION
Calibrated by: James Baxter	**Calibrated by:** James Baxter
DATE: 08/22/2022 **TIME:** 08:55	**DATE:** 08/22/2022 **TIME:** 17:00
PRE-CAL AVE 15 **+ POST-CAL AVE** 15 **÷ 2 =** 15 **LPM**	

BUILDING CHARACTERISTICS

Age of building: Original structure – 1905; additions in 1961 and 1978 Number of floors: 3

Building size: Approximately 80,000 square feet (total estimate of all structures)

General building uses: Former YMCA facility / former transitional housing facility

Number of occupants: Vacant

Flooring structure:
- ☒ Slab on grade
- ☒ Wood/plank
- ☐ Concrete
- ☐ Other:

Flooring finishes:
- ☒ Carpet
- ☒ Ceramic
- ☒ Vinyl
- ☐ Other:
- ☐ Linoleum
- ☐ Terrazzo
- ☐ Unfinished

Main structure:
- ☐ Fireproofed
- ☐ Steel frame
- ☒ Concrete
- ☐ Grade: Above / On / Below
- ☐ Other:
- ☒ Wood frame
- ☐ Slab on slab

Building insulation:

	Walls	Ceiling
Fiberglass batt	☒	☒
Mineral wool	☐	
Spray-on	☐	☐
Other:		

Exterior walls:
- ☐ Stucco
- ☐ Wood
- ☒ Brick
- ☒ Concrete
- ☐ CMU block
- ☐ Hard plaster
- ☐ Steel
- ☐ Other:

Interior walls:
- ☐ Stucco
- ☐ Wood
- ☐ Brick
- ☐ Concrete
- ☐ CMU block
- ☒ Plaster / drywall
- ☐ Steel
- ☐ Other:

Interior wall finishes ☒ Paint ☐ Wallpaper ☐ Vinyl wallcovering ☐ Other:

Ceilings:

Lower	Upper
☒ Drop ceiling	☒ Steel
☐ Gypsum	☐ Gypsum
☐ Hard plaster	☐ Hard plaster
☐ Concrete	☒ Concrete
☐ Interlocking tiles	☐ Interlocking tiles
☐ Wood	☒ Wood
☐ Acoustical	☐ Acoustical
☐ Other:	

Roof:
- ☐ Built-up
- ☐ Asphalt shingle
- ☐ Wood shake
- ☐ Other:
- ☐ Ceramic tile
- ☒ Membrane
- ☐ Steel/tar

Roof type:
- ☐ Gable
- ☒ Flat
- ☐ Other:

Attic present? ☐ Yes ☒ No

Basement or crawlspace present? ☒ Yes (partial) ☐ No

Heating:
- ☐ Boiler
- ☐ Radiant
- ☐ Forced-air
- ☐ Return thru plenum
- ☐ Other:
- ☐ Ducted return
- ☐ Electric
- ☐ Natural gas
- ☐ Wood/coal

Cooling:
- ☐ Chiller
- ☐ Radiant
- ☐ Forced-air
- ☐ Other:
- ☐ Return thru plenum
- ☐ Ducted return
- ☐ Electric

Location of air handling units: Building is no longer fully enclosed or tempered

Locations served by individual air handlers: NA

Percent of air recycled: NA

SAMPLE #	ST-6 / 3483 3302	**ON**	09:37	**OFF**	09:42	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	75.3	°F		**RH:**	73.4	%	
LOCATION DESCRIPTION:	Main level, northwest portion of Room 6 near wall staining										

SAMPLE #	ST-7 / 3483 3301	**ON**	09:47	**OFF**	09:52	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	82.0	°F		**RH:**	57.4	%	
LOCATION DESCRIPTION:	Lower stairwell landing between main level and basement										

SAMPLE #	ST-8 / 3483 3287	**ON**	09:57	**OFF**	10:02	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	75.9	°F		**RH:**	66.9	%	
LOCATION DESCRIPTION:	Basement, approximate center of Room B1										

SAMPLE #	ST-9 / 3483 3289	**ON**	10:06	**OFF**	10:11	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	70.8	°F		**RH:**	84.7	%	
LOCATION DESCRIPTION:	Basement, entrance of Room B3										

SAMPLE #	ST-10 / 3483 3284	**ON**	10:06	**OFF**	10:11	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	70.8	°F		**RH:**	84.7	%	
LOCATION DESCRIPTION:	Basement, entrance of Room B3										

SAMPLE #	ST-11 / 3483 3303	**ON**	10:15	**OFF**	10:20	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	71.2	°F		**RH:**	84.6	%	
LOCATION DESCRIPTION:	Basement, southwest corner of Room B2										

SAMPLE #	ST-12 / 3483 3309	**ON**	10:23	**OFF**	10:28	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	70.7	°F		**RH:**	83.4	%	
LOCATION DESCRIPTION:	Basement, approximate center of Room B8										

SAMPLE #	ST-13 / 3483 3294	**ON**	10:30	**OFF**	10:35	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	74.4	°F		**RH:**	71.3	%	
LOCATION DESCRIPTION:	Basement, approximate center of Room B6										

SAMPLE #	ST-14 / 3483 3291	**ON**	10:42	**OFF**	10:47	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	78.8	°F		**RH:**	66.6	%	
LOCATION DESCRIPTION:	Stairwell landing between Main Level and second floor										

SAMPLE #	ST-15 / 3483 3574	**ON**	10:52	**OFF**	10:57	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	77.0	°F		**RH:**	73.8	%	
LOCATION DESCRIPTION:	Second floor, approximate center of Room 11										

SAMPLE #	ST-16 / 3483 3308	**ON**	11:00	**OFF**	11:05	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	78.0	°F		**RH:**	67.5	%	
LOCATION DESCRIPTION:	Second floor, approximate center of north hallway, near entrance to Room 8 (kitchen)										

SAMPLE #	ST-17 / 3483 3313	**ON**	11:08	**OFF**	11:13	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	83.4	°F		**RH:**	59.5	%	
LOCATION DESCRIPTION:	Second floor, south-center portion of Room 8 (former kitchen)										

SAMPLE #	ST-18 / 3483 3310	**ON**	11:18	**OFF**	11:23	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	80.4	°F		**RH:**	65.9	%	
LOCATION DESCRIPTION:	Second floor, Room 10, near the doorway to Room 9										

SAMPLE #	ST-19 / 3483 3685	**ON**	11:28	**OFF**	11:33	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	76.8	°F		**RH:**	77.0	%	
LOCATION DESCRIPTION:	Second floor, inside Unit 207										

SAMPLE #	ST-20 / 3483 3278	**ON**	11:35	**OFF**	11:40	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	77.5	°F		**RH:**	70.5	%	
LOCATION DESCRIPTION:	Second floor, inside Unit 205										

SAMPLE #	ST-21 / 3483 3306	**ON**	11:43	**OFF**	11:48	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	84.9	°F		**RH:**	66.6	%	
LOCATION DESCRIPTION:	Second floor, south portion of east hallway										

SAMPLE #	ST-22 / 3483 3296	**ON**	11:55	**OFF**	12:00	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	84.9	°F		**RH:**	66.6	%	
LOCATION DESCRIPTION:	Second floor, south portion of east hallway										

SAMPLE #	ST-23 / 3483 3300	**ON**	12:08	**OFF**	12:13	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	82.0	°F		**RH:**	61.2	%	
LOCATION DESCRIPTION:	Second floor, just inside entrance to south restroom										

SAMPLE #	ST-24 / 3483 3600	**ON**	12:15	**OFF**	12:20	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	80.2	°F		**RH:**	66.1	%	
LOCATION DESCRIPTION:	Second floor, inside Unit 201										

SAMPLE #	ST-25 / 3483 3658	**ON**	12:26	**OFF**	12:31	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	80.4	°F		**RH:**	68.3	%	
LOCATION DESCRIPTION:	Second floor, just inside north restroom										

SAMPLE #	ST-26 / 3483 3359	**ON**	12:37	**OFF**	12:42	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	81.8	°F		**RH:**	61.7	%	
LOCATION DESCRIPTION:	Stairwell between second floor and third floor										

SAMPLE #	ST-27 / 3483 3323	**ON**	12:45	**OFF**	12:50	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	80.4	°F		**RH:**	59.8	%	
LOCATION DESCRIPTION:	Third floor, inside Unit 328										

SAMPLE #	ST-28 / 3483 3326	**ON**	12:53	**OFF**	12:58	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	80.9	°F		**RH:**	64.0	%	
LOCATION DESCRIPTION:	Third floor, inside Unit 324										

SAMPLE #	ST-29 / 3483 3299	**ON**	13:03	**OFF**	13:08	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	80.7	°F		**RH:**	61.9	%	
LOCATION DESCRIPTION:	Third floor, inside Unit 320										

SAMPLE #	ST-30 / 3483 3311	**ON**	13:10	**OFF**	13:15	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	78.	°F		**RH:**	64.6	%	
LOCATION DESCRIPTION:	Third floor, inside Unit 318										

SAMPLE #	ST-31 / 3483 3593	**ON**	13:18	**OFF**	13:23	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	78.4	°F		**RH:**	73.4	%	
LOCATION DESCRIPTION:	Third floor, southwest corner of open/common area										

SAMPLE #	ST-32/ 3483 3327	**ON**	13:27	**OFF**	13:32	///	5	**MIN**	75	**L**	
LOCATION #		**PHOTO #:**		**TEMP:**	78.6	°F		**RH:**	73.1	%	
LOCATION DESCRIPTION:	Third floor, north-center portion of open/common area										

SAMPLE #	ST-33 / 3483 3325	**ON**	13:35	**OFF**	13:40	///	5	**MIN**	75	**L**		
LOCATION #		**PHOTO #:**		**TEMP:**	81.3	°F		**RH:**	64.4	%		
LOCATION DESCRIPTION:	Third floor, inside Unit 313											

SAMPLE #	ST-34 / 3483 3292	**ON**	13:45	**OFF**	13:50	///	5	**MIN**	75	**L**		
LOCATION #		**PHOTO #:**		**TEMP:**	82.5	°F		**RH:**	62.0	%		
LOCATION DESCRIPTION:	Third floor, inside Unit 309											

SAMPLE #	ST-35 / 3483 3312	**ON**	14:15	**OFF**	14:20	///	5	**MIN**	75	**L**		
LOCATION #		**PHOTO #:**		**TEMP:**	84.2	°F		**RH:**	47.4	%		
LOCATION DESCRIPTION:	Outside main entrance to 1905 building											

SAMPLE #	Tape Lift 1	**ON**	NA	**OFF**	NA	///	NA	**MIN**	NA	**L**		
LOCATION #	**TL1**	**PHOTO #:**		**TEMP:**	NA	°F		**RH:**	NA	%		
LOCATION DESCRIPTION:	Main level, east side counter, water damaged/stained area											

SAMPLE #	Tape Lift 2	**ON**	NA	**OFF**	NA	///	NA	**MIN**	NA	**L**		
LOCATION #	**TL2**	**PHOTO #:**		**TEMP:**	NA	°F		**RH:**	NA	%		
LOCATION DESCRIPTION:	Basement, ceiling tile located immediately at bottom of steps											

SAMPLE #	Tape Lift 3	**ON**	NA	**OFF**	NA	///	NA	**MIN**	NA	**L**		
LOCATION #	**TL3**	**PHOTO #:**		**TEMP:**	NA	°F		**RH:**	NA	%		
LOCATION DESCRIPTION:	Basement, southeast portion from lower water damaged brick wall											

SAMPLE #	Tape Lift 4	**ON**	NA	**OFF**	NA	///	NA	**MIN**	NA	**L**		
LOCATION #	**TL4**	**PHOTO #:**		**TEMP:**	NA	°F		**RH:**	NA	%		
LOCATION DESCRIPTION:	Second floor, east lower portion of north hallway wall											

SAMPLE #	Tape Lift 5	**ON**	NA	**OFF**	NA	///	NA	**MIN**	NA	**L**		
LOCATION #	**TL5**	**PHOTO #:**		**TEMP:**	NA	°F		**RH:**	NA	%		
LOCATION DESCRIPTION:	Third floor, wall-mounted shelf on north side of open common area											

SAMPLE #	Tape Lift 6	**ON**	NA	**OFF**	NA	///	NA	**MIN**	NA	**L**		
LOCATION #	**TL6**	**PHOTO #:**		**TEMP:**	NA	°F		**RH:**	NA	%		
LOCATION DESCRIPTION:	Stairwell between first floor and second floor, on south side hand rail near the lower set of steps											

Page 1 of 15

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 8-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
stairwell	A wall between doors		Plaster	5'	5.2
stairwell	B wall behind granit		Plaster	4'	14.6
stairwell	B wall Above granit		Plaster	5'	14.5
stairwell	A wall on stairs above granit		Plaster	6'	12.0
room 1	A wall south side		wood	3'	14.5
room 1	A wall south side		wood	6'	16.9
room 1	B wall west side		Wood	3'	15.0
room 1	B wall west side center		wood	3'	17.2
room 1	A wal center behind panel		Plaster	3'	11.7
room 1	A wall North side		wood	1'	17.6
room 1	B wall North End of room		wood	2'	17.4
room 1	C wall North end		wood	1	17.6
room 1	C wall center		Drywall	2'	15.5
room 1	D wall center		Drywall	1'	15.4
room 1	D wall center		Drywall	5'	9.9
rm 2	A wall center		Drywall	1'	16.1
rm 2	A wall center		Drywal	4'	11.7
rm 2	B wall center		Drywall	1'	16.2
2	B wall center		Drywall	3'	8.9
2	B wall center		Drywall	2	12.0
2	C wall center		[illegible]	1	15.4
2	C wall center		Drywal	2	11.8
2	D wall center		Drywal	7'	11.6

North Entra

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Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
rm 2	D wall center		Drywall	1'	11.5
rm 3	A wall center		Plaster	1'	8.8
.3	A wall center base		wood	1'	11.6
3	A wall center		Plaster	5'	9.3
3	B wall behind base board		Plaster	1	52.5
3	B wall center		Plaster	1	26.7
3	B wall center		Plaster	3	11.8
3	C wall center		Plaster	1	18.6
3	C wall center		Plaster	1	19.6
3	C wall center		Plaster	3	8.7
3	D wall North side		wood	1	17.4
3	D wall north side		Plaster	2	11.1
4	A wall center		wood	1	11.8
4	A wall behind Panel		Plaster	3	10.3
4	B wall North end		wood	1	9.4
4	B wall North end		Plaster	2	9.6
4	B wall center chase		wood	2	10.8
4	B wall center		wood	1	13.5
4	B wall center		wood	2	9.8
4	C wall center under window		wood	1	11.9
4	C wall window Seal		wood		9.3
4	D wall center at chase		Plaster	5	7.8
4	D wall center at chase		wood	2	10.3

15 a chase wall

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA

480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
4	D wall center behind cove base		wood	1	10.2
4	D wall Northend visual mold		Drywall	1	19.8
4	D wall Northend		drywall	2	17.4
4	D wall Northend		Drywall	3½	16.8
4	D wall Northend		wood	4	10.6
5	A wall southend		wood	3"	19.3
5	A wall southend		wood	1'	16.0
5	A wall southend		wood	3	15.0
5	A wall southend		wood	5	9.8
	A wall center		wood	1	13.6
	A wall center		wood	2	13.8
	A wall center		wood	3	9.9
	B wall center		wood	1	12.0
	B wall center		W	3	9.0
	C wall center		W	1	8.6
	C wall center		W	2	7.3
5	C wall chase by door		wood	3	13.8
	D wall center by staining		wood	1	19.0
	D		W	2	16.5
	D		W	3	13.7
	D		W	5	15.3
5	D wall center by staining		wood	6	9.5
6	A wall		Drywall	1	34.2

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Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA

480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
6	A wall		Drywall	2	20.4
6	A wall		D	M	17.4
6	B wall		D	1	20.6
6	B wall		D	2	15.3
6	B wall		D	4	17.4
6	C wall		Drywal	1	20.2
6	C wall		D	6	17.7
6	D wall		D	1	23.7
6	D D wall		D	4	25.3
6	ceiling tiles		fiberglass	ceiling	27.1
stairwell	A wall behind panel		wood	1	15.4
stairwell	A A wall panel		wood	3	17.8
stairwell	B wall center panel		wood	4	13.6
stairwell	B B wall window frame		wood	3	18.8
st	B wall base board		wood	3"	15.4
	C wall center stair		drywall	3	10.1
	C wall center base board		wood	3"	17.0
	D wall framing		wood	3'	9.2
stairwell	D wall behind granite		Plaster	2"	16.8
Stairwell	center railing		wood	3	8.6
stairwell	D wall seal window		wood	3	8.7
	A wall wood panel		wood	3	10.8
Stair	A wall hand rail		wood		17.0

Visual mold throughout rm 6

East Entrance 1st Floor

2nd Floor

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA

480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
2nd Floor East Stairs	Stairs	center hand rail	wood	3	20.6
	Stairs	B wall	wood	3	11.3
	Stairs	B wall door	wood	3	10.3
2nd Fl	East Hallway	A wall	Drywall	1'	8.9
	East	D wall	D	1'	9.2
	East	C wall	D	1'	9.3
	East	B wall	D	1'	8.7
	East hall	ceiling tile	ceiling tile		11.6
201		A wall	Dry	1'	9.2
		B wall		1	8.8
		C		1	9.8
201		C wall	Dry	6	7.0
202		A wall	Dry	1'	7.5
		B wall		1'	7.8
		C wall		1'	8.6
202		D wall	Drywall	1'	7.0
203		A Awall	D	1	6.5
		B		1	7.3
		C		1	7.0
		D wall	drywall	1	6.8
204		A wall	D	1	7.3
		B	D	1	7.1
204		C wall	D	1	8.7

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
204	D wall		Drywall	1	8.0
205	A		D	1	7.3
205	B		D	1	12.1
205	C		D	1	7.1
205	D wall		Drywall	1	8.9
SR / Corridor Restroom	D wall above tile	Plaster	~~Drywall~~	4'	17.1
	A wall		Plaster	4'	14.4
	C		Plaster	4'	16.9
SR	B wall		Plaster	4'	17.1
206	A wall		Dry	1'	6.6
	B		D	1'	7.2
	C		D	1'	8.6
206	D wall		Dry wall	1'	7.0
207	A wall		D	1	8.6
	B		D	1	8.6
	C		D	1	8.7
207	D wall		Dry	1	9.8
2F El	A wall		D	1	8.6
2F El	B		D	1	8.6
2F EL	C		D	1	8.6
2F EL	D wall		D ryvall	1	8.6
Rm 9	A wall		D	3'	15.3
Rm 9	A wall		drywall	1	15.7

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
Rm 9	A wall		Drywall	5'	15.1
2nd FL Rm 9	B wall		D	1	16.5
9	B wall		D	3	15.7
9	B		Dry	6'	15.1
9	C		D	1	7.8
9	D wall		D	5	9.1
	D			2'	17.1
	D			3'	16.8
Rm 9	D wall		Plaster/Drywall	5'	16.8
RM 10	A wall		Plaster	1'	19.6
10	A		Plaster	3	10.1
10	B wall		Plaster	1	25
10	B wall		Plaster	3	20.5
10	B wall		Plaster	6	13.7
	C wall		Drywall	1	13.5
	C wall		Drywall	3	11.1
	C wall		Drywall	5	11.8
	D wall		Drywall	1'	14.4
	D wall		Dry	3	13.6
Rm 10	D wall		Dry	5'	10.3
Rm 8	A wall		D	2'	17.1
	B wall		D	3'	14.5
	K wall		Plast	3	10.9

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
Rm 6	D wall		Drywall	2	16.3
Rm 6	D wall		wood	2	14.9
North hall	C wall		Plaste	3	14.1
North hall	B wall		Plaster	3	9.0
North hall	D wall		Drywall	3	15.5
North hall	A wall		Plaster	3	14.9
Rm 11	D wall build out		Drywall	1	10.2
11	D wall		wood	3	13.9
11	C wall center		wood	1	9.4
11	B wall center		wood	3	17.0
11	B wall center		wood	5	10.0
RM 11	A wall center		wood	2'	9.5
North Restroom	A wall		wood	3	7.4
North Restroom	B wall window frame		wood	3	8.4
North Restroom	B wall window seal		wood	3	8.6
East stair	D wall window frame		wood	2	7.8
East stair	D wall window seal		wood	2	7.2
East stair	A wall panel		wood	3	8.8
East stair	Banister railing		wood	3	8.4
East stair	hand rail		wood	3	9.9
East stair	A wall behind panel		Plaster	3	7.0

3rd FL East stair

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

3rd floor

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
commn	D wall		Dry	1	10.2
	A wall			1	9.9
	B wall			1	8.9
commn	C wall		drywall	1	9.3
308	A		D	1	11.8
	B		D	1	7.9
	C		D	1	9.9
	D wall		Drywall	1	9.1
308	ceiling		ceiling tile	1	8.5
309	A		D	1	7.9
	B		D	1	7.8
	C		D	1	6.6
309	D wall		Drywall	1	8.3
310	A wall		D	1	8.6
	B		D	1	8.6
	C		D	1	8.1
310	D wall		Drywall	1	9.4
311	A wall		D	1	7.0
	B			1	7.2
	C			1	8.7
311	D wall		drywall	1	7.8
312	A wall		Dry	1	11.9
312	B wall		Dry	1	11.9

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
312	C wall		Drywall	1	11.9
312	D wall		Dry	1	11.3
313	A wall		D	1	11.8
	B wall		D	1	10.3
	C wall		D	1	10.3
313	D wall		Drywall	1	9.8
314	A wall		D	1	10.0
	B		D	1	9.8
	C		D	1	11.7
314	D wall		Drywall	1	9.2
3rd Flr	A wall		D	1	7.4
3rd Fl	B		D	1	7.6
3rd	C		D	1	9.8
3rd Flr	D wall		Drywall	1	11.8
315	A		D	1	7.5
	B		D	1	11.7
	C		D	1	8.7
315	D wall		Drywall	1	9.8
316	A wall		D	1	9.8
	B wall		D	1	11.3
	B wall window seal		wood		8.1
316	C wall		D	1	11.1
316	D wall		Drywall	1	11.8

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
317	A wall		Drywall	1	10.6
	B		D	1	11.5
	C		D	1	8.7
317	D wall		Drywall	1	11.6
318	A wall		D	1	8.7
	B		D	1	12.0
	C		D	1	8.1
318	D		Drywall	1	11.6
North corr	A wall		Drywall	1	8.6
|	B wall		Plaster	1	0.0
|	C wall		Drywall	1	11.1
North corr	D wall		Drywall	1	8.1
North Bathroom	A wall		Drywal	2	8.8
|	B		Dry	5	8.1
|	C		Dry	5	10.1
|	D wall		Dry	5	9.8
319	A		D	2	10.5
	B		D	2	11.7
	C		D	2	11.9
319	D wall		Drywall	2	11.8
320	A wall		D	1	7.9
	B		D	1	8.1
320	C		D	1	11.1

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 8-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
320	D wall		Drywall	1	7.9
320	ceiling tile		ceiling		8.9
321	A wall		Drywall	2	10.3
	B		D	2	10.5
	C		D	2	10.2
321	D wall		D	2	10.2
322	A		D	1	9.8
	B		D	1	9.9
	C		D	1	10.3
322	D wall		Drywall	1	10.5
323	A		D	2	9.9
	B		D	2	8.9
	C		D	2	10.2
323	D wall		D	2	9.3
324	A		D	2	9.8
	B		D	2	9.9
	C		D	2	9.8
324	D wall		Drywall	2	9.9
325	A wall		D	1	9.9
	B wall		D	1	10.5
	B window frame		wood	1	8.6
	C wall		Drywall	1	10.9
325	D wall		drywall	1	10.3

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA

480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
326	A wall		Drywall	1	10.3
	B		D	1	10.3
	C		D	1	11.1
326	D wall		D	1	11.9
327	A		D	2	11.8
	B		D	2	10.3
	C		D	2	10.9
327	D wall		Drywall	2	11.8
328	A		D	2	11.9
	B		D	2	11.7
	C		D	2	11.3
328	D wall		Drywall	2	11.3
B-1	A wall East side		BRICK	3	87.6
B-1	A wall west side		Brick	1	17.4
B-1	B wall south side		Drywall	1	20.4
B-1	B wall south side		BRICK	1	20.6
	B wall header		Drywall	1	49.8
	B side center column		Drywall	1	28.1
B-1	west side ceiling tile		ceiling tile		22.7
	C wall west end		Drywall	1	80.5
	C wall East end		BRICK	1	22.6
	D wall North end		CMU	1	18.8
B-1	D wall center		Brick	1	17.9

Basement

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
B-4	A		Brick	1	35.9
	B		Brick	1	19.2
	C		Drywall	1	20.1
B-4	D wall		Drywall	1	18.1
B-3	A wall		Brick	1	9.3
	B wall		Plaster	1	17.7
	B - wall		Stone	1	49.3
	D wall		Brick	1	17.8
B-3	C wall Brick		Brick	1	87.6
B-2	A wall		Brick	1	87.6
	B wall		Brick	1	87.6
	C wall	Drywall	Brick	1	20.6
B-2	D wall	Brick	Drywall	1	20.4
B-8	A		Drywall	4	87.6
	B		Drywall	4	87.6
	C		wood	4	33.4
B-8	D wall		Drywall	4	38.9
B-5	A		Dry	1	19.6
	B		D	1	17.9
	C		D	1	9.7
B-5	D wall		CMU	1	17.8
B-6	A wall		Brick	3	48.7
B-6	B wall		Brick	3	87.6

Terracon

Job # 07207086; Task 32

MOISTURE READINGS

LOCATION: Former Clinton YMCA
480 South 3rd Street, Clinton, Clinton County, Iowa

DATE: 08-18

Location	Description	IR camera indications	Substrate	Height above ground surface (inches)	Moisture meter reading (% WME)
B-6	C wall		Brick	2	58.7
B-6	D wall		Brick	2	19.7
B-7	D wall		Drywall	2	59.8
	A wall		CMU	2	15.8
B-7	C wall		CMU	2	14.7
Tunnel	A wall		Drywall	3	87.6
Tunnel	A wall		Brick	3	39.6
|	ceiling		concrete		25.1
|	C wall		Brick	3	40.9
	D wall		Brick	3	47.1
	B wall		Bondex	2	26.0
Tunnel	B wall		wood	2	24.2
	Door to tunnel		wood	1	43.1
Tunnel	A wall		Brick	2	68.8

APPENDIX C

Analytical Laboratory Reports and COC

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Report for:

James Baxter
Terracon - Bettendorf, IA
870 - 40th Avenue
Bettendorf, IA 52722

Regarding: Project: 07227086; Task 32; Former YMCA-1905 Building
EML ID: 3013585

Approved by:

Technical Manager
Ariunaa Jalsrai

Dates of Analysis:
Spore trap analysis: 08-27-2022

Service SOPs: Spore trap analysis (EM-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #103005

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the samples as received and tested. Information supplied by the client which can affect the validity of results: sample air volume.

Eurofins EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Eurofins EMLab P&K's LabServe® reporting system includes automated fail-safes to ensure that all AIHA-LAP, LLC quality requirements are met and notifications are added to reports when any quality steps remain pending.

Eurofins EMLab P&K
3000 Lincoln Drive East, Suite A, Marlton, NJ 08053
(866) 871-1984 Fax (856) 334-1040 www.emlab.com

Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-1 / 34833307: Outside Main Entrance to the 1905 Building			ST-2 / 34833298: Main Level Southwest Area near Hallway to the 1961 building		
Comments (see below)	None			A		
Lab ID-Version‡:	14512120-1			14512121-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria	8	100	110			
Ascospores	16	25	850			
Basidiospores	52	25	2,800			
Cercospora	2	100	27			
Chaetomium						
Chrysosporium-like						
Cladosporium	42	25	2,200			
Epicoccum	1	100	13			
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	2	100	27			
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	27			< 13		
Pollen/m3	27			< 13		
Skin cells (1-4+)	< 1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			6,000			< 13

Comments: A) No spores detected.

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-3 / 34833571: Main Level Southwest Area near hallway to the 1961 Building			ST-4 / 34833293: Main Level Approximate Center of Main Lobby Room 1		
Comments (see below)	None			None		
Lab ID-Version‡:	14512122-1			14512123-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores						
Basidiospores	4	25	210	2	25	110
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium				1	25	53
Epicoccum						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†				4	25	210
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys				12	100	160
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			210			530

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
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§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-5 / 34833281: Main Level South Center Portion of Room 5 near entrance to Room 5			ST-6 / 34833302: Main level northwest portion of Room 6 near Wall Staining		
Comments (see below)	None			None		
Lab ID-Version‡:	14512124-1			14512125-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores	2	25	110			
Basidiospores	8	25	430	4	25	210
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium	1	25	53			
Epicoccum						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	2	25	110	29	25	1,500
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			690			1,800

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
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Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-7 / 34833302: Lower Stairwell landing Between main level and basement			ST-8 / 34833287: Basement Approximate Center of Room B1		
Comments (see below)	None			None		
Lab ID-Version‡:	14512126-1			14512127-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores				2	25	110
Basidiospores	1	25	53	7	25	370
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium						
Epicoccum						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	1	25	53	16	25	850
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			110			1,300

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
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§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-9 / 34833289: Basement entrance to Room B3			ST-10 / 34833284: Basement entrance of Room B3		
Comments (see below)	None			None		
Lab ID-Version‡:	14512128-1			14512129-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores	2	25	110	2	25	110
Basidiospores	8	25	430	2	25	110
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium	3	25	160			
Epicoccum						
Myrothecium						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	48	25	2,600	122	25	6,500
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes				1	100	13
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			3,300			6,700

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
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Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-11 / 34833303: Basement Southwest Corner of Room B2			ST-12 / 34833309: Basement Approximate Center of Room B8		
Comments (see below)	None			None		
Lab ID-Version‡:	14512130-1			14512131-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores						
Basidiospores	4	25	210			
Cercospora						
Chaetomium						
Chrysosporium-like				164	7	31,000
Cladosporium						
Epicoccum						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	2	25	110	482	3.5	180,000
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			320			210,000

Comments:

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Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-13 / 34833294: Basement Approximate Center of Room B6			ST-14 / 34833291: Stairwell Landing Between main level and second Floor		
Comments (see below)	None			None		
Lab ID-Version‡:	14512132-1			14512133-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores				2	25	110
Basidiospores	5	25	270	4	25	210
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium						
Epicoccum						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	13	25	690	82	25	4,400
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			960			4,700

Comments:

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Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-15 / 34833574: Second Floor Approximate Center of Room 11			ST-16 / 34833308: Second Floor, Approximate center of North Hallway near entrance to Room 8		
Comments (see below)	None			None		
Lab ID-Version‡:	14512134-1			14512135-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores				1	25	53
Basidiospores	2	25	110	6	25	320
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium						
Epicoccum				1	100	13
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	14	25	750	190	25	10,000
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes				1	100	13
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			2+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			850			11,000

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
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Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-17 / 34833313: Second Floor south Center portion of Room 8 (kitchen)			ST-18 / 34833310: Second Floor Room 10 near the doorway to Room 9		
Comments (see below)	None			None		
Lab ID-Version‡:	14512136-1			14512137-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores						
Basidiospores				2	25	110
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium						
Epicoccum						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	238	14	23,000	21	25	1,100
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			23,000			1,200

Comments:

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SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-19 / 34833685: Second Floor inside Unit 207			ST-20 / 34833278: Second Floor Iside Unit 205		
Comments (see below)	None			None		
Lab ID-Version‡:	14512138-1			14512139-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores						
Basidiospores	2	25	110	2	25	110
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium	2	25	110			
Epicoccum						
Myrothecium						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	212	7	40,000	268	25	14,000
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			< 1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			41,000			14,000

Comments:

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Date of Sampling: 08-22-2022
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Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-21 / 34833306: Second Floor South portion of East Hallway			ST-22 / 34833296: Second Floor South Portion of East Hallway		
Comments (see below)	None			None		
Lab ID-Version‡:	14512140-1			14512141-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores						
Basidiospores	2	25	110			
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium						
Epicoccum						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	68	25	3,600	67	25	3,600
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			3,700			3,600

Comments:

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Date of Receipt: 08-25-2022
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SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-23 / 34833300: Second Floor Just Inside entrance to South restroom			ST-24 / 34833600: Second Floor Inside Unit 201		
Comments (see below)	None			None		
Lab ID-Version‡:	14512142-1			14512143-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores	1	25	53	2	25	110
Basidiospores	2	25	110	3	25	160
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium						
Epicoccum						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	59	25	3,100	118	25	6,300
Pithomyces				1	100	13
Rusts						
Smuts, Periconia, Myxomycetes				1	100	13
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			13		
Pollen/m3	< 13			13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			3,300			6,600

Comments:

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Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-25 / 34833658: Second Floor Just inside north restroom			ST-26 / 34833359: Stairwell Between second and third floor		
Comments (see below)	None			None		
Lab ID-Version‡:	14512144-1			14512145-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores				2	25	110
Basidiospores	7	25	370	2	25	110
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium						
Epicoccum						
Myrothecium						
Nigrospora				1	100	13
Oidium						
Other colorless						
Penicillium/Aspergillus types†	30	25	1,600	204	25	11,000
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes				1	100	13
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			2,000			11,000

Comments:

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SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-27 / 34833323: Third Floor inside Unit 328			ST-28 / 34833326: Third Floor Inside Unit 34		
Comments (see below)	None			None		
Lab ID-Version‡:	14512146-1			14512147-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria	1	100	13			
Ascospores				1	25	53
Basidiospores				1	25	53
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium				1	25	53
Epicoccum	1	100	13			
Myrothecium						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	118	25	6,300	16	25	850
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	1	100	13			
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			6,300			1,000

Comments:

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(866) 871-1984 Fax (856) 334-1040 www.emlab.com

Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-29 / 34833299: Third Floor Inside Unit 320			ST-30 / 34833311: Third Floor Inside Unit 318		
Comments (see below)	None			None		
Lab ID-Version‡:	14512148-1			14512149-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria	1	100	13			
Ascospores	2	25	110			
Basidiospores	2	25	110	1	25	53
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium						
Epicoccum						
Myrothecium						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	19	25	1,000	2	25	110
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	1	100	13	1	100	13
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	13			13		
Pollen/m3	13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			1,300			170

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-31 / 34833593: Third Floor Southwest Corner of Open Common Area			ST-32 / 34833327: Third floor North-Center Portion of Open Common Area		
Comments (see below)	None			None		
Lab ID-Version‡:	14512150-1			14512151-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores				1	25	53
Basidiospores	2	25	110	5	25	270
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium						
Epicoccum						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	26	25	1,400	20	25	1,100
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			1,500			1,400

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-33 / 34833325: Thrid Floor Inside Unit 313			ST-34 / 34833292: Third Floor Inisde Unit 309		
Comments (see below)	None			None		
Lab ID-Version‡:	14512152-1			14512153-1		
Analysis Date:	08/27/2022			08/27/2022		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria						
Ascospores				2	25	110
Basidiospores	3	25	160	3	25	160
Cercospora						
Chaetomium						
Chrysosporium-like						
Cladosporium						
Epicoccum						
Myrothecium						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†	2	25	110	66	25	3,500
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+			1+		
Hyphal fragments/m3	< 13			< 13		
Pollen/m3	< 13			< 13		
Skin cells (1-4+)	1+			1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			270			3,800

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
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C/O: James Baxter
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Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	ST-35 / 34833312: Outside Main entrance to 1905 Building		
Comments (see below)	None		
Lab ID-Version‡:	14512154-1		
Analysis Date:	08/27/2022		
	raw ct.	% read	spores/m3
Alternaria	11	100	150
Ascospores	20	25	1,100
Basidiospores	52	25	2,800
Cercospora	11	100	150
Chaetomium			
Chrysosporium-like			
Cladosporium	30	25	1,600
Epicoccum			
Myrothecium			
Nigrospora			
Oidium	1	100	13
Other colorless			
Penicillium/Aspergillus types†			
Pithomyces	2	100	27
Rusts	1	100	13
Smuts, Periconia, Myxomycetes	1	100	13
Stachybotrys			
Stemphylium			
Torula			
Ulocladium			
Zygomycetes			
Background debris (1-4+)††	2+		
Hyphal fragments/m3	27		
Pollen/m3	40		
Skin cells (1-4+)	< 1+		
Sample volume (liters)	75		
§ TOTAL SPORES/m3			5,800

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3, per spore and per sample.

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Date of Sampling: 08-22-2022
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Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Outdoor Sample: ST-1 / 34833307 Outside Main Entrance to the 1905 Building

Fungi Identified	Outdoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3
Generally able to grow indoors*			
Alternaria		8	110
Bipolaris/Drechslera group		ND	< 13
Chaetomium		ND	< 13
Cladosporium		42	2,200
Curvularia		ND	< 13
Epicoccum		1	13
Nigrospora		ND	< 13
Penicillium/Aspergillus types†		ND	< 13
Stachybotrys		ND	< 13
Torula		ND	< 13
Seldom found growing indoors**			
Ascospores		16	850
Basidiospores		52	2,800
Cercospora		2	27
Rusts		ND	< 13
Smuts, Periconia, Myxomycetes		2	27
Total			**6,040**

Location: ST-2 / 34833298 Main Level Southwest Area near Hallway to the 1961 building

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		ND	< 13		100
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**N/A**	**Final MoldSCORE**	**100**

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-3 / 34833571 Main Level Southwest Area near hallway to the 1961 Building

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		ND	< 13		100
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		4	210		112
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**213**	**Final MoldSCORE**	**112**

Location: ST-4 / 34833293 Main Level Approximate Center of Main Lobby Room 1

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		1	53		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		4	210		133
Stachybotrys		12	160		278
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**533**	**Final MoldSCORE**	**278**

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Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-5 / 34833281 Main Level South Center Portion of Room 5 near entrance to Room 5

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		1	53		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		2	110		118
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		2	110		105
Basidiospores		8	430		112
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**693**	**Final MoldSCORE**	**118**

Location: ST-6 / 34833302 Main level northwest portion of Room 6 near Wall Staining

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		29	1,500		273
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		4	210		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**1,760**	**Final MoldSCORE**	**273**

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Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-7 / 34833302 Lower Stairwell landing Between main level and basement

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		1	53		108
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		1	53		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**107**	**Final MoldSCORE**	**108**

Location: ST-8 / 34833287 Basement Approximate Center of Room B1

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		16	850		221
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		2	110		100
Basidiospores		7	370		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**1,333**	**Final MoldSCORE**	**221**

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Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-9 / 34833289 Basement entrance to Room B3

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		3	160		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		48	2,600		298
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		2	110		100
Basidiospores		8	430		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**3,253**	**Final MoldSCORE**	**298**

Location: ST-10 / 34833284 Basement entrance of Room B3

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		122	6,500		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		2	110		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		1	13		100
Total			**6,733**	**Final MoldSCORE**	**300**

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MoldSCORE™: Spore Trap Report

Location: ST-11 / 34833303 Basement Southwest Corner of Room B2

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		2	110		118
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		4	210		107
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**320**	**Final MoldSCORE**	**118**

Location: ST-12 / 34833309 Basement Approximate Center of Room B8

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Chrysosporium-like		164	31,000		300
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		482	180,000		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**214,853**	**Final MoldSCORE**	**300**

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Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-13 / 34833294 Basement Approximate Center of Room B6

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		13	690		202
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		5	270		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**960**	**Final MoldSCORE**	**202**

Location: ST-14 / 34833291 Stairwell Landing Between main level and second Floor

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		82	4,400		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		2	110		100
Basidiospores		4	210		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**4,693**	**Final MoldSCORE**	**300**

Eurofins EMLab P&K
3000 Lincoln Drive East, Suite A, Marlton, NJ 08053
(866) 871-1984 Fax (856) 334-1040 www.emlab.com

Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-15 / 34833574 Second Floor Approximate Center of Room 11

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		14	750		209
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**853**	**Final MoldSCORE**	**209**

Location: ST-16 / 34833308 Second Floor, Approximate center of North Hallway near entrance to Room 8

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Epicoccum		1	13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		190	10,000		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		1	53		100
Basidiospores		6	320		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		1	13		100
Total			**10,533**	**Final MoldSCORE**	**300**

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-17 / 34833313 Second Floor south Center portion of Room 8 (kitchen)

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		238	23,000		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**22,667**	**Final MoldSCORE**	**300**

Location: ST-18 / 34833310 Second Floor Room 10 near the doorway to Room 9

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		21	1,100		246
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**1,227**	**Final MoldSCORE**	**246**

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-19 / 34833685 Second Floor inside Unit 207

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		2	110		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		212	40,000		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**40,600**	**Final MoldSCORE**	**300**

Location: ST-20 / 34833278 Second Floor Iside Unit 205

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		268	14,000		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**14,400**	**Final MoldSCORE**	**300**

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-21 / 34833306 Second Floor South portion of East Hallway

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		68	3,600		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**3,733**	**Final MoldSCORE**	**300**

Location: ST-22 / 34833296 Second Floor South Portion of East Hallway

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		67	3,600		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**3,573**	**Final MoldSCORE**	**300**

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-23 / 34833300 Second Floor Just Inside entrance to South restroom

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		59	3,100		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		1	53		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**3,307**	**Final MoldSCORE**	**300**

Location: ST-24 / 34833600 Second Floor Inside Unit 201

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		118	6,300		300
Pithomyces		1	13		105
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		2	110		100
Basidiospores		3	160		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		1	13		100
Total			**6,587**	**Final MoldSCORE**	**300**

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-25 / 34833658 Second Floor Just inside north restroom

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		30	1,600		278
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		7	370		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**1,973**	**Final MoldSCORE**	**278**

Location: ST-26 / 34833359 Stairwell Between second and third floor

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		1	13		105
Penicillium/Aspergillus types†		204	11,000		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		2	110		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		1	13		100
Total			**11,120**	**Final MoldSCORE**	**300**

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-27 / 34833323 Third Floor inside Unit 328

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		1	13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Epicoccum		1	13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		118	6,300		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		1	13		100
Total			**6,333**	**Final MoldSCORE**	**300**

Location: ST-28 / 34833326 Third Floor Inside Unit 34

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		1	53		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		16	850		221
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		1	53		100
Basidiospores		1	53		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**1,013**	**Final MoldSCORE**	**221**

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-29 / 34833299 Third Floor Inside Unit 320

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		1	13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		19	1,000		237
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		2	110		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		1	13		101
Total			**1,253**	**Final MoldSCORE**	**237**

Location: ST-30 / 34833311 Third Floor Inside Unit 318

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		2	110		118
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		1	53		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		1	13		102
Total			**173**	**Final MoldSCORE**	**118**

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-31 / 34833593 Third Floor Southwest Corner of Open Common Area

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		26	1,400		268
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		2	110		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**1,493**	**Final MoldSCORE**	**268**

Location: ST-32 / 34833327 Third floor North-Center Portion of Open Common Area

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		20	1,100		246
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		1	53		100
Basidiospores		5	270		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**1,387**	**Final MoldSCORE**	**246**

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C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

Location: ST-33 / 34833325 Thrid Floor Inside Unit 313

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		2	110		118
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		3	160		104
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**267**	**Final MoldSCORE**	**118**

Location: ST-34 / 34833292 Third Floor Inisde Unit 309

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		66	3,500		300
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		2	110		100
Basidiospores		3	160		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**3,787**	**Final MoldSCORE**	**300**

Eurofins EMLab P&K
3000 Lincoln Drive East, Suite A, Marlton, NJ 08053
(866) 871-1984 Fax (856) 334-1040 www.emlab.com

Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 09-27-2022

MoldSCORE™: Spore Trap Report

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

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Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

MoldRANGE™, Local Climate; Extended Outdoor Comparison

Outdoor Location: ST-1 / 34833307, Outside Main Entrance to the 1905 Building

Fungi Identified	Outdoor data	Typical Outdoor Data for: August in East North Central† EMLab Regional Climate code[1] B Annual Temp, B Elev., A Rain, B Temp. Range (n‡=201)						Typical Outdoor Data for: The entire year in East North Central† EMLab Regional Climate code[1] B Annual Temp, B Elev., A Rain, B Temp. Range (n‡=1661)					
Project zip code 52732	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	110	21	40	110	310	440	90	13	27	80	210	360	56
Bipolaris/Drechslera group	-	7	11	13	27	110	15	7	7	13	27	53	9
Chaetomium	-	-	-	-	-	-	4	7	11	13	26	36	3
Chrysosporium-like	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1
Cladosporium	2,200	600	1,100	2,500	6,700	10,000	99	80	160	1,100	3,600	6,300	86
Curvularia	-	7	13	24	40	67	30	7	13	13	33	53	11
Epicoccum	13	13	13	40	110	200	75	13	13	40	120	250	49
Nigrospora	-	7	13	22	53	110	39	7	13	26	67	130	22
Penicillium/Aspergillus types	-	53	82	210	440	960	57	40	53	160	370	690	42
Pithomyces	-	13	13	53	190	400	73	13	13	27	93	210	28
Stachybotrys	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1
Torula	-	13	13	27	34	67	16	9	13	20	34	53	7
Seldom found growing indoors**													
Ascospores	850	230	400	1,100	2,700	3,500	98	53	130	640	2,300	4,200	80
Basidiospores	2,800	750	1,500	3,700	7,600	12,000	99	68	180	1,400	5,000	8,200	92
Cercospora	27	13	27	53	170	290	48	13	13	44	170	300	23
Oidium	-	7	8	27	53	66	10	7	13	14	53	81	8
Rusts	-	13	13	40	110	210	55	13	13	33	93	160	29
Smuts, Periconia, Myxomycetes	27	13	13	27	100	170	64	13	13	40	120	240	58
§ TOTAL SPORES/m3	6,000												

[1]EMLab Regional Climate codes are a climate classification scheme for regional geographic areas containing multiple states. The MoldRANGE™ Local Climate report uses the sampling location zip code to identify the EMLab Regional Climate code in that area. Using information available from the NOAA weather database, the EMLab Regional Climate code sharpens the precision of the MoldRANGE™reporting system, providing more reliable estimates of the range and average concentrations of the different airborne fungal spore types for each region. Additional information on the EMLab Regional Climate code system can be found on the last page of this report.

†The Typical Outdoor Data represents the typical outdoor spore levels across the region's group of states for the time period and EMLab Regional Climate code indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically and if not enough data is available to make a statistically meaningful assessment, it is indicated with a dash.

‡ n is the sample size used to calculate the MoldRANGE™ Local Climate data summarized in the table.

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

MoldRANGE™, Local Climate; Extended Outdoor Comparison

Outdoor Location: ST-35 / 34833312, Outside Main entrance to 1905 Building

Fungi Identified	Outdoor data	Typical Outdoor Data for: August in East North Central† EMLab Regional Climate code[1] B Annual Temp, B Elev., A Rain, B Temp. Range (n‡=201)						Typical Outdoor Data for: The entire year in East North Central† EMLab Regional Climate code[1] B Annual Temp, B Elev., A Rain, B Temp. Range (n‡=1661)					
Project zip code 52732	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	150	21	40	110	310	440	90	13	27	80	210	360	56
Bipolaris/Drechslera group	-	7	11	13	27	110	15	7	7	13	27	53	9
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Chrysosporium-like	-	-	-	-	-	-	< 1	-	-	-	-	-	< 1
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Pithomyces	27	13	13	53	190	400	73	13	13	27	93	210	28
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Torula	-	13	13	27	34	67	16	9	13	20	34	53	7
Seldom found growing indoors**													
Ascospores	1,100	230	400	1,100	2,700	3,500	98	53	130	640	2,300	4,200	80
Basidiospores	2,800	750	1,500	3,700	7,600	12,000	99	68	180	1,400	5,000	8,200	92
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Rusts	13	13	13	40	110	210	55	13	13	33	93	160	29
Smuts, Periconia, Myxomycetes	13	13	13	27	100	170	64	13	13	40	120	240	58
§ TOTAL SPORES/m3	5,800												

[1]EMLab Regional Climate codes are a climate classification scheme for regional geographic areas containing multiple states. The MoldRANGE™ Local Climate report uses the sampling location zip code to identify the EMLab Regional Climate code in that area. Using information available from the NOAA weather database, the EMLab Regional Climate code sharpens the precision of the MoldRANGE™reporting system, providing more reliable estimates of the range and average concentrations of the different airborne fungal spore types for each region. Additional information on the EMLab Regional Climate code system can be found on the last page of this report.

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Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

Understanding EMLab Regional Climate Codes

Outdoor airborne spore concentrations are strongly influenced by climate and weather patterns, often resulting in pronounced seasonal and diurnal cycles (Burge 1995). The seasonal climatic changes directly affect the growth cycle of plants, thereby influencing fungal growth, spore maturation, and release cycles. By evaluating outdoor spore concentrations across similar climatic zones rather than for the state as a whole, it is possible to provide a more representative estimate of typical outdoor spore levels and frequency of occurrence for different airborne fungal spore types in a given area.

The EMLab Regional Climate code system is a novel classification system that uses data from the NOAA - National Oceanic and Atmospheric Administration database to define unique climate zones. The following climate variables, for each regional zip code, are obtained from NOAA and assigned a letter code of A (above the regional average for that variable) or B (below the regional average for that variable):

1. Annual High Temperature
2. Elevation
3. Rainfall/Precipitation
4. Monthly Temperature Range

The result is a 4-character code assigned to each statewide zip code, referred to as the Regional Climate Code. Below are some examples of decoded Regional Climate Codes:

AAAA = Above avg. Annual High Temperature, Above avg. Elevation, Above avg. Rainfall/Precipitation, Above avg. Monthly Temperature Range
AABB = Above avg. Annual High Temperature, Above avg. Elevation, Below avg. Rainfall/Precipitation, Below avg. Monthly Temperature Range
BBAA = Below avg. Annual High Temperature, Below avg. Elevation, Above avg. Rainfall/Precipitation, Above avg. Monthly Temperature Range

The actual outdoor air sample data from matching regional climate codes in each group of states are then compiled in a manner relating typical spore concentrations and frequency of occurrence.

The data presented in this report is from the East North Central Region which includes the states of: IA, MI, MN, and WI

The NOAA regional climate variables were selected by mapping data points from a subset of approximately 145,000 weather and geographic database entries to over 80,000 outdoor spore trap samples with known zip codes and assessing them using orthogonal array experimental design techniques. The results were then compared to the typical ranges of spore types found when grouping zip codes using the Koppen-Geiger climatic classification system; a commonly used climatic system that provides an objective numerical definition in terms of climatic elements such as temperature, rainfall, and other seasonal characteristics . The EMLab Regional Climate codes showed improved granularity and refinement of the zip code groupings, implying a better representation of the expected range of spore types to be found within an individual zip code.

The values on this report were calculated by obtaining the four variables listed above from the over 585 million data points of weather and geographic information available in the NOAA database, and determining the frequencies and percentile values of spore types by utilizing over 180,000 Eurofins EMLab P&K outdoor spore trap samples with known zip codes.

This report groups regional zip codes in relation to these EMLab Regional Climate codes and summarizes MoldRANGE™ data by month and year within each EMLab Regional Climate code.

References:

Burge, Harriet, A. Bioaerosols: Boca Raton: Lewis Publishers, pp. 163-171, 1995.

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Report for:

James Baxter
Terracon - Bettendorf, IA
870 - 40th Avenue
Bettendorf, IA 52722

Regarding: Project: 07227086; Task 32; Former YMCA-1905 Building
EML ID: 3013585

Approved by:

Technical Manager
Ariunaa Jalsrai

Dates of Analysis:
Direct microscopic exam (Qualitative): 08-26-2022

Service SOPs: Direct microscopic exam (Qualitative) (EM-MY-S-1039)
AIHA-LAP, LLC accredited service, Lab ID #103005

Eurofins EMLab P&K
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Client: Terracon - Bettendorf, IA
C/O: James Baxter
Re: 07227086; Task 32; Former YMCA-1905 Building

Date of Sampling: 08-22-2022
Date of Receipt: 08-25-2022
Date of Report: 08-29-2022

DIRECT MICROSCOPIC EXAMINATION REPORT

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 14512181-1, Analysis Date: 08/26/2022: Tape sample Tape Lift 1: Main Level East side of counter water damaged Stain Area				
Moderate	Very few	None	None	Normal trapping
Lab ID-Version: 14512182-1, Analysis Date: 08/26/2022: Tape sample Tape Lift 2: Basement Ceiling Tile Located immediately at bottom of Steps				
Moderate	Very few	4+ *Ascotricha* species (ascospores, ascomata, hyphae)	None	Mold growth
Lab ID-Version: 14512183-1, Analysis Date: 08/26/2022: Tape sample Tape Lift 3: Basement Southeast Portion from lower water damaged brick wall				
Moderate	Very few	None	None	Normal trapping
Lab ID-Version: 14512184-1, Analysis Date: 08/26/2022: Tape sample Tape Lift 4: Second Floor, East Lower Portion of north Hallway Wall				
Moderate	Very few	None	None	Normal trapping
Lab ID-Version: 14512185-1, Analysis Date: 08/26/2022: Tape sample Tape Lift 5: Third Floor, Wall-Mounted Shelf on North Side of Open/Common Area				
Moderate	Very few	None	None	Normal trapping
Lab ID-Version: 14512186-1, Analysis Date: 08/26/2022: Tape sample Tape Lift 6: Stairwell Between first Floor And Second Floor on South side Hand Rail Near the Lower Set of Steps				
Moderate	Very few	4+ *Aspergillus* species (spores, hyphae, conidiophores)	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded <1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
The limit of detection is < 1+ when mold growth is detected.

For additional information necessary for the interpretation of the results, all readers are advised to refer to the document "Direct Exam Details Page" which is available on our website at:
www.emlab.com/services/mold-testing/direct-microscopic-exam-qualitative/

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Phoenix, AZ: 1501 West Knudsen drive, Phoenix, AZ 85027 * **(800) 651-4802**
San Bruno, CA: 1150 Bayhill Drive, #100, San Bruno, CA 94066 * **(866) 888-6653**

Weather		Fog	Rain	Snow	Wind	Clear
Level	None	☐	☐	☐	☐	☐
	Light	☐	☐	☐	☐	
	Moderate	☐	☐	☐	☐	
	Heavy	☐	☐	☐	☐	

CONTACT INFORMATION

Company:	Terracon Consultants Inc.	Address:	870 - 40th Avenue Bettendorf, Iowa 52722
Contact:	James R. Baxter	Special Instructions:	Email results to:
Phone:	(563) 468 - 4271		James.Baxter@terracon.com

PROJECT INFORMATION

Project ID:	07227086; Task 32		
Project Description:	Former YMCA - 1905 Building		
Project Zip Code:	52732	Sampling Date & Time:	08-22-22 / 09:00-15:00
PO Number:		Sampled By:	James Baxter

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
SD – Same Business Day Rush
WH – Weekend / Holiday

Rushes received after 2 pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

REQUESTED SERVICES
(Use checkboxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH, etc.)
ST-1/ 3483 3307	Outside main entrance to the 1905 building	ST	STD	75L	
ST-2/ 3483 3298	Main level, southwest area near hallway to the 1961 building	ST	STD	75L	
ST-3/ 3483 3571	Main level, southwest area near hallway to the 1961 building	ST	STD	75L	
ST-4/ 3483 3293	Main level, approximate center of main lobby/Room 1	ST	STD	75L	
ST-5/ 3483 3281	Main level, south-center portion of Room 5, near entrance to Room 6	ST	STD	75L	
ST-6/ 3483 3302	Main level, northwest portion of Room 6 near wall staining	ST	STD	75L	
ST-7/ 3483 3301	Lower stairwell landing between main level and basement	ST	STD	75L	
ST-8/ 3483 3287	Basement, approximate center of Room B1	ST	STD	75L	
ST-9/ 3483 3289	Basement, entrance of Room B3	ST	STD	75L	
ST-10/ 3483 3284	Basement, entrance of Room B3	ST	STD	75L	
ST-11/ 3483 3303	Basement, southwest corner of Room B2	ST	STD	75L	

	Non-Culturable				Culturable											Other Requests			
	Spore Trap		Tape Swab Bulk		BioCassette™ , Andersen, SAS, Swab, Water, Bulk, Dust, Soil, Contact Plates														
Sample ID	Fungi – Spore Trap Analysis	Spore Trap Analysis – Other particles	Direct Microscopic Exam (Qualitative)	Quantitative Spore Count Direct Exam	1-Media Surface Fungi (Genus ID + *Asp.* spp.)	2-Media Surface Fungi (Genus ID + *Asp.* spp.)	3-Media Surface Fungi (Genus ID + *Asp.* spp.)	Culturable Air Fungi (Genus ID + *Asp.* spp.)	Gram Stain & Counts (Culturable Air & Surface Bacteria)	*Legionella* culture	Total Coliform, *E. coli (Presence/Absence)*	Membrane Filtration (specify organism):	MPN Bacteria (specify organism):	QuantiTray – Sewage Screen		Asbestos Analysis – PCM Airborne Fiber Count (NIOSH 7400)	Asbestos Analysis – PLM (EPA method 600/R-93-116)	PCR (specify test):	
ST-1/ 3483 3307	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
ST-2/ 3483 3298	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
ST-3/ 3483 3571	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
ST-4/ 3483 3293	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
ST-5/ 3483 3281	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
ST-6/ 3483 3302	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
ST-7/ 3483 3301	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
ST-8/ 3483 3287	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
ST-9/ 3483 3289	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
ST-10/ 3483 3284	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐
ST-11/ 3483 3303	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐

SAMPLE TYPE CODES			
BC – BioCassette ™	**ST** – Spore Trap: Zefon, Allergenco, Burkard …	**T** – Tape	**D** – Dust
A1S – Anderson		**SW** – Swab	**SO** – Soil
SAS – Surface Air Sampler	**P** – Potable Water	**B** – Bulk	
CP – Contact Plate	**NP** – Non-Potable Water	**O** – Other:	

RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
James Baxter/	08/24/22 - 17:00		

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at http://www.emlab.com/s/main/serviceterms.html

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Weather		Fog	Rain	Snow	Wind	Clear
Level	None	☐	☐	☐	☐	☐
	Light	☐	☐	☐	☐	
	Moderate	☐	☐	☐	☐	
	Heavy	☐	☐	☐	☐	

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PROJECT INFORMATION

Project ID:	07227086; Task 32		
Project Description:	Former YMCA - 1905 Building		
Project Zip Code:	52732	Sampling Date & Time:	08-22-22 / 09:00-15:00
PO Number:		Sampled By:	James Baxter

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REQUESTED SERVICES
(Use checkboxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH, etc.)
ST-12/ 3483_3309	Basement, approximate center of Room B8	ST	STD	75L	
ST-13/ 3483_3294	Basement, approximate center of Room B6	ST	STD	75L	
ST-14/ 3483_3291	Stairwell landing between main level and second floor	ST	STD	75L	
ST-15/ 3483_3574	Second floor, approximate center of Room 11	ST	STD	75L	
ST-16/ 3483_3308	Second floor, approximate center of north hallway, near entrance to Room 8	ST	STD	75L	
ST-17/ 3483_3313	Second floor, south-center portion of Room 8 (kitchen)	ST	STD	75L	
ST-18/ 3483_3310	Second floor, Room 10, near the doorway to Room 9	ST	STD	75L	
ST-19/ 3483_3685	Second floor, inside Unit 207	ST	STD	75L	
ST-20/ 3483_3278	Second floor, inside Unit 205	ST	STD	75L	
ST-21/ 3483_3306	Second floor, south portion of east hallway	ST	STD	75L	
ST-22/ 3483_3296	Second floor, south portion of east hallway	ST	STD	75L	

	Non-Culturable		Culturable												Other Requests			
	Spore Trap		Tape Swab Bulk		BioCassette™ , Andersen, SAS, Swab, Water, Bulk, Dust, Soil, Contact Plates													
Sample ID	Fungi – Spore Trap Analysis	Spore Trap Analysis – Other particles	Direct Microscopic Exam (Qualitative)	Quantitative Spore Count Direct Exam	1-Media Surface Fungi (Genus ID + *Asp.* spp.)	2-Media Surface Fungi (Genus ID + *Asp.* spp.)	3-Media Surface Fungi (Genus ID + *Asp.* spp.)	Culturable Air Fungi (Genus ID + *Asp.* spp.)	Gram Stain & Counts (Culturable Air & Surface Bacteria)	*Legionella* culture	Total Coliform, *E. coli (Presence/Absence)*	Membrane Filtration (specify organism):	MPN Bacteria (specify organism):	QuantiTray – Sewage Screen	Asbestos Analysis – PCM Airborne Fiber Count (NIOSH 7400)	Asbestos Analysis – PLM (EPA method 600/R-93-116)	PCR (specify test):	
ST-12/ 3483_3309	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-13/ 3483_3294	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-14/ 3483_3291	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-15/ 3483_3574	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-16/ 3483_3308	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-17/ 3483_3313	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-18/ 3483_3310	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-19/ 3483_3685	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-20/ 3483_3278	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-21/ 3483_3306	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-22/ 3483_3296	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

SAMPLE TYPE CODES			
BC – BioCassette ™	**ST** – Spore Trap: Zefon, Allergenco, Burkard …	**T** – Tape	**D** – Dust
A1S – Anderson		**SW** – Swab	**SO** – Soil
SAS – Surface Air Sampler	**P** – Potable Water	**B** – Bulk	
CP – Contact Plate	**NP** – Non-Potable Water	**O** – Other:	

RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
James Baxter/	08/24/22 - 17:00		

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CHAIN OF CUSTODY

www.EMLabPK.com

EMLab P&K
A TestAmerica Company

New Jersey: 3000 Lincoln Drive East, Suite A, Marlton, NJ 08053 * **(866) 871-1984**
Phoenix, AZ: 1501 West Knudsen drive, Phoenix, AZ 85027 * **(800) 651-4802**
San Bruno, CA: 1150 Bayhill Drive, #100, San Bruno, CA 94066 * **(866) 888-6653**

Weather		Fog	Rain	Snow	Wind	Clear
Level	None	☐	☐	☐	☐	☐
	Light	☐	☐	☐	☐	
	Moderate	☐	☐	☐	☐	
	Heavy	☐	☐	☐	☐	

CONTACT INFORMATION

Company:	Terracon Consultants Inc.	Address:	870 - 40th Avenue Bettendorf, Iowa 52722
Contact:	James R. Baxter	Special Instructions:	Email results to:
Phone:	(563) 468 - 4271		James.Baxter@terracon.com

PROJECT INFORMATION

Project ID:	07227086; Task 32		
Project Description:	Former YMCA - 1905 Building		
Project Zip Code:	52732	Sampling Date & Time:	08-22-22 / 09:00-15:00
PO Number:		Sampled By:	James Baxter

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
SD – Same Business Day Rush
WH – Weekend / Holiday

Rushes received after 2 pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

REQUESTED SERVICES
(Use checkboxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH, etc.)	Non-Culturable: Spore Trap: Fungi – Spore Trap Analysis	Non-Culturable: Spore Trap: Spore Trap Analysis – Other particles	Non-Culturable: Tape Swab Bulk: Direct Microscopic Exam (Qualitative)	Non-Culturable: Tape Swab Bulk: Quantitative Spore Count Direct Exam	Culturable: BioCassette™, Andersen, SAS, Swab, Water, Bulk, Dust, Soil, Contact Plates: 1-Media Surface Fungi (Genus ID + *Asp.* spp.)	2-Media Surface Fungi (Genus ID + *Asp.* spp.)	3-Media Surface Fungi (Genus ID + *Asp.* spp.)	Culturable Air Fungi (Genus ID + *Asp.* spp.)	Gram Stain & Counts (Culturable Air & Surface Bacteria)	*Legionella* culture	Total Coliform, *E. coli* (Presence/Absence)	Membrane Filtration (specify organism):	MPN Bacteria (specify organism):	QuantiTray – Sewage Screen	Other Requests: Asbestos Analysis – PCM Airborne Fiber Count (NIOSH 7400)	Asbestos Analysis – PLM (EPA method 600/R-93-116)	PCR (specify test):	
ST-23/ 3483 3300	Second floor, just inside entrance to south restroom	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-24/ 3483 3600	Second floor, inside Unit 201	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-25/ 3483 3658	Second floor, just inside north restroom	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-26/ 3483 3359	Stairwell between second and third floor	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-27/ 3483 3323	Third floor, inside Unit 328	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-28/ 3483 3326	Third floor, inside Unit 324	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-29/ 3483 3299	Third floor, inside Unit 320	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-30/ 3483 3311	Third floor, inside Unit 318	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-31/ 3483 3593	Third floor, southwest corner of open/common area	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-32/ 3483 3327	Third floor, north-center portion of open/common area	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-33/ 3483 3325	Third floor, inside Unit 313	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

SAMPLE TYPE CODES

BC – BioCassette ™	**ST** – Spore Trap: Zefon, Allergenco, Burkard …	**T** – Tape	**D** – Dust
A1S – Anderson		**SW** – Swab	**SO** – Soil
SAS – Surface Air Sampler	**P** – Potable Water	**B** – Bulk	
CP – Contact Plate	**NP** – Non-Potable Water	**O** – Other:	

RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
James Baxter/	08/24/22 - 17:00		

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CHAIN OF CUSTODY

www.EMLabPK.com

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San Bruno, CA: 1150 Bayhill Drive, #100, San Bruno, CA 94066 * **(866) 888-6653**

Weather		Fog	Rain	Snow	Wind	Clear
Level	None	☐	☐	☐	☐	☐
	Light	☐	☐	☐	☐	
	Moderate	☐	☐	☐	☐	
	Heavy	☐	☐	☐	☐	

CONTACT INFORMATION

Company:	Terracon Consultants Inc.	Address:	870 - 40th Avenue Bettendorf, Iowa 52722
Contact:	James R. Baxter	Special Instructions:	Email results to:
Phone:	(563) 468 - 4271		James.Baxter@terracon.com

PROJECT INFORMATION

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REQUESTED SERVICES
(Use checkboxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH, etc.)	Fungi – Spore Trap Analysis	Spore Trap Analysis – Other particles	Direct Microscopic Exam (Qualitative)	Quantitative Spore Count Direct Exam	1-Media Surface Fungi (Genus ID + *Asp.* spp.)	2-Media Surface Fungi (Genus ID + *Asp.* spp.)	3-Media Surface Fungi (Genus ID + *Asp.* spp.)	Culturable Air Fungi (Genus ID + *Asp.* spp.)	Gram Stain & Counts (Culturable Air & Surface Bacteria)	*Legionella* culture	Total Coliform, *E. coli (Presence/Absence)*	Membrane Filtration (specify organism):	MPN Bacteria (specify organism):	QuantiTray – Sewage Screen	Asbestos Analysis – PCM Airborne Fiber Count (NIOSH 7400)	Asbestos Analysis – PLM (EPA method 600/R-93-116)	PCR (specify test):	
						Non-Culturable				Culturable										Other Requests			
						Spore Trap		Tape Swab Bulk		BioCassette™ , Andersen, SAS, Swab, Water, Bulk, Dust, Soil, Contact Plates													
ST-34/ 3483 3292	Third floor, inside Unit 309	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
ST-35/ 3483 3312	Outside main entrance to 1905 building	ST	STD	75L		☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tape Lift 1	Main level, east side counter, water damaged/stained area	T	STD	NA		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tape Lift 2	Basement, ceiling tile located immediately at bottom of steps	T	STD	NA		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tape Lift 3	Basement, southeast portion from lower water damaged brick wall	T	STD	NA		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tape Lift 4	Second floor, east lower portion of north hallway wall	T	STD	NA		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tape Lift 5	Third floor, wall-mounted shelf on north side of open/common area	T	STD	NA		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tape Lift 6	Stairwell between first floor and second floor, on south side hand rail near the lower set of steps	T	STD	NA		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

SAMPLE TYPE CODES			
BC – BioCassette ™	**ST** – Spore Trap: Zefon, Allergenco, Burkard …	**T** – Tape	**D** – Dust
A1S – Anderson		**SW** – Swab	**SO** – Soil
SAS – Surface Air Sampler	**P** – Potable Water	**B** – Bulk	
CP – Contact Plate	**NP** – Non-Potable Water	**O** – Other:	

RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
James Baxter/	08/24/22 - 17:00		

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APPENDIX D

Photographic Documentation

Photo 1: View of spore trap samples 2 and 3 on first floor

Photo 2: Area of view of spore trap sample number 6 in stairwell leading to basement

Photo 3: General view of spore trap sample number 8 in approximate center of basement

Photo 4: General view of spore trap sample number 15 in Room 11 on second floor

Photo 5: General view of spore trap sample number 18 in Room 10 on second floor

Photo 6: General view of spore trap sample number 25 in North Restroom on second floor

Photo 7: General view of spore trap sampe number 33 in Unit 313 on third floor

Photo 8: View of observed microbial growth along the north portion of the west wall in Room 4, first floor

Photo 9: View of water stained flooring on first floor near Room 3/behind the counter

Photo 10: View of Room 3 on first floor with water stained ceiling and floor tiles

Photo 11: View near southeast corner of Room 5 on first floor with water damaged flooring and water staining on wood paneling

Photo 12: View of Room 6 on the first floor with water damaged materials and delaminated plaster on floor in room

Photo 13: View of handrail leading from first floor to second floor with water damage and suspect microbial growth

Photo 14: View of moisture-impaced ceiling tiles and rushet ceiling tile grid inside Unit 201 on second floor

Photo 15: View of second floor north hallway showing significant water damage and staining to various materials

Photo 16: Alternate view of second floor north hallway area near Room 10 and significant water damaged materials

Photo 17: View of water damaged ceiling tiles at southwest corner of Room 11 on second floor

Photo 18 View of water damaged flooring in Unit 323 on third floor

Photo 19: View of water damaged flooring in Unit 318 on third floor

Photo 20: View of significant moisture damage on south wall of basement

Photo 21: View of significant water damage in Room B8 in the basement

Photo 22: View of water damage and suspect microbial growth in northwest portion of basement

APPENDIX E

IDNR LETTER

IOWA DEPARTMENT OF NATURAL RESOURCES

GOVERNOR KIM REYNOLDS
LT. GOVERNOR ADAM GREGG
DIRECTOR KAYLA LYON

March 10, 2022

Dawn Danielson
Development Coordinator
Brownfields Project Manager
East Central Intergovernmental Association
7600 Commerce Park, Dubuque, IA 52002

RE: Environmental Assessment of the YMCA Building of Clinton, IA

Dear Ms. Danielson,

This letter is to inform you that the DNR has reviewed the Phase I report regarding the history and the soil data contained in the Phase II report for the YMCA building located at 480 South 3rd Street in Clinton, Iowa. The DNR review it for evidence suggesting the existence of a hazardous condition. The Hazardous conditions are required to be reported to the Iowa DNR (567 IAC Chapter 131). The Iowa DNR evaluated the Phase II report along with other generally available information about the property. The Department's review comments for the site are summarized below.

The DNR notes that groundwater samples were not obtainable due to shallow bedrock conditions. Although groundwater data are desirable for a completeness, it is recognized that it some settings, obtaining groundwater is not possible. Lead was identified in soil in excess of screening standards, however the DNR has not found evidence suggesting the existence of a hazardous condition, and therefore will not require further assessment.

The decision to defer assessment is based on currently available information but the DNR could re-evaluate the site if new soil and groundwater data is received that warrants further evaluation. The DNR also does not offer an opinion as to the appropriate use of the property. If such an endorsement is sought, the property may be enrolled in the Iowa Land Recycling Program (LRP), which would involve further investigation and assessment of risks associated with possible uses of the property.

Feel free to contact me if there are any questions at 1-515-725-8337

Regards

Matt Culp
Digitally signed by Matt Culp
Date: 2022.03.10 10:26:55 -06'00'

Matt Culp
Senior Environmental Specialist
Iowa DNR

CC: Benjamin LaPointe, Terracon Consultants Inc. 870 40th Avenue, Bettendorf, Iowa 52722
City of Clinton, Iowa 611 South 3rd Street Clinton, Iowa 52732
Iowa DNR Field Office, Washington, Iowa

APPENDIX F

SELECT STRUCTURAL LETTER

SELECT STRUCTURAL ENGINEERING

Thursday, October 20, 2022

Lisa Burch
3500 Center Point Rd NE, Suite 3
Cedar Rapids, IA 52402

RE: YMCA Facility
274 5th Ave S,
Clinton, IA 52732

To Whom It May Concern,
The purpose of this letter is to report the condition of the old YMCA facility located at the above referenced address. This building has had multiple additions added on during the life of the structure. Each addition has a different building construction type from wood framing, precast walls and floors to steel open web joist framing. This report will go into each area, what construction method was used and the current condition of the facility. This report is going to focus on the structure itself and is not meant to provide instruction for mold, asbestos, finishings or other non-structural deficiencies.

Building A

Building A as designated below is the original building on the site. It is a wood frame structure with some steel beams/columns at large opening and in the basement. The exterior is a brick façade which is in relatively good condition except for some lateral cracking due to settlement. The Basement in this building is made out of precast panels in some areas and a steel skeleton in others.

The wood framing in the structure has not been badly damaged over the years and is in good condition. The lack of water in the structure has kept this building from rotting over time, even while it was unoccupied. The basement did have some water/ mold but it appear that the structure held up and should not need to have much done in the form of renovation to the structure. In the opinion of Select Structural Engineering, this building is salvageable. Picture below show the structure and give an indication of condition.

Wood Framed Lobby Area

Wood Framed Lobby Area

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Wood Framed Lobby Area/Entrance to Locker Area

Steel Structure in Lobby Area

Wood Framed Construction In Lobby Area

Wood and Steel framed Construction in Basement Under Dormitories

a

Wood and Steel framed Construction in Basement Under Dormitories

Wood and Steel framed Construction in Basement Under Dormitories

Wood and Steel framed Construction in Basement Under Lobby

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Wood and Steel framed Construction in Basement Under Lobby

Precast Floors Under Lobby in Building A

Uncompromised Wood Structure in the Floor Cavity of Building A

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Uncompromised Wood and Steel Framing in Second Story of Building A

Uncompromised Wood and Steel Framing in Second Story of Building A

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Non Structural Tile – Potential Asbestos Abatement

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Upper Floor Dorm in Good Condition of Building A

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Exterior of Building A

Exterior of Building A

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Building B1

Building B1 is an addition which houses the Woman's Locker Room, the boiler room and some offices on the second story.

It is the opinion of Select Structural Engineering that this Building is not salvageable. The roof of this building was not successful at keeping water out and the level of moisture in the building envelope was/is significant. The structural framing such as the steel is a complete loss and will not be certified by any licensed structural engineer. This is in addition to the mold and potential asbestos which presents a significant risk to occupants including contractors who would need to work inside the building.

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Boiler Room in The Basement of Building B1

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Boiler Room in The Basement of Building B1

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Steel Framing in Woman's Locker Room of Building B1

Steel Framing in Woman's Locker Room of Building B1

Steel Framing in Woman's Locker Room of Building B1

Steel Framing in Woman's Locker Room of Building B1

Steel Framing in Woman's Locker Room of Building B1

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Steel Framing in Woman's Locker Room of Building B1

Steel Framing in Woman's Locker Room of Building B1

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Steel Frame in Building B1

Roof of Building B1

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Roof of Building B1

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Roof of Building B1

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Building B2

Building B2 houses a pool in the basement along with a basketball court on the second level. This structure is constructed out of CMU walls, concrete floor system and a steel framed roof.

This section of building did receive water damage but it is not as severe as in Building B1. It is possible that the roof in this building was not compromised but the moisture from Building B1 made its was over in the form of humidity.

The steel roof structure appears to be intact and probably can be salvageable with some retrofit of the members on a case by case evaluation. Similarly, the concrete floor supporting the basketball court appears to be in good condition however there might need to be some repair in areas.

From a structural standpoint, this building does seem to in acceptable condition however this report does not go into the mold and other hazards which will need to be addressed before the building is renovated.

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Swimming Pool on Lower Level of Building B2

606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Swimming Pool on Lower Level of Building B2

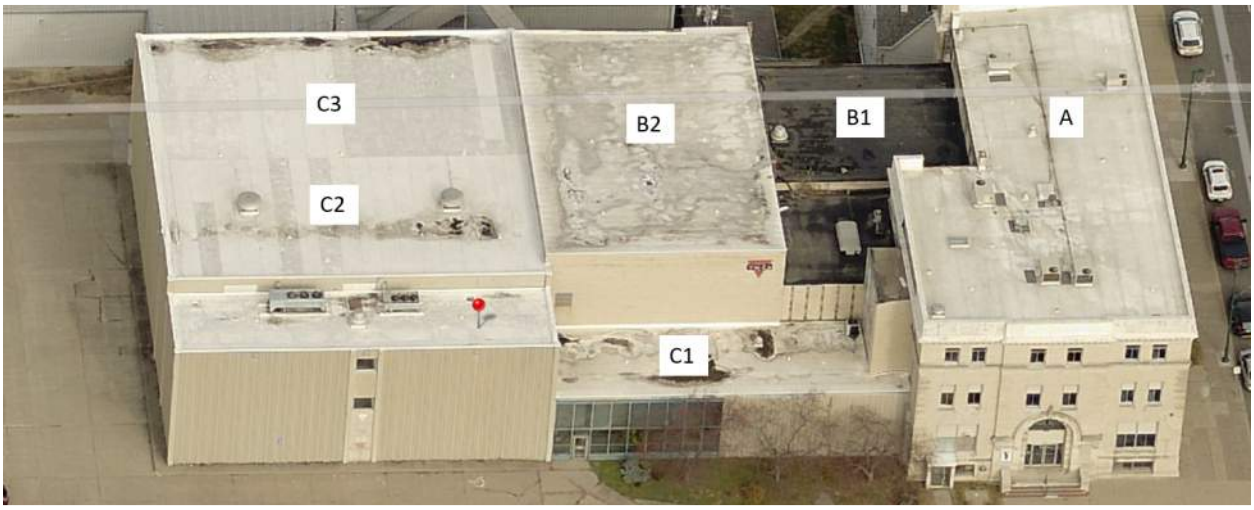
606 14th Avenue SW Cedar Rapids, IA 52404 319-365-1150 Fax 319-364-2638
www.select-structural.com

Steel Roof Framing on Second Story of Building B2

Steel Roof Framing on Second Story of Building B2

Building C1

Building C1 serves as an entrance vestibule and hallway between the Lobby of Building A1 and Building C3/C2. It is constructed out of wood framing and encases the original exterior of the building.



Building C1 is structurally in good condition. While the roof framing was not visible during the site visit, it did not appear to be in distress. The exterior wood/window framed wall looked to be in good condition. The interior blue brick also appeared to be in good condition which was actually the original exterior façade to Building B2.

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Interior of Building C1 Looking Toward Building A1

Original Exterior of Building B2

Interior of Building C1 Looking Toward Building C2/3

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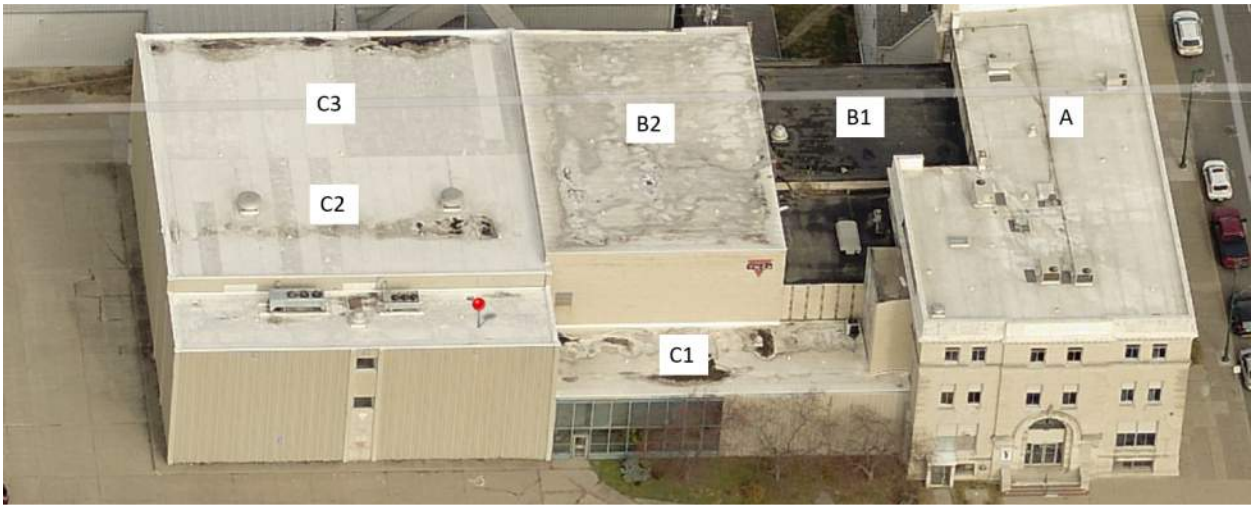
Building C2/C3

Building C2 houses a hallway and some racquetball courts on the second level. Building C3 has the second pool on the lowest floor along with the Men's locker room. On the second floor there is a basketball court and some offices. On the upper floor there is a track around the perimeter of the basketball court and the HVAC system.



These buildings are of similar construction type and condition so the are lumped together in this report. The floor system is composed of a combination of open web steel joists and a concrete floor system. The roof in both structures is open web steel joists. All of the walls in these buildings are CMU on the interior and precast concrete wall panels on the exterior.

The concrete floor system is in decent shape and will require minimal to moderate effort/retrofit to get it up to the required condition. The open web floor system on the other hand did not hold up well in the moist conditions and the building owner should plan on replacing this floor system. There is significant rust to both the open web joists and the steel skeleton meriting replacement.

The open web joists supporting the roof appear to be protected by paint and did actually stand up to the test of time and moisture. These steel joists will probably require some maintenance but might not have to be completely replaced. The track should probably be deconstructed as the condition of the suspension members is unknown.

The exterior wall panels appear to be in good condition and will require minimal retrofit in order to bring the walls up to the required condition. It should be noted that the interior of the locker rooms is very moist and that there is a lot of mold in this area. This is a non-structural issue but will require a specialist to figure out how/if it can be abated.

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Interior of the Gym with Suspended Track running the Perimeter

Interior of the Gym with Suspended Track running the Perimeter

Painted Steel Roof Joists at Gym Area

Men's Locker Room on First Floor

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Men's Locker Room on First Floor

The purpose of this report was to give a birds eye view of the facility and is in no way an exhaustive list of all that needs to happen to this facility. While certain items such as mold and asbestos are noted in the report, Select Structural is not an abatement specialist and is not responsible for this aspect of the project. The general condition of the structural members is being reported here however in order to certify the structure an in depth report will be required. Please reach out if there are any questions on this report or its findings at (319) 365-1150 or jlamb@select-structural.com.

Respectfully,

Jon Lamb, PE 24989
Structural Engineer
Select Structural Engineering

APPENDIX G

Agency for Toxic Substance and Disease Registry's ToxFAQTM for Asbestos & Lead

OSHA FACTSHEET FOR FUNGI HAZARDS AND FLOOD CLEANUP

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

ASBESTOS
CAS # 1332-21-4

Division of Toxicology ToxFAQs™ **September 2001**

This fact sheet answers the most frequently asked health questions (FAQs) about asbestos. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, individual susceptibility and personal habits, and whether other chemicals are present.

HIGHLIGHTS: Exposure to asbestos usually occurs by breathing contaminated air in workplaces that make or use asbestos. Asbestos is also found in the air of buildings that are being torn down or renovated. Asbestos exposure can cause serious lung problems and cancer. This substance has been found at 83 of the 1,585 National Priorities List sites identified by the Environmental Protection Agency (EPA).

What is asbestos?

Asbestos is the name given to a group of six different fibrous minerals (amosite, chrysotile, crocidolite, and the fibrous varieties of tremolite, actinolite, and anthophyllite) that occur naturally in the environment. Asbestos minerals have separable long fibers that are strong and flexible enough to be spun and woven and are heat resistant. Because of these characteristics, asbestos has been used for a wide range of manufactured goods, mostly in building materials (roofing shingles, ceiling and floor tiles, paper products, and asbestos cement products), friction products (automobile clutch, brake, and transmission parts), heat-resistant fabrics, packaging, gaskets, and coatings. Some vermiculite or talc products products may contain asbestos.

What happens to asbestos when it enters the environment?

Asbestos fibers can enter the air or water from the breakdown of natural deposits and manufactured asbestos products. Asbestos fibers do not evaporate into air or dissolve in water. Small diameter fibers and particles may remain suspended in the air for a long time and be carried long distances by wind or water before settling down. Larger diameter fibers and particles tend to settle more quickly.

Asbestos fibers are not able to move through soil. Asbestos fibers are generally not broken down to other compounds and will remain virtually unchanged over long periods.

How might I be exposed to asbestos?

We are all exposed to low levels of asbestos in the air we breathe. These levels range from 0.00001 to 0.0001 fibers per milliliter of air and generally are highest in cities and industrial areas.

People working in industries that make or use asbestos products or who are involved in asbestos mining may be exposed to high levels of asbestos. People living near these industries may also be exposed to high levels of asbestos in air.

Asbestos fibers may be released into the air by the disturbance of asbestos-containing material during product use, demolition work, building or home maintenance, repair, and remodeling. In general, exposure may occur only when the asbestos-containing material is disturbed in some way to release particles and fibers into the air.

Drinking water may contain asbestos from natural sources or from asbestos-containing cement pipes.

How can asbestos affect my health?

Asbestos mainly affects the lungs and the membrane that surrounds the lungs. Breathing high levels of asbestos fibers for a long time may result in scar-like tissue in the lungs and in the pleural membrane (lining) that surrounds the lung. This disease is called asbestosis and is usually found in workers exposed to asbestos, but not in the general public. People with asbestosis have difficulty breathing, often a cough, and in severe cases heart enlargement. Asbestosis is a serious disease and can eventually lead to disability and death.

ToxFAQs™ Internet address is http://www.atsdr.cdc.gov/toxfaq.html

Breathing lower levels of asbestos may result in changes called plaques in the pleural membranes. Pleural plaques can occur in workers and sometimes in people living in areas with high environmental levels of asbestos. Effects on breathing from pleural plaques alone are not usually serious, but higher exposure can lead to a thickening of the pleural membrane that may restrict breathing.

How likely is asbestos to cause cancer?

The Department of Health and Human Services (DHHS), the World Health Organization (WHO), and the EPA have determined that asbestos is a human carcinogen.

It is known that breathing asbestos can increase the risk of cancer in people. There are two types of cancer caused by exposure to asbestos: lung cancer and mesothelioma. Mesothelioma is a cancer of the thin lining surrounding the lung (pleural membrane) or abdominal cavity (the peritoneum). Cancer from asbestos does not develop immediately, but shows up after a number of years. Studies of workers also suggest that breathing asbestos can increase chances of getting cancer in other parts of the body (stomach, intestines, esophagus, pancreas, and kidneys), but this is less certain. Early identification and treatment of any cancer can increase an individual's quality of life and survival.

Cigarette smoke and asbestos together significantly increase your chances of getting lung cancer. Therefore, if you have been exposed to asbestos you should stop smoking. This may be the most important action that you can take to improve your health and decrease your risk of cancer.

How can asbestos affect children?

We do not know if exposure to asbestos will result in birth defects or other developmental effects in people. Birth defects have not been observed in animals exposed to asbestos.

It is likely that health effects seen in children exposed to high levels of asbestos will be similar to the effects seen in adults.

How can families reduce the risk of exposure to asbestos?

Materials containing asbestos that are not disturbed or deteriorated do not, in general, pose a health risk and can be left alone. If you suspect that you may be exposed to asbestos in your home, contact your state or local health department or the regional offices of EPA to find out how to test your home and how to locate a company that is trained to remove or contain the fibers.

Is there a medical test to show whether I've been exposed to asbestos?

Low levels of asbestos fibers can be measured in urine, feces, mucus, or lung washings of the general public. Higher than average levels of asbestos fibers in tissue can confirm exposure but not determine whether you will experience any health effects.

A thorough history, physical exam, and diagnostic tests are needed to evaluate asbestos-related disease. Chest x-rays are the best screening tool to identify lung changes resulting from asbestos exposure. Lung function tests and CAT scans also assist in the diagnosis of asbestos-related disease.

Has the federal government made recommendations to protect human health?

In 1989, EPA banned all new uses of asbestos; uses established before this date are still allowed. EPA established regulations that require school systems to inspect for damaged asbestos and to eliminate or reduce the exposure by removing the asbestos or by covering it up. EPA regulates the release of asbestos from factories and during building demolition or renovation to prevent asbestos from getting into the environment.

EPA has proposed a concentration limit of 7 million fibers per liter of drinking water for long fibers (lengths greater than or equal to 5 μm). The Occupational Safety and Health Administration has set limits of 100,000 fibers with lengths greater than or equal to 5 μm per cubic meter of workplace air for 8-hour shifts and 40-hour work weeks.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2001. Toxicological Profile for Asbestos. Update. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information? For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is http://www.atsdr.cdc.gov/toxfaq.html . ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

Lead - ToxFAQs™

What is lead?

Lead is a metal found naturally in the earth's crust. It can be found in all parts of our environment, including air, water, and soil. Lead can combine with other chemicals to make different compounds.

Lead is used in the production of batteries, ammunition, and metal products (solder and pipes). Because of health concerns, the use of lead in paints, ceramic products, caulking, and pipe solder has been dramatically reduced. The use of lead as an additive to automobile gasoline was banned in 1996 in the United States.

What happens to lead in the environment?

- Lead is an element, so it does not break down.
- When lead is released into the air, it may be transported long distances before it lands and stays on the ground.
- Once on the ground, lead can often stick to soil particles.
- Lead in soil can get into groundwater, but the amount of lead that moves into groundwater will depend on the lead compound and soil type.

How can I be exposed to lead?

Lead can cause health problems in almost every organ and system in your body.

- Eating food or drinking water that contains lead.
- Drinking water from pipes that were soldered with lead can cause exposure.
- Spending time or living in homes with lead-based paints can result in exposure when the paint breaks down and forms dust, which can get on your hands, or into your mouth and nose and be swallowed.
- Spending time in areas where the soil is contaminated with lead.
- Working in a job where lead is used or participating in certain hobbies where lead is used, such as making stained glass.
- Using healthcare products from other countries, alternative treatments, or folk remedies.

How can lead affect my health?

The effects of lead are the same whether it enters the body by breathing it in or eating it. Lead can affect almost every organ and system in your body. The nervous system is the main target for lead poisoning in children and adults. Long-term exposure can result in decreased learning, memory, and attention, and weakness in fingers, wrists, or ankles. Lead exposure can cause anemia (low iron in the blood) and damage to the kidneys. It can also cause increases in blood pressure, particularly in middle-aged and older individuals. Exposure to high lead levels can severely damage the brain and kidneys and can cause death. In pregnant women, exposure to high levels of lead may cause a miscarriage. In men, it can cause damage to reproductive organs.

Lead

How can lead affect children?

Children are more vulnerable to lead poisoning than adults because their nervous system is still developing. Children can be exposed to lead in their environment and before birth from lead in their mother's body. At lower levels of exposure, lead can decrease mental development, especially learning, intelligence, and behavior. Physical growth may also be decreased. A child who swallows large amounts of lead may develop anemia, severe stomachache, muscle weakness, and brain damage. Exposure to lead during pregnancy can also result in premature births. Some effects of lead poisoning in a child may continue into adulthood.

Can lead cause cancer?

Several agencies and organizations both in the United States and internationally have reviewed studies and made an assessment about whether lead can cause cancer.

- The Department of Health and Human Services (HHS) has determined that lead and lead compounds are reasonably anticipated to be human carcinogens (causing cancer in people).
- The U.S. Environmental Protection Agency (EPA) has classified lead as a probable human carcinogen.
- The International Agency for Research on Cancer (IARC) has determined that inorganic lead is probably carcinogenic to humans, and that there is insufficient information to determine whether organic lead compounds will cause cancer in humans.

Can I get a medical test to check for lead?

A blood test is available to measure the amount of lead in your blood. Blood tests are commonly used to screen children for lead poisoning. Your doctor can draw blood samples and send them to appropriate laboratories for analysis. If you think you or anyone in your family has been exposed to lead, contact your doctor, nurse, or poison control center.

How can I protect my family from lead exposure?

- Avoid exposure to sources of lead.
- Do not allow children to chew or mouth surfaces that may have been painted with lead-based paint.
- If your home contains lead-based paint (built before 1978), or if you live in an area contaminated with lead, wash children's hands and faces often to remove lead dusts and soil, and regularly clean the house to remove lead dust and lead tracked in soil.
- Certain water pipes may contain lead, so if you know that pipes have lead solder, you should avoid drinking from that source.
- Check for lead in some products such as toys and jewelry and avoid such products.
- Lead is sometimes in candies imported from other countries or traditional home remedies; find out if yours has any lead and avoid using these products or giving them to children.
- You can learn more about preventing lead poisoning here: https://www.cdc.gov/nceh/lead/faqs/lead-faqs.htm

Want more information?

Call **CDC-INFO** at 1-800-232-4636, or submit your question online at https://wwwn.cdc.gov/dcs/ContactUs/Form

Go to ATSDR's Toxicological Profile for Lead

CDC Lead Poisoning Prevention Program https://www.cdc.gov/nceh/lead/default.htm

Environmental Protection Agency https://www.epa.gov/lead/protect-your-family-exposures-lead

Go to ATSDR's Toxic Substances Portal: https://wwwn.cdc.gov/TSP/index.aspx

If you have any more questions or concerns, you can also find & contact your ATSDR Regional Representative at http://www.atsdr.cdc.gov/DRO/dro_org.html

OSHA FactSheet

Fungi Hazards and Flood Cleanup

Flood conditions contribute to the growth and transmission of many kinds of fungi, some of which can cause sickness. Cleanup workers are at increased risk of exposure to airborne fungi and their spores because they often handle moldy building materials, decaying vegetable matter, rotting waste material, and other fungus-contaminated debris. The fungal material is carried into the respiratory tract when airborne particles are inhaled.

There are many different kinds of fungi, including mildew, molds, rusts, and yeasts. Most of these are harmless, but some can cause respiratory and other disorders when workers inhale or come into contact with fungi. Inhalation is the route of exposure of most concern to flood cleanup workers. The recommendations below offer strategies for workers renovating flooded buildings, homes, and structures to protect themselves while handling building materials that are visibly contaminated with fungi.

For workers cleaning up flooded buildings, homes, and other structures, excessive moisture or water accumulation indoors will encourage the growth of the fungi that are already present. Some fungi have the potential to cause adverse health effects such as allergic responses and asthma attacks. Individuals who are sensitive to molds may have signs and symptoms of allergic reactions such as nasal stuffiness, eye irritation, and wheezing. These individuals should minimize fungal exposure by wearing respirators, gloves, and eye protection. They should also seek to eliminate fungi, as described below.

In addition, repeated or prolonged contact of the skin with flood water and continuous sweating can lead to fungal skin infections. These can be minimized or avoided by washing the skin with warm, soapy water and keeping it as dry as possible.

What to Do If Symptoms Develop

If a cleanup worker experiences severe allergic or skin symptoms, or severe flu-like symptoms, he or she should seek medical advice. A health care provider can determine whether medication or any other precautions are necessary.

Tips to Remember

For all workers who may be exposed to mold and fungi:

- Avoid breathing dust (fungal spores) generated by moldy building materials, crops, and other materials.
- Consider using an N-95 NIOSH-approved disposable respirator as a minimum when working with moldy or damp hay, grain, compost, or building materials. Respirator protection must be used in accordance with OSHA's Respiratory Protection standard (29 CFR 1910.134, Appendix D).
- Consider discarding all water damaged materials. Articles that are visibly contaminated with mold should be discarded. **When in doubt, throw it out.**
- Surfaces that have a light covering of mold should be scrubbed with warm, soapy water and rinsed with a disinfectant made of ½ cup liquid household bleach mixed into one gallon of water.
- CAUTION: Do not mix bleach with other cleaning products that contain ammonia.
- After working with mold-contaminated materials, wash thoroughly, including the hair, scalp, and nails.
- If the safety of food or beverage is questionable, throw it out. Only drink safe drinking water that has been bottled, boiled, or treated until there is confirmation that the

community water supply is safe for consumption.

When cleaning up or renovating buildings and homes that have been flooded, consider the following recommendations:

- NIOSH-approved respirators are strongly recommended. Respiratory protection such as the N-95 must be used in accordance with OSHA's Respiratory Protection standard (29 CFR 1910.134). Also wear gloves and eye protection.
- Remove building materials and furnishings that are wet and may become contaminated with mold growth and place them in sealed impermeable bags or closed containers. Large items with heavy mold growth should be covered with polyethylene sheeting and sealed with duct tape before being removed from the area. These materials can usually be discarded as ordinary construction waste.
- Remove and discard porous organic materials that have become wet or are visibly contaminated (e.g., damp insulation in ventilation system, moldy ceiling tiles, and mildewed carpets). Again, these materials can usually be discarded as ordinary construction waste.
- Clean and disinfect nonporous surfaces where microbial growth has occurred with detergents, chlorine-generating slimicides, or other biocides and ensure that these cleaners have been removed before air handling units are turned on. When using a biocide or disinfectant, consult the material safety data sheet (MSDS) or warning label for the appropriate personal protective equipment (PPE) that should be used when handling these chemicals. Chemical safety and handling must be done in accordance with OSHA's Hazard Communication standard (29 CFR 1910.1200). PPE, such as NIOSH-approved respirators with the appropriate chemical cartridges, can be used. Wear gloves and eye protection also.

For cleanup workers in rural and agricultural communities:

- Silos and other enclosed areas should be vented prior to entry. However, this may not eliminate the problem entirely. If a worker is transporting or working with moldy animal feed, exposures are likely to be increased if the feed and the worker are enclosed in a barn, silo or other structure. Workers will still need to wear respirators. NOTE: Any entry in a silo or other confined space must be done in accordance with OSHA's Permit-Required Confined Spaces standard (29 CFR 1910.146).
- Workers uncapping a silo, shoveling grain, or working with feed, especially in any enclosed space, should always wear at a minimum a NIOSH-approved N-95 particulate respirator. Grain and hay should be stored when fully dry.

For additional information concerning fungi, health effects, and addressing flood damaged materials, please visit OSHA's Safety and Health Topics web page on Molds and Fungi at: www.osha.gov/SLTC/molds/index.html

For more complete information:

OSHA Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov

(800) 321-OSHA

DSTM 9/2005