



Request for Proposals (“RFP”)
Former Lake Orion Lumber Company
Deconstruction and Salvage of Materials

Property Location: 215 S. Broadway St. Lake Orion MI 48362

RFP NO. 24-02

EVENT	DATE
Issuance of RFP	Friday, October 18, 2024
Publication Date	Friday, October 18, 2024
Pre-Proposal Meeting/Tour (4:00 p.m.)	Wednesday, October 30, 2024
RFP Question Deadline (5:00 p.m.)	Friday, November 1, 2024
Proposal Submission Deadline (3:00 p.m.)	Thursday, November 7, 2024
Opening/Award – To be confirmed upon mutual approval of a final contract	Friday, November 8, 2024

A **Pre-Proposal Meeting/Tour** is scheduled to discuss requirements under this RFP and tour the property described in this RFP. While attendance is at the discretion of the Proposer, those who do not attend will be deemed to have attended and to have received the information provided at the meeting/tour.

INTENT

The Lake Orion Downtown Development Authority (hereinafter referred to as “DDA”) is requesting sealed proposals from qualified individuals or businesses interested in contracting with DDA to provide deconstruction and salvage services of multiple barns and the original office building at the Lake Orion Lumber Company. The structures are located at **215 S. Broadway St., Lake Orion MI 48362**. All proposals must be submitted as directed by DDA in this RFP, and must be properly executed. The intended materials and structure(s) are identified on the maps and pictures attached to this RFP.

The deconstruction and storage of salvaged materials must be completed within 60 days of proposal acceptance.

RECEIPT AND OPENING OF PROPOSALS

Proposers shall submit **one (1) original and one (1) copy** of their proposal in accord with the instruction provided by DDA in this RFP. The original proposal must be clearly marked “**Proposal for DDA RFP No. 24 - 02**” and include an original signature, in ink, to be accepted. Proposals must be received in DDA’s Office at 118 N. Broadway St., Lake Orion, Michigan no later than **3:00 p.m. (EST) on Thursday, November 7, 2024**. It is the Proposer’s sole responsibility to assure that the proposal is delivered in a timely fashion. Proposals received after this time will be rejected and returned unopened. There will be no public opening; however, the name of each proposal received will be read aloud for public record. *Any proposal received after 3:00 p.m. on the above-referenced date shall not be considered.*

Proposals should be prepared simply, providing straightforward, concise description(s) of the Proposer’s approach and capabilities necessary to satisfy the requirements of the RFP. Emphasis in the proposal should be on completeness, clarity of content and adherence to the presentation structure required by the RFP. Proposals shall be delivered using one of the following methods:

Hand-Deliver to:

LAKE ORION DDA
c/o Matthew Gibb
118 N. Broadway St.
Lake Orion MI 48362

Electronic Mail to:

gibb@downtownlakeorion.org
*It is the senders’ responsibility to
verify all file types and sizes are
deliverable via email.*

Ship to (FedEx, UPS, etc.):

LAKE ORION DDA
c/o Matthew Gibb
118 N. Broadway St.
Lake Orion MI 48362

PRE-PROPOSAL MEETING/TOUR

A pre-proposal tour and meeting to discuss DDA’s requirements pursuant to this RFP will be held on **Wednesday October 30, 2024 at 4:00 p.m. (EST)** at the site located at **215 S. Broadway St. Lake Orion MI 48362**. Attendance at this pre-proposal meeting/tour **IS NOT** mandatory but interested parties are **STRONGLY** encouraged to attend. Those needing any accommodation should contact the DDA Office prior to the scheduled tour date for assistance.

THE TOUR WILL SHOW AND EXPLAIN ALL AREAS OF MATERIAL SALVAGE ON THE PROJECT SITE, AND PROPOSERS ARE ENCOURAGED TO OFFER ADDITIONAL RECOMMENDATIONS AS PART OF ANY RESPONSE.

CHANGES, QUESTIONS, AND INQUIRIES

All questions regarding this RFP must be submitted in writing and e-mailed to Matthew Gibb at gibb@downtownlakeorion.org. All e-mails must indicate “DDA RFP No. 24-02” in the subject line. It is the sender’s responsibility to verify receipt of email. The deadline for submittal of questions regarding this RFP is **5:00 p.m. (EST) on Friday, November 1, 2024**.

No person has the authority to verbally alter the terms of this RFP. Any changes to this RFP will be made in the form of an Addendum which will be made available online at www.downtownlakeorion.org. It shall be the responsibility of interested proposers to check the website for addenda up to the proposal submission deadline. The complete RFP and all Addendums will be posted on the DDA website.

METHOD OF AWARD

Proposals will be evaluated by DDA. DDA will consider the completeness of a proposal and how well the proposal meets the needs of DDA. This RFP may be awarded to the Proposer who will provide the demolition services at the best value for DDA, in compliance with Michigan law.

DDA reserves the right to waive any informalities or technical errors or consider alternate proposals and award on an individual basis, or any combination that in its judgment will best serve the interests of DDA.

DDA reserves the right to request that any Proposer clarify its proposal or supply any additional material deemed necessary to assist in the evaluation of the proposal.

DDA reserves the right to make an award without further discussion of the submittals. Therefore, the proposal should be initially submitted on the most favorable terms the Proposer can offer. The Proposer selected will be expected to enter a contract with DDA based on DDA's standard contract terms and conditions, attached hereto as Exhibit "A" to this RFP.

SCOPE OF WORK

There are TWO elements of this RFP:

1. ***Salvage of Barn Materials*** – The DDA has accepted a grant and undertaken a project to restore certain barns and aspects of the Lumber Yard site into a public space and event area. To achieve the preservation and re-incorporation of the original construction and aesthetic of the lumber yard, it is necessary to deconstruct elements of barn structures that will not be saved as part of the project. The scope of this RFP includes, but is not limited to:

- Removal of multiple barn doors, including hardware and mounting/slider equipment
- Removal of partial walls of collapsing structures to preserve certain historic siding material
- Removal of plank siding boards
- Removal of roofing boards, including the removal of asphalt shingling such that the original roof boards are salvaged

A FINAL INVENTORY OF MATERIAL SALVAGE WILL BE MADE A PART OF THE AWARDED CONTRACT, PROPOSER IS ENCOURAGED TO OFFER PROCESS, EVALUATION, AND COST FOR CONSIDERATION

All materials deconstructed and salvaged will be stored in a location on site. Proposer should note that the barn wood being salvaged was originally painted in an era when lead paint was prevalent, and therefore any Proposer is expected to have knowledge of working with such materials in a proper and safe manner. All liability for such conditions will be the responsibility of the Proposer.

2. Partial Deconstruction of Original Lumber Company Office Building – The original office building is located on the Northwest Corner of the site and is presently sided with 1980’s era vinyl/plastic siding. The DDA intends to attempt a restoration of this structure and repurpose it into a usable commercial/office building, showcasing the original design and materials as a historic gateway into the downtown. The scope of this element of this RFP includes, but is not limited to:

- Removal of all siding and other non-original exterior material, such that a complete assessment of the condition and opportunity for preservation can be completed.
- Removal of flooring and ceiling materials such that a complete assessment of the interior of the main office space can be assessed for preservation and reuse.

Certifications and permits – The Proposer will be responsible for obtaining all certifications and permits necessary for completion of the project from the appropriate regulatory and governmental agencies.

Utility Locates and Disconnects – The proposer will be responsible for affirming, coordinating and ensuring necessary utility locates and disconnects. DDA has disconnected DTE Services at the site.

Special Requirements – Caution and care must be exercised to prevent damage to adjacent property and to ensure that existing structures in the area can operate normally without significant disruption during demolition activities. Any required property access shall be approved by DDA at least 48 hours in advance. Any damage to road surface (rutting) or adjacent infrastructures will be at the responsibility of the Proposer.

Safety- The Proposer shall comply with safety rules and regulations pertaining to the activity, and shall govern employees according to, and in compliance with the applicable OSHA and Worker’s Compensation Regulations. Precautions and safety measures shall be provided for the safety of all workers. The Proposer shall maintain an accurate record of exposure data on all accidents incidental to work performed under this contract resulting in death, personal injury, occupational disease, or damage to property, materials, supplies, or equipment. Proposer shall provide information describing the specific safety measures/plans to be used in this project to protect personnel, public, structures, and infrastructure.

Hazardous Materials – Preliminary inspections of the site have been performed to visually identify any contamination related to hazardous materials, and Proposer acknowledges the receipt of the presently available reports to assess the proper and lawful handling of all hazardous materials that are associated with any aspect of this scope of work. **Proper handling and disposal of all hazardous materials is a material condition of the contract.**

EVALUATION CRITERIA

The following criteria will be used by DDA staff to evaluate the proposals:

- **Qualifications/Experience** – The qualifications and experience of the Proposer in salvage services for historic properties. The proposal should describe Proposer’s qualifications, including any experience or approach that would benefit the project as a whole. The proposal should include examples of similar projects and any concepts where Proposer’s unique ability might benefit the project.
- **Schedule/Fee**: The Proposer shall provide an estimated project schedule and timeline to complete the scope of work. Proposer shall provide DDA with a price

for performing the work, which may be in lump sum, or as an hourly/day rate with a not to exceed lump sum.

Only Proposals meeting the following base information will be considered:

- An authorized representative must sign the proposal, with the Proposer's address, telephone and email information provided. Unsigned proposals may not be considered.
- The name and mailing address of the business and the signature of at least one of the owners must be shown.
- DDA reserves the right to request documentation showing the authority of the individual signing the proposal to execute contracts on behalf of anyone, or any corporation, other than himself/herself, as well as, insurance documentation. Refusal to provide such information upon request may cause the proposal to be rejected as non-responsive.
- A Proposer's prior performance on similar contracts may be considered in evaluating proposals. Any additional information requested shall be considered as part of the proposal and evaluated as such. DDA reserves the right to negotiate a best and final offer with the selected Proposer.

THE FOLLOWING ATTACHMENTS MUST BE COMPLETED AND INCLUDED IN ANY PROPOSAL

DDA RFP NO. 24 - 02
Submission Form

RFP No: 24-02
RFP Due Date: 3:00 P.M. (EST)
November 7, 2024

Submit to: LAKE ORION DOWNTOWN DEVELOPMENT AUTHORITY
c/o Matthew Gibb, Executive Director
118 N. Broadway St.
Lake Orion, MI 48362

As outlined in the Evaluation Criteria of this RFP, please be sure to attach evidence of the following:

- Qualifications and experience
- References
- Any deviations or alterations from the scope of work
- Timeline for completion of Scope of Work
- Itemized Cost breakdown
- Current Insurance Certificates (General Liability / Worker's Compensation)

Company Name: _____

Principle Contact: _____ Title: _____

Contact Number: _____ Email: _____

The undersigned certifies that the information provided in its submission of response to DDA RFP 24 - 02 is a true representation of its company's qualifications and agrees to comply with these assurances following award of the RFP.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

ADDITIONAL CONDITIONS AND TERMS

Instructions:

The following instructions apply to all proposals and become a part of terms and conditions of any proposal submitted to DDA, unless otherwise specified elsewhere in this proposal request.

RFP Return

Unless submitting via electronic mail, **Proposers are required to submit one (1) original and one (1) copy.** All proposals submitted must be itemized with a best offer price extended. Proposal must be sealed, and to ensure proper recognition upon its arrival, list the Proposal Number, Proposal Description (Lake Orion Lumber Demo) and the Proposal Opening Date on the outside of the envelope.

Late Proposals:

Proposals must be received prior to the time indicated on this form. Late proposals will not be opened and will be returned to the proposer only upon written request.

Acceptance:

DDA reserves the right to accept or reject any or all proposals, to waive any informalities and technicalities, to accept the offer considered most advantageous **to obtain the best value for DDA.**

Proposers may be disqualified and rejection of proposals may be recommended for any of (but not limited to) the following causes:

- Failure to follow instructions furnished by DDA;
- Lack of signature by an authorized representative on the proposal form;
- Failure to properly complete the proposal;
- Evidence of collusion among proposers; or
- Unauthorized alteration of proposal form. DDA reserves the right to waive any informality or irregularity.

All proposers are hereby notified that DDA shall consider all factors it believes to be relevant in selecting the offer that provides the best value for DDA including, but not limited to the offer price, the proximity of the proposer, proposer's ability to perform the contract for DDA, the delivery date and timeline to complete the scope of work, the reputation of the proposer, prior performance of contracts with DDA, the proposer's compliance with ordinances and regulations, and any relevant criteria specifically listed in this request for proposal. The contract may be awarded either to the highest responsible proposer or to the proposer who provides services at the best value for DDA. The decision of DDA shall be final. DDA prefers to award the entire contract to a single proposer.

Upon acceptance and award of the RFP, DDA shall promptly issue its proposed contract which shall be in accord with all general industry standards. The contract shall not be assignable and shall comply with the insurance requirements of the Village of Lake Orion. Proposer shall be responsible for adherence to all environmental laws and regulations that apply to the scope of work under the contract.

Firm Offer Price:

Proposers must hold their proposal offer price firm for 60 days after the proposal opening date to allow DDA sufficient time to award a contract. Once a Contract is awarded, the successful proposer must hold its proposal offer price firm for the duration of the Contract. Sealed competitive proposals may not be negotiated, amended or changed after the proposal opening date.

Lump Sum Proposals:

Lump sum proposals will only be accepted. DDA will not accept payment on terms under this Request for Proposal.

Liability:

Proposer shall be liable for all damages incurred while in performance of the work to be performed hereunder. Proposer assumes full responsibility for the work to be performed hereunder, dangerous as it is, and hereby releases, relinquishes, and discharges DDA, its officers, directors, agents, employees, and members from all claims, demands, and causes of action of every kind and character including the cost of defense thereof, for any injury to, including death of, any person whether that person be a third person, proposer, or an employee of either parties hereto, and any loss of or damage to property, whether the same be that of either of the parties hereto or of third parties, caused by or alleged to be caused by, arising out of or in connection with Proposer's work, whether or not said claims, demands and causes of action in whole or in part are covered by insurance. Certificate of Insurance may be required for but not limited to Commercial General Liability, Commercial Auto Liability, Workers Compensation, and Professional Liability Insurance.

Indemnity:

TO THE FULLEST EXTENT PERMITTED BY LAW, PROPOSER SHALL INDEMNIFY, DEFEND, AND HOLD HARMLESS DDA AND EACH OF ITS AFFILIATES AND SUBSIDIARIES AND ITS AND THEIR RESPECTIVE DIRECTORS, OFFICERS, MANAGERS, PARTNERS, EMPLOYEES, AGENTS, CUSTOMERS, AND END USERS (COLLECTIVELY, THE "DDA INDEMNITEES") FROM AND AGAINST ANY AND ALL ALLEGATIONS, CLAIMS, LAWSUITS, JUDGMENTS, LOSSES, CIVIL PENALTIES, LIABILITIES, DAMAGES, COSTS, AND EXPENSES, INCLUDING REASONABLE ATTORNEY'S FEES, COURT COSTS, AND THE COST OF SETTLEMENT, JUDGMENT OR VERDICT INCURRED BY OR DEMANDED FROM ANY OF THE DDA INDEMNITEES (EACH A "CLAIM"), ARISING OUT OF, RESULTING FROM OR RELATED TO: (A) ANY INJURY, DEATH, OR PROPERTY DAMAGE CAUSED BY THE GOODS, SERVICES, DELIVERABLES OR BY ANY ACT OR OMISSION OF PROPOSER; (B) ANY NEGLIGENT OR GROSSLY NEGLIGENT ACTION, INACTION, OMISSION, INTENTIONAL MISCONDUCT OF PROPOSER AND ANY OF ITS SUBCONTRACTORS OR SUPPLIERS, IN THEIR PERFORMANCE OF THIS CONTRACT OR ANY RELATED STATEMENT OF WORK; (C) PROPOSER'S BREACH OF ANY REPRESENTATION, WARRANTY, TERM, COVENANT, OR OTHER OBLIGATION UNDER THIS CONTRACT OR ANY RELATED PURCHASE ORDER OR STATEMENT OF WORK, INCLUDING COMPLIANCE WITH ALL LAWS AND REGULATIONS IN THE PERFORMANCE OF PROPOSER'S WORK; (D) ANY INFRINGEMENT OR MISAPPROPRIATION OF ANY THIRD PARTY'S INTELLECTUAL PROPERTY RIGHTS BY ANY GOODS, SERVICES, OR DELIVERABLES DELIVERED PURSUANT TO THIS CONTRACT OR ANY PURCHASE ORDERS AND STATEMENTS OF WORK; AND/OR (E) ANY CLAIMS FOR PAYMENT BY PROPOSER'S EMPLOYEES, SUBCONTRACTORS, OR SUPPLIERS, WHICH INDEMNIFICATION OBLIGATION FOR SUCH CLAIMS SHALL INCLUDE REIMBURSING DDA INDEMNITEES FOR ALL COSTS ASSOCIATED WITH THE RELEASE OR EXTINGUISHMENT OF ANY LIENS THAT MAY ARISE DUE TO CLAIMED NON-PAYMENT TO PROPOSER'S EMPLOYEES, SUBCONTRACTORS, OR SUPPLIERS IN CONNECTION WITH THE GOODS, SERVICES AND DELIVERABLES UNDER THIS CONTRACT. SUCH OBLIGATION SHALL NOT BE CONSTRUED TO NEGATE, ABRIDGE, OR REDUCE OTHER RIGHTS OR OBLIGATIONS OF INDEMNITY THAT WOULD OTHERWISE EXIST AS TO A PARTY OR PERSON DESCRIBED IN THIS SECTION 15. IN NO EVENT WILL PROPOSER ENTER INTO ANY SETTLEMENT WITHOUT DDA INDEMNITEE'S PRIOR WRITTEN CONSENT. THE PROVISIONS OF THIS SECTION SHALL SURVIVE THE TERMINATION OR EXPIRATION OF THIS CONTRACT AND ANY APPLICABLE PURCHASE ORDERS AND STATEMENTS OF WORK.

Conflict of Interest:

By doing business or seeking to do business with DDA, Proposer acknowledges that there is no real or perceived conflict of interest with Proposer's pursuit of this Request for Proposal.

Insurance

The Proposer shall procure and maintain at its sole cost and expense for the duration of the Contract insurance coverage for injuries to persons or damages to property that may arise from or in connection with the performance of its work hereunder. Proposer will maintain during the life of this Contract at least the following types and limits of insurance:

Commercial General Liability Insurance covering all operations under the Contract shall have limits not less than \$1,000,000 as to any one claim and \$2,000,000 as to any one occurrence for property damage, and with limits of \$2,000,000 as to any one claim and \$2,000,000 as to any one occurrence for personal injury and death. This required insurance may be in a policy or policies of insurance, primary and excess including the umbrella or catastrophe form. If Lessee utilizes umbrella or excess policies, these policies must “follow form” and afford no less coverage than the primary policy.

Automobile Liability Insurance on any and all motor vehicles used in connection with the Contract, whether owned, non-owned, rented or hired, shall have limits for bodily injury or death of not less \$1,000,000 as to any one claim and \$1,000,000 as to any one occurrence for property damage, and with limits of \$1,000,000 as to any one claim and \$2,000,000 as to any one occurrence for personal injury and death. The required insurance may be in a policy or policies of insurance, primary and excess including the umbrella or catastrophe form. If Lessee utilizes umbrella or excess policies, these policies must “follow form” and afford no less coverage than the primary policy.

Workers' Compensation and Employers' Liability Insurance, as required by law, covering all its employees who perform any of the obligations of the Proposer under the Contract. If any employer or employee is not subject to the workers' compensation laws of the governing state, then insurance shall be obtained voluntarily to extend to the employer and employee coverage to the same extent as though the employer or employee were subject to the workers' compensation laws.

DDA is to be included as an additional insured on Proposer's Commercial General Liability and Automobile Liability policies to the extent of the Proposer's obligations under the Contract. The policies of insurance shall be in such form and issued by such insurer as shall be satisfactory to DDA. Upon formation of this Contract, Proposer's insurance company or agent will directly provide DDA with a Certificate of Insurance evidencing the foregoing required coverage which shall provide not less than thirty (30) days prior written notice to DDA of any cancellation or material change in the insurance and upon renewal of the policies describes above.

Prior to the commencement of any work a Certificate of Insurance evidencing the required coverage must be provided by email directly from Proposer's insurance company or agent.

Non-Discrimination Clause:

In the performance of any contract or purchase order resulting wherefrom, the contractor agrees to obey and abide by all the laws of the State of Michigan relating to the employment of labor and public work, and all ordinances and requirements of the village regulating or applying to public improvements. Furthermore, the contractor agrees not to discriminate against any employee or applicant for employment, to be employed in the performance of this contract or purchase order, with respect to his or her hire, tenure, terms, conditions or privileges or employment because of religion, race, color, national origin, ancestry, age, sex, gender identity, sexual orientation, height, weight, marital status, or physical or mental disability, except when said disability prevents such individual from performing the essential job functions, and the disability cannot be reasonably accommodated. The contractor further agrees that every subcontract entered into for the performance of this contract or purchase order will contain a provision requiring nondiscrimination in employment, as herein specified, binding upon each subcontractor. Breach of this covenant may be regarded as a material breach of the contract or purchase order.

Ethics Policy:

Gratuities: It shall be unethical for any person to offer, give, or agree to give any village employee or former village employee, or for any village employee or former village employee to solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefore.

Kickbacks: It shall be unethical for any payment, gratuity, or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.

ADA Compliance:

The Lake Orion Downtown Development Authority will provide necessary, reasonable auxiliary aids and services, and provide assistance in filling out forms, to individuals with disabilities when doing business with the Dda and the Village of Lake Orion. Individuals with disabilities requiring such auxiliary aids or services should contact the Village of Lake Orion by writing or calling:

Sonja Stout, Village Clerk
(248) 693-8391 x 102
21 E. Church St. Lake Orion, MI 48362.

**ATTACHMENTS: SALVAGE INVENTORY
 SITE MAP
 HAZARDOUS MATERIALS TESTING REPORT Select Portions
 PHASE II Select Portions**

**FULL BASELINE ENVIRONMENTAL ASSESSMENT AND
HAZARDOUS MATERIALS REPORT IS
AVAILABLE ON REQUEST OR ON THE DDA WEBSITE**

IN ADDITION TO THE ATTACHED:

**DOCUMENTS SUPPORTING THIS DDA RFP NO. 24-01 CAN BE FOUND at
www.downtownlakeorion.org on the page titled LUMBER YARD**

THE FINAL SCOPE OF MATERIAL SALVAGE WILL BE DEFINED BY WALK THROUGH IDENTIFICATION WITH THE SELECTED PROPOSER. ACCURACY IN THE SUBMISSION OF A PROPOSAL WILL BE GREATLY ENHANCED BY ATTENDING THE PRELIMINARY WALK THROUGH TOUR.

THE FOLLOWING DESCRIBES THE GENERAL AREAS AND MATERIAL INTENDED FOR SALVAGE

BUILDING 7

The roofing boards on the south roof

All barn doors and hardware



BUILDING 17

The plank siding on the west wall

All barn doors and hardware

Flooring in the cutting room



BUILDING 18

The north wall and other small width siding



BUILDING 19

All plank siding



OFFICE BUILDING

It is our intention is to complete a preservation of this building, but we need to expose the original siding, façade, doors, windows, floors, ceiling, etc. to allow an examination of feasibility. This portion of the RFP seeks a qualified firm/person to complete that partial deconstruction.



Michael Baker

I N T E R N A T I O N A L

Airside Office Park
100 Airside Drive
Moon Township, PA 15108

Hazardous Material Report for the Former Lake Orion Lumber Yard



Prepared for:
Village of Lake Orion
Downtown Development Authority

Date: April 11, 2024

April 11, 2024

Village of Lake Orion Downtown Development Authority
Matthew Gibb
Executive Director
118 N Broadway Street
Lake Orion, MI 48362

Re: Pre-Demolition Hazardous Materials and Asbestos Survey

Dear Matthew Gibb:

I am pleased to provide you with this letter report, detailing the environmental sampling services that Michael Baker International, Inc. (Michael Baker) has recently provided for your department.

Scope of Work

Michael Baker was requested to conduct limited hazardous material inspections for the presence of asbestos-containing materials (ACM), lead-containing paint (LCP), and other hazardous materials within thirty-two (32) buildings of the former Lake Orion Lumber Yard, located at 215 South Broadway, in the village of Lake Orion, Oakland County, in Michigan. The purpose of the inspection was to meet the requirements of the United States Environmental Protection Agency (USEPA), State of Michigan, and the National Emission Standards for Hazardous Air Pollutants (NESHAP) standards. The NESHAP standard (40 CFR, Part 61) requires that an asbestos inspection be conducted prior to renovation/demolition activities of any structure or dwelling. The buildings that were inspected during this project were Buildings 1-17, 18A, 18B, 19A, 19B, 20A, 20B, 21A, 21B, 22, 23, 24, 25A, 25B, 25C, and 26.

Field Visit Investigation

The survey was conducted during February 29 and March 1, 2024, by a Michigan-licensed Asbestos Inspector (Gary R. Case – Michigan License A13352). The Michael Baker field inspector identified fifty-three (53) suspected building materials from the trailers. The bulk material samples were collected and analyzed for the presence of asbestos. Samples were submitted using chain-of-custody documentation to EMSL Analytical, Inc. in Cinnaminson, New Jersey. EMSL is accredited by the American Industrial Hygiene Association (AIHA) and the U.S. National Institute of Standards and Technology, under the National Voluntary Laboratory Accreditation Program (NIST/NVLAP) for bulk material analysis for asbestos. The bulk asbestos samples were analyzed by Polarized Light Microscopy (PLM), Environmental Protection Agency (EPA) Method for Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116 (7/93 Edition). The specific information for all of the building components that were sampled as suspected ACM is provided in Attachment A.

Matthew Gibb
April 11, 2024
Page 2

Findings and Recommendations

Asbestos Survey

As for the building materials recorded in Table 1 which is the Summary of ACM, the laboratory analyses of the material samples indicated that three (3) of the sampled materials contained asbestos greater than the EPA criteria level of 1% asbestos by weight and/or in accordance with USEPA NESHAP regulations. The final laboratory analytical report for these samples is submitted to confirm this determination and is contained in Attachment B.

The ACM is listed below.

Building	Material Number	Material	Location(s)	Quantity
1	#11	Thermal Insulation Board (White)	Room1	4 Square Feet
1	#15	Vinyl Floor Tile and Floor Adhesive (12"x12" White VFT & Black FA)	Room 3	20 Square Feet
24	#49	Asphaltic Roofing Material (Gray Rolled Sheeting and Tar Materials)	Roof	600 Square Feet

While the materials can be managed in-place with little potential hazard, due to the proposed demolition project, all of the ACM that will be impacted or disturbed should be safely removed and disposed of, accordingly, by an asbestos abatement firm that is licensed by the State of Michigan. Abatement plans for the regulated ACM should be designed in accordance with USEPA and other federal, state, and local regulations and/or using appropriate guidelines by an Asbestos Project Designer. All abatement activities should be overseen and managed by an experienced and licensed Asbestos Supervisor. Removal notifications, activities, and disposal must be completed in accordance with USEPA (40 CFR Part 61), OSHA (29 CFR 1926.1101), and Michigan regulations, as well as other applicable federal, state, and local regulations.

Paint Survey

Based upon the age of the selected buildings, the buildings contain building components that are coated with LCP (see Table 2). The exterior and interiors of the selected buildings had areas of damaged or deteriorated paint. If the buildings are demolished, the selected contractor should be responsible for the safe and proper handling of the painted items according to all federal, state, and local regulations. All of the activities should be overseen and managed by an experienced supervisor and trained workers. The contractor should comply with the OSHA lead standard, which regulates occupational exposure to lead.

Matthew Gibb
April 11, 2024
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Other Hazardous Materials Survey

An investigation for evidence of mold, water intrusion, other hazardous materials, safety issues, and other hazards was conducted in the buildings. Several items, such as thermostats and fluorescent lights that may contain mercury, and ballasts that may contain PCBs were searched for throughout the buildings. The results of the investigation for other hazards and the field data to support the following environmental and safety hazard concerns are documented within Table 3. All of the items should be corrected and/or handled prior to the proposed demolition project to ensure that the current building conditions do not represent any safety concerns during the project.

Michael Baker was pleased to assist with this project and to work with your fine employees. Should you have any questions regarding this report, please do not hesitate to contact me at (412) 260-1280.

Sincerely,

MICHAEL BAKER INTERNATIONAL, INC.



Gary R. Case
Project Manager

Attachment(s)

Disclaimer

The information that is presented in this report reflects the conditions that were observed in the building(s) during the time frame this inspection was conducted. Although every effort was made to identify the potential suspect building materials and components, there is no guarantee that additional building materials in these damaged buildings are not present. Conditions may exist in the building(s), such that inaccessible materials may only become apparent during demolition activities. If any hidden, suspicious material is encountered, it is recommended that the material be analyzed to confirm its asbestos content.



SOURCE: GOOGLE 04/2017

SCALE: 0 70

S.O. NO.: 199511

DSN/DWN:

DATE: MARCH 2024

FILE: 199511_ORION_01

CHK:

Michael Baker
 INTERNATIONAL
 MICHAEL BAKER INTERNATIONAL
 MOON TOWNSHIP, PENNSYLVANIA

OVERALL BUILDING LAYOUT
 HAZARDOUS MATERIAL SURVEY
 LAKE ORION LUMBER COMPANY
 LAKE ORION, MICHIGAN

TABLE 1

SURVEY OF ASBESTOS-CONTAINING MATERIALS

FORMER LAKE ORION LUMBER YARD
LAKE ORION, MICHIGAN

Homogeneous Material Number	Material Type	Material Description	Category of ACM	Approximate Quantity of Asbestos	Condition of Material
11	Thermal Insulation Board	White	Friable ACM	4 Square Feet	Damaged
15	Vinyl Floor Tile and Floor Adhesive	12" x 12" White VFT and Black FA	Category I Non-friable ACM	20 Square Feet	Damaged
49	Asphaltic Roofing Material	Gray Roll Sheeting and Tar Materials	Category I Non-friable ACM	600 Square Feet	Damaged

TABLE 2

SURVEY OF LEAD PAINT

**FORMER LAKE ORION LUMBER YARD
LAKE ORION, MICHIGAN**

Buildings	Component	Locations	Color	Substrate	Condition	Findings	Recommendations
All Buildings	All painted components	Interior and Exterior	All Paint Colors	All Substrates	All Conditions	All paint contains at least a trace of lead and must be addressed according to OSHA requirements.	If impacted by demolition activities, proper handling and/or removal of the lead-containing paint is needed.

* The requirements of the Occupational Safety and Health Administration (OSHA) Construction Standards need to be invoked if any metal content is present in the paint that may be affected by renovation activities. OSHA does not provide a minimum concentration criteria level for lead; however, it requires precautions and protection for workers and the working environment be taken at any work place where an exposure to airborne metals may occur.

TABLE 3

SUMMARY OF OTHER POTENTIALLY HAZARDOUS WASTE

**FORMER LAKE ORION LUMBER YARD
LAKE ORION, MICHIGAN**

Buildings	Light Bulbs	Ballasts	Thermostats	Other Hazardous Materials	Recommendations
1	4 - 4' bulbs	1	1	Various bottles, cans, and containers of normal commercial and industrial products (such as cleaners, solvents, and oils) were located in the buildings.	If impacted by demolition activities, proper handling and/or removal of these components is needed.
3	6 - 4' bulbs	3	0		
All of the Other Buildings	0	0	0		
----	----	----	----	There are three propane tanks near Building 11.	
----	----	----	----	There is a plastic 5-gallon gas container within Building 13.	
----	----	----	----	There is a propane tank within Building 25B.	
----	----	----	----	There are two aboveground fuel storage tanks located on site.	
----	----	----	----	There is a large tanker truck and a motorcycle located on site.	

NOTE: These are approximate quantities tallied at the time of the survey. Actual quantities should be field verified upon removal and/or demolition of the buildings.

ATTACHMENT A

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 1

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
1	Wall and Ceiling Plaster	White Top Coat with Tan Base Coat	Throughout the Building	No	LC - 01A (M) LC - 01A (SC) LC - 01B (M) LC - 01B (SC) LC - 01C (M) LC - 01C (SC)	None Detected None Detected None Detected None Detected None Detected None Detected	Room 2 Room 2 Room 2 Room 2 Room 2 Room 2	No	Not Applicable	Not Applicable
2	Wall and Ceiling Board	White, with White Joint Compound	Throughout the Building	No	LC - 02A LC - 02B	None Detected None Detected	Room 3 Room 3	No	Not Applicable	Not Applicable
3	Vinyl Floor Tile and Floor Adhesive	9" x 9" Brown and Red Streaks VFT and Black FA	Room 1	No	LC - 03A LC - 03B (VFT) LC - 03B (FA)	None Detected None Detected None Detected	Room 1 Room 1 Room 1	No	Not Applicable	Not Applicable
4	Floor Adhesive	Black, under 9" x 9" Wood Floor Tiles	Throughout the Building	No	LC - 04A LC - 04B	None Detected None Detected	Room 4 Room 4	No	Not Applicable	Not Applicable

According to EPA, asbestos-containing material (ACM) is defined as any material containing greater than 1% asbestos using laboratory analysis or, by NESHAP, contains less than 10% asbestos is considered positive, unless re-analyzed by PLM point count.

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 1

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
5	Ceiling Tile	14" x 14" Solid	Throughout the Building	Yes	LC - 05A	None Detected	Room 1	No	Not Applicable	Not Applicable
					LC - 05B	None Detected	Room 1			
6	Ceiling Tile	14" x 32" Solid	Throughout the Building	Yes	LC - 06A	None Detected	Room 3	No	Not Applicable	Not Applicable
					LC - 06B	None Detected	Room 3			
7	Ceiling Tile	1' x 1' Solid	Throughout the Building	Yes	LC - 07A	None Detected	Room 4	No	Not Applicable	Not Applicable
					LC - 07B	None Detected	Room 4			
8	Ceiling Tile Adhesive	Brown, under 14" x 14" Solid	Throughout the Building	No	LC - 08A	None Detected	Room 1	No	Not Applicable	Not Applicable
					LC - 08B	None Detected	Room 1			
9	Ceiling Tile Adhesive	Brown, under 14" x 32" Solid	Throughout the Building	No	LC - 09A	None Detected	Room 3	No	Not Applicable	Not Applicable
					LC - 09B	None Detected	Room 3			
10	Ceiling Tile Adhesive	Brown, under 1' x 1' Solid	Throughout the Building	No	LC - 10A	None Detected	Room 4	No	Not Applicable	Not Applicable
					LC - 10B	None Detected	Room 4			
11	Thermal Insulation Board	White	Room 1	Yes	LC - 11A	20% Chrysotile	Room 1	Yes	4 Square Feet	Damaged
					LC - 11B	Not Analyzed	Room 1			
					LC - 11C	Not Analyzed	Room 1			

According to EPA, asbestos-containing material (ACM) is defined as any material containing greater than 1% asbestos using laboratory analysis or, by NESHAP, contains less than 10% asbestos is considered positive, unless re-analyzed by PLM point count.

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 1

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
12	Caulking	White	Throughout the Building	No	LC - 12A	None Detected	Room 1	No	Not Applicable	Not Applicable
					LC - 12B	None Detected	Room 1			
13	Asphaltic Roofing Material	Brown Shingles	Exterior Roof over Side Door	No	LC - 13A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 13B	None Detected	Roof			
14	Asphaltic Roofing Material	Black Membrane and Black Tar	Exterior Roof	No	LC - 14A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 14B	None Detected	Roof			
15	Vinyl Floor Tile and Floor Adhesive	9" x 9" White VFT and Black FA	Room 1	No	LC - 15A (VFT)	2% Chrysotile	Room 1	Yes	20 Square Feet	Damaged
					LC - 15A (FA)	None Detected	Room 1			
					LC - 15B (VFT)	Not Analyzed	Room 1			
					LC - 15B (FA)	None Detected	Room 1			

According to EPA, asbestos-containing material (ACM) is defined as any material containing greater than 1% asbestos using laboratory analysis or, by NESHAP, contains less than 10% asbestos is considered positive, unless re-analyzed by PLM point count.

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 2

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
16	Asphaltic Roofing Material	Brown Shingles	Exterior Roof	No	LC - 16A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 16B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 3

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
17	Wall and Ceiling Board	White, with White Joint Compound	Throughout the Building	No	LC - 17A	None Detected	Room 1	No	Not Applicable	Not Applicable
					LC - 17B	None Detected	Room 1			
18	Ceiling Tile	2' x 2' Wavy	Throughout the Building	Yes	LC - 18A	None Detected	Room 1	No	Not Applicable	Not Applicable
					LC - 18B	None Detected	Room 1			
19	Asphaltic Roofing Material	Green Shingles	Exterior Roof	No	LC - 19A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 19B	None Detected	Roof			

According to EPA, asbestos-containing material (ACM) is defined as any material containing greater than 1% asbestos using laboratory analysis or, by NESHAP, contains less than 10% asbestos is considered positive, unless re-analyzed by PLM point count.

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 27

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
20	Asphaltic Roofing Material	Brown Shingles	Exterior Roof	No	LC - 20A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 20B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 4

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
21	Wall and Ceiling Board	White, with White Joint Compound	Throughout the Building	No	LC - 21A	None Detected	Room 1	No	Not Applicable	Not Applicable
					LC - 21B	None Detected	Room 1			
22	Asphaltic Roofing Material	Black Roll	Exterior Roof	No	LC - 22A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 22B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 5

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
NO SUSPECT MATERIALS IDENTIFIED IN THIS BUILDING.										

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 6

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
23	Asphaltic Roofing Material	Brown Shingles	Exterior Roof	No	LC - 23A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 23B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 7

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
24	Wall and Ceiling Board	White, with White Joint Compound	Throughout the Building	No	LC - 24A	None Detected	Room 1	No	Not Applicable	Not Applicable
					LC - 24B	None Detected	Room 1			
25	Asphaltic Roofing Material	Black Tar Paper	Throughout the Building	No	LC - 25A	None Detected	Room 1	No	Not Applicable	Not Applicable
					LC - 25B	None Detected	Room 1			
26	Asphaltic Roofing Material	Gray Shingles	Exterior Roof	No	LC - 26A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 26B	None Detected	Roof			
27	Asphaltic Roofing Material	Red/Gray Shingles	Exterior Roof	No	LC - 27A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 27B	None Detected	Roof			

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ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 8

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
28	Asphaltic Roofing Material	Green Shingles	Exterior Roof	No	LC - 28A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 28B	None Detected	Roof			
29	Asphaltic Roofing Material	Red Shingles	Exterior Roof	No	LC - 29A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 29B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 9

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
NO SUSPECT MATERIALS IDENTIFIED IN THIS BUILDING.										

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 10

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
30	Asphaltic Siding	Red Shingles	Exterior	No	LC - 30A	None Detected	Exterior	No	Not Applicable	Not Applicable
					LC - 30B	None Detected	Exterior			
31	Asphaltic Roofing Material	Black Roll	Exterior Roof	No	LC - 31A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 31B	None Detected	Roof			
32	Asphaltic Roofing Material	Brown Shingles	Exterior Roof	No	LC - 32A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 32B	None Detected	Roof			

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ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 11

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
33	Asphaltic Roofing Material	Green Shingles	Exterior Roof	No	LC - 33A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 33B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 12

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
34	Asphaltic Roofing Material	Gray Shingles	Exterior Roof	No	LC - 34A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 34B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 13

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
35	Asphaltic Roofing Material	Red Shingles	Exterior Roof	No	LC - 35A (S) LC - 35A (T) LC - 35B	None Detected None Detected None Detected	Roof Roof Roof	No	Not Applicable	Not Applicable

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 14

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
NO SUSPECT MATERIALS IDENTIFIED IN THIS BUILDING.										

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 15

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
NO SUSPECT MATERIALS IDENTIFIED IN THIS BUILDING.										

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 16

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
36	Asphaltic Roofing Material	Brown Shingles	Exterior Roof	No	LC - 36A (S)	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 36A (T)	None Detected	Roof			
					LC - 36B (S)	None Detected	Roof			
					LC - 36B (T)	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 17

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
NO SUSPECT MATERIALS IDENTIFIED IN THIS BUILDING.										

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 18A

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
37	Asphaltic Roofing Material	Brown Shingles	Exterior Roof	No	LC - 37A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 37B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 18B

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
38	Asphaltic Roofing Material	Brown Shingles	Exterior Roof	No	LC - 38A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 38B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 19A

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
NO SUSPECT MATERIALS IDENTIFIED IN THIS BUILDING.										

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 19B

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
39	Asphaltic Roofing Material	Brown Shingles	Exterior Roof	No	LC - 39A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 39B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 20A

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
40	Asphaltic Roofing Material	Rubber Membrane and Sealant	Exterior Roof	No	LC - 40A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 40B	None Detected	Roof			
41	Asphaltic Roofing Material	Black Shingles	Exterior Roof	No	LC - 41A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 41B	None Detected	Roof			

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ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 20B

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
42	Asphaltic Roofing Material	Red Shingles	Exterior Roof	No	LC - 42A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 42B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 21A

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
43	Asphaltic Roofing Material	Gray Membrane and Glue	Exterior Roof	No	LC - 43A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 43B	None Detected	Roof			
44	Asphaltic Roofing Material	Green Shingles	Exterior Roof	No	LC - 44A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 44B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 21B

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
45	Asphaltic Roofing Material	Gray Membrane and Glue	Exterior Roof	No	LC - 45A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 45B	None Detected	Roof			
46	Asphaltic Roofing Material	Green Shingles	Exterior Roof	No	LC - 46A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 46B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 22

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
47	Asphaltic Roofing Material	Gray Roll	Exterior Roof	No	LC - 47A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 47B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 23

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
48	Asphaltic Roofing Material	Brown Shingles	Exterior Roof	No	LC - 48A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 48B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 24

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
49	Asphaltic Roofing Material	Gray Roll Sheeting and Tar Materials	Exterior Roof	No	LC - 49A	4% Chrysotile	Roof	Yes	600 Square Feet	Damaged
					LC - 49B	Not Analyzed	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 25A

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
50	Asphaltic Roofing Material	Gray Shingles	Exterior Roof	No	LC - 50A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 50B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 25B

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
51	Asphaltic Roofing Material	Gray Shingles	Exterior Roof	No	LC - 51A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 51B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 25C

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
52	Asphaltic Roofing Material	Gray Roll	Exterior Roof	No	LC - 52A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 52B	None Detected	Roof			

ASBESTOS SURVEY MATERIAL SUMMARY

FORMER LAKE ORION LUMBER YARD LAKE ORION, MICHIGAN

BUILDING 26

Homogeneous Material Number	Material Type	Material Description	Material Locations	Friable	Sample Numbers	Sample Results	Sample Locations	Asbestos-Containing Material	Approximate Quantity of Asbestos	Condition of Material
53	Asphaltic Roofing Material	Gray Shingles	Exterior Roof	No	LC - 53A	None Detected	Roof	No	Not Applicable	Not Applicable
					LC - 53B	None Detected	Roof			

PHASE II ENVIRONMENTAL SITE ASSESSMENT

215 S. Broadway Street, Lake Orion, Michigan
 AKT Peerless Project No. 9984F-3-20

1.0 Introduction

Village of Lake Orion Downtown Development Authority (DDA; Client) retained AKT Peerless to conduct a Phase II Environmental Site Assessment (ESA) of the property located at 215 S. Broadway Street in Lake Orion, Oakland County, Michigan (the subject property). This Phase II ESA was conducted in accordance with AKT Peerless’ Proposal for a Phase II ESA (Proposal Number PF-31525), dated November 10, 2022, and is based on ASTM International Standard Practice E 1903-19, *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process* (ASTM Standard Practice E 1903).

The Phase II ESA scope of work was intended to evaluate the recognized environmental conditions (RECs) identified by AKT Peerless during its November 2022 Phase I ESA (see Section 2.4).

AKT Peerless’ Phase II ESA report documents the field activities, sampling protocols, and laboratory results associated with this assessment. AKT Peerless’ Phase II ESA was performed for the benefit of Village of Lake Orion DDA, who may rely on the contents and conclusions of this report.

2.0 Background

2.1 Site Description and Physical Setting

The subject property is located in the northeast ¼ of Section 11 in the Village of Lake Orion (T.4N./R.10E.), Oakland County, Michigan. The subject property is located on the east side of South Broadway Street between Atwater Street and Paint Creek.

See the following table for additional subject property details. For ease of reference in this report, AKT Peerless has designated each of the subject property parcels with a letter. These designations have no relevance to legally recorded data about the subject property.

Subject Property Identifiers

Parcel	Address	Tax Identification Number	Owner of Record	Approximate Acreage
A	215 S. Broadway Street	09-11-228-016	John Nowels	1.28
B	215 S. Broadway Street	09-11-228-004	John R. Nowels	0.26
C	215 S. Broadway Street	09-11-228-020	Lake Orion Lumber Co.	2.57

Parcel A is improved with one 1,408-square foot commercial building (Subject Building 1), currently used as the Lake Orion Lumber office, and one 1,280-square foot storage building (Subject Building 2). In

addition, Parcel C is improved with seven outbuildings. Outbuildings 1, 5, and 6 are currently used for miscellaneous equipment storage. Outbuildings 2, 3, and 4 were formerly used as office space, but are no longer used for a significant or obvious purpose. Outbuilding 7 contains a saw room as well as lumber storage. Several other lean-to structures are present on Parcel C, which are currently used for lumber storage, as well as the remains of two collapsed sheds.

Refer to Figure 1 for a topographic site location map. See Figure 2 for a site map.

2.2 Subject Property History and Land Use

The subject property has operated as a lumberyard since at least 1900, and has contained the subject buildings, associated outbuildings, and woodsheds since at least 1926. Parcels A and C of the subject property additionally operated as a coal yard from at least 1926 until at least the late 1970s, while Parcel B was occupied by a bulk gasoline storage facility from at least 1926 until approximately 1980.

2.3 Adjacent Property Land Use

The adjoining properties have included various residential and commercial developments since at least 1926. The southern adjoining property (i.e., M-24 & Atwater; 295 South Broadway Street; and 303 S. Broadway Street) operated as a gasoline station with four bulk gasoline storage tanks in addition to three gasoline underground storage tanks (USTs) in the 1930s and 1940s, and the southwestern adjoining property (261 S. Broadway Street) operated as a gasoline station in the 1930s through 1950s.

2.4 Previous Environmental Investigations

On November 9, 2022, AKT Peerless prepared a Phase I ESA of the subject property in accordance with United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiry [(AAI), 40 Code of Federal Regulations (CFR) Part 312] and ASTM International Standard Practice E 1527-21 (ASTM Standard Practice E 1527).

At the time of the assessment, Subject Building 1 was used as offices by Lake Orion Lumber. Subject Building 2 was leased out by Lake Orion Lumber to an auto parts sales business, which utilized the building for storage. Parcel B was undeveloped, heavily vegetated, and not used for a significant or obvious purpose. Parcel C contained numerous outbuildings used for storage by Lake Orion Lumber, some of which were in considerable disrepair. The uses of these outbuildings is summarized in Section 2.1 above.

The following RECs were identified in connection with the subject property:

REC 1 - Parcels A and C of the subject property have been used for lumber storage since at least 1926. Lumber storage during this time period typically involved the placement and/or processing of chemically treated wood often on unpaved surfaces. In addition to lumber, coal was formerly stored at the subject property for sale and consumptive use (i.e., Subject Building 1 historically utilized coal heating). The long-term exterior storage of lumber and other materials and the storage of coal on Parcels A and C represents an REC.

REC 2 - Parcel A contained a rail line from at least 1926 until 1980, with rail spurs extending from the rail line across Parcel A and the northwestern portion of Parcel C, terminating near Subject Building 2 and Outbuilding 1. The construction of rail lines and spurs may include the use of fill material of unknown origin as ballast to support the ties and rails. Furthermore, maintenance of rail lines

and spurs may include the use of dust control agents. The potential also exists for leaks or spills of hazardous materials or petroleum products associated with the use of rail lines and spurs. The presence of a rail line on Parcel A and rail spurs on Parcel A and the northwestern portion of Parcel C therefore represents an REC.

REC 3 - Parcel B was historically used as a bulk gasoline station from at least 1926 until the mid-1980s, with up to five aboveground storage tanks (ASTs) present on the parcel prior to their apparent removal in the mid-1980s. The bulk gasoline station also included a pump house and automotive service garage. No information regarding the removal of the bulk gasoline station or subsequent subsurface investigations were identified during this assessment. It is also unknown as to whether the bulk gasoline station utilized USTs. According to aerial photographs, Parcel B was used for exterior storage of lumber and other materials following removal of the ASTs by 1990. The historical use of Parcel B as a bulk gasoline station and subsequent use of Parcel B for exterior materials storage therefore represents an REC.

REC 4 - Based on a review of fire insurance maps and aerial photographs, an oil house was located on the northwestern portion of Parcel C in 1926 and up to four ASTs were present on the eastern portion of Parcel C from approximately 1976 until approximately 1999. The contents of these ASTs were not identified during this assessment, although, according to the subject property owner, at least some of these ASTs were replaced by two USTs containing diesel and kerosene. The former presence of an oil house on the northwestern portion of Parcel C and up to four bulk ASTs on the eastern portion of Parcel C represents an REC.

REC 5 - The southern adjoining property (i.e., M-24 and Atwater; 295 South Broadway Street; and 303 S. Broadway Street) was operated as a bulk gasoline station from at least the 1930s through the 1950s. The total number of ASTs and USTs historically present on this adjoining property is unknown; however, at least four orphan USTs were discovered on the property between 1993 and 2003 and fire insurance maps depict four gasoline ASTs. Subsurface investigations on the adjoining property confirmed the presence of volatile organic compounds (VOCs) and lead in soil and groundwater at concentrations in excess of Part 201 Residential Cleanup Criteria (RCC). Contaminated soil remains present on the southern adjoining property and groundwater is expected to flow northeast toward the subject property. Therefore, the historical use of, and documented contamination at, the southern adjoining property represents an REC.

REC 6 - A gasoline station with between two and four USTs was historically present on the southwestern adjoining property (i.e., 261 S. Broadway Street) from at least 1934 until at least 1963. No information regarding the removal of these USTs or subsequent subsurface investigations were identified during this assessment. The historical use of the southwestern adjoining property as a gasoline station therefore represents an REC.

AKT Peerless recommended further investigation to evaluate the nature, extent, magnitude, and materiality of the above-identified RECs.

In addition to the RECs identified above, the following historical recognized environmental condition (HREC) was identified in connection with the subject property:

HREC 1 - According to Michigan Department of Licensing and Regulatory Affairs (LARA) Bureau of Fire Services (BFS) records and the subject property owner, one 20,000-gallon diesel UST (Tank 1) and one 20,000-gallon kerosene UST (Tank 2) were installed on the northeastern portion of Parcel C

of the subject property in January 1986 to replace ASTs that were removed in 1985. Tanks 1 and 2 were removed from the ground in June 2000, at which time a confirmed release (C-0516-00) was reported. Insight Environmental Services, Inc. completed a Leaking Underground Storage Tank (LUST) Closure Report in July 2000. Ten soil samples were collected from the sidewalls of the excavation and one groundwater sample was collected from the floor of the excavation. Analytical results indicated that 1,2,4-trimethylbenzene (1,2,4-TMB) was detected in one soil sample at a concentration above the Part 201 Generic Cleanup Criteria for Groundwater Surface Water Interface Protection (GSIP). In addition, 1,2,4-TMB was detected in the groundwater sample at a concentration above Part 201 Generic Cleanup Criteria for Groundwater Surface Water Interface (GSI) and Drinking Water (DW). This investigation associated with the confirmed release was administratively closed on November 1, 2000, and unrestricted residential use of the subject property was granted. A Risk-Based Corrective Action (RBCA) Pathway Analysis was completed as part of the Closure Report. The RBCA evaluated all possible exposure pathways and determined further remediation was not necessary. The “closed” status of the confirmed release investigation therefore represents an HREC.

AKT Peerless did not recommend further evaluation of this HREC.

3.0 Phase II Environmental Site Assessment Activities

The following sections summarize the subsurface investigation activities conducted by AKT Peerless.

3.1 Scope of Assessment

To further evaluate the RECs identified in Section 2.4, AKT Peerless conducted a subsurface investigation at the subject property that included: (1) the advancement of nineteen soil borings (SB-1 through SB-19); (2) the installation of eight temporary groundwater monitoring wells (SB-2-GW, SB-6-GW, SB-9-GW, SB-12-GW, SB-14-GW, SB-16-GW, SB-17-GW, and SB-18-GW); and (3) the collection of seventeen soil samples and eight groundwater samples. The following samples were submitted for laboratory analyses:

- Seventeen soil samples for VOCs, semi-volatile organic compounds (SVOCs), polynuclear aromatic hydrocarbons (PNAs), polychlorinated biphenyls (PCBs), one or more of the Michigan Ten Metals (i.e., arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc), creosote acid extractables, ethylene glycol, pesticides, and/or vanadium.
- Eight groundwater samples for VOCs, SVOCs, PNAs, one or more of the Michigan Ten Metals (dissolved), creosote, ethylene glycol, and/or pesticides.

The following table summarizes each REC, the site investigation activities performed to address each REC, and the laboratory parameters used to address each REC.

Summary of Investigation Activity

REC #	Environmental Concern	Investigation Activity	Analytical Parameters
1	Historical use of Parcels A and C as a lumber yard, including lumber storage (interior and exterior), coal storage, and other exterior materials storage.	SB-4*, SB-5*, SB-7, SB-8, SB-9, SB-9-GW, SB-10, SB-11, SB-12, SB-12-GW	VOCs, PNAs, SVOCs, Michigan Ten Metals, vanadium, PCBs, creosote, and/or pesticides
2	Historical presence of a rail line and/or rail spurs on Parcels A and C.	SB-1, SB-3, SB-4*, SB-5*	VOCs, PNAs, Michigan Ten Metals, vanadium, PCBs, and/or creosote
3	Historical use of Parcel B as a bulk gasoline station with up to five bulk ASTs and subsequent use of Parcel B for exterior lumber and other materials storage.	SB-13, SB-14, SB-14-GW SB-15, SB-16, SB-16-GW	VOCs, PNAs, PCBs, ethylene glycol, cadmium, chromium, and/or lead
4	Former presence of an oil house on the northwestern portion of Parcel C and up to four bulk ASTs on the eastern portion of Parcel C.	SB-6, SB-6-GW, SB-18, SB-18-GW, SB-19	VOCs, PNAs, cadmium, chromium, lead, and/or PCBs
5	Historical use of the southern adjoining property (i.e., 295 S. Broadway Street) as a bulk gasoline station, with documented contamination in soil and groundwater.	SB-17-GW	VOCs, PNAs, lead
6	Historical use of the southwestern adjoining property (i.e., 261 S. Broadway Street) as a gasoline station with up to four USTs.	SB-2-GW	VOCs, PNAs, lead

*Note: Soil boring intended to evaluate more than one REC.

3.1.1 Soil Evaluation

On December 6 and December 7, 2022, AKT Peerless advanced nineteen soil borings at the subject property. AKT Peerless used hydraulic drive/direct-push (Geoprobe®) procedures following the guidance outlined in ASTM Standard Practice E 1903. AKT Peerless collected continuous soil samples from the soil borings to depths of up to 20 feet below ground surface (bgs), the maximum depth explored. AKT Peerless personnel inspected, field-screened, and logged the samples collected at each soil boring location.

Refer to Figure 2 for a site map with soil boring locations. Boring logs are provided in **Appendix A**.

3.1.2 Groundwater Evaluation

AKT Peerless encountered groundwater in eight of the soil borings advanced at the subject property (i.e., at soil boring locations SB-2, SB-6, SB-9, SB-12, SB-14, SB-16, SB-17, and SB-18). AKT Peerless installed a

temporary groundwater monitoring well at these soil boring locations. A one-inch polyvinyl chloride (PVC) riser with a five-foot screen was utilized for each temporary groundwater monitoring well.

Refer to Figure 2 for a site map with the temporary groundwater monitoring well locations.

3.2 Quality Assurance/Quality Control

To ensure the accuracy of data collected during on-site activities, AKT Peerless implemented proper quality assurance/quality control (QA/QC) measures. The QA/QC procedures included, but were not limited to, (1) decontamination of sampling equipment before and between sampling events, (2) calibration of field equipment, (3) documentation of field activities, and (4) sample preservation techniques.

3.2.1 Decontamination of Equipment

During sample collection, AKT Peerless adhered to proper decontamination procedures. Sampling equipment was decontaminated using the following methods to minimize potential cross-contamination of soil and groundwater samples:

- Steam-cleaning or washing and scrubbing the equipment with non-phosphate detergent
- Rinsing the equipment
- Air-drying the equipment

3.2.2 Calibration of Field Equipment

AKT Peerless utilized an organic vapor meter/photoionization detector (OVM/PID) during subsurface investigation activities at the subject property. The OVM/PID was maintained in a calibrated condition using 100 parts per million (ppm) isobutylene span gas prior to subsurface investigation activities.

3.2.3 Documentation of Activities

During AKT Peerless' subsurface investigation activities, subject property conditions (i.e., soil boring locations, weather conditions) were documented. AKT Peerless visually inspected the soil and groundwater samples and prepared a geologic log for each soil boring. The logs include soil characteristics such as (1) color, (2) composition (e.g., sand, clay, or gravel), (3) soil moisture and water table depth, and (4) signs of possible contamination (i.e., stained or discolored soil, odors). Soil types were classified in accordance with ASTM Standard Practice D-2488, *Unified Soil Classification System*. All soil and groundwater samples were delivered to Fibertec Environmental Services' analytical laboratory in Holt, Michigan under chain-of-custody documentation.

See **Appendix B** for AKT Peerless' soil boring logs. See Figure 2 for a site map with soil boring locations.

3.2.4 Sample Preservation Techniques

AKT Peerless collected soil samples according to USEPA Publication SW-846, *Test Methods for Evaluating Solid Waste*. Soil and groundwater samples were collected into laboratory-supplied containers, stored on ice or at approximately four degrees Celsius, and submitted under chain-of-custody documentation.

Soil samples collected for VOCs analyses were field preserved with methanol in accordance with USEPA Method 5035. Soil samples collected for PNAs, SVOCs, PCBs, and metals analyses were stored in unpreserved, eight-ounce wide-mouth jars.

Groundwater samples collected from the temporary monitoring wells were collected with a peristaltic pump and dedicated tubing. Groundwater samples for VOCs analyses were collected with zero headspace into 40-mL glass vials and preserved with hydrochloric acid. Groundwater samples for metals analyses were collected into high-density polyethylene (HDPE) bottles and preserved with nitric acid. Groundwater samples collected for analysis of PNAs, SVOCs, creosote, pesticides, and ethylene glycol were collected into 250-mL amber glass jars.

3.3 Laboratory Analysis and Methods

AKT Peerless submitted seventeen soil samples and eight groundwater samples for laboratory analyses. The following table summarizes the location, depth, matrix, and laboratory analyses for each sample.

Sample Collection Summary

Sample Identification	Sample Matrix	Sample/Well Screen Depth Interval (feet bgs)	Laboratory Analytical Parameter(s)
SB-1	Soil	(1'-2')	VOCs, PNAs, Michigan Ten Metals, PCBs, creosote
SB-2-GW	Groundwater	(10'-15')	VOCs, PNAs, lead
SB-3	Soil	(1.5'-2.5')	VOCs, PNAs, Michigan Ten Metals, PCBs, creosote
SB-4	Soil	(1'-2')	VOCs, PNAs, Michigan Ten Metals, PCBs, creosote, vanadium
SB-5	Soil	(1.5'-2.5')	VOCs, PNAs, Michigan Ten Metals, PCBs, creosote, vanadium
SB-6	Soil	(2'-3')	VOCs, PNAs, PCBs
SB-6-GW	Groundwater	(10'-15')	VOCs, PNAs, cadmium, chromium, lead
SB-7	Soil	(3.5'-4.5')	VOCs, SVOCs, Michigan Ten Metals, PCBs, creosote, pesticides
SB-8	Soil	(5'-6')	VOCs, SVOCs, Michigan Ten Metals, PCBs, creosote, pesticides
SB-9	Soil	(9.5'-10.5')	VOCs, SVOCs, Michigan Ten Metals, creosote, pesticides
SB-9-GW	Groundwater	(9'-14')	VOCs, SVOCs, Michigan Ten Meals, creosote, pesticides

Sample Identification	Sample Matrix	Sample/Well Screen Depth Interval (feet bgs)	Laboratory Analytical Parameter(s)
SB-10	Soil	(1'-2')	VOCs, SVOCs, Michigan Ten Metals, creosote, pesticides
SB-11	Soil	(0.5'-1.5')	VOCs, SVOCs, Michigan Ten Metals, creosote, pesticides
SB-12	Soil	(7'-8')	VOCs, SVOCs, Michigan Ten Metals, PCBs, creosote, pesticides
SB-12-GW	Groundwater	(6'-11')	VOCs, SVOCs, Michigan Ten Metals, creosote, pesticides
SB-13	Soil	(6.5'-7.5')	VOCs, PNAs, lead
SB-14	Soil	(1.5'-2.5')	VOCs, PNAs, lead
SB-14-GW	Groundwater	(9'-14')	VOCs, lead
SB-15	Soil	(2'-3')	VOCs, PNAs, lead
SB-16	Soil	(2.5'-3.5')	VOCs, PNAs, PCBs, cadmium, chromium, lead, ethylene glycol
SB-16-GW	Groundwater	(3'-8')	VOCs, PNAs, cadmium, chromium, lead, ethylene glycol
SB-17-GW	Groundwater	(9'-14')	VOCs, PNAs, lead
SB-18	Soil	(6.5'-7.5')	VOCs, PNAs, lead
SB-18-GW	Groundwater	(6'-11')	VOCs, PNAs, lead
SB-19	Soil	(0.5'-1.5')	VOCs, PNAs, lead

The laboratory analyzed the samples for: (1) VOCs in accordance with USEPA Method 8260D; (2) PNAs, SVOCs, and creosote acid extractables in accordance with USEPA Method 8270E; (3) metals in accordance with USEPA Methods 6020B, 7470A, and 7471B; (4) PCBs in accordance with USEPA Method 8082A; pesticides in accordance with USEPA Method 8081B; and ethylene glycol in accordance with USEPA Method 8015C.

4.0 Evaluation and Presentation of Results

4.1 Subsurface Conditions

The following sections summarize the physical soil and groundwater conditions at the subject property.

4.1.1 Soil and Groundwater Conditions based on Published Material

According to the United States Department of Agriculture (USDA) Soil Conservation Service's (SCS) publication, *Soil Survey of Oakland County, Michigan* (1982), the soil at the subject property is classified as the Urban land-Spinks-Oshtemo group, which is described as urban land and nearly level to rolling, well drained sandy soils; on outwash plains, beach ridges, and moraines.

According to the Michigan Department of Natural Resources (MDNR) Geological Survey Division's publication, *Quaternary Geology of Southern Michigan* (1982), the Quaternary geology at the subject property is classified as "Glacial outwash sand and gravel and postglacial alluvium," described as pale brown to pale reddish brown, fine to coarse sand alternating with layers of small gravel to heavy cobbles, mixed lithology of sedimentary, igneous, and metamorphic rocks, well to poorly-sorted, well-stratified, in places cross-bedded. Occurs as fluvial terraces along present and abandoned drainage ways, as fans and sheets flanking end moraines, and as deltas along glacial lake margins. Soil thickness ranges from three to 60 feet. Typically, glacial outwash sand and gravel are associated with moderate to high hydraulic permeability and may allow the movement of contaminants through groundwater.

AKT Peerless did not identify site-specific groundwater information in published material.

4.1.2 Soil and Groundwater Conditions based on Field Observations

During subsurface investigation activities, AKT Peerless encountered the following soil types:

- FILL from below the pavement/concrete slab or topsoil to approximately two feet bgs. This fill appeared generally as a poorly graded gravel and was found with a dark brown or black sand. In one boring location (SB-5) brick was noted.
- SAND from below the gravel to 20 feet bgs, the maximum depth explored. This sand consisted of a brown silty/fine-grained sand.
- CLAY from below the sand layer to 20 feet bgs, the maximum depth explored. This clay was only encountered in borings on Parcel B and consisted of a soft gray clay, coarse enough to be silt in some places.

AKT Peerless encountered groundwater at select soil boring locations at depths between 3.5 feet bgs and 12 feet bgs. Groundwater appeared to be consistent across the site.

With the exception of the fill material encountered, subsurface soils at the subject property are consistent with the description of "glacial outwash sand and gravel and postglacial alluvium" as described in *Quaternary Geology of Southern Michigan*.

See Figure 2 for a site map with soil boring locations. See **Appendix A** for AKT Peerless' soil boring logs.

4.2 Laboratory Analytical Results

AKT Peerless collected soil and groundwater samples for the purpose of evaluating general site environmental conditions and to support future land use planning. When appropriate, analytical results were compared to Part 201 Generic RCC provided in Michigan Administrative Rules 299.1 through 299.50.

4.2.1 Soil Analytical Results

AKT Peerless submitted seventeen soil samples laboratory analyses of VOCs, SVOCs, PNAs, PCBs, one or more of the Michigan Ten Metals, creosote, ethylene glycol, pesticides, and/or vanadium. The results of the laboratory analyses of the soil samples are summarized in the table below:

Summary of Soil Analytical Results

Parameter	Chemical Abstract Service (CAS) Number	Sample Identification with Criteria Exceedance (depth)	Part 201 Generic RCC Exceeded/Established Criteria (µg/kg)	Maximum Concentration (µg/kg)/Sample Location
Arsenic	7440-38-2	SB-1 (1'-2') SB-3 (1.5'-2.5') SB-5 (1.5'-2.5') SB-7 (3.5'-4.5') SB-8 (5'-6')	GSIP / 4,600 DWP / 4,600 DC / 7,600	9,800 / SB-1, SB-2
Chromium (total)	7440-47-3	SB-1 (1'-2') SB-3 (1.5'-2.5') SB-4 (1'-2') SB-5 (1.5'-2.5') SB-7 (3.5'-4.5') SB-8 (5'-6') SB-9 (9.5'-10.5') SB-10 (1'-2') SB-11 (0.5'-1.5') SB-12 (7'-8') SB-16 (2.5'-3.5')	GSIP / 3,300	16,000 / SB-7
Mercury	7439-97-6	SB-1 (1'-2') SB-3 (1.5'-2.5') SB-4 (1'-2')	GSIP / 50	240 / SB-1
Selenium	7782-49-2	SB-1 (1'-2')	GSIP / 400	470 / SB-1
Benzo(a)pyrene	50-32-8	SB-1 (1'-2')	DC / 2,000	2,600 / SB-1
Benzene	71-43-2	SB-15 (2'-3')	DWP / 100	780 / SB-15
n-Butylbenzene	104-51-8	SB-15 (2'-3')	DWP / 1,600	9,600 / SB-15
sec-Butylbenzene	135-98-8	SB-15 (2'-3')	DWP / 1,600	4,100 / SB-15
Ethylbenzene	100-41-4	SB-15 (2'-3')	DWP / 1,500 GSIP / 360	1,700 / SB-15
Isopropyl benzene	98-82-8	SB-15 (2'-3')	GSIP / 3,200	3,500 / SB-15
2-Methylnaphthalene	91-57-6	SB-15 (2'-3')	GSIP / 4,200	5,100 / SB-15

Parameter	Chemical Abstract Service (CAS) Number	Sample Identification with Criteria Exceedance (depth)	Part 201 Generic RCC Exceeded/Established Criteria (µg/kg)	Maximum Concentration (µg/kg)/Sample Location
Naphthalene	91-20-3	SB-15 (2'-3')	GSIP / 730	9,700 / SB-15
n-Propylbenzene	103-65-1	SB-15 (2'-3')	DWP / 1,600	20,000 / SB-15
1,2,4-Trimethylbenzene	95-63-6	SB-15 (2'-3')	DWP / 2,100 GSIP / 570	3,500 / SB-15
Xylenes	1330-20-7	SB-15 (2'-3')	GSIP / 980	4,100 / SB-15

Notes:

Sample identification: SB-# indicates soil boring location and (#-#) indicates sample depth interval in feet bgs.

µg/kg – micrograms per kilogram

GSIP – Groundwater Surface Water Interface Protection Cleanup Criteria

DWP – Drinking Water Protection Cleanup Criteria

DC –Direct Contact Cleanup Criteria

In addition to the parameters identified in the table above, barium, cadmium, copper, lead, vanadium, zinc, benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, pyrene, toluene, 1,2,3-trimethylbenzene, and 1,3,5-trimethylbenzene were detected in one or more soil samples collected from the subject property at concentrations above analytical laboratory method detection limits (MDLs), but below Part 201 Generic RCC. Ethylene glycol, PCBs, pesticides, creosote acid extractables, and other SVOCs beyond PNAs were not detected in soil samples collected from the subject property at concentrations above laboratory MDLs or Part 201 Generic RCC.

Refer to Figure 3 for a site map with soil analytical results exceeding Part 201 Generic RCC. Refer to Table 1 for a summary of soil analytical results. Refer to **Appendix B** for a complete analytical laboratory report.

4.2.2 Groundwater Analytical Results

AKT Peerless submitted eight groundwater samples for laboratory analysis of VOCs, SVOCs, PNAs, one or more of the Michigan Ten Metals, creosote, ethylene glycol, and/or pesticides. The results of the laboratory analyses of the groundwater samples are summarized in the table below:

Summary of Groundwater Analytical Results

Parameter	CAS Number	Sample Identification with Criteria Exceedance (well screen depth interval)	Part 201 Generic RCC Exceeded/Established Criteria (µg/L)	Maximum Concentration (µg/L)/Sample Location
Chromium (total)	7440-47-3	SB-16-GW (3'-8')	GSI / 11	18 / SB-16-GW
Lead (total)	7439-92-1	SB-14-GW (4'-9') SB-16-GW (3'-8') SB-17-GW (4'-9') SB-18-GW (6'-11')	DW / 4.0	46 / SB-16-GW

Notes:

Sample identification: SB-#-GW indicates temporary monitoring well location and (#-#) indicates well screen depth interval in feet bgs.

µg/L – micrograms per liter

DW – Drinking Water Cleanup Criteria

GSI – Groundwater Surface Water Interface Cleanup Criteria

AKT Peerless notes that, with the exception of the groundwater sample collected from temporary groundwater monitoring well SB-14-GW, each groundwater sample collected for metals analyses was analyzed for total metals and dissolved metals. While the groundwater sample collected from temporary monitoring well SB-14-GW was not analyzed for dissolved metals, dissolved metals were not identified at concentrations above analytical laboratory MDLs or Part 201 Generic RCC in the remaining samples, therefore indicating that the detected total metals in groundwater samples are likely due to the presence of entrained sediment within the groundwater samples and are not likely due to an environmental release.

In addition to the parameters listed in the table above, barium, cadmium, and zinc were detected in the groundwater samples at concentrations above laboratory MDLs, but below Part 201 Generic RCC. Remaining target parameters were not detected in the groundwater samples collected from the subject property at concentrations above laboratory MDLs.

Refer to Figure 4 for a site map with groundwater analytical results exceeding Part 201 Generic RCC. Refer to Table 2 for a summary of groundwater analytical results. Refer to **Appendix B** for a complete analytical laboratory report.

5.0 Summary, Conclusions, and Recommendations

The following sections summarize the investigation conducted by AKT Peerless at the subject property.

5.1 Summary of Environmental Concerns

Based on AKT Peerless' November 2022 Phase I ESA, the following RECs were identified:

- Historical use of Parcels A and C as a lumber yard, including lumber storage (interior and exterior), coal storage, and other exterior materials storage;
- Historical presence of a rail line and/or rail spurs on Parcels A and C;

- Historical use of Parcel B as a bulk gasoline station with up to five bulk ASTs and subsequent use of Parcel B for exterior lumber and other materials storage;
- Former presence of an oil house on the northwestern portion of Parcel C and up to four bulk ASTs on the eastern portion of Parcel C;
- Historical use of the southern adjoining property (i.e., 295 S. Broadway Street) as a bulk gasoline station, with documented contamination in soil and groundwater; and
- Historical use of the southwestern adjoining property (i.e., 261 S. Broadway Street) as a gasoline station with up to four USTs.

5.2 Summary of Subsurface Investigation

On December 6 and December 7, 2022, AKT Peerless conducted a subsurface investigation at the subject property to evaluate the RECs identified in AKT Peerless’ November 2022 Phase I ESA. During the investigation, AKT Peerless: (1) advanced 19 soil borings (SB-1 through SB-19); (2) installed eight temporary groundwater monitoring wells (SB-2-GW, SB-6-GW, SB-9-GW, SB-12-GW, SB-14-GW, SB-16-GW, SB-17-GW, and SB-18-GW); and (3) collected 17 soil samples and eight groundwater samples for laboratory analyses.

5.3 Conclusions

AKT Peerless conducted soil and groundwater sampling in areas most likely to be impacted by contaminants based on the past use of the subject property and select adjoining properties. The results of the investigation indicate the following:

- Arsenic was detected in the soil samples collected from soil boring locations SB-1, SB-3, SB-5, SB-7, and SB-8 (Parcels A and C) at concentrations exceeding the Part 201 Generic Cleanup Criterion for DWP, GSIP, and/or DC.
- Chromium (total) was detected in the soil samples collected from soil boring locations SB-1, SB-3, SB-4, SB-5, SB-7, SB-8, SB-9, SB-10, SB-11, SB-12, and SB-16 (Parcels A, B, and C) at concentrations exceeding the Part 201 Generic Cleanup Criterion for GSIP.
- Mercury was detected in the soil samples collected from soil boring locations SB-1, SB-3, and SB-4 (Parcel A) at concentrations exceeding the Part 201 Generic Cleanup Criterion for GSIP.
- Selenium was detected in the soil sample collected from soil boring location SB-1 (Parcel A) at a concentration exceeding the Part 201 Generic Cleanup Criterion for GSIP.
- Benzo(a)pyrene was detected in the soil sample collected from soil boring location SB-1 (Parcel A) at a concentration exceeding the Part 201 Generic Cleanup Criterion for DC.
- Benzene, n-butylbenzene, sec-butylbenzene, ethylbenzene, isopropyl benzene, 2-methylnaphthalene, naphthalene, n-propylbenzene, 1,2,4-trimethylbenzene, and xylenes were detected in the soil sample collected from soil boring location SB-15 (Parcel B) at concentrations exceeding the Part 201 Generic Cleanup Criteria for DWP and/or GSIP.
- Chromium (total) was detected in one shallow groundwater sample collected from the temporary monitoring well installed at soil boring location SB-16 (Parcel B) at a concentration exceeding the Part 201 Generic Cleanup Criterion for GSI.
- Lead (total) was detected in four shallow groundwater samples collected from the temporary monitoring wells installed at soil boring locations SB-14, SB-16, SB-17, and SB-18. (Parcels B and C) Lead was identified at a concentration exceeding the Part 201 Generic Cleanup Criterion for DW at each of these locations.

Based on laboratory analytical results, Parcels A, B, and C of the subject property meet the definition of a “facility,” as defined in Part 201 of the NREPA.

5.4 Recommendations

AKT Peerless recommends any future owner(s)/operator(s) prepare a Baseline Environmental Assessment (BEA). Section 26(1)(c) of Part 201 provides certain liability protections to a person who becomes an owner or operator of a “facility” on, or after June 5, 1995 if they comply with both of the following, or unless other defenses apply: a BEA is conducted prior to or within 45 days after the earlier of the date of purchase, occupancy, or foreclosure, and the owner or operator discloses the results of the BEA to Michigan Department of Environment, Great Lakes, and Energy (EGLE) Remediation and Redevelopment Division (RRD) and subsequent purchaser or transferee.

In addition, because the subject property meets the definition of a “facility,” AKT Peerless recommends that the current subject property owner conduct a Section 20107(a) Compliance Analysis to assure compliance with Due Care obligations. Due Care obligations include:

- Undertaking measures to prevent exacerbation of existing contamination.
- Exercising Due Care by undertaking response activities to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the subject property in a manner that protects health and safety.
- Taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.
- Provide notifications to EGLE and others in regard to mitigating fire and explosion hazards, discarded or abandoned containers, contamination migrating beyond property boundaries, as applicable.
- Comply with any land use or resource use restrictions established or relied on in connection with the response activities at the facility.
- Not impede the effectiveness or integrity of any land use or resource use restrictions employed at the facility in connection with response activities.

6.0 Limitations

The information and opinions obtained in this report are for the exclusive use of Village of Lake Orion DDA. No distribution to or reliance by other parties may occur without the express written permission of AKT Peerless. AKT Peerless will not distribute this report without your written consent or as required by law or by a Court order. The information and opinions contained in the report are given in light of that assignment. The report must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed upon by the parties and as limited therein. Any third parties who have been extended the right to rely on the contents of this report by AKT Peerless (which is expressly required prior to any third-party release), expressly agrees to be bound by the original terms and conditions entered into by AKT Peerless and Village of Lake Orion DDA.

Subject to the above and the terms and conditions, AKT Peerless accepts responsibility for the competent performance of its duties in executing the assignment and preparing reports in accordance with the normal standards of the profession, but disclaims any responsibility for consequential damages. Although AKT Peerless believes that results contained herein are reliable, AKT Peerless cannot warrant or

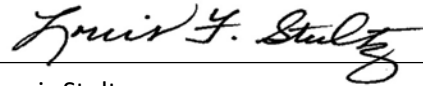
guarantee that the information provided is exhaustive or that the information provided by Village of Lake Orion DDA or third parties is complete or accurate.

7.0 Signatures of Environmental Professionals

The following individuals contributed to the completion of this report.



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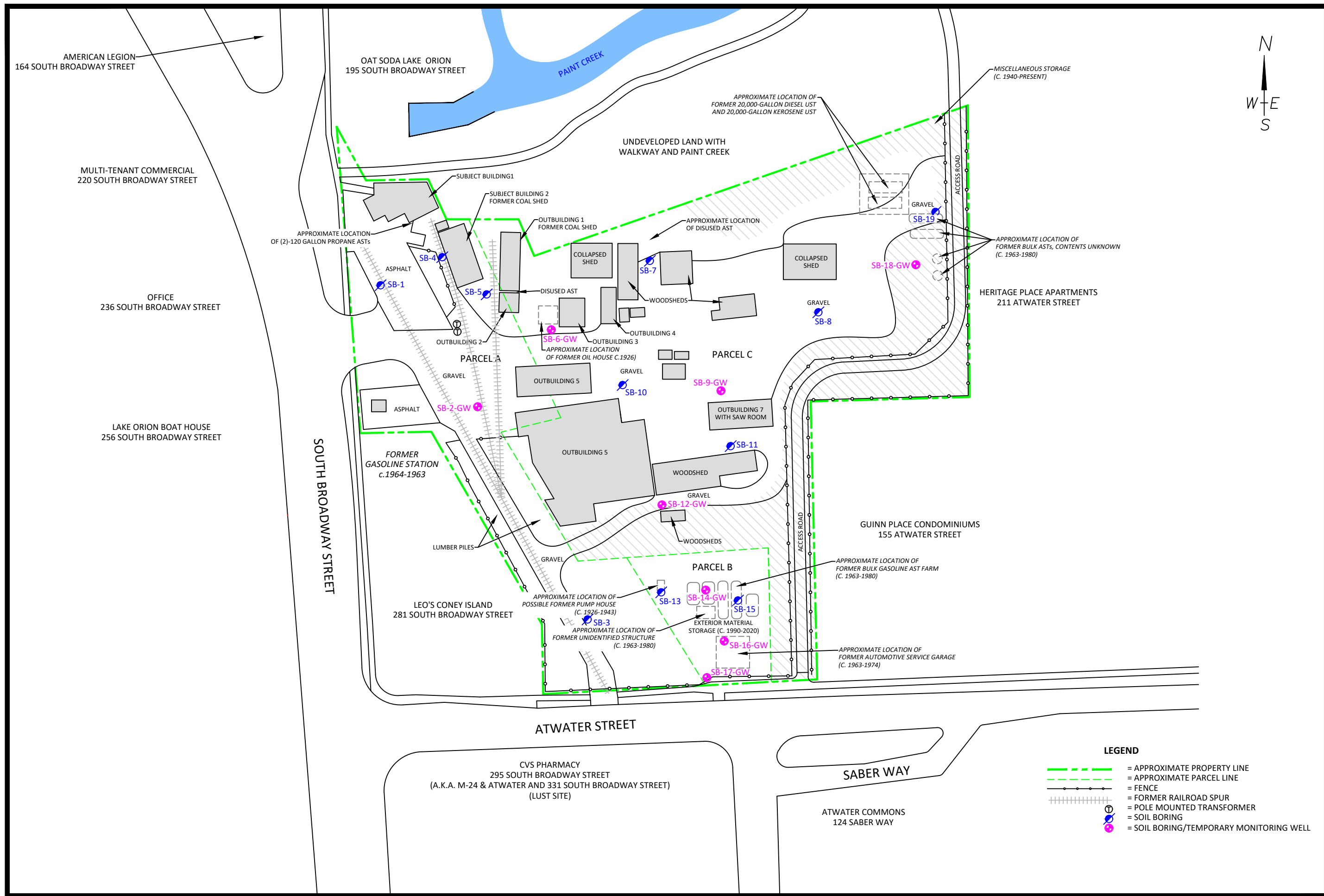


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DRAWN BY: OGO
DATE: 12/29/21
SCALE: 1" = 80'
FIGURE 2



- LEGEND**
- = APPROXIMATE PROPERTY LINE
 - = APPROXIMATE PARCEL LINE
 - = FENCE
 - = FORMER RAILROAD SPUR
 - = POLE MOUNTED TRANSFORMER
 - = SOIL BORING
 - = SOIL BORING/TEMPORARY MONITORING WELL

SAMPLE LOCATION MAP

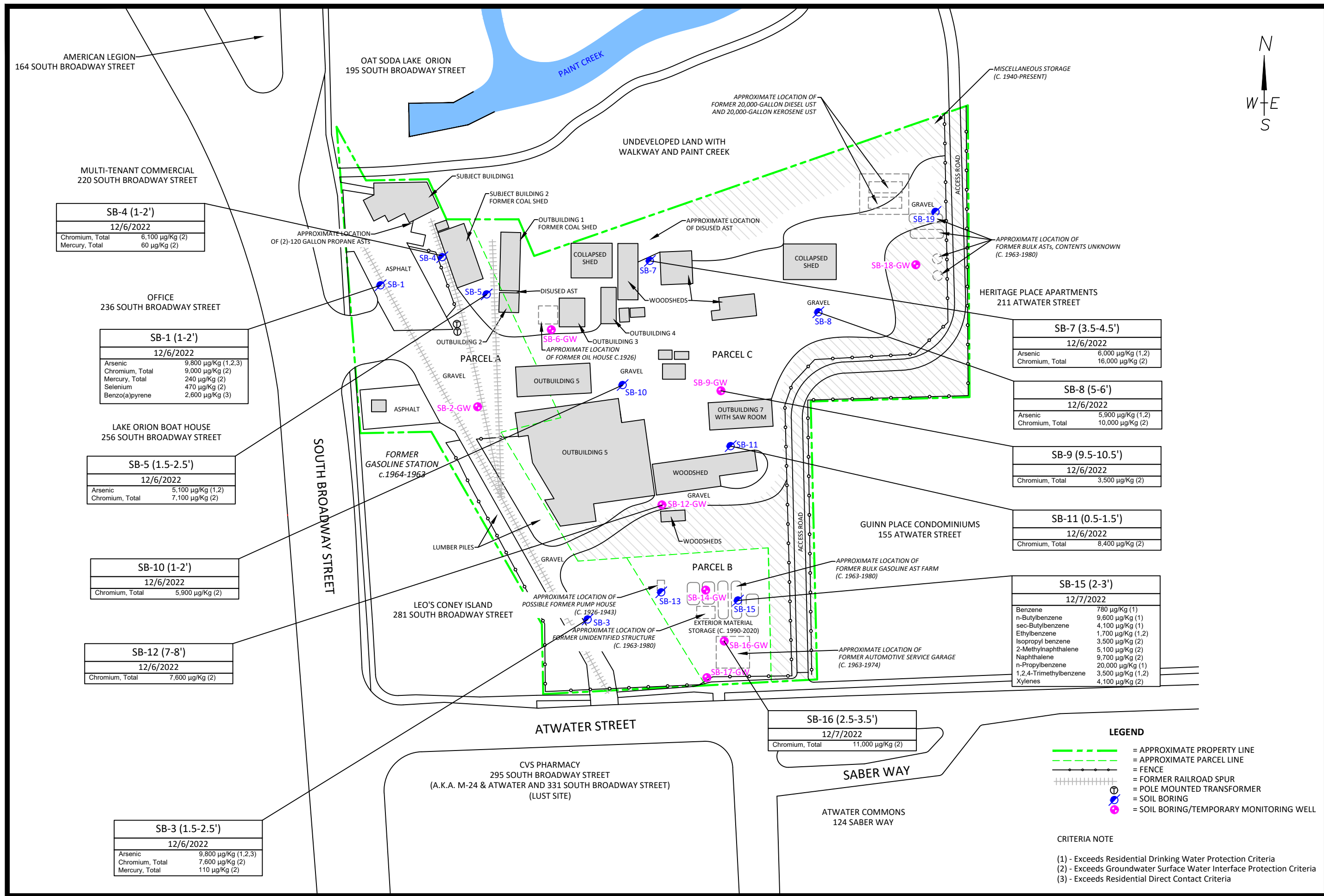
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LAKE ORION, MICHIGAN
PROJECT NUMBER: 9984F-3-20



DRAWN BY: OGO
DATE: 01/09/22

SCALE: 1" = 80'

FIGURE 3



SB-4 (1-2')	
12/6/2022	
Chromium, Total	6,100 µg/Kg (2)
Mercury, Total	60 µg/Kg (2)

SB-1 (1-2')	
12/6/2022	
Arsenic	9,800 µg/Kg (1,2,3)
Chromium, Total	9,000 µg/Kg (2)
Mercury, Total	240 µg/Kg (2)
Selenium	470 µg/Kg (2)
Benzo(a)pyrene	2,600 µg/Kg (3)

SB-5 (1.5-2.5')	
12/6/2022	
Arsenic	5,100 µg/Kg (1,2)
Chromium, Total	7,100 µg/Kg (2)

SB-10 (1-2')	
12/6/2022	
Chromium, Total	5,900 µg/Kg (2)

SB-12 (7-8')	
12/6/2022	
Chromium, Total	7,600 µg/Kg (2)

SB-3 (1.5-2.5')	
12/6/2022	
Arsenic	9,800 µg/Kg (1,2,3)
Chromium, Total	7,600 µg/Kg (2)
Mercury, Total	110 µg/Kg (2)

SB-7 (3.5-4.5')	
12/6/2022	
Arsenic	6,000 µg/Kg (1,2)
Chromium, Total	16,000 µg/Kg (2)

SB-8 (5-6')	
12/6/2022	
Arsenic	5,900 µg/Kg (1,2)
Chromium, Total	10,000 µg/Kg (2)

SB-9 (9.5-10.5')	
12/6/2022	
Chromium, Total	3,500 µg/Kg (2)

SB-11 (0.5-1.5')	
12/6/2022	
Chromium, Total	8,400 µg/Kg (2)

SB-15 (2-3')	
12/7/2022	
Benzene	780 µg/Kg (1)
n-Butylbenzene	9,600 µg/Kg (1)
sec-Butylbenzene	4,100 µg/Kg (1)
Ethylbenzene	1,700 µg/Kg (1,2)
Isopropyl benzene	3,500 µg/Kg (2)
2-Methylnaphthalene	5,100 µg/Kg (2)
Naphthalene	9,700 µg/Kg (2)
n-Propylbenzene	20,000 µg/Kg (1)
1,2,4-Trimethylbenzene	3,500 µg/Kg (1,2)
Xylenes	4,100 µg/Kg (2)

SB-16 (2.5-3.5')	
12/7/2022	
Chromium, Total	11,000 µg/Kg (2)

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 - = FENCE
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 - = POLE MOUNTED TRANSFORMER
 - = SOIL BORING
 - = SOIL BORING/TEMPORARY MONITORING WELL

- CRITERIA NOTE**
- (1) - Exceeds Residential Drinking Water Protection Criteria
 - (2) - Exceeds Groundwater Surface Water Interface Protection Criteria
 - (3) - Exceeds Residential Direct Contact Criteria

SITE MAP WITH SOIL ANALYTICAL RESULTS EXCEEDING EGLE RCC

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PROJECT NUMBER: 9984F-3-20



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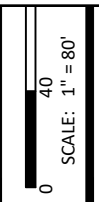
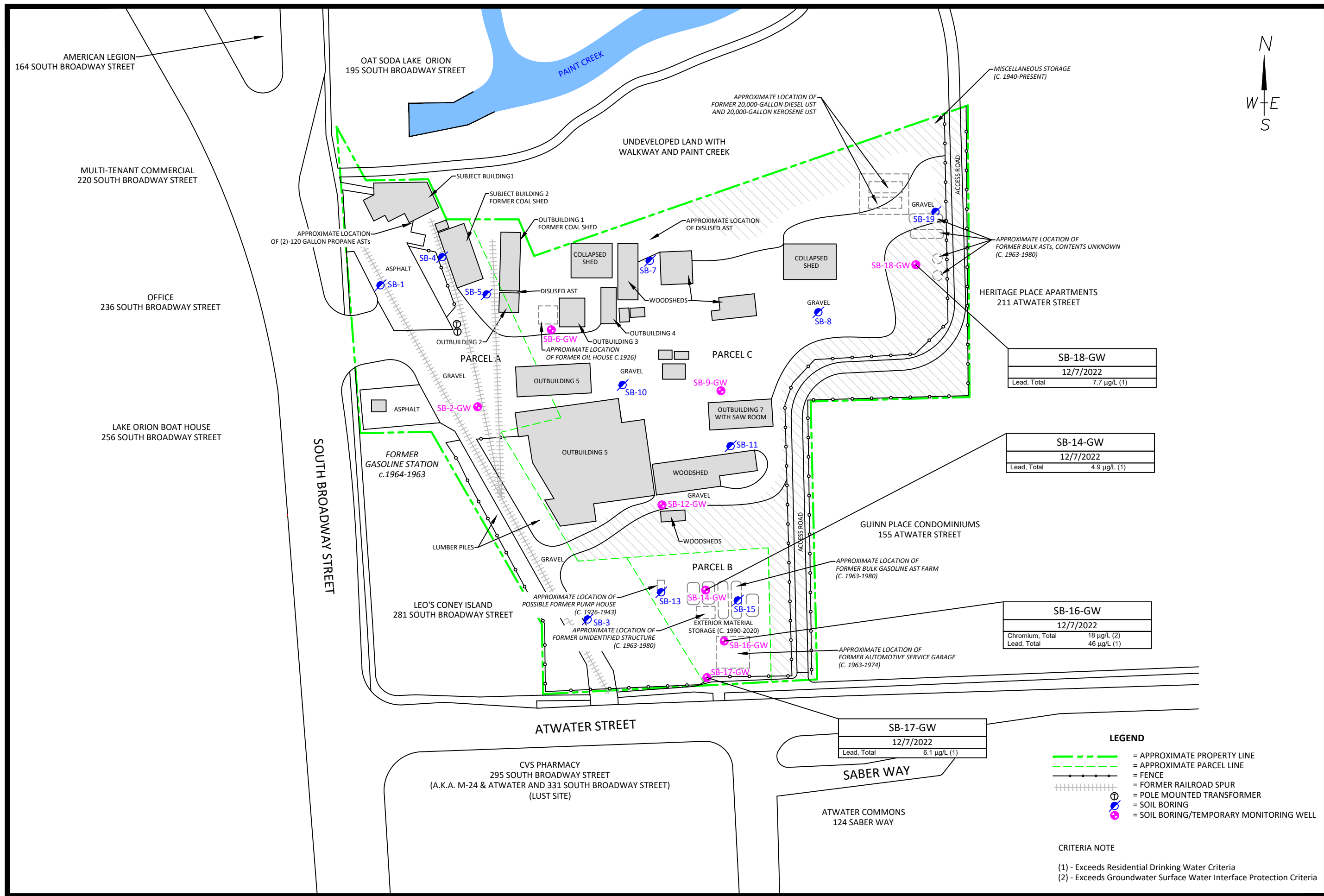


FIGURE 3



SB-18-GW	
12/7/2022	
Lead, Total	7.7 µg/L (1)

SB-14-GW	
12/7/2022	
Lead, Total	4.9 µg/L (1)

SB-16-GW	
12/7/2022	
Chromium, Total	18 µg/L (2)
Lead, Total	46 µg/L (1)

SB-17-GW	
12/7/2022	
Lead, Total	6.1 µg/L (1)

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CRITERIA NOTE

(1) - Exceeds Residential Drinking Water Criteria
(2) - Exceeds Groundwater Surface Water Interface Protection Criteria

SITE MAP WITH GROUNDWATER ANALYTICAL RESULTS EXCEEDING EGLE RCC

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PROJECT NUMBER: 9984F-3-20

