## **DISTRICT OF MACKENZIE**



## REQUEST FOR PROPOSAL

## **DOM-25-1 Building Abatement & Demolition**

Issue Date: August 1, 2025 Closing Date: August 17, 2025

District of Mackenzie

1 Mackenzie Blvd. Bag 340

Mackenzie, BC V0J 2C0

Attention: Emily Kaehn, Director of Corporate Services

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## Introduction

The District invites qualified and experienced firms to submit a proposal for the abatement, demolition and disposal of three municipal buildings, along with the removal of a small oil tank and any contaminated soil surrounding it:

- 86 Centennial Drive, Mackenzie, BC Commercial Building
- 827 Centennial Drive, Mackenzie, BC Residential Building
- 950 Airport Road, Mackenzie, BC Commercial Building
- Oil Tank located at 86 Centennial Drive

Further project information has been provided in Appendix B. Available Pre-Demolition Hazard Assessments have been provided in Appendices D and E.

Separate bids can be submitted for the Hazard Assessment, Abatement, and Demolition, as well as a combined bid.

The District is not necessarily interested in obtaining the lowest price for this product. The quality of the product or service, performance, delivery, and other factors will be taken into consideration in the evaluation of this request for Proposal. The following terms will apply to all Proposals related to this Request for Proposal.

## **Definitions**

- 1.1. "Contract" means the written agreement resulting from this Request for Proposal, if any, in accordance with this Request for Proposal
- 1.2. "Proponent" means the person submitting a proposal
- 1.3. "Proposal" means a submission in response to this request for proposals
- 1.4. "RFP" means this request for proposals
- 1.5. "the District" means the District of Mackenzie
- 1.6. "must", "shall" or "mandatory" means a requirement that must be met in order for the proposal to receive consideration
- 1.7. "should" or "desirable" means a requirement having a significant degree of importance to the objective of the request for proposals, but which the District would strongly prefer to be fulfilled, and which the District may in its sole discretion elect to treat the failure to fulfill as a grounds for rejection of a Proposal

## **Timeline**

The following timeline is an estimate and may be adjusted at the District of Mackenzie's discretion any time during this procurement process.

Distribution of RFP	August 1, 2025
Deadline for questions submitted by email	August 13, 2025
Upload of Q&A Document (if required)	August 15, 2025
RFP Submission Deadline	August 17, 2025
Target Notification to successful proponent	August 27, 2025

## **Proposals**

a.	The Proposition	onent shall complete and submit the following documents with the Proposal n:
		Background information on Proponent including experience and qualifications in the demolition industry.
		Appendix A – Proponent Information and Agreement Form
		Appendix C – Proposal Price, References, and Value-Added Information

- b. Prices should be quoted:
  - In Canadiandollars;
  - Inclusive of duty, where applicable;
  - Inclusive of PST if applicable;
  - FOB destination, delivery charges included where applicable;
  - Goods and Services Tax (GST) should be shown as a separate line item.

## **Sub-Contracting**

- a. All Vendors should fully disclose any proposed subcontracting of any of the required services.
- b. Using a sub-contractor (who must be clearly identified in the Proposal) is acceptable. This includes a joint submission by two Proponents having no formal corporate links. However, in this case, one of these Proponents should be prepared to take overall responsibility for successful interconnection of the two product or service lines and this must be defined in the Proposal.
- c. Sub-contracting to any firm or individual whose current or past corporate or other interests may, in the District's opinion give rise to a conflict of interest in connection with this project will not

be permitted, and a Proposal may be rejected on this basis in the District's absolute and unfettered discretion. This includes, but is not limited to, any firm or individual involved in the preparation of this Request for Proposal.

## **Addenda & Questions**

- a. Proponents are advised that all subsequent information regarding this RFP, including any addendum, will be distributed on the District's webpage. Notification will not automatically be sent to all Proponents. It is the responsibility of all Proponents to check for addenda, which may be posted at any time up to closing time, prior to submitting their Proposal. All addenda should be acknowledged in a Proponent's Proponent Information and Agreement Form.
- b. To clarify any issues in this RFP, the District of Mackenzie will respond only to questions that are presented through e-mail. Questions should be submitted to **Emily Kaehn** at **ekaehn@districtofmackenzie.ca.** Telephone questions will not be accepted.
- c. All questions must be received by August 13, 2025.
- d. All questions and answers will be consolidated into a single Q&A document which will be posted on the District of Mackenzie website at <a href="https://www.districtofmackenzie.ca">www.districtofmackenzie.ca</a>, with the RFP documents on or after **August 8, 2025**. The Q&A document will be continually updated and reposted once daily (excluding weekends & holidays) as questions are received. This will be the only distribution method for the Q&A document. A final update, if required, will take place by **4:30 pm August 15, 2025**.
- e. The District reserves the right to seek clarification regarding the Proposal with the Proponent to assist in making evaluations. The Proponent should submit a name and telephone number of a person the District may contact regarding any questions or clarifications relating to the Proponent's submission to the Request for Proposals.

# **Submitting Your Proposal**

- a. Proposal submissions should be titled "**DOM-25-1 Building Abatement and Demolition**" in the subject line.
- b. Completed Proposals must be received by courier, mail, hand delivery, or email to:

Emily Kaehn, Director of Corporate Services Email: ekaehn@districtofmackenzie.ca Bag 340, 1 Mackenzie Blvd.

Mackenzie, BC, V0J 2C0

c. The deadline for receipt of complete Proposals is **11:59 pm Pacific Standard Time**, on **August 17, 2025.** Late Proposals will not be accepted and will be returned to the Proponent.

## **Proponent & District Responsibilities**

- a. It is the responsibility of Proponents to ensure compliance with all requirements and deadlines. It is the responsibility of Proponents to ensure delivery of all required response material. Proposals which are not in compliance with the RFP requirements may be rejected.
- b. The District of Mackenzie assumes no responsibility for technological or logistical issues in delivering Proponent responses.
- c. All costs of preparation and presentation associated with a response to this RFP will be the responsibility of the Proponent.
- d. Proponents may be asked to make a presentation before the District if selected as a finalist.
- e. The District reserves the right to enter into a contract with a Proponent for all, part, or none of the service or products that are the subject of this Request for Proposals.
- f. Submission of a Proposal in response to this RFP indicates the Proponent's acceptance of the terms and conditions contained within the RFP.
- g. Proponents who have obtained the Request for Proposal electronically must not alter any portion of the document, with the exception of adding the information requested. To do so will invalidate the Proposal.

## Alternate Proposals & Changes to Proposal Wording

- a. If an alternate solution is offered, the information should be submitted in the format requested as a separate Proposal.
- b. The Proponent will not change the wording of their Proposal after closing and no words or comments will be added to the Proposal unless requested by The District of Mackenzie for purposes of clarification.

## Conflict of Interest and Disclosure of Business Relationships

Any potential conflict of interest must be disclosed to the District. Proposals will not be evaluated if the Proponent's current or past corporate or other interests are, in the reasonable opinion of the District deemed or perceived to be a conflict of interest in connection with this RFP or the activities or mandate of the District.

- a. All Proponents must make full disclosure of any of the following existing business relationships with any members of the District of Mackenzie Mayor and Council, District employees or immediate relatives of any members of the District's employees:
  - I. If a private company, details of ownership of shares by any of the above;
  - II. If a public company, details of ownership of shares, in excess of one percent (1%) to total shares by any of the above;
- III. If a partnership, details of any partnership arrangement of any of the above;
- IV. Details of any direct or indirect pecuniary interest of any of the above in the supply of such goods and services.
- b. Disclosure, if any, shall be made in writing at the time of submitting Proposals.
- c. If the Proponent fails to disclose an interest and/or the interest is falsely or insufficiently reported, the District reserves the right to reject the Proposal in its absolute discretion.

## Confidentiality

- a. All Proponents and any other person who through this RFP process gains access to confidential financial information of the District are required to keep strictly confidential all information which in any way reveals confidential business, financial or investment details, programs, strategies, or plans, learned through this RFP process. Information pertaining to the District obtained by the Proponent as a result of participation in this process is confidential and must not be disclosed without written authorization from the District.
- b. The Proposal should clearly identify any information that is considered to be confidential or proprietary information (the "Confidential Information"). However, the District of Mackenzie is subject to the Freedom of Information and Protection of Privacy Act. As a result, while the Act offers some protection for third party business interests, the District of Mackenzie cannot guarantee that any Confidential Information provided to the District of Mackenzie can be held in confidence if a request for access is made under the Freedom of Information and Protection of Privacy Act.

# **Evaluating Proposals**

- Evaluation of Proposals will be by a committee formed from the District of Mackenzie's Public Works Department and may include members of the District's Finance and Corporate Departments and District contractors.
- b. Awards will be based on the best value offered, and the best value will be determined by the District in its sole discretion. Evaluation criteria will be:

- i. Proponents offer, overall value, operating costs
- ii. Proponents' financial stability
- iii. Ability to meet specifications and carry adequate insurance
- iv. Past performance, delivery dates
- v. References, supplier qualifications and experience
- vi. Value of warranty, training, and any value-added offerings

EVALUATION CRITERIA	WEIGHT
Budget	75%
Timeline for project completion	15%
Waste diversion practices	5%
Value-added offerings	5%
TOTAL	100%

- c. While previous experience with the District is not required and does not in any way confer an advantage, the District's previous experience with the Proponent may also be taken into consideration in its evaluation of Proposals. The District reserves the right to rely upon its records, references, and recollection in this regard. The District may also obtain references other than those provided by the Proponent and may use these references in determining the best value.
- d. By responding to this RFP, Proponents will be deemed to have agreed that the decision of the District will be final.

## Communication with the District of Mackenzie

- a. Only the Director of Corporate Services for the District of Mackenzie (or designate) is the District's representative authorized to communicate and otherwise deal with Proponents and all Proponents should communicate and otherwise deal with that person only. Contact with any other District representative, including Members of Council, officers or employees of the District regarding this RFP or a Proponent's submission may result in that Proposal being removed from consideration for this RFP. As stated above, all communication should be presented via email to the address stated above.
- b. All Proponents who have submitted a Proposal will be notified of the Board's decision after the final selection has been made. This notice of final selection may be the only communication between the District of Mackenzie and Proponents. Telephone or other inquiries concerning this Proposal after the Proposal deadline are discouraged.

# **Rejection & Acceptance of Proposals**

## No Obligation to Proceed

The District reserves the right to cancel this Request for Proposals at any time and for any reason, and will not be responsible for any loss, damage, cost, or expense incurred or suffered by any Proponent as a result of that cancellation. The receipt by the District of any information (including any submissions, ideas, plans, drawings, models, or other materials communicated or exhibited by any intended Proponent, or on its behalf) shall not impose any obligations on the District.

## Acceptance and Rejection of Proposals

- a. This Request for Proposal should not be construed as an agreement to purchase goods or services. The District is not bound to accept the lowest priced or any Proposal of those submitted. The District will be under no obligation to receive further information, whether written or oral, from any Proponent.
- b. No act of the District, other than a notice in writing signed by the Chief Administrative Officer or the Director of Corporate Services, shall constitute an acceptance of a Proposal. Note that any acceptance may be subject to Council approval.
- c. Neither acceptance of a Proposal nor execution of a Contract will constitute approval of any activity or development contemplated in any Proposal that requires any approval, permit or license pursuant to any federal, provincial, regional district or municipal statute, regulation, or bylaw.
- d. The District's intent is to enter into a Contract with the Proponent who has submitted the best offer. The District reserves the right to accept any or none of the proposals submitted and will evaluate proposals based on the best value offered to the District and not necessarily the lowest price, using the criteria specified in this RFP. The District reserves the right in its sole unrestricted discretion to:
  - a. accept any Proposal which the District deems most advantageous to itself;
  - b. reject any and/or all irregularities in a Proposal submitted;
  - c. waive any defect or deficiency in a Proposal whether or not that defect or deficiency materially affects the Proposal and accept that Proposal;
  - d. reject any and/or all Proposals for any reason, without discussion with the Proponent(s);
  - e. accept a Proposal which is not the lowest Proposal; and
  - f. cancel or reissue the RFP without any changes;
- e. The District reserves the right to enter into negotiations with one or more Proponents concerning the terms and conditions of the services to be provided, and expressly reserves

the right through such negotiations to request changes, alterations, additions, or deletions from the terms of any Proposal received.

f. If the District chooses to enter into a contract with a Proponent as a result of this RFP, the successful Proponent may be required to enter into a written agreement with the District. Such agreement will be prepared by the Director of Corporate Services and will embody the terms of the Proposal and any subsequent written amendments.

# **Limitation of Damages**

The Proponent is responsible for ensuring that they have obtained and considered all information necessary to understand the requirements of the RFP and to prepare and submit their Proposal.

Proponents are solely responsible for their own expenses in preparing a Proposal and for subsequent negotiations with the District, if any.

Proponents acknowledge that the District, in the preparation of the Request for Proposals, supply of oral or written information to Proponents, review of Proposals or the carrying out the District's responsibilities under this Request for Proposals, does not owe a duty of care to the Proponents.

Except as expressly and specifically permitted in this RFP, no Proponent shall have any claim for any compensation of any kind whatsoever as a result of participating in this RFP, and each Proponent, by submitting a Proposal, waives for itself, its successors and assigns, the right to sue the District for any loss, including economic loss, damage, cost or expense arising from or connected with any error, omission or misrepresentation occurring in the preparation of the Request for Proposals, the supply of oral or written information to Proponents, the review of Proposals, or the carrying out the District's responsibilities under this Request for Proposals, with the exception of fraud on the District's part.

## **Not A Tender**

This Request for Proposal is not a tender call, and neither it nor the submission of any response to this RFP creates a tender process or a "Contract A".

## **Modification of Terms**

The District reserves the right to modify the terms of the Request for Proposal at any time at its sole discretion.

# **Use of Request for Proposal**

This document, or any portion thereof, may not be used for any purpose other than the submission of Proposals.

# **Accuracy of Information**

The District of Mackenzie makes no representation or warranty, either express or implied, with respect to the accuracy or completeness of any information contained or referred to in this RFP.

While the District has used considerable efforts to ensure an accurate representation of information in this Request for Proposal, the information contained in this Request for Proposal is supplied solely as a guideline for Proponents. The information is not guaranteed or warranted to be accurate by the District, nor is it necessarily comprehensive or exhaustive. Nothing in this Request for Proposal is intended to relieve Proponents from forming their own opinions and conclusions with respect to the matters addressed in this Request for Proposal.

# **Appendix A**

# **Proponent Information and Agreement Form**

(should be completed and returned)

# PROPONENT INFORMATION Legal Business Name: Contact Person: Contact Information: (phone / cell / fax / email) PROPONENT AGREEMENT The enclosed proposal is submitted in response to the above-referenced Request for Proposals, including any addenda. Through submission of this proposal, we agree to all of the terms and conditions of the Request for Proposals and agree that any inconsistent provisions in our proposal will be as if not written and do not exist. We have carefully read and examined the Request for Proposals, including the Instructions to Proponents, and have conducted such other investigations as were prudent and reasonable in preparing the proposal. We agree to be bound by statements and representations made in our proposal. Signature of Authorized Representative: Printed Name of Authorized Representative: Title of Authorized Representative: To acknowledge receipt of each addendum, each addendum number issued should be noted below with a signature of an authorized representative of the organization, as being received. Addendum No. 1 Signature \_\_\_\_\_ Date \_\_\_\_\_ Signature Date Addendum No. 2 Addendum No. 3 Signature \_\_\_\_\_ Date \_\_\_\_\_

# **Appendix B**

## **Project Information**

## A) General:

- a. All work is to be completed by October 31, 2025.
- b. The general nature of the work to be carried out under the contract consists of but is not necessarily limited to the following:
  - i. Demolition of all portions of any buildings and structures;
  - ii. The footings, foundations, drain tiles and catch basin leads if any, that are located on the site, excluding fencing and concrete slabs; are to remain and be backfilled;
  - iii. Removal of asphalt driveways, if applicable;
  - iv. Removal of all personal property from the site;
  - v. Salvage (where applicable) and remediation and disposal of hazardous materials. Salvage is to be removed from the site for final disposition;
  - vi. Site cleanup and off-site removal of all debris related to the demolition, salvage and remediation of the site (including without limiting the foregoing, of all debris, stairs, concrete and pavement, wells and septic tanks) in an environmentally safe manner. The Proponent will confine all accumulations of demolition materials to the site and will promptly remove such materials from the site as the work progresses;
  - vii. Demolition will include obtaining any additional permits if required, mobilization, labour, equipment, machine time, materials and dump fees and off site removal and disposal;
  - viii. Backfill with interior dryland mix and bring in additional material, as required, and contour area so it is suitable for landscaping in the future using additional materials as directed by the site representative. The backfill MUST be level with the existing ground level, but the fill must be to an extent that would be considered safe to tread and that allows for suitable drainage with no pooling;
  - ix. Trees on site must remain protected unless it is determined that they are problematic or a safety hazard; permission from the District is required for their alteration or removal as determined by a certified arborist at the Proponent's expense;
  - x. All site security is the responsibility of contractor for the duration of the project.
- c. Any changes to work schedule must be reviewed and approved by the assigned District representative;

## **B) Permits**

- a. The Proponent will be required to work with District staff to obtain demolition permits.
- b. The Proponent will be responsible to obtain any and all other permits and approvals required to undertake and complete the services under the contract. Without limiting the foregoing, the Proponent will:
  - i. obtain all required permits and approvals from the District, prior to commencement of moving, salvage and demolition;
  - ii. pay all applicable fees for permits and approvals and any damage deposits required, if any; and
  - iii. conform to all applicable government laws, by laws, and regulations (including but not limited to noise bylaws).

## C) Utilities

- a. Utilities will be disconnected, back fill, and caping of water/sewer will be done by the District of Mackenzie.
- b. The Proponent is REQUIRED to confirm that the services have been disconnected prior to commencement of work. With written approval from the District representative, work may commence on the site prior to these services being disconnected.
- c. The Proponent will, if required, arrange for all utilities and services to be properly disconnected prior to work commencing on site.
- d. It is the Proponent's responsibility to contact and make any necessary arrangements with BC Hydro regarding any lines that may interfere with the demolition of the structures.
- e. The Proponent will be responsible for determining what utilities may be impacted by the work, including through a BC One call.

## D) Fencing

- a. The Proponent will:
  - Secure the structures and ensure safety of the public by supplying the necessary material to board up when approved salvage and demolition do not occur on the same day of work; and
  - ii. Supply and maintain perimeter wildlife and landscape fence to mitigate any damage to the surrounding area.

## **E)** Hazardous Waste

a. The Proponent will properly remove and dispose of in an environmentally safe manner any asbestos and other hazardous materials in the structures or as identified in the reports listed below, any oil tank, and other hazardous waste at the site.

- b. The following reports were prepared by Peak Environmental Ltd. and are included as Appendices to this Contract:
  - i. Hazardous and Regulated Materials Pre-Demolition Assessment Report –
     Ernie Bodin Centre 86 Centennial Drive
  - ii. Hazardous and Regulated Materials Pre-Demolition Assessment Report –
     Airport Building Airport Road.

A report has not been prepared for the residential property at 827 Centennial Drive. The Proponent is asked to include the completion of this assessment as part of their bid proposal.

- c. Any additional testing to what has been provided is at the discretion and expense of the Proponent.
- d. If required, prior to demolition a qualified abatement contractor must remove and dispose of regulated materials in accordance with the Worksafe BC Occupational Health and Safety Regulation and the BC Hazardous Waste Regulation. All hazardous materials and hazardous waste shall be disposed of in an environmentally safe manner even if they have not been described or included or specified within the hazardous materials survey(s) included in this package. This might include a septic field, oil tanks and asbestos as an example.

## F) Traffic Management

a. The Proponent shall prepare a traffic control plan for the works and have it approved by the District of Mackenzie. The traffic control plan shall conform to all local bylaws and applicable laws of British Columbia. The traffic control plan should be available to the District contact upon request, prior to the commencement of work on the subject property. Traffic management is incidental to the required work and no additional payment will be made.

## **G)** Obscure Hazards

a. The Proponent will continually assess, investigate and evaluate the work and site for potential hazards..

## H) Site Safety,

- a. The Proponent has all the responsibilities of an "employer" under the Workers Compensation Act and the Occupational Health and Safety Regulation and is designated as a "prime contractor" for the site.
- b. The Proponent must secure the structures being demolished on site and ensure the safety of the public (including by boarding up the site, where required).

- c. The Proponent must supply and maintain perimeter wildlife and landscape fencing to mitigate any damage to the area surrounding the site.
- d. Site safety shall include areas not specifically included or considered to be part of the demolition "site" but are areas that are required to be used to complete this project.

## I) Protection of the Environment

- a. The Proponent is required to provide advance notice to the Regional District of Fraser Fort-George to coordinate hazardous material disposal.
- b. The Proponent is required to store, transport and dispose of hazardous materials and demolition waste in compliance with all applicable laws and bylaws.
- c. Prior to construction or demolition works, the Proponent will review site history and conduct onsite inspections and surveys of working areas where there is a possibility that hazardous waste may be present (e.g., hazardous materials may be stored in existing buildings, may be components of building materials, or may be buried onsite).
- d. Where required, the Proponent must ensure that personnel handling hazardous materials have received proper training.

## **J) Site History Considerations**

- a. <u>86 Centennial Drive</u> A small oil tank was recently discovered on the property at 86 Centennial Drive adjacent to the building to be demolished. The location has been marked by District staff. This tank requires removal, soil testing for any contaminant leaching, and any required site remediation necessary.
- b. <u>950 Airport Road</u> During the construction of the new Airport Terminal at 1050 Airport Road, a contaminated site was registered and remediated to the north of the building at 950 Airport Road on the adjacent property. The contamination was unexpected and suggested to be from a historical fuel tank being present on site. Although not guaranteed, the Proponent should be aware of the potential of finding further soil contamination and prepared to safely work in these conditions where soil disturbance may be required. Staff will work with the Proponent on-site to show where these previous remediation efforts occurred and provide previous soil testing information, if necessary.

## **K)** Minimum Insurance Requirements

Commercial General Liability
Pollution/asbestos

\$5,000,000

\$5,000,000

# **Appendix C**

# Pricing, References, and Value-Add

I. Proposal price must include labour, materials, equipment, health and safety requirements, insurance, waste disposal and Toxicity Characteristic Leaching Procedure (TCLP) testing.

PRE-DEMOLITION HAZMAT ASSESSMENT ONLY	PROPOSAL PRICE
827 Centennial Drive	
GST	
TOTAL	
START DATE	
COMPLETION DATE	

ABATEMENT ONLY	PROPOSAL PRICE
86 Centennial Drive	
950 Airport Road	
827 Centennial Drive	
GST	
TOTAL	
START DATE	
COMPLETION DATE	

DEMOLITION ONLY	PROPOSAL PRICE
86 Centennial Drive	
950 Airport Road	
827 Centennial Drive	
GST	
TOTAL	
START DATE	
COMPLETION DATE	

OIL TANK REMOVAL AND SITE REMEDIATION ONLY	PROPOSAL PRICE
86 Centennial Drive	
GST	
TOTAL	
START DATE	
COMPLETION DATE	

PRE-DEMOLITION H ASSESSMENT, ABAT DEMOLITION (3), and OIL AND SITE REMEDIA	EMENT (3), TANK REMOVAL		PROPOSAL PRICE
86 Centennial Drive			
950 Airport Road			
827 Centennial Drive			
	GST		
	TOTAL		
	START DATE		
(	COMPLETION DATE		
References:			
Project	Contact Name	2	Phone/Email

Project	Contact Name	Phone/Email

Value-Added:		

# **Appendix D**

950 Airport Road – Pre-Demolition Hazmat Assessment

# **Appendix E**

86 Centennial – Pre-Demolition Hazmat Assessment



951 Pinewood Place West Kelowna, BC V1Z 3G7 e-mail: info@peakenvironmental.ca Toll Free 1-877-518-7325 (PEAK) Office 250-862-0971 WSBC AAL #01012



# HAZARDOUS AND REGULATED MATERIALS PRE-DEMOLITION ASSESSMENT REPORT

## **AIRPORT BUILDING**

Airport Road Mackenzie, BC

## **Prepared for:**

## **District of Mackenzie**

P.O. Bag, 1 Mackenzie Blvd #340 Mackenzie, BC, VOJ 2CO

Report Date: September 3, 2024

On-site survey for this report dated 9/3/2024 was completed on 08/23/2024. All observations and conditions herein are respective to this / these date(s) and to dates listed in the Revision History

File: 6391F R01kl Pre-Demo Hazmat Assessment - Airport Building - 2024-06-03

## **EXECUTIVE SUMMARY**

### STATEMENT OF UNDERSTANDING

Peak Environmental Ltd. was retained to perform a pre-demolition hazardous materials assessment and review of the Airport Building in Mackenzie BC as required by WorkSafeBC OHS Regulation Part 20 prior to building demolition.

Coring, cutting and destructive sampling techniques were used for this vacant building assessment to identify and locate all potentially concealed hazardous and regulated materials included in this assessment.

This assessment was performed based on the following assumptions:

- Physical removal of drywall applications would be performed prior to building demolition
- The building would be mechanically demolished with mechanical waste separation and landfill disposal

Results/requirements apply only to the materials or areas as defined by the project scope and must not be extrapolated to areas or materials not specifically documented in this report.

### SUMMARY OF HAZARDOUS MATERIALS

## **Asbestos-Containing Materials (ACM)**

Material descriptions and sample results are provided in Appendix A

Location information is provided in Appendix C (Room By Room Inventory)

CODE ACM DESCRIPTION		APPROX. QUANTITY
Mw 1	Grey or black sealant between window frame and pane	5 units

## Lead in Paint (Concentration >100 ppm)

SAMPLE	PAINT DESCRIPTION and SAMPLE LOCATION		
ICP-03	Grey with cream undercoat on concrete - Waiting Area 103		
SAMPLE	LEACHABLE LEAD (TCLP)	RESULT	
TCLP-01	Building demolition waste stream	3.0 mg/L	

## **Lead in Paint (Concentration <100 ppm)**

SAMPLE	PAINT DESCRIPTION and SAMPLE LOCATION
ICP-01	Cream on drywall - Reception 104
ICP-02	Green on wood - Reception 104
ICP-04	White on door frame - Exterior North
ICP-05	Cream on wood deck - Exterior East

### **Other Hazardous Materials**

HAZARDOUS MATERIAL CATEGORY	ТҮРЕ
Lead Products	None observed
Equipment Suspected of Containing PCBs	Electrical equipment / fluorescent light ballasts
Mercury Containing Equipment	Fluorescent light tubes/high voltage lighting
Toxic Flammable Explosive Materials	None observed
Ozone Depleting Substances (ODS)	None observed
Biological Hazards	Mould contamination
Radioactive Materials	None observed
Fuel Storage Tanks (AST)	None observed
Crystalline Silica Containing Materials	Present; see Other Hazardous Materials

#### LIMITATIONS

## **Areas of Restricted Entry**

• There are no areas that require special entry procedures

## **Inaccessible Areas**

• No inaccessible areas are noted

## **Under Sampled Materials or Applications Requiring Additional Sampling**

- There are no under sampled materials that require additional sampling for asbestos.
- Sampling of un-identified concealed materials encountered through demolition/renovation is required.

### REQUIREMENTS

- Removal of all identified asbestos-containing materials is required prior to building demolition.
- A risk assessment including safe work procedures for the removal of asbestos-containing materials must be prepared by a qualified person.
- A risk assessment is required for all painted applications which may contain lead in a concentration that could pose a risk of exposure based on the work activities being performed.
- A risk assessment is required for all silica containing materials that could pose a risk of exposure based on the work activities being performed.
- If a potentially hazardous material is discovered during demolition/renovation work and has not been listed in this report, the material is not to be disturbed prior to its identification as a hazardous or non hazardous material.

- An Exposure Control Plan with written safe work procedures is required for the removal/disturbance of asbestos-containing, lead painted and silica-containing materials in order to prevent the exposure of workers or unprotected persons in adjacent areas.
- A digital or paper copy of this report must be available on-site throughout the project.
- A visual clearance document must be prepared by a qualified person confirming that all identified hazardous materials have been abated and/or removed from the site. This document must include the NOP and Waste Manifest numbers.

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## **Report Revision History**

Version	Issue Date	Survey Date	Change Description	Submitted by
1	9/3/2024	08/23/2024	Initial Report	Peak Environmental Ltd.

## **PROJECT SCOPE**

Peak Environmental Ltd. was retained by the District of Mackenzie to perform a pre-demolition hazardous materials assessment and review of the Airport Building in Mackenzie as required by WorkSafeBC OHS Regulation Part 20 prior to demolition or renovation activities.

The following hazardous materials are included in the survey:

Asbestos-containing materials (ACM)	Toxic, flammable or explosive materials	
Polychlorinated biphenyls (PCBs)	Biological contaminants (mould, fecal matter, sharps/drug paraphernalia)	
Mercury	Crystalline silica-containing materials	
Lead coatings (paint)	Radioactive materials	
Lead products	Fuel storage tanks	
Ozone depleting substances (ODS)		

The hazardous and regulated materials assessment was conducted in compliance with the requirements outlined in the WorkSafeBC Occupational Health and Safety Guidelines OHS Regulation Part 6: Substance Specific Requirements.

Results/requirements apply only to the materials or areas as defined by the project scope and must not be extrapolated to areas or materials not specifically documented in this report

Materials known to not contain asbestos (e.g. wood, laminate, metal, ceramic) are excluded from the assessment, however they are listed in the room by room asbestos inventory (Appendix C) in order to provide finishing information.

Sub-grade systems and materials are not within the scope of this assessment.

This report does not provide an abatement Risk Assessment as per Section 6. <u>WorkSafeBC Occupational Health and Safety Regulation</u>.

## STRUCTURE DESCRIPTION

Based on site observations and information provided by the client, structure construction details are as follows:

Structure use: Commercial No. of floors: 2

Construction type: Wood Frame Approximate square feet: 1500-2000
Approximate build era: Unknown Renovations or Additions: None noted

Inaccessible Areas: None

**Areas of Restricted Entry**: None

All conclusions based on age related hazardous or regulated materials are based on this era of building construction. Detailed construction information is provided in the Building Construction Information Sheet of Appendix D (Building Construction Sheet).

## ASSESSMENT RESULTS

### **ASBESTOS**

(Location and quantity information provided in <u>Appendix C</u> Room By Room Inventory. Material description and sample results provided in <u>Appendix A</u>.

### **APPLICATIONS CONTAINING ASBESTOS:**

Applications that are either known to contain asbestos or asbestos content was confirmed by laboratory analysis.

o Grey or black sealant between window frame and pane (Mw1)

### **SUSPECT ASBESTOS-CONTAINING APPLICATIONS:**

Applications that are present but have not been analyzed to confirm asbestos content. **All Suspect applications must be sampled prior to disturbance through renovation or demolition activities**.

No suspect asbestos materials were found.

### POTENTIAL ASBESTOS-CONTAINING APPLICATIONS:

Although destructive sampling methods were used to the extent possible as defined by the survey type, based on the building age, concealed asbestos-containing building applications may still be present but not observed or identified through this assessment due to inaccessibility, live electrical, mechanical systems, or enclosing finishes. If any materials not identified in this report are uncovered during demolition activities, they must be sampled to determine their asbestos content.

No potential asbestos materials were identified

### **LEAD BASED PAINT**

Paint coatings on surfaces are visually grouped by substrate, colour and building finish type.

Painted substrates to be demolished, removed or otherwise disturbed are tested using Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS) with a reporting limit of 80 mg/kg (ppm) for this project. These samples are noted as 'ICP' and sample number Testing for leachable lead (in order to determine disposal criteria) is carried out on painted applications which have a total lead concentration exceeding 100 ppm (mg/kg). These samples are noted as 'TCLP' and sample number.

The following lead based paints were identified:

LEAD IN PAINT Description and Sample Location	Application Location(s)	Quantity	Sample No.	Lead Concentration
Method: ASTM E1645* / EPA 6	Units mg/kg			
Cream on drywall - Reception 104	Representative of all cream painted drywall and wood throughout the building interior	3000-4000 Ft2	ICP-01	<80
Green on wood - Reception 104	Representative of all painted wood throughout the building interior	<500Ft2	ICP-02	<80
Grey with cream undercoat on concrete - Waiting Area 103	Representative of all painted concrete throughout the building interior	1000-2000 Ft2	ICP-03	551
White on door frame - Exterior North	Representative of all white painted wood throughout the building exterior	500-1000Ft2	ICP-04	<80
Cream on wood deck - Exterior East	Representative of all cream painted wood throughout the building exterior	<500Ft2	ICP-05	<80
Method: EPA 200.2* / EPA 60	Units mg/L			
Building demolition waste stream	Representative of the entire building demolition waste stream	5000- 10000Ft2	TCLP-01	3.0

### **OTHER HAZARDOUS MATERIALS**

A visual inspection was performed for other hazardous and regulated materials including PCB (within electrical equipment), mercury (within electrical equipment and thermostats), other lead applications, ozone depleting substances, potentially toxic, flammable or explosive materials, biological contaminants (mould, rodent, bat or bird feces, and sharps/drug paraphernalia), crystalline silica, radioactive substances, and fuel storage tanks.

Hazardous or regulated materials identified:

LEAD CONTAINING MATERIALS	QUANTITY
Roof jacks / flashing	Not Present
Solder on copper piping	Not Present
Sound or x-ray sheeting	Not Present
РСВ	QUANTITY
Potential PCB containing fluorescent light ballasts	Present - 30
Potential PCB containing transformers	Not Present
MERCURY	QUANTITY
Mercury containing wall mounted thermostats	Not Present
Mercury containing fluorescent lighting (tubes, CFC, high voltage)	Present - 60

TOXIC FLAMMABLE EXPLOSIVE MATE	RIALS		QUANTI	TY	
Paints (stored)			Not Pres	ent	
Oils/solvents/fuel			Not Present		
Chemicals / Cleaners			Not Pres	ent	
BIOLOGICAL CONTAMINANTS			QUANTI	ТҮ	
Mould contamination			Present - >2	0sq.ft.	
Rodent Contamination			Minor amo	Minor amount	
Bird/Bat Contamination			Not Pres	ent	
Biological Hazards			Not Pres	ent	
FUEL/OIL STORAGE TANKS			QUANTI	ΤΥ	
Above Ground Storage Tank(s)			Not Pres	ent	
Evidence of Contamination			Not Present		
ODS (Ozone Depleting Substances)			QUANTITY		
Wall mounted air conditioners			Not Present		
Refrigerators/Deep Freezers			Not Present		
Roof top HVAC		Not Present			
RADIOACTIVE MATERIALS	ADIOACTIVE MATERIALS QUAN		QUANTI	ΤΥ	
Smoke Detectors			Not Pres	ent	
COMMON SILICA CONTAINING APPLICATIONS	Present /Not Present	COMMON SILI	CA CONTAINING APPLICATIONS	Present /Not Present	
Asphalt (driveway or walkway)	Not Present		Glass	Present	
Brick and associated mortar			Gypsum board	Present	
Ceiling tiles Not Present			Plaster	Not Present	
Concrete (slabs, footings, retaining walls)	Present	Stone (exterior, decorative, counter-top)		Not Present	
Concrete Block (CMU) & associated mortar	Not Present	Tile (ceramic, slate, porcelain & grout/mortar)		Not Present	
Drywall taping compound Present Topsoil and bedding sand				Not Present	
Total Estimated Quantity of Cry	stalline Silic	a Containing Materials:	30	00-4000 Ft2	

## **REQUIREMENTS**

## **GENERAL**

- A digital or paper copy of this report must be available on-site throughout the project.
- The following hazardous materials (if present) must be removed prior to building demolition
  or renovation activities which will impact them: ACM; lead coated surfaces where the
  leachable lead concentration exceeds 5 mg/L; other lead applications (e.g. roof jacks);
  equipment containing PCBs, mercury or radioactive materials; ozone depleting substances;
  toxic, flammable or explosive materials; sharps and/or other drug paraphernalia; fuel storage
  tanks must be emptied.

- If any materials which may contain asbestos or other hazardous substances and are not listed in this report are discovered during renovation or demolition work, work must be stopped before disturbing the material. The material must be assessed by a qualified person to determine if the material is hazardous or not.
- Once removed, hazardous materials must be transported and disposed of in accordance with the federal Transportation of Dangerous Goods Act and Regulations and Section 40 of the BC Ministry of Environment Hazardous Waste Regulation.
- All waste materials are to be disposed of in accordance with Part 6 Management of Specific Hazardous Wastes as outlined in the BC Ministry of Environment Hazardous Waste Regulation.
- A visual clearance document must be prepared by a qualified person confirming that all identified hazardous materials have been abated and/or removed from the site. This document must include the NOP and Waste Manifest numbers, and be available on site for the duration of the demolition/renovation project.

## **ASBESTOS-CONTAINING MATERIALS**

- Any work of disturbing, dislodging or removing asbestos or potentially asbestos contaminated material must be performed according to the requirements set out in Part 6 of British Columbia Occupational Health and Safety Regulation (BC Reg. 296/97, as amended by BC Reg. 312/2003).
- An Exposure Control Plan must be in place, and a site-specific Risk Assessment must be created for each instance where asbestos removal is required (per OHS Guideline G20.112).

## LEAD BASED PAINT

- Prior to any work involving the disturbance of lead contaminated materials, contractors will be required to have an Exposure Control Plan in place to mitigate worker exposure to lead dust and contaminated material.
- A Risk Assessment for lead (with safe work procedures for the specific removal activity) is required for any disturbance of lead contaminated materials where there is a risk of lead dust release.
- Demolition debris should not be shredded, milled, chipped, mulched or similarly processed in such a way that would increase the leachability of the material prior to disposal (i.e., processed in a manner that increases the surface area and/or assists in the breakdown of the material so as to promote absorption of the material into a liquid).
- Where lead paint is present on an asbestos-containing substrate, follow asbestos materials removal and disposal procedures.
- Lead-based paint with lead concentration exceeding 100 ppm has been identified.
  - TCLP testing has been done to determine leachable lead concentration:
    - TCLP test results confirm leachable lead concentration is < 5mg/L; the material may be disposed of at a local landfill.

### OTHER HAZARDOUS AND REGULATED MATERIALS

### **PCB**

 Where removal is required to facilitate renovation or demolition activities, inspect all fluorescent light ballast for manufacturer name and serial number and determine if PCBs are present. Refer to Environment Canada's <u>Electrical contractors and PCB regulations</u> for identification whether a ballast contains a PCB capacitor, and for disposal criteria.

### Mercury

 Where removal is required to facilitate renovation or demolition activities, collect mercury vapour lighting (high voltage lights and fluorescent light tubes) for vapour recycling at <a href="https://www.lightrecycle.ca/collection-site-locator"><u>www.lightrecycle.ca/collection-site-locator</u></a>. Use caution to not break the glass thereby releasing mercury.

## **Biological Contaminants**

- Abatement of biological contaminants prior to building demolition is not required but workers
  entering areas where mould contamination may be present should be protected with P100
  HEPA filtered respiratory protection. Personal decontamination with soap and water should
  also be performed following potential worker contact with mould contamination.
- Minimize dust creation with the use of dust suppression water during building demolition activities.

### **Silica Containing Materials**

 An Exposure Control Plan for Silica with safe work procedures is required prior to disturbing materials containing silica.

## LIMITATIONS OF THIS REPORT

Peak Environmental Ltd. has prepared this Hazardous and Regulated Materials Assessment Report pursuant to WorkSafeBC OHS Regulation Section 20.112 Hazardous Materials in the Workplace which requires a project specific detailed pre-demolition / pre-renovation assessment for asbestos and other hazardous or regulated materials prior to any work of salvage, cutting, damaging or demolishing, in part or in whole, building finishes, components, machinery, equipment, buildings or structures. The purpose of this report is to identify hazardous and regulated materials within the building as per the scope defined by the District of Mackenzie. All results provided in this report are based on conditions at time of survey and apply only to the area and materials defined by the client's scope of work. Results and recommendations are not to be extrapolated to any areas or materials outside of the stated project scope.

While this assessment was conducted with the utmost detail and diligence, there may exist instances where asbestos-containing applications are present in the building but not identified through this report. Site conditions and building construction or occupancy may have not permitted the complete inspection of some void spaces. These spaces may contain asbestos applications not identified in this report. Any suspect materials located within void spaces should be inspected and/or tested to determine if they are asbestos-containing.

To facilitate this pre-demolition/renovation assessment and where possible within any exceptions noted in this report, inspection of sub-flooring applications located beneath carpeting and vinyl flooring and building finishes and membrane materials was performed to locate all potential asbestos applications within the building. No inspection of sub-flooring applications was performed once a structural member was discovered (*i.e.* concrete or shiplap). There is a possibility that subsequent asbestos applications, not identified in this report, may be located beneath items deemed to be structural members. Any suspect materials sandwiched between multiple building finishing layers should be inspected or tested to determine if they are asbestos-containing.

Any quantities listed in these documents are estimates only. Peak Environmental Ltd. accepts no liability for inaccurate, misleading or conflicting information contained within this report.

The liability of Peak Environmental Ltd., its staff or agents, will be limited to the lesser of the actual damages incurred, fees paid by the Client or as set forth in the limitations expressed in Errors and Omissions Insurance held by Peak Environmental Ltd.

Dale VanBerlo, F

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Final Report Review:

File: 6391F R01kl Pre-Demo Hazmat Assessment - Airport Building - 2024-06-03

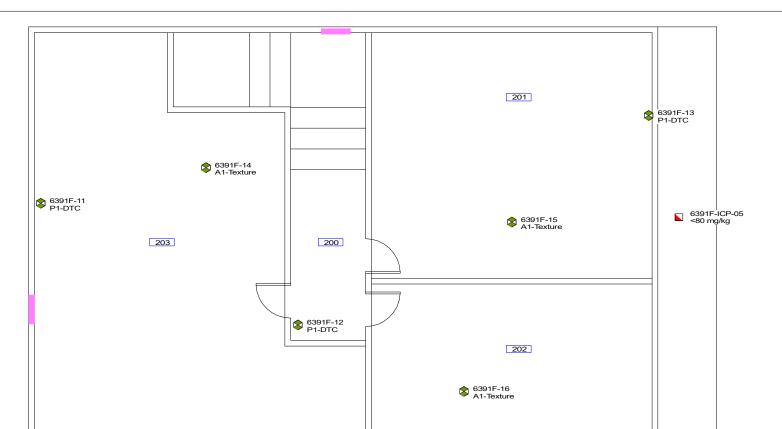
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This report has been prepared for the sole use of the District of Mackenzie. The conclusions and recommendations presented in this report are the best judgment of the author. In the event that this report is provided to a third party without the written consent of Peak Environmental Ltd., any use that a third party makes of this report, or any reliance on the decisions made based on this report, are the sole responsibility of that third party. Peak Environmental Ltd. accepts no responsibility for damages, should any occur, that are suffered by any third party as a result of decisions made or actions taken based on this report.

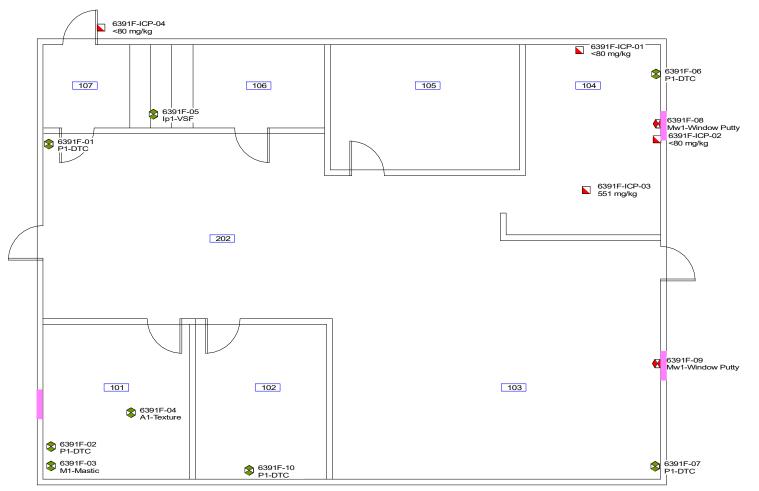
# APPENDIX A DESCRIPTION OF ASSESSED MATERIALS AND SAMPLE RESULTS SUMMARY

MATE	RIALS AS	SSESSED FOR ASBESTOS - SAM	IPLING LOG	Project:	6391F	
	Building: Airport Building ANCILLAR					
Code	Qualifier Number	Visual Description	Sampled or Assessed Location	Sample Number	Lab Results	
Α	1	Splatter pattern stipple texture	Office 101	6391F-04	No Asbestos Detected	
Α	1	Splatter pattern stipple texture	Office 102	6391F-10	No Asbestos Detected	
Α	1	Splatter pattern stipple texture	Kitchen 203	6391F-14	No Asbestos Detected	
Α	1	Splatter pattern stipple texture	Bedroom 201	6391F-15	No Asbestos Detected	
Α	1	Splatter pattern stipple texture	Bedroom 202	6391F-16	No Asbestos Detected	
lp	1	Cream square pattern, paper back vinyl sheet flooring	Stairs Up 107	6391F-05	No Asbestos Detected	
М	1	Grey fibre gum on wall penetration	Office 101	6391F-03	No Asbestos Detected	
Mw	1	Grey or black sealant between window frame and pane	Reception 104	6391F-08	5-10% Chrysotile Asbestos	
Mw	1	Grey or black sealant between window frame and pane	Waiting Area 103	6391F-09	5-10% Chrysotile Asbestos	
Р	1	White drywall taping compound	Common Area 100	6391F-01	No Asbestos Detected	
Р	1	White drywall taping compound	Office 101	6391F-02	No Asbestos Detected	
Р	1	White drywall taping compound	Reception 104	6391F-06	No Asbestos Detected	
Р	1	White drywall taping compound	Waiting Area 103	6391F-07	No Asbestos Detected	
Р	1	White drywall taping compound	Kitchen 203	6391F-11	No Asbestos Detected	
Р	1	White drywall taping compound	Corridor 200	6391F-12	No Asbestos Detected	
Р	1	White drywall taping compound	Bedroom 201	6391F-13	No Asbestos Detected	
Т	1	Fiberglass batt insulation	Throughout Application	Not Sampled	Known Non- Asbestos Application	

# APPENDIX B FLOOR PLAN



#### SECOND FLOOR



MAIN FLOOR



951 Pinewood Place Kelowna, BC V1Z 3G7 1-877-518-PEAK (7325)

Project No.: 6391F

Drawing:

DRAWING NORTH

### AIRPORT BUILDING

Airport Road

Mackenzie, BC

ASBESTOS
CONTAINING
BUILDING
MATERIAL and
LEAD BASED
PAINT SAMPLE
LOCATIONS

Owner:



#### \_egend:

ASBESTOS WINDOW PUTTY

ASBESTOS
BULK SAMPLE
NUMBER AND
MATERIAL

NON-ASBESTOS
BULK SAMPLE
NUMBER AND
MATERIAL

LEAD BASED PAINT
SAMPLE NUMBER
AND CONCENTRATION

Date: 08.28.2024

Revision:
Scale: NTS
Drawn by: K. LANE

DRAWING NUMBER
6391F ASB 1-1

# APPENDIX C ROOM BY ROOM ASBESTOS INVENTORY

104 Reception

107 Stairs Up

105

106

Washroom

Under Stair Storage

Carpet

Ceramic

Ceramic

Conc/

lp1(100)

Conc

Conc

Conc

Wd

	Building Typ	e: Comn	nercial	Bu	ilding Name:	Airport Build	ding				Date:	08/23		ANCI	LLARY IN	FORMATION
	r: TB-Tack Board / GW ptors: (at)-concealed a	71						•					eglass Rei		Plastic	
	: (H) high - application															
	Only known or visually on this s		stos appli	cations are no	ted on these	Ancillary pag	ges. Additio	nal asbestos	applications	may be	Yellow hig	hlighting in	ndicates as	sbestos a	pplication	s
											BLUE high	nlighting in	dicates <i>Sι</i>	<i>ispect</i> as	bestos ap	plication
Ac - Acc Af - Spr B - Pipe C - Cem	oustic Insulation ay-Applied Fireproofing Insulation ent Pipe Fitting	D - Cement Pary Dt - Equipment I E - Duct Insulati F - Insulating Pa Fb - Insulated D Fj - Insulating Pa	Parging on oper uct Boot	Fw - Insulated [ G - Ceiling Pand H -Vinyl Floor T I - Vinyl Sheet F Ip - Paper Back	Ouct Wrap el ile Flooring	MATERIAL ID. J - Cement Bood Jf - Asbestos F Jp - Cement P Jw - Cement B K - Equipment	ard Furnishings ipe oard Window	Kp - F L - In M - M Panel Md -	Pipe Gasketin candescent L lastic Glue / S Mastic Duct Jo Mastic Sink Co	g N - Pipe ght Pad O - Flo ealant P - Dry bint PI - Pla	wall Tape C	cking R - Cement S - omp. Ss T -	- Roofing S - Refractory - Exterior W - Exterior S - Bldg Theri - Friction Ma	/ Cement all Stucco Soffit Stucc mal Insula	Va - \ W - W X - Fi	ermiculite Wall /ermiculite Attic /oven Textile re Doors
Area No.	Room Name	Visible Floor	Second Floor Layer	d Third Floor Layer	North Wall	East Wall	South Wall	West Wall	First Ceiling or Roof	Second Ceiling	Third Ceiling	Mech. Pipe	Pipe Fitting	Mech. Duct	Other	Quantity
	Exterior				Metal	Metal	Metal	Metal	Metal						M1	
	MAIN FLOOR															
100	Common Area	Conc			P1	-	Wd	P1	A1 on P1							
101	Office	Carpet	Conc		Wd	Wd	Wd	P1	A1 on P1						<b>Mw1</b> / M1	
102	Office	Carpet	Conc		Wd	Wd	Wd	P1	A1 on P1							
103	Waiting Area	Conc/ Carpet	Conc		-	P1	P1	Wd	A1 on P1						Mw1	

P1

P1

Ρ1

P1

P1

P1

P1

Wd

Wd

P1

P1

P1

P1

P1

P1

P1

A1 on P1

P1

Ρ1

A1 on P1

Mw1

203 Kitchen

Wd

P1

P1

P1

P1

A1 on P1

	Building Typ	e: Co	nmercial	Bui	lding Name:	Airport Build	ding				Date:	08/23/ mm-do		ANCI	LLARY IN	FORMATION
Descri	v: TB-Tack Board / GW ptors: (at)-concealed a : (H) high - application a	above T-bar	ceiling / (af)-	-concealed abo	ove fixed ceil	ling / (uw)-co	ncealed beh	ind wall pape	er / (*) - pres	umed present;	area or ap	FRP-Fibre	eglass Rei ot accessi		'lastic	
	Only known or visually on this s		bestos appli	cations are not	ted on these	Ancillary pag	ges. Additio	onal asbestos	applications	s may be	Yellow hig	hlighting in	ndicates as	sbestos a	pplication	s
											BLUE high	hlighting in	dicates <i>Sι</i>	<i>ispect</i> as	bestos ap	plication
Ac - Acc Af - Spr B - Pipe C - Cen	oustic Insulation ay-Applied Fireproofing Insulation nent Pipe Fitting	D - Cement F Dt - Equipme E - Duct Insu F - Insulating Fb - Insulate Fj - Insulating	nt Parging ation Paper Duct Boot	Fw - Insulated D G - Ceiling Pand H -Vinyl Floor Ti I - Vinyl Sheet F Ip - Paper Back	ouct Wrap el ile Tooring	MATERIAL ID J - Cement Bo Jf - Asbestos F Jp - Cement P Jw - Cement B K - Equipment	ard Furnishings ipe Joard Window	Kp - I L - In M - M r Panel Md -	Pipe Gasketin candescent L lastic Glue / S Mastic Duct Jo Mastic Sink Co	g N - Pip ight Pad O - Flo iealant P - Dry oint PI - Pla	/wall Tape C	acking R - Cement S - Comp. Ss T -	s - Roofing - Refractory - Exterior W - Exterior S - Bldg Then - Friction M	/ Cement /all Stucco Soffit Stucc mal Insula	Va - V W - W co X - Fir	ermiculite Wall /ermiculite Attic /oven Textile re Doors
Area No.	Room Name	Visible Floor	Second Floor Layer	Floor	North Wall	East Wall	South Wall	West Wall	First Ceiling or Roof	Second Ceiling	Third Ceiling	Mech. Pipe	Pipe Fitting	Mech. Duct	Other	Quantity
	SECOND FLOOR															
200	Corridor	lp1(75	Wd		P1	P1	P1	P1	A1 on P1						Mw1	
201	Bedroom	Carpet	Wd		P1	P1	P1	P1	A1 on P1							
202	Bedroom	Carpet	Wd		P1	P1	P1	P1	A1 on P1							

Mw1

District of Mackenzie			
HAZARDOUS & REGUL	ATED MATERIALS	ASSESSMENT	REPORT

# APPENDIX D BUILDING CONSTRUCTION INFORMATION





SURVEY INFORMATION												
Surveyor:		OV	Date:	08/23/2024	_	Building	:		Air	port Building		
Survey Type:	Χ	Full Hazmat		Limited Scope	Χ	Pre-Demo		Pre-Reno		Pre-Purchase		Inventory Only
Details:	Χ	Floors Cored	Χ	Walls Cored	Χ	Carpet Lifted		Drawings	Χ	Bldg Vacant		Bldg Occupied
BUILDING INFORM	MATIO	<u>N</u>										
Construction:	unk	nown Date		1800 Ft <sup>2</sup>	Χ	Wood Frame		Brick / Block		Steel Stud		CIP Concrete
Constituction.	2	Stories		Crawlspace Full		C/sp Partial		Basement Full		Bsmt Partial		Attic Space
Additions(s)		Observed		Reported		Date		Renovated (yes)	Χ	Renovated (No	)	Reno Date
Roofing:		Shingle		Tar and Gravel		Torch-on	Χ	Metal		Concrete		Not in Scope
Exterior:		Wood	Χ	Metal/Vinyl		Concrete		Stucco		Masonry		Not in Scope
Exterior Panels		Wood	Χ	Metal/Vinyl		Concrete		Stucco				Not in Scope
Window Frames	Χ	Putty		Glazing		Rubber		Caulking		Foam		None
Interior:	Χ	Wood		Plaster	Χ	Drywall		Covered D/W	Χ	Concrete		Other Non-Asb
Interior Ceilings:		Wood		Plaster	Χ	Drywall		T-Bar		Concrete		Exposed Str
Heating:		Hot Water		Wood		Furnace		Roof Top	Χ	Electric		Other Non-Asb
Heat Distribution:		Radiant		Ducted	Χ	Baseboard						Other Non-Asb
Thermal Insulation:		Vermiculite	Χ	Fiberglass		Rock Wool		Cellulose		Wood Chip		Other Non-Asb
MECHANICAL SYS	STEMS	3										
Ducting:	Χ	None		Cork		Fiberglass		Rock Wool		Asb Paper		Other Non-Asb
Duct Joints:	Χ	None		Asbestos Tape		Vinyl Tape		Joint Sealant		Foil Tape		Other Non-Asb
Water Piping:	Χ	None		Fiberglass		Asb Lagging		Cork		Foam		Other Non-Asb
Pipe Fittings:	Χ	None		Cement (exposed)		Cement (con)		Fiberglass		PVC		Other Non-Asb
Rain Water Leader:	Χ	None		Cast Iron		Copper		Asbestos Pipe		Plastic		Other Non-Asb
Roof Drain Bowls:	Χ	None		Cement (exposed)		Cement (con)		Fiberglass				Other Non-Asb
Sanitary:	Χ	Plastic		Copper		Cast Iron		Asbestos Pipe				Not in Scope
Chimney Liner:	Χ	None		Cast Iron / Metal		Ceramic		Asbestos Pipe		Masonry		Not in Scope

# APPENDIX E SITE PHOTOGRAPHS

District of Mackenzie HAZARDOUS & REGULATED MATERIALS ASSESSMENT REPORT				
M	ATERIALS ASSESSED FOR ASBESTOS-CONTENT			

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Airport Building	Code	Material Description	Sample Number / Information	Lab Results
DANGER  FOR THE CONTROL OF THE CONTR	A 1	Splatter pattern etipole	6391F-04	No Asbestos Detected
	lp 1	Cream square pattern, paper back vinyl sheet flooring	6391F-05	No Asbestos Detected
DANGER  THAT CONTAINS  ASSESSION DESCRIPTION  DATE FREES  AND DESCRIPTION	M 1	Grey fibre gum on wall penetration	6391F-03	No Asbestos Detected

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Airport Building	Code Modifier	Material Description	Sample Number / Information	Lab Results
	Mw 1	Grey or black sealant between window frame and pane	6391F-08	5-10% Chrysotile Asbestos
DANGER POTTATHALLY CONTINUE GIT A AND DIST AND SIN BOTT MARKET BOT	P 1	White drywall taping compound	6391F-01	No Asbestos Detected
	Т1	Fiberglass batt insulation	Not Sampled	Known Non- Asbestos Application

District of Mackenzie HAZARDOUS & REGULATED MATERIALS ASSESSMENT REPORT				
LEAD IN PAINT AND OTHER HAZARDOUS MATERIALS				

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Lead Paint and Other Hazardous Materials Airport Building	Material Description	Sample Number / Information	Lead Conc.
632 F. Art S. S. Markets and Delpark	Cream on drywall - Reception 104	ICP-01	<80 mg/kg
6391F-1CF-07 ECZEW AND WARD	Green on wood - Reception 104	ICP-02	<80 mg/kg
	Grey with cream undercoat on concrete - Waiting Area 103	ICP-03	551 mg/kg

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Lead Paint and Other Hazardous Materials Airport Building	Material Description	Sample Number / Information	Lead Conc.
637/F PC-of. INPLTE ON LIANS	White on door frame - Exterior North	ICP-04	<80 mg/kg
	Cream on wood deck - Exterior East	ICP-05	<80 mg/kg
	Mercury containing fluorescent lighting (tubes, CFC, high voltage)		

District of Macke	nzie		
HAZARDOUS & R	FGULATED MATERIALS	<b>ASSESSMENT</b>	RFPORT

# APPENDIX F LABORATORY ANALYTICAL RESULTS

District of Mackenzie HAZARDOUS & REGULATED MATERIALS ASSESSMENT REPORT				
MA	ATERIALS ASSESSED FOR ASBESTOS-CONTENT			





# **CERTIFICATE OF ANALYSIS**

**REPORTED TO** Peak Environmental Ltd.

951 Pinewood Place

West Kelowna, BC V1Z 3G7

**ATTENTION** Steve Ferguson

PO NUMBER 6391F PROJECT 6391F

PROJECT INFO Airport Building

WORK ORDER

**COC NUMBER** 

24H3349

RECEIVED / TEMP REPORTED 2024-08-26 16:25 / NA

2024-08-27 15:02

No Number

#### Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



We've Got Chemistry



Ahead of the Curve



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead Account Manager A what



REPORTED TO	Peak Environmental Ltd.	<b>WORK ORDER</b>	24H3349
PROJECT	6391F	REPORTED	2024-08-27 15:02

Analyte	Result	RL Units	Analyzed	Qualifie
White Drywall Taping Compound 2024-08-23	- Common Area 100 - 6391F-01 (24H3	3349-01)   Matrix: Solid   Sample	ed:	
Polarized Light Microscopy Analysis				
Asbestos Fibres	Absent	0.5 % dry	2024-08-27	
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-27	
	> 99	1.0 % dry	2024-08-27	

# White Drywall Taping Compound - Office 101 - 6391F-02 (24H3349-02) | Matrix: Solid | Sampled: 2024-08-23

Polarized Light Microscopy Analysis				
Asbestos Fibres	Absent	0.5 % dry	2024-08-27	
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-27	
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-27	

# Grey Fibre Gum On Wall Penetration - Office 101 - 6391F-03 (24H3349-03) | Matrix: Solid | Sampled: 2024-08-23

# Polarized Light Microscopy Analysis Asbestos Fibres Absent 0.5 % dry 2024-08-27 Non-Asbestos Fibres (10 - 20) 1.0 % dry 2024-08-27 Non-Fibrous Materials (80 - 90) 1.0 % dry 2024-08-27

# Splatter Pattern Stipple Texture - Office 101 - 6391F-04 (24H3349-04) | Matrix: Solid | Sampled: 2024-08-23

# Polarized Light Microscopy Analysis Asbestos Fibres Absent 0.5 % dry 2024-08-27 Non-Asbestos Fibres (5 - 10) 1.0 % dry 2024-08-27 Non-Fibrous Materials (90 - 95) 1.0 % dry 2024-08-27

# Cream Square Pattern, Paper Back VSF - Stairs Up 107 - 6391F-05 (24H3349-05) | Matrix: Solid | Sampled: 2024-08-23

Polarized Light Microscopy Analysis				
Asbestos Fibres	Absent	0.5 % dry	2024-08-27	
Non-Asbestos Fibres	(40 - 50)	1.0 % dry	2024-08-27	
Non-Fibrous Materials	(50 - 60)	1.0 % dry	2024-08-27	

# White Drywall Taping Compound - Reception 104 - 6391F-06 (24H3349-06) | Matrix: Solid | Sampled: 2024-08-23

Polarized Light Microscopy Analysis				
Asbestos Fibres	Absent	0.5 % dry	2024-08-27	
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-27	
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-27	



REPORTED TO	Peak Environmental Ltd.	<b>WORK ORDER</b>	24H3349
PROJECT	6391F	REPORTED	2024-08-27 15:02

Analyte	Result	RL Units	Analyzed	Qualifier
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### White Drywall Taping Compound - Waiting Area 103 - 6391F-07 (24H3349-07) | Matrix: Solid | Sampled: 2024-08-23

#### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-27
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-27
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-27

#### Grey or Black Sealant Between Window Frame and Pane - Reception 104 - 6391F-08 (24H3349-08) |

Matrix: Solid | Sampled: 2024-08-23

#### Polarized Light Microscopy Analysis

Chrysotile Asbestos	(5 - 10)	0.5 % dry	2024-08-27
Non-Asbestos Fibres	(1 - 5)	1.0 % dry	2024-08-27
Non-Fibrous Materials	(90 - 95)	1.0 % dry	2024-08-27

### Grey or Black Sealant Between Window Frame and Pane - Waiting Area 103 - 6391F-09 (24H3349-09) |

Matrix: Solid | Sampled: 2024-08-23

#### Polarized Light Microscopy Analysis

Chrysotile Asbestos	(5 - 10)	0.5 % dry	2024-08-27	
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-27	
Non-Fibrous Materials	(90 - 95)	1.0 % drv	2024-08-27	

### Splatter Pattern Stipple Texture - Office 102 - 6391F-10 (24H3349-10) | Matrix: Solid | Sampled: 2024-08-23

#### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-27	
Non-Asbestos Fibres	(5 - 10)	1.0 % dry	2024-08-27	
Non-Fibrous Materials	(90 - 95)	1.0 % dry	2024-08-27	

#### White Drywall Taping Compound - Kitchen 203 - 6391F-11 (24H3349-11) | Matrix: Solid | Sampled: 2024-08-23

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-27	
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-27	
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-27	

### White Drywall Taping Compound - Corridor 200 - 6391F-12 (24H3349-12) | Matrix: Solid | Sampled: 2024-08-23

# Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-27
Non-Asbestos Fibres	<1	1.0 % dry	2024-08-27



REPORTED TO	Peak Environmental Ltd.	<b>WORK ORDER</b>	24H3349
DDO IECT	6301F	PEDOPTED	2024 08 27 15:02

Analyte	Result	RL Units	Analyzed	Qualifie
White Drywall Taping Compour 2024-08-23, Continued	nd - Corridor 200 - 6391F-12 (24H3349-1	e)   Matrix: Solid   Sampled:		
Polarized Light Microscopy Analys	sis, Continued			
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-27	
White Drywall Taping Compour 2024-08-23	nd - Bedroom 201 - 6391F-13 (24H3349-	3)   Matrix: Solid   Sampled:		
Polarized Light Microscopy Analys	sis			
		0.5 % dry	2024-08-27	
Asbestos Fibres	Absent	0.5 % ury		
Asbestos Fibres Non-Asbestos Fibres	Absent < 1	1.0 % dry	2024-08-27	
Non-Asbestos Fibres Non-Fibrous Materials Splatter Pattern Stipple Texture		1.0 % dry 1.0 % dry	2024-08-27 2024-08-27	
Non-Asbestos Fibres Non-Fibrous Materials  Splatter Pattern Stipple Texture 2024-08-23  Polarized Light Microscopy Analys	< 1 > 99 - Kitchen 203 - 6391F-14 (24H3349-14)	1.0 % dry 1.0 % dry  Matrix: Solid   Sampled:	2024-08-27	
Non-Asbestos Fibres Non-Fibrous Materials  Splatter Pattern Stipple Texture 2024-08-23  Polarized Light Microscopy Analys Asbestos Fibres	< 1 > 99 - Kitchen 203 - 6391F-14 (24H3349-14) sis	1.0 % dry 1.0 % dry  1.0 % dry  Matrix: Solid   Sampled:  0.5 % dry	2024-08-27	
Non-Asbestos Fibres Non-Fibrous Materials  Splatter Pattern Stipple Texture 2024-08-23  Polarized Light Microscopy Analys	< 1 > 99 - Kitchen 203 - 6391F-14 (24H3349-14)	1.0 % dry 1.0 % dry  Matrix: Solid   Sampled:	2024-08-27	
Non-Asbestos Fibres Non-Fibrous Materials  Splatter Pattern Stipple Texture 2024-08-23  Polarized Light Microscopy Analys Asbestos Fibres Non-Asbestos Fibres Non-Fibrous Materials	< 1 > 99 - Kitchen 203 - 6391F-14 (24H3349-14) sis Absent (1 - 5)	1.0 % dry 1.0 % dry 1.0 % dry  Matrix: Solid   Sampled:  0.5 % dry 1.0 % dry 1.0 % dry	2024-08-27 2024-08-27 2024-08-27	
Non-Asbestos Fibres Non-Fibrous Materials  Splatter Pattern Stipple Texture 2024-08-23  Polarized Light Microscopy Analys Asbestos Fibres Non-Asbestos Fibres Non-Fibrous Materials  Splatter Pattern Stipple Texture	< 1 > 99  - Kitchen 203 - 6391F-14 (24H3349-14)  sis  Absent (1 - 5) (95 - 99)  - Bedroom 201 - 6391F-15 (24H3349-15)	1.0 % dry 1.0 % dry 1.0 % dry  Matrix: Solid   Sampled:  0.5 % dry 1.0 % dry 1.0 % dry	2024-08-27 2024-08-27 2024-08-27	
Non-Asbestos Fibres Non-Fibrous Materials  Splatter Pattern Stipple Texture 2024-08-23  Polarized Light Microscopy Analys Asbestos Fibres Non-Asbestos Fibres Non-Fibrous Materials  Splatter Pattern Stipple Texture 2024-08-23	< 1 > 99  - Kitchen 203 - 6391F-14 (24H3349-14)  sis  Absent (1 - 5) (95 - 99)  - Bedroom 201 - 6391F-15 (24H3349-15)	1.0 % dry 1.0 % dry 1.0 % dry  Matrix: Solid   Sampled:  0.5 % dry 1.0 % dry 1.0 % dry	2024-08-27 2024-08-27 2024-08-27	
Non-Asbestos Fibres Non-Fibrous Materials  Splatter Pattern Stipple Texture 2024-08-23  Polarized Light Microscopy Analys Asbestos Fibres Non-Asbestos Fibres Non-Fibrous Materials  Splatter Pattern Stipple Texture 2024-08-23  Polarized Light Microscopy Analys	< 1 > 99  - Kitchen 203 - 6391F-14 (24H3349-14)  sis  Absent (1 - 5) (95 - 99)  - Bedroom 201 - 6391F-15 (24H3349-15)	1.0 % dry 1.0 % dry 1.0 % dry  Matrix: Solid   Sampled:  0.5 % dry 1.0 % dry 1.0 % dry 1.0 % dry 1.0 % dry	2024-08-27 2024-08-27 2024-08-27 2024-08-27	

# Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-27	
Non-Asbestos Fibres	(5 - 10)	1.0 % dry	2024-08-27	
Non-Fibrous Materials	(90 - 95)	1.0 % dry	2024-08-27	



# **APPENDIX 1: SUPPORTING INFORMATION**

REPORTED TO Peak Environmental Ltd. WORK ORDER 24H3349

**PROJECT** 6391F **REPORTED** 2024-08-27 15:02

Analysis Description	Method Ref.	Technique	Accredited	Location
Asbestos in Bulk Materials in Solid	EPA 600/R-93/116	Polarized Light Microscopy (PLM)	✓	Kelowna

#### **Glossary of Terms:**

RL Reporting Limit (default)
% dry Percent (dry weight basis)

Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors

> Greater than the specified Result

EPA United States Environmental Protection Agency Test Methods

#### **General Comments:**

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed.

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted red. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do <u>not</u> take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager:bwhitehead@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.



# **APPENDIX 2: QUALITY CONTROL RESULTS**

 REPORTED TO
 Peak Environmental Ltd.
 WORK ORDER
 24H3349

 PROJECT
 6391F
 REPORTED
 2024-08-27 15:02

The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- Blank Spike (BS): A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- Matrix Spike (MS): A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- Reference Material (SRM): A homogenous material of similar matrix to the samples, certified for the parameter(s) listed.
   Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polarized Light Microscopy Analysi	s, Batch B4H3999								
Blank (B4H3999-BLK1)			Prepared	l: 2024-08-2	7, Analyze	d: 2024-0	08-27		
Asbestos Fibres	Absent	0.5 % dry							
Non-Asbestos Fibres	< 1.0	1.0 % dry							
Non-Fibrous Materials	< 1.0	1.0 % dry							
Blank (B4H3999-BLK2)			Prepared	l: 2024-08-2	7, Analyze	d: 2024-0	08-27		
Asbestos Fibres	Absent	0.5 % dry							
Non-Asbestos Fibres	< 1.0	1.0 % dry							
Non-Fibrous Materials	< 1.0	1.0 % dry							
Duplicate (B4H3999-DUP2)	Source	e: 24H3349-01	Prepared	l: 2024-08-2	7, Analyze	d: 2024-0	08-27		
Asbestos Fibres	Absent	0.5 % dry		Absent				55	
Non-Asbestos Fibres	< 1.0	1.0 % dry		< 1.0				55	
Non-Fibrous Materials	> 99	1.0 % dry		> 99				55	
Reference (B4H3999-SRM1)			Prepared	l: 2024-08-2	7, Analyze	d: 2024-0	08-27		
Chrysotile Asbestos	(5 - 10)	0.5 % dry	7.00		100	80-120			
Non-Fibrous Materials	(90 - 95)	1.0 % dry	93.0		100	80-120			
Reference (B4H3999-SRM2)			Prepared	l: 2024-08-2	7, Analyze	d: 2024-0	08-27		
Chrysotile Asbestos	(5 - 10)	0.5 % dry	7.00	_	100	80-120			
Non-Fibrous Materials	(90 - 95)	1.0 % dry	93.0		100	80-120			

District of Mack HAZARDOUS &	kenzie REGULATED MATERIALS ASSESSMENT REPORT
	LEAD IN PAINT AND OTHER HAZARDOUS MATERIALS





## **CERTIFICATE OF ANALYSIS**

**REPORTED TO** Peak Environmental Ltd.

951 Pinewood Place

West Kelowna, BC V1Z 3G7

**ATTENTION** Steve Ferguson

PO NUMBER 6391F PROJECT 6391F

PROJECT INFO Airport Building

WORK ORDER

24H3424

RECEIVED / TEMP REPORTED

**COC NUMBER** 

2024-08-26 16:25 / NA

2024-08-29 16:58

No Number

#### Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



We've Got Chemistry



Ahead of the Curve



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

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If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead Account Manager A what



REPORTED TO	Peak Environmental Ltd.	WORK ORDER	24H3424
PROJECT	6391F	REPORTED	2024-08-29 16:58

TROUEST GGGTT		KEI OKTED	2021 00 2	10.00
Analyte	Result	RL Units	Analyzed	Qualifier
Cream on drywall - Reception	n 104 - ICP-01 (24H3424-01)   Matrix: Solid	Sampled: 2024-08-23		
Metals in Paint				
Lead	< 80.0	80.0 mg/kg	2024-08-29	
Green on wood - Reception 1	04 - ICP-02 (24H3424-02)   Matrix: Solid	Sampled: 2024-08-23		
Metals in Paint				
Lead	< 80.0	80.0 mg/kg	2024-08-29	
Sampled: 2024-08-23  Metals in Paint				
Metals in Paint				
Lead	551	80.0 mg/kg	2024-08-29	
White on door frame - Exterio	or North - ICP-04 (24H3424-04)   Matrix: So	olid   Sampled: 2024-08-23		
Metals in Paint				
Lead	< 80.0	80.0 mg/kg	2024-08-29	
Cream on wood deck - Exteri	or East - ICP-05 (24H3424-05)   Matrix: So	lid   Sampled: 2024-08-23		
Metals in Paint				
Lead	< 80.0	80.0 mg/kg	2024-08-29	



# **APPENDIX 1: SUPPORTING INFORMATION**

REPORTED TO Peak Environmental Ltd.

**PROJECT** 6391F 2024-08-29 16:58

Analysis Description	Method Ref.	Technique	Accredited	Location
SALM in Solid	ASTM E1645* / EPA 6020B	HNO3+H2O2 / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)		Richmond

**WORK ORDER** 

24H3424

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

#### Glossary of Terms:

RL Reporting Limit (default)

Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors

mg/kg Milligrams per kilogram (dry weight basis)

EPA United States Environmental Protection Agency Test Methods

#### General Comments:

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# **APPENDIX 2: QUALITY CONTROL RESULTS**

 REPORTED TO
 Peak Environmental Ltd.
 WORK ORDER
 24H3424

 PROJECT
 6391F
 REPORTED
 2024-08-29 16:58

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- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- Duplicate (Dup): An additional or second portion of a randomly selected sample in the analytical run carried through the entire
  analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- Blank Spike (BS): A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- Matrix Spike (MS): A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- Reference Material (SRM): A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Metals in Paint, Batch B4H4396         Prepared: 2024-08-29, Analyzed: 2024-08-29           Blank (B4H4396-BLK1)         Prepared: 2024-08-29, Analyzed: 2024-08-29           Lead         < 80.0									
Blank (B4H4396-BLK1)         Prepared: 2024-08-29, Analyzed: 2024-08-29           Lead         < 80.0	Result	RL Units	•		% REC		% RPD		Qualifier
Lead         < 80.0         80.0 mg/kg           Duplicate (B4H4396-DUP1)         Source: 24H3424-01         Prepared: 2024-08-29, Analyzed: 2024-08-29           Lead         < 80.0         80.0 mg/kg         < 80.0         40           Reference (B4H4396-SRM1)         Prepared: 2024-08-29, Analyzed: 2024-08-29									
Duplicate (B4H4396-DUP1)         Source: 24H3424-01         Prepared: 2024-08-29, Analyzed: 2024-08-29           Lead         < 80.0			Prepared	d: 2024-08-2	9, Analyze	d: 2024-0	08-29		
Lead         < 80.0         80.0 mg/kg         < 80.0         40           Reference (B4H4396-SRM1)         Prepared: 2024-08-29, Analyzed: 2024-08-29	< 80.0	80.0 mg/kg							
Reference (B4H4396-SRM1) Prepared: 2024-08-29, Analyzed: 2024-08-29	Sour	ce: 24H3424-01	Prepared	d: 2024-08-2	9, Analyze	d: 2024-0	08-29		
	< 80.0	80.0 mg/kg		< 80.0				40	
Lead 987 80.0 mg/kg 1000 99 70-130			Prepared	d: 2024-08-2	9, Analyze	d: 2024-0	08-29		
25. 25.5 mg/ng 1000 00 10 100	987	80.0 mg/kg	1000		99	70-130			
		< 80.0 <b>Sour</b> < 80.0	< 80.0 80.0 mg/kg  Source: 24H3424-01  < 80.0 80.0 mg/kg	Prepared	Prepared: 2024-08-2	Prepared: 2024-08-29, Analyze   Source: 24H3424-01   Prepared: 2024-08-29, Analyze   < 80.0   80.0   mg/kg   < 80.0   Prepared: 2024-08-29, Analyze   < 80.0	Prepared: 2024-08-29, Analyzed: 2024-08-29   Source: 24H3424-01   Prepared: 2024-08-29, Analyzed: 2024-08-29	Prepared: 2024-08-29, Analyzed: 2024-08-29	Prepared: 2024-08-29, Analyzed: 2024-08-29   Source: 24H3424-01   Prepared: 2024-08-29, Analyzed: 2024-08-29   < 80.0   80.0 mg/kg   < 80.0   80.0 mg/kg   < 80.0   40   Prepared: 2024-08-29, Analyzed: 2024-08-29   < 80.0   Prepared: 2024-08-29   < 80.0   Prepa





## **CERTIFICATE OF ANALYSIS**

**REPORTED TO** Peak Environmental Ltd.

951 Pinewood Place

West Kelowna, BC V1Z 3G7

**ATTENTION** Steve Ferguson

6391F **PO NUMBER** 6391F **PROJECT** 

**PROJECT INFO** Airport Building **WORK ORDER** 

24H3411

**RECEIVED / TEMP REPORTED** 

**COC NUMBER** 

2024-08-26 16:25 / NA

2024-08-29 14:21

No Number

#### Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

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If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

**Brent Whitehead** Account Manager What



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 Peak Environmental Ltd.
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 24H3411

 PROJECT
 6391F
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 2024-08-29 14:21

Analyte	Result	RL Units	Analyzed	Qualifier
Building Demolition Waste Strea	m - TCLP-01 (24H3411-01)   Matrix: S	olid   Sampled: 2024-08-23		
TCLP Metals				
Lead	3.0	0.002 mg/L	2024-08-29	
TCLP Non-Volatile Extraction Details	s			
Extraction Fluid pH	4.96	pH units	2024-08-29	
Final Extract pH	6.07	pH units	2024-08-29	



# **APPENDIX 1: SUPPORTING INFORMATION**

**REPORTED TO** Peak Environmental Ltd.

PROJECT 6391F

WORK ORDER

24H3411

**REPORTED** 2024-08-29 14:21

Analysis Description	Method Ref.	Technique	Accredited	Location
TCLP Extraction in Solid	EPA 1311	20:1 Leach for 18 h		Richmond
TCLP Leachable Metals in Solid	EPA 200.2* / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

#### **Glossary of Terms:**

RL Reporting Limit (default) mg/L Milligrams per litre

pH units pH < 7 = acidic, ph > 7 = basic

EPA United States Environmental Protection Agency Test Methods

#### **General Comments:**

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed.

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted red. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do <u>not</u> take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager:bwhitehead@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.



## **APPENDIX 2: QUALITY CONTROL RESULTS**

 REPORTED TO
 Peak Environmental Ltd.
 WORK ORDER
 24H3411

 PROJECT
 6391F
 REPORTED
 2024-08-29 14:21

The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- Method Blank (Blk): A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- Blank Spike (BS): A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- Matrix Spike (MS): A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- Reference Material (SRM): A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
TCLP Metals, Batch B4H4342									
Blank (B4H4342-BLK1)			Prepared	I: 2024-08-2	29, Analyze	ed: 2024-0	8-29		
Lead	< 0.010	0.010 mg/L							
LCS (B4H4342-BS1)			Prepared	I: 2024-08-2	29, Analyze	ed: 2024-0	8-29		
Lead	0.388	0.010 mg/L	0.400		97	80-120			

#### TCLP Non-Volatile Extraction Details, Batch B4H4213

Blank (B4H4213-BLK1)		Prepared: 2024-08-28, Analyzed: 2024-08-29
Extraction Fluid pH	4.96	pH units
Final Extract pH	4.96	pH units

# APPENDIX G METHODOLOGY

#### ASBESTOS-CONTAINING BUILDING MATERIALS

A complete inventory is carried out to record any materials which may contain asbestos as well as those known to not contain asbestos. The intent of this complete inventory is to demonstrate that all visible and accessible materials have been inspected and identified as either asbestos-containing or non-containing. Materials obviously not asbestos-containing (e.g. fiberglass, wood, metal, ceramic, concrete, etc.) are not listed in the materials description but are included on a per room basis in the Room by Room Inventory (Appendix C) to indicate building finishing materials.

#### **Visual Inspection**

All accessible spaces of the building are entered and visually inspected. Any inaccessible spaces are listed in Survey Limitations.

- The surveyor carries out an initial visual assessment of the structure to determine building
  materials present and establish the number of homogeneous areas for each application. A
  homogeneous area is defined as an area containing material that is 'uniform in texture, colour,
  date of application, and identical in every other way'.
- 2. Each application is then placed into one of the following categories as defined by the Asbestos Hazard Emergency Response Act (AHERA).

<u>Surfacing Material</u>: defined as a material that is sprayed on, troweled on, or otherwise applied to surfaces (structural members, walls, ceilings, *etc.*) for acoustical, decorative, fireproofing, or other purposes.

<u>Thermal System Insulation</u>: defined as a material applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

<u>Miscellaneous</u>: defined as materials which do not fall into the above two categories - typically ceiling tiles and flooring applications.

3. A physical assessment is then carried out for each application to determine its condition to establish potential exposure risk to occupants or workers.

#### Sampling

Sample collection is carried out according to the requirements defined in WorksafeBC OHS Guideline Part 20 which defines number and size requirements by area and material type. Bulk samples are collected and placed in uniquely identified and labelled plastic sample bags. The sample location is recorded and a photograph is taken of the sample with the location overview. The locations and quantities of the material is then recorded. A chain of custody is created to include each unique sample number, material type, and sample location.

#### **District of Mackenzie**

#### **HAZARDOUS & REGULATED MATERIALS ASSESSMENT REPORT**

In some instances, applications are visually identified as 'Known Asbestos' based on the experience of the surveyor. Materials such as pre-1978 insulating cements, corrugated paper pipe insulation, asbestos pipe and cement boards are known to contain asbestos. If these materials are identified, they are noted as being asbestos-containing and no verification samples are collected.

Conversely a small number of applications may be designated as 'Known Non-Asbestos'. Such a designation is based on the experience of the surveyor and includes one or more of the following justifications: the age of the application is later than the use of asbestos in such products; product manufacturer has issued assurance that the product is asbestos-free; extensive previous sampling of identical material has consistently resulted as no asbestos detected.

#### **Laboratory Analysis**

Collected samples are sent to an accredited laboratory for analysis using Polarized Light Microscopy (PLM) in accordance with the <u>NIOSH 9002</u> or EPA 600/R-93/116 method which specifies a level of detection (LOD) of 1% or less to determine asbestos content. As defined in Section 6.1 of the OHS Regulation, all materials containing 0.5 percent or greater of asbestos, and vermiculite insulation containing any asbestos, shall be considered to be asbestos-containing.

Where 'positive stop' is listed on laboratory reports, the laboratory did no further analysis of samples of the same homogenous application once a positive result was identified.

#### **LEAD BASED PAINT**

WorkSafeBC does not define lead based paint numerically. Instead, Exposure Risk Levels are assigned based on a Risk Assessment using several factors, including, but not limited to: lead concentration, type and duration of activity, and amount to be disturbed. For the purposes of this report, sampling and analysis for lead in paint may require up to three testing/analysis methods to determine the following:

- Worker risk of exposure to lead dust
- Risk to occupants, especially vulnerable persons (children, pregnant women, older persons)
- Disposal requirements for lead painted waste

Paint applications are grouped into homogeneous applications based on a visual inspection of paint colour and substrate. Testing of the painted surfaces is then carried out using methods deemed appropriate for the demolition/renovation scenario:

Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS) Analysis: To determine the total
concentration of lead in paint. The paint is tested in accordance with Analytical Method
BCMOE SALM V.2 / EPA 6020B. Reporting limit for this method is 80 mg/kg (ppm) for this
project.

Toxicity Characteristic Leaching Procedure (TCLP): To quantify the concentration of leachable lead in paint in order to determine the disposal requirements of the lead painted waste. Materials with a sample result greater than 5 mg/L are classified as a hazardous waste (as defined in the B.C. Hazardous Waste Regulation), and require treatment and disposal at a site which accepts hazardous waste, such as the Swan Hills Treatment Centre in Alberta. Analytical method used is either EPA 200.2\* / EPA 6020B or Toxicity Characteristic Leachate Procedure (1311/7000B), with a reporting limit of 0.010 mg/L.

An increasing number of landfills now require that all painted (coated) materials with a total lead concentration greater than 100 ppm be further analyzed for leachable lead. Peak Environmental to date has not observed paint samples with a total lead concentration less than 1000 ppm to have a lead leachate result greater than the hazardous materials classification threshold of 5 mg/L. However, to adhere to the landfills' 100 ppm directive, all painted materials with a total lead concentration greater than 100 ppm are indicated for further TCLP analysis.

Samples for TCLP analysis are collected in accordance with ASTM E1908-20 which describes the combining of all lead waste components resulting from the renovation/demolition activity, and extracting one sample of the lead waste components proportionate to their volume in the total waste stream.

#### OTHER HAZARDOUS AND REGULATED MATERIALS

The Scope of Work for this project includes a visual inspection for the following regulated materials, except where noted as *not in scope*:

- Polychlorinated biphenyls (PCBs) in light ballasts
- Mercury in high voltage lighting, fluorescent light tubes and thermostats
- Lead products (eg: lead roof jacks/flashing, solder on copper pipe)
- Ozone depleting substances (ODS) equipment containing Freon or chlorofluorocarbons including refrigerators, freezers, wall-mounted air conditioners and roof top HVAC units.
- Toxic, flammable or explosive materials includes pesticides, herbicides, waste oil, fuel, paints, solvents and other hydrocarbon based fluids
- Biological contaminants mould, fecal matter or sharps /drug paraphernalia
- Silica in glass, gypsum board, plaster, stone, ceramic, bedding sand, brick, concrete, etc.
- Radioactive materials smoke detectors
- Storage tanks above ground, and below if evident; signs of soil contamination

### **Polychlorinated Biphenyls (PCBs)**

PCB-containing light ballasts were manufactured through 1980. Therefore, in buildings constructed prior to 1980, a visual inspection is carried out to tally the number of fluorescent light ballasts that potentially contain PCBs. Classification of potentially PCB or non-PCB for the purposes of this report is based on building/equipment age and ballast type. Conclusive identification is not possible without access to serial numbers, date or non-PCB stamps which often require removal of the light tubes or ballasts. T-8 style light fixtures were not inspected as they utilize a High Efficiency non-PCB ballast.

#### **District of Mackenzie**

#### **HAZARDOUS & REGULATED MATERIALS ASSESSMENT REPORT**

#### Mercury

A visual inspection is done to identify and count any mercury containing thermostats, fluorescent light tubes or high voltage lights.

#### **Other Lead Products**

A visual inspection is done to identify other lead applications such as lead flashings or roof jacks and lead solder on copper pipe.

#### **Ozone Depleting Substances**

An inspection for the presence of CFC or other regulated refrigerants is carried out to locate refrigerators, freezers and wall mounted air conditioning units or roof top HVAC units. HVAC units are noted in the report, however, no inspection of such units is carried out to identify refrigerants.

## **Toxic, Flammable or Explosive Materials**

The building and surrounding area are inspected for any toxic, flammable or explosive materials, however, no inspection for underground storage tanks is performed to ascertain potential soil contamination from spillage during tank filling, or leakage from the tank or supply / return lines. Underground storage tanks are listed where there are above ground indications of such tanks. Any contaminated soil encountered during tank excavation must be collected and remediated as required by the Ministry of Environment.

#### **Biological Contaminants**

The inspection includes biological contaminates such as mould, fecal matter, and potential sharp objects, all of which would require worker awareness and Personal Protective Equipment.

#### **Crystalline Silica**

A visual inspection is carried out for applications which commonly contain crystalline silica.

#### **Radioactive Materials**

Smoke detectors are noted.

# APPENDIX H REGULATORY AGENCIES

#### Provincial Occupational Health and Safety Regulations

Workplace health and safety is regulated in British Columbia by WorkSafeBC under the Workers Compensation Act (effective April 15, 1998), as amended by the Workers' Compensation (Occupational Health and Safety) Amendment Act (effective October 1, 1999) inclusive of Part 3 Division 3, Sections 115 to 124 General Duties of Employers, Workers and Others and Part 5.54 Exposure Control Plan. The Act defines the general duties and obligations of the employer, employees and others at the work site.

Specific actions and work practices are outlined in the WorkSafeBC Occupational Health and Safety (OHS) Regulation for specific work practices.

The OHS Regulation contains legal requirements that must be met by all workplaces under the inspection jurisdiction of WorkSafeBC. Asbestos is governed by Section 6 - Substance Specific Requirements, specifically Section 6.1 through 6.32 and by Section 20 - Construction, Excavation and Demolition, specifically Section 20.112 Hazardous Materials.

WorkSafeBC has published the following manuals:

#### Safe Work Practices for Handling Asbestos and Safe Work Practices for Handling Lead

These manuals outline basic information on asbestos and lead respectively, related health hazards, requirements for worker protection, safe work procedures and principles that should be followed in selecting the most suitable abatement techniques. These documents provide a guide to current practices which are to be followed in the Province of British Columbia.

Regulatory Change: A Primer on Protecting Workers from Silica and Rock Dust Exposure - Changes to the Occupational Health and Safety Regulation has been published to clarify employer requirements to protect workers from exposure to harmful effects of silica dust.

#### **Environmental Regulations**

In British Columbia, environmental matters pertaining to production and disposal of waste generally fall under the jurisdiction of the Ministry of Environment (MoE), pursuant to the Environmental Management Act 2003 (SBC 2003).

The Hazardous Waste Regulation BC Reg. 63/88, OC 268/88, including amendments as established by the MoE, outlines the requirements for the storage, transportation, treatment, recycling and disposal of hazardous wastes in the Province of British Columbia. The regulation outlines the materials and criteria to be used to characterize waste as hazardous.

Ozone Depleting substances are regulated by the Ozone Depleting Substances and Other Halocarbons Regulation\* (B.C. Reg. 387/99, as amended by B.C. Reg. 220/2006).

PCBs are regulated by the Canadian Environmental Protection Act (SOR/2008-273).

#### **District of Mackenzie**

#### **HAZARDOUS & REGULATED MATERIALS ASSESSMENT REPORT**

Mercury containing products are regulated by the Canadian Environmental Protection Act (SOR /2014-254).

Transportation of Hazardous or Regulated Waste

The transportation of hazardous wastes is governed under the Federal Transportation of Dangerous Goods Act and Regulations (SOR / 2008-34) which outline the requirements for storage, handling, and transportation of regulated products and waste.



951 Pinewood Place West Kelowna, BC V1Z 3G7 e-mail: info@peakenvironmental.ca Toll Free 1-877-518-7325 (PEAK) Office 250-862-0971 WSBC AAL #01012



# HAZARDOUS AND REGULATED MATERIALS PRE-DEMOLITION ASSESSMENT REPORT

### **ERNIE BODIN CENTER**

86 Centennial Drive Mackenzie, BC

# **Prepared for:**

### **District of Mackenzie**

P.O. Bag, 1 Mackenzie Blvd #340 Mackenzie, BC, VOJ 2CO

**Report Date**: September 6, 2024

On-site survey for this report dated 9/6/2024 was completed on 08-16-2024. All observations and conditions herein are respective to this / these date(s) and to dates listed in the Revision History

File: 6391A R01kl Pre-Demo Hazmat Assessment - Ernie Bodin Center - 2024-08-27

#### **EXECUTIVE SUMMARY**

#### STATEMENT OF UNDERSTANDING

Peak Environmental Ltd. was retained to perform a pre-demolition hazardous materials assessment and review of the Ernie Bodin Centre BC as required by <a href="WorkSafeBC OHS Regulation Part 20">WorkSafeBC OHS Regulation Part 20</a> prior to building demolition.

Coring, cutting and destructive sampling techniques were used for this vacant building assessment to identify and locate all potentially concealed hazardous and regulated materials included in this assessment.

This assessment was performed based on the following assumptions:

- Physical removal of drywall applications would be performed prior to building demolition
- The building would be mechanically demolished with mechanical waste separation and landfill disposal

Results/requirements apply only to the materials or areas as defined by the project scope and must not be extrapolated to areas or materials not specifically documented in this report.

#### **SUMMARY OF HAZARDOUS MATERIALS**

#### **Asbestos-Containing Materials (ACM)**

Material descriptions and sample results are provided in Appendix A

Location information is provided in Appendix C (Room By Room Inventory)

CODE		ACM DESCRIPTION	APPROX. QUANTITY
С	1 Cement on mechanical pipe fitting and debris		75 units
С	2	Cement on water tank	1 unit
М	1	Cream coloured mastic adhering styrofoam to concrete	TBD <sup>1</sup>
Md	1	Brown sealant on mechanical ducting	TBD <sup>1</sup>
Md	Md 2 Hard silver sealant on mechanical ducting		TBD <sup>1</sup>
Ms	1	Gold sealant on sink underside	2 units
Mw	Nw 1 Black sealant between window frame and pane		26 units
N	1	Sanitary pipe roving	200 units
Р	1	White drywall taping compound	5000 sf
K	5 Suspect asbestos gasketing on Beaver Boiler		2 units
Kp 1		Suspect asbestos pipe flange gasket on mechanical piping	TBD <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Quantity to be determined at time of demolition

# **Lead in Paint (Concentration >100 ppm)**

SAMPLE	PAINT DESCRIPTION and SAMPLE LOCATION			
ICP-01	Cream on GWB - Office 148			
ICP-02	Dark grey on wood door trim - Office 148			
ICP-04	Beige on drywall (P1) - Office 163			
ICP-08	Grey on concrete - Boiler Room 178			
ICP-10	Black on wood frames and trims - Corridor 105			
ICP-11	Dark Grey with burgundy undercoat on wood siding - Exterior West			
ICP-12	Black on wood window frame - Exterior West			
ICP-13	Grey on wood door - Exterior West			
ICP-14	White on wood door - Exterior West			
SAMPLE	LEACHABLE LEAD (TCLP) RESULT			
TCLP-01	Demolition waste stream 0.10 mg/L			

# Lead in Paint (Concentration <100 ppm)

SAMPLE	PAINT DESCRIPTION and SAMPLE LOCATION			
ICP-03	Light blue with grey undercoat on wood door - Storage 151			
ICP-05	Burgundy on wood - Delivery Room 165			
ICP-06	Black on wood ceiling - Crawlspace 001			
ICP-07	White on wood - Boiler Room 178			
ICP-09	White on GWB - Corridor 172			

# **Other Hazardous Materials**

HAZARDOUS MATERIAL CATEGORY	ТҮРЕ		
Lead Products	Lead sound or x-ray sheeting		
Lead Products	Lead lined door		
Equipment Suspected of Containing PCBs	Electrical equipment / fluorescent light ballasts		
Mercury Containing Equipment	Fluorescent light tubes/high voltage lighting		
Toxic Flammable Explosive Materials	None observed		
Ozone Depleting Substances (ODS)	Refrigerators and/or freezers		
Biological Hazards	None observed		
Radioactive Materials	Smoke detectors		
Fuel Storage Tanks (AST)	Above ground storage tank		
Crystalline Silica Containing Materials	Present; see Other Hazardous Materials		

#### **LIMITATIONS**

#### **Areas of Restricted Entry**

• Boiler Room 178 has damaged C1 and debris was present on the boiler K5. Boiler Room is a moderate risk entry due to cement elbow debris.

#### **Inaccessible Areas**

- 179
- Outbuilding

#### **Under Sampled Materials or Applications Requiring Additional Sampling**

 Sampling of un-identified concealed materials encountered through demolition/renovation is required.

#### REQUIREMENTS

- Removal of all identified asbestos-containing materials is required prior to building demolition.
- A risk assessment including safe work procedures for the removal of asbestos-containing materials must be prepared by a qualified person.
- A risk assessment is required for all painted applications which may contain lead in a concentration that could pose a risk of exposure based on the work activities being performed.
- A risk assessment is required for all silica containing materials that could pose a risk of exposure based on the work activities being performed.
- If a potentially hazardous material is discovered during demolition/renovation work and has not been listed in this report, the material is not to be disturbed prior to its identification as a hazardous or non hazardous material.
- An Exposure Control Plan with written safe work procedures is required for the removal/disturbance of asbestos-containing, lead painted and silica-containing materials in order to prevent the exposure of workers or unprotected persons in adjacent areas.
- A digital or paper copy of this report must be available on-site throughout the project.
- A visual clearance document must be prepared by a qualified person confirming that all identified hazardous materials have been abated and/or removed from the site. This document must include the NOP and Waste Manifest numbers.

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### **Report Revision History**

Version	Issue Date	Survey Date	Change Description	Submitted by
1	9/6/2024	08/16/2024	Initial Report	Peak Environmental Ltd.

### **PROJECT SCOPE**

Peak Environmental Ltd. was retained by the District of Mackenzie to perform a pre-demolition hazardous materials assessment and review of the Ernie Bodin Centre as required by <u>WorkSafeBC OHS</u> <u>Regulation Part 20</u> prior to demolition or renovation activities.

The following hazardous materials are included in the survey:

Asbestos-containing materials (ACM)	Toxic, flammable or explosive materials		
Polychlorinated biphenyls (PCBs)	Biological contaminants (mould, fecal matter, sharps/drug paraphernalia)		
Mercury	Crystalline silica-containing materials		
Lead coatings (paint)	Radioactive materials		
Lead products	Fuel storage tanks		
Ozone depleting substances (ODS)			

The hazardous and regulated materials assessment was conducted in compliance with the requirements outlined in the WorkSafeBC Occupational Health and Safety Guidelines OHS Regulation Part 6: Substance Specific Requirements.

Results/requirements apply only to the materials or areas as defined by the project scope and must not be extrapolated to areas or materials not specifically documented in this report

Materials known to not contain asbestos (e.g. wood, laminate, metal, ceramic) are excluded from the assessment, however they are listed in the room by room asbestos inventory (Appendix C) in order to provide finishing information.

Sub-grade systems and materials are not within the scope of this assessment.

This report does not provide an abatement Risk Assessment as per Section 6. <u>WorkSafeBC Occupational Health and Safety Regulation</u>.

#### STRUCTURE DESCRIPTION

Based on site observations and information provided by the client, structure construction details are as follows:

Structure use: Commercial No. of floors: 1

Construction type: Wood Frame Approximate square feet: 20,000

**Approximate build era**: 1960s | **Renovations or Additions**: Renovation date(s) unknown

Inaccessible Areas: 179, Outbuilding

Areas of Restricted Entry: Boiler Room 178 has damaged C1 and debris was present on the boiler

K5. Boiler Room is a moderate risk entry due to cement elbow debris.

#### **HAZARDOUS & REGULATED MATERIALS ASSESSMENT REPORT**

Entire building constructed from ATCO trailers placed side by side. All GWB walls are 2 layers. The underside of main floor is painted with a black paint. No foundation present.

All conclusions based on age related hazardous or regulated materials are based on this era of building construction. Detailed construction information is provided in the Building Construction Information Sheet of Appendix D (Building Construction Sheet).

#### ASSESSMENT RESULTS

#### **ASBESTOS**

(Location and quantity information provided in <u>Appendix C</u> Room By Room Inventory. Material description and sample results provided in <u>Appendix A</u>.

#### **APPLICATIONS CONTAINING ASBESTOS:**

Applications that are either known to contain asbestos or asbestos content was confirmed by laboratory analysis.

- Cement on mechanical pipe fitting and debris (C1)
- o Cement on water tank (C2)
- Cream coloured mastic adhering styrofoam to concrete (M1)
- Brown sealant on mechanical ducting (Md1)
- Hard silver sealant on mechanical ducting (Md2)
- o Gold sealant on sink underside (Ms1)
- o Black sealant between window frame and pane (Mw1)
- Sanitary pipe roving (N1)
- White drywall taping compound (P1)

#### **SUSPECT ASBESTOS-CONTAINING APPLICATIONS:**

Applications that are present but have not been analyzed to confirm asbestos content. **All Suspect** applications must be sampled prior to disturbance through renovation or demolition activities.

- Gasketing on Beaver Boiler (K5)
- Pipe flange gasket on mechanical piping (Kp1)

#### POTENTIAL ASBESTOS-CONTAINING APPLICATIONS:

Although destructive sampling methods were used to the extent possible as defined by the survey type, based on the building age, concealed asbestos-containing building applications may still be present but not observed or identified through this assessment due to inaccessibility, live electrical, mechanical systems, or enclosing finishes. If any materials not identified in this report are uncovered during demolition activities, they must be sampled to determine their asbestos content.

Pipe flange gaskets

#### **LEAD BASED PAINT**

Paint coatings on surfaces are visually grouped by substrate, colour and building finish type.

Painted substrates to be demolished, removed or otherwise disturbed are tested using Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS) with a reporting limit of 80 mg/kg (ppm) for this project. These samples are noted as 'ICP' and sample number Testing for leachable lead (in order to determine disposal criteria) is carried out on painted applications which have a total lead concentration exceeding 100 ppm (mg/kg). These samples are noted as 'TCLP' and sample number.

The following lead based paints were identified:

LEAD IN PAINT Description and Sample Location	Application Location(s)	Quantity	Sample No.	Lead Concentration	
	Method: ASTM E1645* / EPA 6020B - Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS) (RL: 80 mg/kg)				
Cream on GWB - Office 148	Representative of all cream painted GWB	>10000 Ft2	ICP-01	880	
Dark grey on wood door trim - Office 148	Representative of all dark grey painted wood throughout building interior	2000-3000 Ft2	ICP-02	1210	
Light blue with grey undercoat on wood door - Storage 151	Representative of all light grey painted wood doors throughout building interior	500-1000Ft2	ICP-03	<80	
Beige on drywall (P1) - Office 163	Representative of all beige painted drywall (P1)	5000- 10000Ft2	ICP-04	196	
Burgundy on wood - Delivery Room 165	Representative of all burgundy painted wood throughout building interior	<500Ft2	ICP-05	<80	
Black on wood ceiling - Crawlspace 001	Representative of all black painted wood throughout building crawlspace	5000- 10000Ft2	ICP-06	<80	
White on wood - Boiler Room 178	Representative of all white painted wood throughout building interior	1000-2000 Ft2	ICP-07	<80	
Grey on concrete - Boiler Room 178	Representative of all grey painted concrete throughout building interior	500-1000Ft2	ICP-08	1140	
White on GWB - Corridor 172	Representative of all white painted GWB	3000-4000 Ft2	ICP-09	<80	
Black on wood frames and trims - Corridor 105	Representative of all black painted wood frames and trims throughout building interior	500-1000Ft2	ICP-10	1470	
Dark Grey with burgundy undercoat on wood siding - Exterior West	Representative of all dark grey painted wood throughout building exterior	5000- 10000Ft2	ICP-11	240	
Black on wood window frame - Exterior West	Representative of all black painted wood throughout building exterior	1000-2000 Ft2	ICP-12	467	
Grey on wood door - Exterior West	Representative of all grey painted wood throughout building exterior	500-1000Ft2	ICP-13	938	
White on wood door - Exterior West	Representative of all white painted wood throughout building exterior	1000-2000 Ft2	ICP-14	202	
Method: EPA 200.2* / EPA	Method: EPA 200.2* / EPA 6020B TCLP Leachable Metals in Solid (RL: 0.002 mg/L)				
Demolition waste stream	Representative of the demolition waste stream		TCLP-01	0.1	

#### **OTHER HAZARDOUS MATERIALS**

A visual inspection was performed for other hazardous and regulated materials including PCB (within electrical equipment), mercury (within electrical equipment and thermostats), other lead applications, ozone depleting substances, potentially toxic, flammable or explosive materials, biological contaminants (mould, rodent, bat or bird feces, and sharps/drug paraphernalia), crystalline silica, radioactive substances, and fuel storage tanks.

Hazardous or regulated materials identified:

LEAD CONTAINING MATERIALS	QUANTITY	
Lead lined door	Present - Kiln Room 115	
Roof jacks / flashing	Not Present	
Solder on copper piping	Not Present	
Sound or x-ray sheeting	Present - Kiln Room 115	
РСВ	QUANTITY	
Potential PCB containing fluorescent light ballasts	Present - 200	
Potential PCB containing transformers	Not Present	
MERCURY	QUANTITY	
Mercury containing wall mounted thermostats	Not Present	
Mercury containing fluorescent lighting (tubes, CFC, high voltage)	Present - 400	
TOXIC FLAMMABLE EXPLOSIVE MATERIALS	QUANTITY	
Paints (stored)	Not Present	
Oils/solvents/fuel	Not Present	
Chemicals / Cleaners	Not Present	
BIOLOGICAL CONTAMINANTS	QUANTITY	
Mould contamination	Not Present	
Rodent Contamination	Not Present	
Bird/Bat Contamination	Not Present	
Biological Hazards	Not Present	
FUEL/OIL STORAGE TANKS	QUANTITY	
Above Ground Storage Tank(s)	Present - Boiler Room 178	
Evidence of Contamination	Not Present	
ODS (Ozone Depleting Substances)	QUANTITY	
Wall mounted air conditioners	Not Present	
Refrigerators/Deep Freezers	Present	
Roof top HVAC	Not Present	
RADIOACTIVE MATERIALS	QUANTITY	
Smoke Detectors	Present - 100	

COMMON SILICA CONTAINING APPLICATIONS	Present /Not Present	COMMON SILICA CONTAINING APPLICATIONS	Present /Not Present	
Asphalt (driveway or walkway)	Present	Glass	Present	
Brick and associated mortar	Not Present	Gypsum board	Present	
Ceiling tiles	Present	Plaster	Not Present	
Concrete (slabs, footings, retaining walls)	Present	Stone (exterior, decorative, counter-top)	Not Present	
Concrete Block (CMU) & associated mortar	Present	Tile (ceramic, slate, porcelain & grout/mortar)	Not Present	
Drywall taping compound	Present	Topsoil and bedding sand	Not In Scope	
Total Estimated Quantity of Crystalline Silica Containing Materials: 2000-30				

### REQUIREMENTS

#### GENERAL

- A digital or paper copy of this report must be available on-site throughout the project.
- The following hazardous materials (if present) must be removed prior to building demolition
  or renovation activities which will impact them: ACM; lead coated surfaces where the
  leachable lead concentration exceeds 5 mg/L; other lead applications (e.g. roof jacks);
  equipment containing PCBs, mercury or radioactive materials; ozone depleting substances;
  toxic, flammable or explosive materials; sharps and/or other drug paraphernalia; fuel storage
  tanks must be emptied.
- If any materials which may contain asbestos or other hazardous substances and are not listed in this report are discovered during renovation or demolition work, work must be stopped before disturbing the material. The material must be assessed by a qualified person to determine if the material is hazardous or not.
- Once removed, hazardous materials must be transported and disposed of in accordance with the federal Transportation of Dangerous Goods Act and Regulations and Section 40 of the BC Ministry of Environment Hazardous Waste Regulation.
- All waste materials are to be disposed of in accordance with Part 6 Management of Specific Hazardous Wastes as outlined in the BC Ministry of Environment Hazardous Waste Regulation.
- A visual clearance document must be prepared by a qualified person confirming that all identified hazardous materials have been abated and/or removed from the site. This document must include the NOP and Waste Manifest numbers, and be available on site for the duration of the demolition/renovation project.

#### **ASBESTOS-CONTAINING MATERIALS**

 Any work of disturbing, dislodging or removing asbestos or potentially asbestos contaminated material must be performed according to the requirements set out in Part 6 of British Columbia Occupational Health and Safety Regulation (BC Reg. 296/97, as amended by BC Reg. 312/2003). • An Exposure Control Plan must be in place, and a site-specific Risk Assessment must be created for each instance where asbestos removal is required (per OHS Guideline G20.112).

#### LEAD BASED PAINT

- Prior to any work involving the disturbance of lead contaminated materials, contractors will be required to have an Exposure Control Plan in place to mitigate worker exposure to lead dust and contaminated material.
- A Risk Assessment for lead (with safe work procedures for the specific removal activity) is required for any disturbance of lead contaminated materials where there is a risk of lead dust release.
- Demolition debris should not be shredded, milled, chipped, mulched or similarly processed in such a way that would increase the leachability of the material prior to disposal (i.e., processed in a manner that increases the surface area and/or assists in the breakdown of the material so as to promote absorption of the material into a liquid).
- Where lead paint is present on an asbestos-containing substrate, follow asbestos materials removal and disposal procedures.
- Lead-based paint with lead concentration exceeding 100 ppm has been identified.
  - o TCLP testing has been done to determine leachable lead concentration:
    - TCLP test results confirm leachable lead concentration is < 5mg/L; the material may be disposed of at a local landfill.

#### OTHER HAZARDOUS AND REGULATED MATERIALS

#### **Lead Products**

 Lead applications should be removed prior to renovation or demolition activities and recycled at a metal recycling plant.

#### **PCB**

 Where removal is required to facilitate renovation or demolition activities, inspect all fluorescent light ballast for manufacturer name and serial number and determine if PCBs are present. Refer to Environment Canada's <u>Electrical contractors and PCB regulations</u> for identification whether a ballast contains a PCB capacitor, and for disposal criteria.

#### **Mercury**

 Where removal is required to facilitate renovation or demolition activities, collect mercury vapour lighting (high voltage lights and fluorescent light tubes) for vapour recycling at <a href="https://www.lightrecycle.ca/collection-site-locator"><u>www.lightrecycle.ca/collection-site-locator</u></a>. Use caution to not break the glass thereby releasing mercury.

#### **Ozone Depleting Substances**

• Where removal is required to facilitate renovation or demolition activities, collect all refrigerant devices for refrigerants collection and disposal by a qualified mechanical contractor in accordance with Provincial and Federal regulations. Any refrigerants within HVAC units are to be identified and removed by a qualified mechanical contractor prior to building demolition.

#### **Radioactive Materials**

• Remove battery from smoke detector for recycling; smoke detector can be disposed of as regular waste. Use caution while handling unit so as not to release radioactive material.

#### **Fuel Storage Tanks**

Verify storage tanks are empty prior to removal from site. Inspect surrounding areas for signs
of contamination.

#### **Silica Containing Materials**

• An Exposure Control Plan for Silica with safe work procedures is required prior to disturbing materials containing silica.

#### LIMITATIONS OF THIS REPORT

Peak Environmental Ltd. has prepared this Hazardous and Regulated Materials Assessment Report pursuant to WorkSafeBC OHS Regulation Section 20.112 Hazardous Materials in the Workplace which requires a project specific detailed pre-demolition / pre-renovation assessment for asbestos and other hazardous or regulated materials prior to any work of salvage, cutting, damaging or demolishing, in part or in whole, building finishes, components, machinery, equipment, buildings or structures. The purpose of this report is to identify hazardous and regulated materials within the building as per the scope defined by the District of Mackenzie. All results provided in this report are based on conditions at time of survey and apply only to the area and materials defined by the client's scope of work. Results and recommendations are not to be extrapolated to any areas or materials outside of the stated project scope.

While this assessment was conducted with the utmost detail and diligence, there may exist instances where asbestos-containing applications are present in the building but not identified through this report. Site conditions and building construction or occupancy may have not permitted the complete inspection of some void spaces. These spaces may contain asbestos applications not identified in this report. Any suspect materials located within void spaces should be inspected and/or tested to determine if they are asbestos-containing.

To facilitate this pre-demolition/renovation assessment and where possible within any exceptions noted in this report, inspection of sub-flooring applications located beneath carpeting and vinyl flooring and building finishes and membrane materials was performed to locate all potential asbestos applications within the building. No inspection of sub-flooring applications was performed once a structural member was discovered (*i.e.* concrete or shiplap). There is a possibility that subsequent asbestos applications, not identified in this report, may be located beneath items deemed to be structural members. Any suspect materials sandwiched between multiple building finishing layers should be inspected or tested to determine if they are asbestos-containing.

Any quantities listed in these documents are estimates only. Peak Environmental Ltd. accepts no liability for inaccurate, misleading or conflicting information contained within this report.

The liability of Peak Environmental Ltd., its staff or agents, will be limited to the lesser of the actual damages incurred, fees paid by the Client or as set forth in the limitations expressed in Errors and Omissions Insurance held by Peak Environmental Ltd.

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Final Report Review:

File: 6391A R01kl Pre-Demo Hazmat Assessment - Ernie Bodin Center - 2024-08-27

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This report has been prepared for the sole use of the District of Mackenzie. The conclusions and recommendations presented in this report are the best judgment of the author. In the event that this report is provided to a third party without the written consent of Peak Environmental Ltd., any use that a third party makes of this report, or any reliance on the decisions made based on this report, are the sole responsibility of that third party. Peak Environmental Ltd. accepts no responsibility for damages, should any occur, that are suffered by any third party as a result of decisions made or actions taken based on this report.

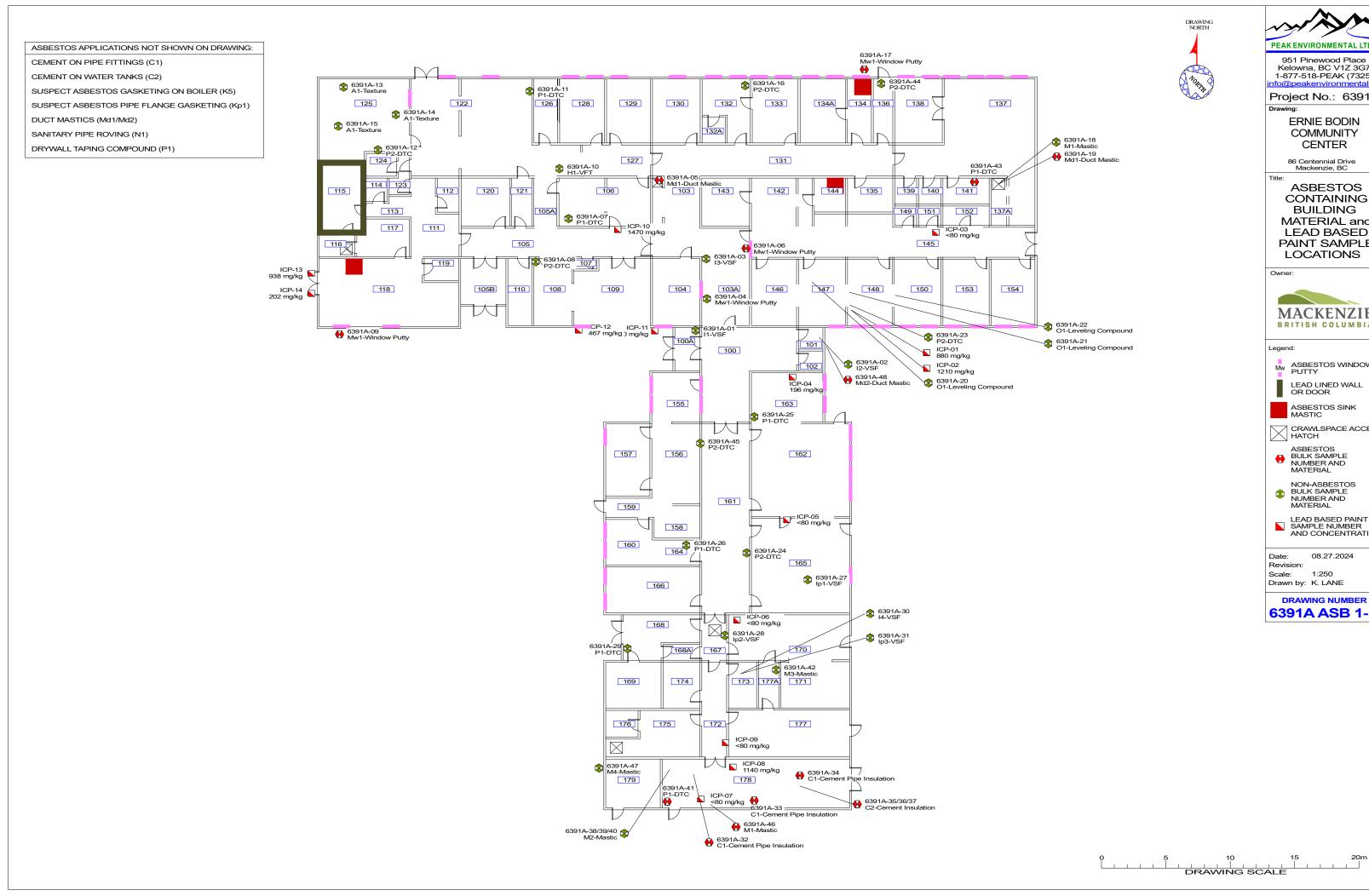
# APPENDIX A DESCRIPTION OF ASSESSED MATERIALS AND SAMPLE RESULTS SUMMARY

MATE	RIALS AS	SSESSED FOR ASBESTOS - SAN	IPLING LOG	Project:	6391A
Building: Ernie Bodin Centre ANCI					RY INFORMATION
Code	Qualifier Number	Visual Description	Sampled or Assessed Location	Sample Number	Lab Results
А	1	Splatter pattern stipple texture	Storage 125	6391A-13	No Asbestos Detected
А	1	Splatter pattern stipple texture	Storage 125	6391A-14	No Asbestos Detected
А	1	Splatter pattern stipple texture	Storage 125	6391A-15	No Asbestos Detected
В	1	Canvas or paper wrapped straight run fiberglass insulation w/ mesh, fiberglass insulated fittings on mechanical piping	Crawlspace 001	Not Sampled	Known Non- Asbestos Application
С	1	Cement on mechanical pipe fitting	Boiler Room 178	6391A-32	1-5% Chrysotile Asbestos
С	1	Cement on mechanical pipe fitting	Boiler Room 178	6391A-33	Stop Positive
С	1	Cement on mechanical pipe fitting	Boiler Room 178	6391A-34	Stop Positive
С	2	Cement on water tank	Boiler Room 178	6391A-35	1-5% Chrysotile Asbestos
С	2	Cement on water tank	Boiler Room 178	6391A-36	Stop Positive
С	2	Cement on water tank	Boiler Room 178	6391A-37	Stop Positive
Е	1	Canvas wrapped fiberglass insulation on mechanical ducting	Boiler Room 178	Not Sampled	Known Non- Asbestos Application
E	2	Foil faced fiberglass insulation on mechanical piping	Boiler Room 178	Not Sampled	Known Non- Asbestos Application
G	1	2'x4' small pinholes, compressed fiberglass panel	Corridor 100	Not Sampled	Known Non- Asbestos Application
G	2	2'x4' cross-directional fissures w/ small pinholes, compressed cellulose panel	Corridor 103A	Not Sampled	Known Non- Asbestos Application
G	3	2'x4' large and small pinholes, compressed fiberglass panel	Corridor 103	Not Sampled	Known Non- Asbestos Application
G	4	2'x4' large and small pinholes, compressed cellulose panel	Corridor 105	Not Sampled	Known Non- Asbestos Application
G	5	2'x4' dimpled fiberglass panel	Seniors Club	Not Sampled	Known Non- Asbestos Application
Н	1	12"x12" Off white with dark and light grey fleck pattern, VFT	Multi-Coloured Room 122	6391A-10	No Asbestos Detected
Н	2	12"x24" dark brown and beige laminate VFT	Seniors Club 137	Not Sampled	Known Non- Asbestos Application
Н	3	12"x12" Beige and brown, plastic back VFT	Storage 140	Not Sampled	Known Non- Asbestos Application
1	1	Blue with blue streak, foam core VSF	Entry Vestibule 100A	6391A-01	No Asbestos Detected
1	2	Grey with black, non slip VSF	Washroom 101	6391A-02	No Asbestos Detected
1	3	Green with green streak, foam core VSF	Corridor 103A	6391A-03	No Asbestos
1	4	Green with black, non-slip, rubber mat	Custodial 173	6391A-30	Detected No Asbestos

MATE	RIALS AS	SSESSED FOR ASBESTOS - SAM	PLING LOG	Project:	6391A
	Building:	Ernie Bodin Centre		ANCILLA	RY INFORMATION
Code	Qualifier Number	Visual Description	Sampled or Assessed Location	Sample Number	Lab Results
lp	1	Off white with grey small stone pattern, paper back VSF	Delivery Room 165	6391A-27	No Asbestos Detected
lp	2	Cream with beige swirl pattern, paper back VSF	Corridor 167	6391A-28	No Asbestos Detected
lp	3	Cream with beige tile pattern, VSF	Custodial 173	6391A-31	No Asbestos Detected
K	1	Gasketing on furnace unit "Keep Rite"	Furnace Room 110	Not Sampled	Known Non- Asbestos Application
К	2	Gasketing on furnace unit	Furnace Room 139	Not Sampled	Known Non- Asbestos Application
К	3	Gasketing on furnace unit "Ceiling Hung"	Morgue 168	Not Sampled	Known Non- Asbestos Application
К	4	Gasketing on furnace unit	Custodial 173	Not Sampled	Known Non- Asbestos Application
K	5	Gasketing on Beaver Boiler	Boiler Room 178	Not Sampled	Suspect Asbestos Application
Кр	1	Red rubber pipe flange gasket on mechanical piping	Boiler Room 178	Not Sampled	Known Non- Asbestos Application
Кр	2	Pipe flange gasket on mechanical piping	Boiler Room 178	Not Sampled	Suspect Asbestos Application
М	1	Cream coloured mastic adhering styrofoam to concrete	Crawlspace 001	6391A-18	No Asbestos Detected
М	1	Cream coloured mastic adhering styrofoam to concrete	Boiler Room 178	6391A-46	1-5% Chrysotile Asbestos
M	2	Black mastic adhering jacketing to fiberglass straight run	Boiler Room 178	6391A-38	No Asbestos Detected
M	2	Black mastic adhering jacketing to fiberglass straight run	Boiler Room 178	6391A-39	No Asbestos Detected
М	2	Black mastic adhering jacketing to fiberglass straight run	Boiler Room 178	6391A-40	No Asbestos Detected
М	3	Rubber baseboard with adhering mastic	Vestibule 177A	6391A-42	No Asbestos Detected
М	4	Grey fibre gum on wall penetration	Exterior West	6391A-47	No Asbestos Detected
Md	1	Brown sealant on mechanical ducting	Crawlspace 001	6391A-05	1-5% Chrysotile Asbestos
Md	1	Brown sealant on mechanical ducting	Crawlspace 001	6391A-19	Stop Positive
Md	2	Hard silver sealant on mechanical ducting	Exterior East	6391A-48	1-5% Chrysotile Asbestos
Ms	1	Gold sealant on sink underside	Art Room 118	Not Sampled	Known Asbestos Application
Mw	1	Black sealant between window frame and pane	Corridor 103A	6391A-04	No Asbestos Detected
Mw	1	Black sealant between window frame and pane	Corridor 103A	6391A-06	1-5% Chrysotile Asbestos
Mw	1	Black sealant between window frame and pane	Art Room 118	6391A-09	Stop Positive
Mw	1	Black sealant between window frame and pane	Vestbule 134	6391A-17	Stop Positive
N	1	Sanitary pipe roving	Crawlspace 001	Not Sampled	Known Asbestos Application

MATE	Project:	6391A			
	Building:	Ernie Bodin Centre		ANCILLA	RY INFORMATION
Code	Qualifier Number	Visual Description	Sampled or Assessed Location	Sample Number	Lab Results
0	1	Cementitious floor leveller	Office 147	6391A-20	No Asbestos Detected
0	1	Cementitious floor leveller	Office 148	6391A-21	No Asbestos Detected
0	1	Cementitious floor leveller	Office 150	6391A-22	No Asbestos Detected
Р	1	White drywall taping compound	Kitchen 106	6391A-07	No Asbestos Detected
Р	1	White drywall taping compound	Multi-Coloured Room 122	6391A-11	No Asbestos Detected
Р	1	White drywall taping compound	Office 163	6391A-25	No Asbestos Detected
Р	1	White drywall taping compound	Furnace Room 164	6391A-26	No Asbestos Detected
Р	1	White drywall taping compound	Morgue 168	6391A-29	No Asbestos Detected
Р	1	White drywall taping compound	Boiler Room 178	6391A-41	1-5% Chrysotile Asbestos
Р	1	White drywall taping compound	Storage 141	6391A-43	Stop Positive
Р	2	White drywall compound patch on GWB	Art Storage 108	6391A-08	No Asbestos Detected
Р	2	White drywall compound patch on GWB	Washroom 124	6391A-12	No Asbestos Detected
Р	2	White drywall compound patch on GWB	Office 132	6391A-16	No Asbestos Detected
Р	2	White drywall compound patch on GWB	Office 148	6391A-23	No Asbestos Detected
Р	2	White drywall compound patch on GWB	Corridor 161	6391A-24	No Asbestos Detected
Р	2	White drywall compound patch on GWB	Vestibule 136	6391A-44	No Asbestos Detected
Р	2	White drywall compound patch on GWB	General Office 156	6391A-45	No Asbestos Detected
Р	3	White drywall taping compound (new)	Vestibule 111	Not Sampled	Known Non- Asbestos Application
Qs	1	Burgundy roll on asphalt shingle	Roof	Not Sampled	Known Non- Asbestos Application
R	1	"Fire Craft Kilns" "Skutt Electric Kiln"	Kiln Room 115	Not Sampled	Known Non- Asbestos Application
Т	1	Fiberglass batt insulation	Throughout Application	Not Sampled	Known Non- Asbestos Application

# APPENDIX B FLOOR PLAN



PEAK ENVIRONMENTAL LTD.

951 Pinewood Place Kelowna, BC V1Z 3G7 1-877-518-PEAK (7325)

Project No.: 6391A

**ERNIE BODIN** COMMUNITY CENTER

86 Centennial Drive Mackenzie, BC

**ASBESTOS CONTAINING** BUILDING MATERIAL and LEAD BASED PAINT SAMPLE LOCATIONS



ASBESTOS WINDOW PUTTY

LEAD LINED WALL OR DOOR

ASBESTOS SINK MASTIC

CRAWLSPACE ACCESS HATCH

ASBESTOS
BULK SAMPLE
NUMBER AND
MATERIAL

NON-ASBESTOS
BULK SAMPLE
NUMBER AND

LEAD BASED PAINT SAMPLE NUMBER AND CONCENTRATION

08.27.2024 Date:

Revision:

1:250 Scale: Drawn by: K. LANE

**DRAWING NUMBER** 6391A ASB 1-1

# APPENDIX C ROOM BY ROOM ASBESTOS INVENTORY

Building T	ype:	Commercial	Building Name: Ernie Bodin Centre	Date:	08-16-2024	ANCILLARY INFORMATION
					mm-dd-yyyy	
hbrov: TR-Tack Board / G	W/R-Gyner	m Wall Board / BW-Brick	Wall / CRW-Concrete Block Wall / Car-Carnet / Conc-Concrete / Str-Structure / W	/d-\\\\ood / E	PD-Fibraglace Pain	forced Plactic

**Abbrev**: TB-Tack Board / GWB-Gypsum Wall Board / BW-Brick Wall / CBW-Concrete Block Wall / Car-Carpet / Conc-Concrete / Str-Structure / Wd-Wood / FRP-Fibreglass Reinforced Plastic **Descriptors**: (at)-concealed above T-bar ceiling / (af)-concealed above fixed ceiling / (uw)-concealed behind wall paper / (\*) - presumed present; area or application not accessible

Height: (H) high - application above 8'; (L) low or blank - application below 8' Condition: (p) poor / (f) fair (default good condition) Quantities are shown in parentheses

Note: Only known or visually confirmed asbestos applications are noted on these Ancillary pages. Additional asbestos applications may be present but not listed on this spreadsheet.

Yellow highlighting indicates asbestos applications

BLUE highlighting indicates Suspect asbestos application

A - Texture Coating D - Cement	nt Parging Wall BUILDING	- Cement Parging	MATERIAL IDENTIFICATION CODE	rs .	Mw - Window Putty	Qs - Roofing Shingle	V - Vermiculite Wall
Ac - Acoustic Insulation Dt - Equipm	ment Parging Fw - Insulated Duct Wrap	t - Equipment Pargi	J - Cement Board	Kp - Pipe Gasketing	N - Pipe Roving/Packing	R - Refractory Cement	Va - Vermiculite Attic
Af - Spray-Applied Fireproofing   E - Duct Ins	sulation G - Ceiling Panel	- Duct Insulation	Jf - Asbestos Furnishings	L - Incandescent Light Pad	O - Floor Levelling Cement	S - Exterior Wall Stucco	W - Woven Textile
B - Pipe Insulation F - Insulatin	ing Paper H -Vinyl Floor Tile	- Insulating Paper	Jp - Cement Pipe	M - Mastic Glue / Sealant	P - Drywall Tape Comp.	Ss - Exterior Soffit Stucco	X - Fire Doors
C - Cement Pipe Fitting Fb - Insulate	ated Duct Boot I - Vinyl Sheet Flooring	b - Insulated Duct B	Jw - Cement Board Window Panel	Md - Mastic Duct Joint	PI - Plaster	T - Bldg Thermal Insulation	
Cp - Pipe Penetration Firestop Fj - Insulatir	ting Paper Joint Ip - Paper Backed Flooring	j - Insulating Paper	K - Equipment Gasketing	Ms - Mastic Sink Coating	Qf - Roofing Felt	J - Friction Materials	

Area No.	Room Name	Visible Floor	Second Floor Layer	Third Floor Layer	North Wall	East Wall	South Wall	West Wall	First Ceiling or Roof	Second Ceiling	Third Ceiling	Mech. Pipe	Pipe Fitting	Mech. Duct	Other	Quantity
	Exterior				Wd/ Metal	Wd/ Metal	Wd/ Metal	Wd/ Metal	Qs1						M4(2)	
	MAIN FLOOR															
	Throughout Applications														M3/ T1	
001	Crawlspace	Conc			Conc	Conc	Conc	CBW	Str			B1	N1 (200)	Md1/ Md2	M1	
100	Corridor	Carpet	Wd	Wd	GWB on GWB/ <b>P1</b>	P1	P1	P1/ Wd/ Glass	G1	GWB					Mw1	
100A	Entry Vestibule	I1	Wd		Wd	Wd/ Glass	Wd	Wd/ Glass	G1	GWB						
101	Washroom	12	Wd		P1	P1	P1	P1	P1							
102	Washroom	12	Wd		P1	P1	P1	P1	P1							
103	Corridor	13	Wd		GWB on GWB	GWB on GWB	P1/ GWB	GWB on GWB	G1/ G3	GWB						
103A	Corridor	13	Wd		GWB	P1/ GWB on GWB	P1/ GWB	P1	G1/ G2	GWB					Mw1	
104	Office	13	Wd		GWB on GWB/ <b>P1</b>	P1	P1/ GWB	GWB	G1	GWB					Mw1	
105	Corridor	I1	Wd		GWB on GWB	GWB	GWB on GWB	P1	G1/ G4	GWB						
105A	Corridor	l1	Wd		GWB/ P1	GWB on GWB	GWB	GWB on GWB	G1	GWB						
105B	Entry Vestibule	I1	Wd		GWB	P1/ Cork on P1	GWB on GWB	GWB on GWB	G1/ G2	GWB						
106	Kitchen	I1	Wd		GWB	GWB on GWB	GWB on GWB/ <b>P1</b>	P1/ GWB	G1/ G2	GWB/ P1						

Building Type: _	Commercial	Building Name: Ernie Bodin Centre	Date:	08-16-2024	ANCILLARY INFORMATION
_				mm-dd-yyyy	_

Abbrev: TB-Tack Board / GWB-Gypsum Wall Board / BW-Brick Wall / CBW-Concrete Block Wall / Car-Carpet / Conc-Concrete / Str-Structure / Wd-Wood / FRP-Fibreglass Reinforced Plastic

**Descriptors**: (at)-concealed above T-bar ceiling / (af)-concealed above fixed ceiling / (uw)-concealed behind wall paper / (\*) - presumed present; area or application not accessible **Height**: (H) high - application above 8'; (L) low or blank - application below 8' **Condition**: (p) poor / (f) fair (default good condition) **Quantities** are shown in parentheses

Note: Only known or visually confirmed asbestos applications are noted on these Ancillary pages. Additional asbestos applications may be recent but not listed on this approach best.

A - Texture Coating	D - Cement Parging Wall	BUILDING	MATERIAL IDENTIFICATION CODE	S	Mw - Window Putty	Qs - Roofing Shingle	V - Vermiculite Wall
_			J - Cement Board		,		Va - Vermiculite Attic
Af - Spray-Applied Fireproofing			Jf - Asbestos Furnishings	L - Incandescent Light Pad	O - Floor Levelling Cement	•	W - Woven Textile
B - Pipe Insulation	F - Insulating Paper	H -Vinyl Floor Tile	Jp - Cement Pipe	M - Mastic Glue / Sealant	P - Drywall Tape Comp.	Ss - Exterior Soffit Stucco	X - Fire Doors
C - Cement Pipe Fitting	Fb - Insulated Duct Boot	I - Vinyl Sheet Flooring	Jw - Cement Board Window Panel	Md - Mastic Duct Joint	PI - Plaster	T - Bldg Thermal Insulation	
Cp - Pipe Penetration Firestop	Fj - Insulating Paper Joint	Ip - Paper Backed Flooring	K - Equipment Gasketing	Ms - Mastic Sink Coating	Qf - Roofing Felt	U - Friction Materials	

Area No.	Room Name	Visible Floor	Second Floor Layer	Third Floor Layer	North Wall	East Wall	South Wall	West Wall	First Ceiling or Roof	Second Ceiling	Third Ceiling	Mech. Pipe	Pipe Fitting	Mech. Duct	Other	Quantity
107	Custodial	I1/ Conc	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
108	Art Storage	I1	Wd		P2/ Wd on GWB on GWB	G1/ G2	GWB									
109	Art Display	I1	Wd		P2/ Wd on GWB on GWB	P2/ Wd on GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	G1	GWB					Mw1	
110	Furnace Room	I1	Wd		P2 on GWB on GWB	GWB on GWB	GWB on GWB	P1	G1	GWB					K1	
111	Vestibule	I1	Wd		GWB/ P2 on GWB on GWB	GWB on GWB/ P3	GWB	GWB on GWB/ <b>P1</b>	G1/ G2	GWB						
112	Pottery Room	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB						
113	Corridor	I1	Wd		GWB on GWB	GWB on GWB	P1	GWB on GWB	G1	GWB						
114	Old X-Ray Control Room	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
115	Kiln Room	I1/ Metal on Cement Board	Wd		GWB on GWB on Lead Lined Wall	P1						R1(3)				
116	Chemical Storage	I1	Wd		GWB on GWB	GWB/ P3 on GWB	GWB/ P3 on GWB	GWB/ P3 on GWB	G1	GWB						
117	Storage	I1	Wd		P1/ GWB	P1/ GWB on GWB	GWB on GWB	P1/ GWB	G1	GWB						

Building Type:	Commercial	Building Name: Ernie Bodin Centre	Date:	08-16-2024	ANCILLARY INFORMATION
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Note: Only known or visually confirmed asbestos applications are noted on these Ancillary pages. Additional asbestos applications may be present but not listed on this spreadsheet.

Yellow highlighting indicates asbestos applications

A - Texture Coating	D - Cement Parging Wall	BUILDING	MATERIAL IDENTIFICATION CODE	S	Mw - Window Putty	Qs - Roofing Shingle	V - Vermiculite Wall
Ac - Acoustic Insulation	Dt - Equipment Parging	Fw - Insulated Duct Wrap	J - Cement Board	Kp - Pipe Gasketing	N - Pipe Roving/Packing	R - Refractory Cement	Va - Vermiculite Attic
Af - Spray-Applied Fireproofing	E - Duct Insulation	G - Ceiling Panel	Jf - Asbestos Furnishings	L - Incandescent Light Pad	O - Floor Levelling Cement	S - Exterior Wall Stucco	W - Woven Textile
B - Pipe Insulation	F - Insulating Paper	H -Vinyl Floor Tile	Jp - Cement Pipe	M - Mastic Glue / Sealant	P - Drywall Tape Comp.	Ss - Exterior Soffit Stucco	X - Fire Doors
C - Cement Pipe Fitting	Fb - Insulated Duct Boot	I - Vinyl Sheet Flooring	Jw - Cement Board Window Panel	Md - Mastic Duct Joint	PI - Plaster	T - Bldg Thermal Insulation	
Cp - Pipe Penetration Firestop	Fj - Insulating Paper Joint	Ip - Paper Backed Flooring	K - Equipment Gasketing	Ms - Mastic Sink Coating	Qf - Roofing Felt	U - Friction Materials	

	Room Name	Visible Floor	Second Floor Layer	Third Floor Layer	North Wall		South Wall		First Ceiling or Roof	Second Ceiling	Third Ceiling	Mech. Pipe	Pipe Fitting	Mech. Duct	Other	Quantity
118	Art Room	I1	Wd		GWB/ P2 on GWB	GWB on GWB	GWB/ P2 on GWB	GWB on GWB	G1/ G2	GWB					Mw1/ Ms1	
119	Washroom	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB						
120	Office	Carpet	I1	Wd	GWB/ TB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB						
121	Washroom	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB						
122	Multi-Coloured Room	I1/ H1	Wd		P1 on GWB	P1/ GWB on GWB	GWB on GWB	GWB on GWB	G1/ G2	P1						
123	Vestibule	I1/ H1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
124	Washroom	H1	Wd		P2 on GWB on GWB	GWB on GWB	P1 on GWB	P2 on GWB on GWB	P1							
125	Storage	H1	Wd		P1/Wd on GWB	P1/Wd on GWB	P1/Wd on GWB	P1/Wd on GWB	A1 on <b>P1</b>							
126	Art Storage	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
127	Corridor	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1/ G2	GWB						
128	Office	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB					Mw1	
129	Office	I1	Wd		GWB on GWB	GWB/ Wd on GWB		GWB on GWB	G1	GWB					Mw1	
130	Office	13	Wd		GWB on GWB	GWB/ Wd on GWB		GWB on GWB	G1	GWB	_	_			Mw1	

Building Type:	Commercial	Building Name: Ernie Bodin Centre	Date:	08-16-2024	ANCILLARY INFORMATION
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Abbrev: TB-Tack Board / GWB-Gypsum Wall Board / BW-Brick Wall / CBW-Concrete Block Wall / Car-Carpet / Conc-Concrete / Str-Structure / Wd-Wood / FRP-Fibreglass Reinforced Plastic

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Height: (H) high - application above 8'; (L) low or blank - application below 8' Condition: (p) poor / (f) fair (default good condition) Quantities are shown in parentheses

**Note**: Only known or visually confirmed asbestos applications are noted on these Ancillary pages. Additional asbestos applications may be present but not listed on this spreadsheet.

Yellow highlighting indicates asbestos applications

A - Texture Coating	D - Cement Parging Wall	BUILDING	MATERIAL IDENTIFICATION CODE	S	Mw - Window Putty	Qs - Roofing Shingle	V - Vermiculite Wall
Ac - Acoustic Insulation	Ot - Equipment Parging	Fw - Insulated Duct Wrap	J - Cement Board	Kp - Pipe Gasketing	N - Pipe Roving/Packing	R - Refractory Cement	Va - Vermiculite Attic
Af - Spray-Applied Fireproofing E	E - Duct Insulation	G - Ceiling Panel	Jf - Asbestos Furnishings	L - Incandescent Light Pad	O - Floor Levelling Cement	S - Exterior Wall Stucco	W - Woven Textile
B - Pipe Insulation F	F - Insulating Paper	H -Vinyl Floor Tile	Jp - Cement Pipe	M - Mastic Glue / Sealant	P - Drywall Tape Comp.	Ss - Exterior Soffit Stucco	X - Fire Doors
C - Cement Pipe Fitting F	Fb - Insulated Duct Boot	I - Vinyl Sheet Flooring	Jw - Cement Board Window Panel	Md - Mastic Duct Joint	PI - Plaster	T - Bldg Thermal Insulation	
Cp - Pipe Penetration Firestop F	Fj - Insulating Paper Joint	Ip - Paper Backed Flooring	K - Equipment Gasketing	Ms - Mastic Sink Coating	Qf - Roofing Felt	U - Friction Materials	

Area No.	Room Name	Visible Floor	Second Floor Layer	Third Floor Layer	North Wall	East Wall	South Wall		First Ceiling or Roof	Second Ceiling	Third Ceiling	Mech. Pipe	Pipe Fitting	Mech. Duct	Other	Quantity
131	Corridor	13	Wd		GWB on GWB	P1 on GWB	P1/ GWB on GWB	ı	G1/ G2	GWB						
132	Office	13	Wd		GWB on GWB	P2 on GWB/ GWB on GWB	P1/ GWB on GWB	GWB on GWB	G1	GWB					Mw1	
132A	Storage	13	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
133	Office	13	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB					Mw1	
134	Vestibule	13	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB					Mw1/ Ms1	
134A	Office	13	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB						
135	Washroom	I2 on Wd	l1	Wd	P2 on GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	G1	GWB						
136	Vestibule	I1	Wd		P2 on GWB on GWB	P1/ GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	G1/ G2	GWB						
137	Seniors Club	H2	Carpet	I3 on Wd	P1/ P2 on GWB	P2 on GWB	P2 on GWB	P1/ P2 on GWB	G5	GWB					Mw1	
137A	Closet	13	Wd		GWB on GWB	GWB on GWB	P1/ GWB on GWB	Wd/ GWB on GWB	G1	GWB						
138	Kitchen	Laminate	Wd	Wd	P2 on GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	G5	GWB					Mw1	

Building Type:	Commercial	Building Name: Ernie Bodin Centre	Date:	08-16-2024	ANCILLARY INFORMATION
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Abbrev: TB-Tack Board / GWB-Gypsum Wall Board / BW-Brick Wall / CBW-Concrete Block Wall / Car-Carpet / Conc-Concrete / Str-Structure / Wd-Wood / FRP-Fibreglass Reinforced Plastic

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Height: (H) high - application above 8'; (L) low or blank - application below 8' Condition: (p) poor / (f) fair (default good condition) Quantities are shown in parentheses

Note: Only known or visually confirmed asbestos applications are noted on these Ancillary pages. Additional asbestos applications may be

Yellow highlighting indicates asbestos applications

A - Texture Coating	D - Cement Parging Wall	BUILDING	MATERIAL IDENTIFICATION CODE	S	Mw - Window Putty	Qs - Roofing Shingle	V - Vermiculite Wall
_			J - Cement Board		,		Va - Vermiculite Attic
Af - Spray-Applied Fireproofing			Jf - Asbestos Furnishings	L - Incandescent Light Pad	O - Floor Levelling Cement	•	W - Woven Textile
B - Pipe Insulation	F - Insulating Paper	H -Vinyl Floor Tile	Jp - Cement Pipe	M - Mastic Glue / Sealant	P - Drywall Tape Comp.	Ss - Exterior Soffit Stucco	X - Fire Doors
C - Cement Pipe Fitting	Fb - Insulated Duct Boot	I - Vinyl Sheet Flooring	Jw - Cement Board Window Panel	Md - Mastic Duct Joint	PI - Plaster	T - Bldg Thermal Insulation	
Cp - Pipe Penetration Firestop	Fj - Insulating Paper Joint	Ip - Paper Backed Flooring	K - Equipment Gasketing	Ms - Mastic Sink Coating	Qf - Roofing Felt	U - Friction Materials	

Area No.	Room Name	Visible Floor	Second Floor Layer	Third Floor Layer	North Wall	East Wall	South Wall	West Wall	First Ceiling or Roof	Second Ceiling	Third Ceiling	Mech. Pipe	Pipe Fitting	Mech. Duct	Other	Quantity
139	Furnace Room	I1	Wd		GWB on GWB	P2 on GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB					K2	
140	Storage	НЗ	l1	Wd	GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G5	GWB						
141	Storage	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
142	Lobby	13	Wd		P1 on GWB	P2 on GWB	P2 on GWB	P2 on GWB	G1	GWB					Mw1	
143	Office	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB						
144	Prep Area	13	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB					Ms1	
145	Corridor	13	Wd		P2 on GWB on GWB	P1	GWB on GWB	-	G1	GWB						
146	Office	Carpet	O1	Wd	P2 on GWB/ GWB on GWB	GWB on GWB	GWB on GWB	P2 on GWB on GWB	G1	GWB						
147	Office	I3/ O1	Wd		P2 on GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	G1	GWB					Mw1	
148	Office	I3/ O1	Wd		P2 on GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	G1	GWB					Mw1	
149	Storage	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB						

Building Type:	Commercial	Building Name: Ernie Bodin Centre	Date:	08-16-2024	ANCILLARY INFORMATION
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Note: Only known or visually confirmed asbestos applications are noted on these Ancillary pages. Additional asbestos applications may be present but not listed as this present but not listed as the l

Tollow ringrining invalidated applications

A - Texture Coating	D - Cement Parging Wall	BUILDING	MATERIAL IDENTIFICATION CODI	S	Mw - Window Putty	Qs - Roofing Shingle	V - Vermiculite Wall
Ac - Acoustic Insulation	Dt - Equipment Parging	Fw - Insulated Duct Wrap	J - Cement Board	Kp - Pipe Gasketing	N - Pipe Roving/Packing	R - Refractory Cement	Va - Vermiculite Attic
Af - Spray-Applied Fireproofing	E - Duct Insulation	G - Ceiling Panel	Jf - Asbestos Furnishings	L - Incandescent Light Pad	O - Floor Levelling Cement	S - Exterior Wall Stucco	W - Woven Textile
B - Pipe Insulation	F - Insulating Paper	H -Vinyl Floor Tile	Jp - Cement Pipe	M - Mastic Glue / Sealant	P - Drywall Tape Comp.	Ss - Exterior Soffit Stucco	X - Fire Doors
C - Cement Pipe Fitting	Fb - Insulated Duct Boot	I - Vinyl Sheet Flooring	Jw - Cement Board Window Panel	Md - Mastic Duct Joint	PI - Plaster	T - Bldg Thermal Insulation	
Cp - Pipe Penetration Firestop	Fi - Insulating Paper Joint	Ip - Paper Backed Flooring	K - Equipment Gasketing	Ms - Mastic Sink Coating	Qf - Roofing Felt	U - Friction Materials	

Area No.	Room Name	Visible Floor	Second Floor Layer	Third Floor Layer	North Wall	East Wall	South Wall		First Ceiling or Roof	Second Ceiling	Third Ceiling	Mech. Pipe	Pipe Fitting	Mech. Duct	Other	Quantity
150	Office	13	Wd		GWB on GWB	GWB on GWB	GWB on GWB	P2 on GWB on GWB	G1	GWB					Mw1	
151	Storage	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB						
152	Tub Room	l1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1	GWB						
153	Office	13	Wd		GWB on GWB	P2 on GWB on GWB	GWB on GWB	P2 on GWB on GWB	G1	GWB					Mw1	
154	Office	13	Wd		GWB on GWB	P2 on GWB on GWB	GWB on GWB	P2 on GWB on GWB	G1	GWB					Mw1	
155	CHMM Lobby	Carpet	Wd		GWB on GWB	P2 on GWB on GWB	P3	GWB on GWB	G4	GWB					Mw1	
156	General Office	Carpet	Wd		P3	P2 on GWB on GWB	P3	P3	G4	GWB						
157	Office	Carpet	Wd		GWB on GWB	P3	P3	GWB on GWB	G4	GWB					Mw1	
158	Copy Room	Carpet	Wd		P3	P3	P3 on GWB on GWB	P3	G4	GWB						
159	Entry Vestibule	Carpet	Wd		P3	-	P3	P2 on GWB on GWB	G4	GWB						

Building Type:	Commercial	Building Name: Ernie Bodin Centre	Date:	08-16-2024	ANCILLARY INFORMATION
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Height: (H) high - application above 8'; (L) low or blank - application below 8' Condition: (p) poor / (f) fair (default good condition) Quantities are shown in parentheses

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Yellow highlighting indicates asbestos applications

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A - Texture Coating	D - Cement Parging Wall	BUILDING	MATERIAL IDENTIFICATION COD	ES	Mw - Window Putty	Qs - Roofing Shingle	V - Vermiculite Wall
Ac - Acoustic Insulation	Dt - Equipment Parging	Fw - Insulated Duct Wrap	J - Cement Board	Kp - Pipe Gasketing	N - Pipe Roving/Packing	R - Refractory Cement	Va - Vermiculite Attic
Af - Spray-Applied Fireproofing	E - Duct Insulation	G - Ceiling Panel	Jf - Asbestos Furnishings	L - Incandescent Light Pad	O - Floor Levelling Cement	S - Exterior Wall Stucco	W - Woven Textile
B - Pipe Insulation	F - Insulating Paper	H -Vinyl Floor Tile	Jp - Cement Pipe	M - Mastic Glue / Sealant	P - Drywall Tape Comp.	Ss - Exterior Soffit Stucco	X - Fire Doors
C - Cement Pipe Fitting	Fb - Insulated Duct Boot	I - Vinyl Sheet Flooring	Jw - Cement Board Window Panel	Md - Mastic Duct Joint	PI - Plaster	T - Bldg Thermal Insulation	
Cp - Pipe Penetration Firestop	Fi - Insulating Paper Joint	Ip - Paper Backed Flooring	K - Equipment Gasketing	Ms - Mastic Sink Coating	Qf - Roofing Felt	U - Friction Materials	

Ob - Fil	be Penetration Firestop  F		her jour lib	- гарет васк	eu riouting	Equipment	Gaskelling	IVIS -	viastic Sifik Co	ating  QT-R0	Joining Fell	JU -	Friction M	aterials		
Area No.	Room Name	Visible Floor	Second Floor Layer	Third Floor Layer	North Wall	East Wall	South Wall	West Wall	First Ceiling or Roof	Second Ceiling	Third Ceiling	Mech. Pipe	Pipe Fitting	Mech. Duct	Other	Quantity
160	Office	Carpet	l1	Wd	P3 on GWB on GWB	P3	GWB on GWB	GWB on GWB	G4	GWB					Mw1	
161	Corridor	13	Wd		P1	GWB/ P2 on GWB on GWB	GWB on GWB	GWB/ P2 on GWB on GWB	G4	GWB						
162	Common Area	13	Wd		GWB on GWB	GWB on GWB	GWB/ Wd on GWB	GWB on GWB	G1/ G4	GWB					Mw1	
163	Office	Carpet	Wd		P1/ P2 on GWB on GWB	GWB on GWB	P2 on GWB on GWB	P1	G1	GWB					Mw1	
164	Furnace Room	Carpet	l1	Wd	GWB on GWB	GWB on GWB	GWB on GWB	P1 on GWB on GWB	P1							
165	Delivery Room	lp 1 on Wd	13	Wd	P2 on GWB on GWB	P2 on GWB on GWB	GWB on GWB	P2 on GWB on GWB	P1						Mw1	
166	Storage	I1	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	G1/ G4	GWB					Mw1	
167	Corridor	lp2	Wd		GWB on GWB	P2 on GWB on GWB	P1/ GWB on GWB	P1	P1							
168	Morgue	lp2	Wd		GWB on GWB	GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	P1						КЗ	
168A	Embalment Room	Metal	Wd		GWB/ Metal on GWB	GWB/ Metal on GWB	GWB/ Metal on GWB	GWB/ Metal on GWB	P1							

Building	g Type:	Commercial	Building Name: Ernie Bodin Centre		Date:	08-16-2024	ANCILLARY INFORMATION
						mm-dd-yyyy	
hhrow: TP Took Poord	CMPC	noum Wall Board / BM	V Driek Mall / CDM Congrete Block Mall / Cor Corn	ot / Cono Conoroto / Str Structuro / Md M	Vaad / EE	D Fibraglass Dain	forced Diagric

**Abbrev**: TB-Tack Board / GWB-Gypsum Wall Board / BW-Brick Wall / CBW-Concrete Block Wall / Car-Carpet / Conc-Concrete / Str-Structure / Wd-Wood / FRP-Fibreglass Reinforced Plastic **Descriptors**: (at)-concealed above T-bar ceiling / (af)-concealed above fixed ceiling / (uw)-concealed behind wall paper / (\*) - presumed present; area or application not accessible

Height: (H) high - application above 8'; (L) low or blank - application below 8' Condition: (p) poor / (f) fair (default good condition) Quantities are shown in parentheses

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Yellow highlighting indicates asbestos applications

BLUE highlighting indicates Suspect asbestos application

ĺ	A - Texture Coating	D - Cement Parging Wall	BUILDING	MATERIAL IDENTIFICATION CODE	Mw - Window Putty	Qs - Roofing Shingle	V - Vermiculite Wall	
	Ac - Acoustic Insulation	Dt - Equipment Parging	Fw - Insulated Duct Wrap	J - Cement Board	Kp - Pipe Gasketing	N - Pipe Roving/Packing	R - Refractory Cement	Va - Vermiculite Attic
	Af - Spray-Applied Fireproofing	E - Duct Insulation	G - Ceiling Panel	Jf - Asbestos Furnishings	L - Incandescent Light Pad	O - Floor Levelling Cement	S - Exterior Wall Stucco	W - Woven Textile
	B - Pipe Insulation	F - Insulating Paper	H -Vinyl Floor Tile	Jp - Cement Pipe	M - Mastic Glue / Sealant	P - Drywall Tape Comp.	Ss - Exterior Soffit Stucco	X - Fire Doors
	C - Cement Pipe Fitting	Fb - Insulated Duct Boot	I - Vinyl Sheet Flooring	Jw - Cement Board Window Panel	Md - Mastic Duct Joint	PI - Plaster	T - Bldg Thermal Insulation	
	Cp - Pipe Penetration Firestop	Fj - Insulating Paper Joint	Ip - Paper Backed Flooring	K - Equipment Gasketing	Ms - Mastic Sink Coating	Qf - Roofing Felt	U - Friction Materials	

Area No.	Room Name	Visible Floor	Second Floor Layer	Third Floor Layer	North Wall	East Wall	South Wall	West Wall	First Ceiling or Roof	Second Ceiling	Third Ceiling	Mech. Pipe	Pipe Fitting	Mech. Duct	Other	Quantity
169	Chemical Storage	lp2	Wd		P2 on GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
170	A.A.	lp2	Wd		P2 on GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
171	Storage	lp2	Wd		GWB on GWB	P2 on GWB on GWB	P2 on GWB on GWB	GWB on GWB	P1							
172	Corridor	lp2	Wd		GWB/ P1 on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
173	Custodial	I4/ Ip2	lp3	Wd	GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1						K4	
174	Storage	lp2	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
175	Electrical Room	lp2	Wd		GWB on GWB	GWB on GWB	GWB/ Wd on GWB	P3/ GWB on GWB	P1							
176	Electrical Storage	lp2	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
177	Storage	lp2	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
177A	Vestibule	lp2	Wd		GWB on GWB	GWB on GWB	GWB on GWB	GWB on GWB	P1							
178	Boiler Room	Conc			P1	P1	P1	P1	P1			<b>Kp1</b> / Kp2/ E2	C1	E1	K5(2)	C1(75)/ C2(1)
179*																

District of Mackenzie			
HAZARDOUS & REGUI	ATED MATERIALS	<b>ASSESSMENT</b>	REPORT

# APPENDIX D BUILDING CONSTRUCTION INFORMATION





SURVEY INFORMATION												
Surveyor:		OV	Date:	08-16-2024	_	Building:			Ernie	Bodin Centre		
Survey Type:	Χ	Full Hazmat		Limited Scope	Χ	Pre-Demo		Pre-Reno		Pre-Purchase		Inventory Only
Details:	Χ	Floors Core	Χ	Walls Cored	Χ	Carpet Lifted	Χ	Drawings	Χ	Bldg Vacant		Bldg Occupied
BUILDING INFORM	/IATIO	<u>N</u>										
Construction:	19	60's Date		20,000 Ft <sup>2</sup>	Χ	Wood Frame		Brick / Block		Steel Stud		CIP Concrete
Construction.	1	Stories		Crawlspace Full	Χ	C/sp Partial		Basement Full		Bsmt Partial		Attic Space
Additions(s)	Χ	Observed	Χ	Reported		Date	Χ	Renovated (yes)		Renovated (No	)	Reno Date
Roofing:	Χ	Shingle		Tar and Gravel		Torch-on		Metal		Concrete		Not in Scope
Exterior:	Χ	Wood	Χ	Metal/Vinyl		Concrete		Stucco		Masonry		Not in Scope
Exterior Panels	Χ	Wood		Metal/Vinyl		Concrete		Stucco				Not in Scope
Window Frames	Χ	Putty	Χ	Glazing		Rubber		Caulking		Foam		None
Interior:	Χ	Wood		Plaster	Χ	Drywall	Χ	Covered D/W	Χ	Concrete		Other Non-Asb
Interior Ceilings:		Wood		Plaster	Χ	Drywall	Χ	T-Bar		Concrete		Exposed Str
Heating:	Χ	Hot Water		Wood	Χ	Furnace		Roof Top	Χ	Electric		Other Non-Asb
Heat Distribution:	Χ	Radiant	Χ	Ducted	Χ	Baseboard		]				Other Non-Asb
Thermal Insulation:		Vermiculite	Χ	Fiberglass		Rock Wool		Cellulose		Wood Chip		Other Non-Asb
MECHANICAL SYS	STEMS	<u> </u>										
Ducting:	Χ	None		Cork		Fiberglass		Rock Wool		Asb Paper		Other Non-Asb
Duct Joints:		None		Asbestos Tape		Vinyl Tape	Χ	Joint Sealant	Χ	Foil Tape		Other Non-Asb
Water Piping:		None	Χ	Fiberglass		Asb Lagging		Cork		Foam		Other Non-Asb
Pipe Fittings:		None	Χ	Cement (exposed)		Cement (con)	Χ	Fiberglass	Χ	PVC		Other Non-Asb
Rain Water Leader:		None	Χ	Cast Iron		Copper		Asbestos Pipe	Χ	Plastic		Other Non-Asb
Roof Drain Bowls:		None		Cement (exposed)		Cement (con)	Χ	Fiberglass				Other Non-Asb
Sanitary:	Χ	Plastic		Copper	Χ	Cast Iron		Asbestos Pipe				Not in Scope
Chimney Liner:	Χ	None		Cast Iron / Metal		Ceramic		Asbestos Pipe		Masonry		Not in Scope

# APPENDIX E SITE PHOTOGRAPHS

District of Mackenzie HAZARDOUS & REGULATED MATERIALS ASSESSMENT REPORT						
М	ATERIALS ASSESSED FOR ASBESTOS-CONTENT					

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
No Photograph Available	A 1	Splatter pattern stipple texture	6391A-13	No Asbestos Detected
	B 1	Canvas or paper wrapped straight run fiberglass insulation with mesh, fiberglass insulated fittings on mechanical piping	Not Sampled	Known Non- Asbestos Application
OTENTIALLY FRANCE BLESTOS FIBERS, AVOID HEATING DUSTECNOCHO L'UNG DISUSECNOCHO L'UNG DISUSECNOCHO BOUND  ROOM FARME BOLGE PROOM CANAN CLBON SAMPLE BY: SAM	C 1	Cement on mechanical pipe fitting	6391A-32	1-5% Chrysotile Asbestos

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
ASBESTOS  SAND CHI PLANE IN ROSH MAGNAN II PANCE IN PANCE	C 2	Cement on water tank	6391A-35	1-5% Chrysotile Asbestos
	E 1	Canvas wrapped fiberglass insulation on mechanical ducting	Not Sampled	Known Non- Asbestos Application
	E 2	Foil faced fiberglass insulation on mechanical piping	Not Sampled	Known Non- Asbestos Application

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
	G 1	2'x4' small pinholes, compressed fiberglass panel	Not Sampled	Known Non- Asbestos Application
	G 2	2'x4' cross-directional fissures with small pinholes, compressed cellulose panel	Not Sampled	Known Non- Asbestos Application
	G 3	2'x4' large and small pinholes, compressed fiberglass panel	Not Sampled	Known Non- Asbestos Application

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
No Photograph Available		2'x4' large and small pinholes, compressed cellulose panel	Not Sampled	Known Non- Asbestos Application
	G 5	2'x4' dimpled fiberglass panel	Not Sampled	Known Non- Asbestos Application
	H 1	12"x12" Off white with dark and light grey fleck pattern, vinyl floor tile	6391A-10	No Asbestos Detected

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
	H 2	12"x24" dark brown and beige laminate vinyl floor tile	Not Sampled	Known Non- Asbestos Application
No Photograph Available	Н3	12"x12" Beige and brown, plastic back vinyl floor tile	Not Sampled	Known Non- Asbestos Application
DANGER  PARTICIPATION  PARTICIPATION	l 1	Blue with blue streak, foam core vinyl sheet flooring	6391A-01	No Asbestos Detected

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
PANDER  PRINT AND	12	Grey with black, non slip vinyl sheet flooring	6391A-02	No Asbestos Detected
	13	Green with green streak, foam core vinyl sheet flooring	6391A-03	No Asbestos Detected
B NGEN  B NGEN	Ι 4	Green with black, non- slip, rubber mat	6391A-30	No Asbestos Detected

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
DANGER STATE OF THE PARTY OF T	lp 1	Off white with grey small stone pattern, paper back vinyl sheet flooring	6391A-27	No Asbestos Detected
PERMISSION AND EXPENSION AND E	lp 2	Cream with beige swirl pattern, paper back vinyl sheet flooring	6391A-28	No Asbestos Detected
CANCER  Asserting the state of	lp 3	Cream with beige tile pattern, vinyl sheet flooring	6391A-31	No Asbestos Detected

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
The second secon	К 1	Gasketing on furnace unit "Keep Rite"	Not Sampled	Known Non- Asbestos Application
	K 2	Gasketing on furnace unit	Not Sampled	Known Non- Asbestos Application
	К 3	Gasketing on furnace unit "Ceiling Hung"	Not Sampled	Known Non- Asbestos Application

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
	K 4	Gasketing on furnace unit	Not Sampled	Known Non- Asbestos Application
Power of Canada For Ca	K 5	Beaver Boiler	Not Sampled	Suspect Asbestos Application
	Кр 1	Red rubber pipe flange gasket on mechanical piping	Not Sampled	Known Non- Asbestos Application

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
	Кр 2	Pipe flange gasket on mechanical piping	Not Sampled	Suspect Asbestos Application
	M 1	Cream coloured mastic adhering styrofoam to concrete	6391A-46	1-5% Chrysotile Asbestos
DANGER  FOTENTIALN ORT AND  GREETING SHEET CALEBO  GOT LINES SHEET CALEBO  AND	M 2	Black mastic adhering jacketing to fiberglass straight run	6391A-38	No Asbestos Detected

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
	М 3	Rubber baseboard with adhering mastic	6391A-42	No Asbestos Detected
Thrifi Shop	M 4	Grey fibre gum on wall penetration	6391A-47	No Asbestos Detected
	Md 1	Brown sealant on mechanical ducting	6391A-05	1-5% Chrysotile Asbestos

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
No Photograph Available	Md 2	Hard silver sealant on mechanical ducting	6391A-48	1-5% Chrysotile Asbestos
	Ms 1	Gold sealant on sink underside	Not Sampled	Known Asbestos Application
DANGER POTENTIALLY CONTAINS ASBESTOS FIBERS, AND CREATING DUST. CANCER OR THE CONTAINS ASSESS OF THE CONTAINS ASSESSOR OF THE CONTAINS ASSESS OF THE CONTAINS ASSESS OF THE CONTAINS ASSESS OF THE CONTAINS ASSESSOR OF THE CONTAINS ASSESSO	Mw 1	Black sealant between window frame and pane	6391A-04	1-5% Chrysotile Asbestos

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
ISBESTOS	N 1	Sanitary pipe roving	Not Sampled	Known Asbestos Application
DANGER STATE OF THE STATE OF T	O 1	Cementitious floor leveller	6391A-20	No Asbestos Detected
DANGER BRIGADE TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER TANGER T	P 1	White drywall taping compound	6391A-41	1-5% Chrysotile Asbestos

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
DANGER POTENTALLY CONTAINS SUESTIONS BERS, AVOID BEATING DUST, CANCER JUNG DUST, CANCER JUNG DEST, CANCER ARY STORAGE ARY STOR	P 2	White drywall compound patch on GWB		No Asbestos Detected
	P 3	White drywall taping compound (new)	Not Sampled	Known Non- Asbestos Application
	Qs 1	Burgundy roll on asphalt shingle	Not Sampled	Known Non- Asbestos Application

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Potential ACM Ernie Bodin Centre	Code Modifier	Material Description	Sample Number / Information	Lab Results
	R 1	"Fire Craft Kilns" "Skutt Electric Kiln"	Not Sampled	Known Non- Asbestos Application
No Photograph Available	Т1	Fiberglass batt insulation	Not Sampled	Known Non- Asbestos Application

District of Mackenzie HAZARDOUS & REGULA	ATED MATERIALS ASSESSME	ENT REPORT		
LEAD	IN PAINT AND OTH	HER HAZARDOU	S MATERIALS	

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Lead Paint and Other Hazardous Materials Ernie Bodin Centre	Material Description	Sample Number / Information	Lead Conc.
B391A-1CF-01 CREAM ON EWB	Cream on GWB - Office 148	ICP-01	880 mg/kg
639/A-1CP-02 CALLES 2201 ON WOOD 1	Dark grey on wood door trim - Office 148	ICP-02	1210 mg/kg
LIANT BLUE ON WELD	Light blue with grey undercoat on wood door - Storage 151	ICP-03	<80 mg/kg

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Lead Paint and Other Hazardous Materials Ernie Bodin Centre	Material Description	Sample Number / Information	Lead Conc.
ESTIA 107-04 BETTE ON DEPART (M)	Beige on drywall (P1) - Office 163	ICP-04	196 mg/kg
No Photograph Available	Burgundy on wood - Delivery Room 165	ICP-05	<80 mg/kg
	Black on wood ceiling - Crawlspace 001	ICP-06	<80 mg/kg

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Lead Paint and Other Hazardous Materials Ernie Bodin Centre	Material Description	Sample Number / Information	Lead Conc.
B39M-ICP-OF VILITE ON WESTER	White on wood - Boiler Room 178	ICP-07	<80 mg/kg
	Grey on concrete - Boiler Room 178	ICP-08	1140 mg/kg
63718-ICP. OF WHITE ON ONE	White on GWB - Corridor 172	ICP-09	<80 mg/kg

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Lead Paint and Other Hazardous Materials Ernie Bodin Centre	Material Description	Sample Number / Information	Lead Conc.
	Black on wood frames and trims - Corridor 105	ICP-10	1470 mg/kg
BSTA-ict-vic Econoic vict	Dark Grey with burgundy undercoat on wood siding - Exterior West	ICP-11	240 mg/kg
	Black on wood window frame - Exterior West	ICP-12	467 mg/kg

Peak Environmental Ltd.			
Hazardous and Regulated Materials Assessment Report		Sample	
Photograph Log - Lead Paint and Other Hazardous Materials Ernie Bodin Centre	Material Description	Number / Information	Lead Conc.
Line of the Est	Grey on wood door - Exterior West	ICP-13	938 mg/kg
B391A-1ER III WHITE ON WE	White on wood door - Exterior West	ICP-14	202 mg/kg
EXI	Potential PCB containing fluorescent light ballasts		

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Lead Paint and Other Hazardous Materials Ernie Bodin Centre	Material Description	Sample Number / Information	Lead Conc.
	Mercury containing fluorescent lighting (tubes, CFC, high voltage)		
	Refrigerators/Deep Freezers		
	Smoke Detectors		

Peak Environmental Ltd. Hazardous and Regulated Materials Assessment Report Photograph Log - Lead Paint and Other Hazardous Materials Ernie Bodin Centre	Material Description	Sample Number / Information	Lead Conc.
	Lead lined door		

District of iviackei	nzie		
HAZARDOUS & R	EGULATED MATERIA	ALS ASSESSMENT	REPORT

# APPENDIX F LABORATORY ANALYTICAL RESULTS

District of Mackenzie HAZARDOUS & REGULAT	District of Mackenzie HAZARDOUS & REGULATED MATERIALS ASSESSMENT REPORT				
MA	TERIALS ASSESSED	FOR ASBESTOS	S-CONTENT		





### **CERTIFICATE OF ANALYSIS**

**REPORTED TO** Peak Environmental Ltd.

951 Pinewood Place

West Kelowna, BC V1Z 3G7

**ATTENTION** Steve Ferguson

PO NUMBER 6391A PROJECT 6391A

PROJECT INFO Ernie Bodin Centre

WORK ORDER 24H3604

**RECEIVED / TEMP** 2024-08-26 16:25 / 21.3°C

**REPORTED** 2024-09-03 11:31

COC NUMBER no #

#### Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



We've Got Chemistry



Ahead of the Curve



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead Account Manager A what

1-888-311-8846 | www.caro.ca



Non-Asbestos Fibres

Non-Fibrous Materials

REPORTED TO PROJECT	Peak Environme 6391A	ental Ltd.		WORK ORDER REPORTED	24H3604 2024-09-0	3 11:31
Analyte		Result	RL	Units	Analyzed	Qualifie
Blue with blue st Sampled: 2024-0		/SF - Entry Vestibule 100A - 6391A-0	l (24H3604-01)   Ma	atrix: Solid		
Polarized Light Mic	croscopy Analysis					
Asbestos Fibres		Absent	0.5	% dry	2024-09-03	
Non-Asbestos Fib	res	<1		% dry	2024-09-03	
Non-Fibrous Mate	rials	> 99		% dry	2024-09-03	
2024-08-16		ashroom 101 - 6391A-02 (24H3604-02	)   Matrix: Solid   S	ampled:		
_	croscopy Analysis					
Asbestos Fibres		Absent		% dry	2024-09-03	
Non-Asbestos Fib		(20 - 30) (70 - 80)		% dry	2024-09-03	
		(1.5.55)		<u> </u>		
Polarized Light Mic Asbestos Fibres	noscopy Analysis	Absent		% dry	2024-09-03	
Non-Asbestos Fib	res	(1 - 5)	1.0	% dry	2024-09-03	
Non-Fibrous Mate	rials	(95 - 99)	1.0	% dry	2024-09-03	
Sampled: 2024-0	8-16	me and pane - Corridor 103A - 6391.	A-04 (24H3604-04)	Matrix: Solid		
•	croscopy Analysis					
Asbestos Fibres		Absent		% dry	2024-09-03	
Non-Asbestos Fib		<1		% dry	2024-09-03	
Non-Fibrous Mate	rials	> 99	1.0	% dry	2024-09-03	
Brown sealant or Sampled: 2024-0		ting - Crawlspace 001 - 6391A-05 (24	H3604-05)   Matrix	: Solid		
Polarized Light Mic	croscopy Analysis					
Chrysotile Asbesto	os	(1 - 5)	0.5	% dry	2024-09-03	
Non-Asbestos Fib	res	< 1	1.0	% dry	2024-09-03	
Non-Fibrous Mate	rials	(95 - 99)	1.0	% dry	2024-09-03	
Black sealant be Sampled: 2024-0		me and pane - Corridor 103A - 6391	A-06 (24H3604-06)	Matrix: Solid		
Polarized Light Mid	croscopy Analysis					
•						

2024-09-03

2024-09-03

1.0 % dry

1.0 % dry

< 1

(95 - 99)



REPORTED TO	Peak Environmental Ltd.	WORK ORDER	24H3604
PROJECT	6391A	REPORTED	2024-09-03 11:31

Analyte	Result	RL Units	Analyzed	Qualifier
---------	--------	----------	----------	-----------

# White drywall taping compound - Kitchen 106 - 6391A-07 (24H3604-07) | Matrix: Solid | Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-09-03
Non-Asbestos Fibres	< 1	1.0 % dry	2024-09-03
Non-Fibrous Materials	> 99	1.0 % dry	2024-09-03

### White drywall compound patch on GWB - Art Storage 108 - 6391A-08 (24H3604-08) | Matrix: Solid |

Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-09-03
Non-Asbestos Fibres	< 1	1.0 % dry	2024-09-03
Non-Fibrous Materials	> 99	1.0 % dry	2024-09-03

# Black sealant between window frame and pane - Art Room 118 - 6391A-09 (24H3604-09) | Matrix: Solid |

Sampled: 2024-08-16

#### Polarized Light Microscopy Analysis

Comments	Stop Positive	% dry	2024-09-03
	Not Tooted		

# 12x12 Off white with dark and light grey fleck pattern, VFT - Multi-Coloured Room 122 - 6391A-10 (24H3604-10) | Matrix: Solid | Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-09-03	
Non-Asbestos Fibres	< 1	1.0 % dry	2024-09-03	
Non-Fibrous Materials	> 99	1.0 % dry	2024-09-03	

### White drywall taping compound - Multi-Coloured Room 122 - 6391A-11 (24H3604-11) | Matrix: Solid |

Sampled: 2024-08-11

#### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-31

# White drywall compound patch on GWB - Washroom 124 - 6391A-12 (24H3604-12) | Matrix: Solid |

Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-31



Polarized Light Microscopy Analysis

Asbestos Fibres

Non-Asbestos Fibres

Non-Fibrous Materials

### **TEST RESULTS**

Splatter pattern stipple texture - Storage 125 - 6391A-13 (24H3604-13)   Matrix: Solid   Sampled: 2024-08-16  Polarized Light Microscopy Analysis  Asbestos Fibres   Absent   0.5 % dry   2024-08-31   Non-Asbestos Fibres   < 1   1.0 % dry   2024-08-31   Non-Fibrous Materials   > 99   1.0 % dry   2024-08-31   Splatter pattern stipple texture - Storage 125 - 6391A-14 (24H3604-14)   Matrix: Solid   Sampled: 2024-08-16  Polarized Light Microscopy Analysis  Asbestos Fibres   Absent   0.5 % dry   2024-08-31   Non-Asbestos Fibres   < 1   1.0 % dry   2024-08-31   Non-Fibrous Materials   > 99   1.0 % dry   2024-08-31   Splatter pattern stipple texture - Storage 125 - 6391A-15 (24H3604-15)   Matrix: Solid   Sampled: 2024-08-31   Splatter pattern stipple texture - Storage 125 - 6391A-15 (24H3604-15)   Matrix: Solid   Sampled: 2024-08-31   Splatter pattern stipple texture - Storage 125 - 6391A-15 (24H3604-15)   Matrix: Solid   Sampled: 2024-08-31   Non-Asbestos Fibres   Absent   0.5 % dry   2024-08-31   Non-Asbestos Fibres   < 1   1.0 % dry   2024-08-31   Non-Fibrous Materials   > 99   1.0 % dry   2024-08-31   White drywall compound patch on GWB - Office 132 - 6391A-16 (24H3604-16)   Matrix: Solid   Sampled: 2024-08-16   Polarized Light Microscopy Analysis  Asbestos Fibres   Absent   0.5 % dry   2024-08-31   Non-Asbestos Fibres   Absent   0.5 % dry   2024-08-31   No	REPORTED TO PROJECT	Peak Environm 6391A	ental Ltd.		WORK ORDER REPORTED	24H3604 2024-09-0	3 11:31
### Polarized Light Microscopy Analysis  Asbestos Fibres   Absent   0.5 % dry   2024-08-31   Non-Asbestos Fibres   1.0 % dry   2024-08-31   Non-Fibrous Materials   > 99   1.0 % dry   2024-08-31    **Splatter pattern stipple texture - Storage 125 - 6391A-14 (24H3604-14)   Matrix: Solid   Sampled: 2024-08-31    **Polarized Light Microscopy Analysis	Analyte		Result	RL	Units	Analyzed	Qualifie
Absent   0.5 % dry   2024-08-31		stipple texture - S	Storage 125 - 6391A-13 (24H3604-13)	Matrix: Solid   Sar	npled:		
Non-Asbestos Fibres	Polarized Light Mic	croscopy Analysis					
Non-Fibrous Materials   999   1.0 % dry   2024-08-31	Asbestos Fibres		Absent	0.5	% dry	2024-08-31	
Splatter pattern stipple texture - Storage 125 - 6391A-14 (24H3604-14)   Matrix: Solid   Sampled: 2024-08-16  Polarized Light Microscopy Analysis  Absent 0.5 % dry 2024-08-31  Non-Asbestos Fibres 4.1 1.0 % dry 2024-08-31  Non-Fibrous Materials > 99 1.0 % dry 2024-08-31  Splatter pattern stipple texture - Storage 125 - 6391A-15 (24H3604-15)   Matrix: Solid   Sampled: 2024-08-16  Polarized Light Microscopy Analysis  Asbestos Fibres Absent 0.5 % dry 2024-08-31  Non-Asbestos Fibres 4.1 1.0 % dry 2024-08-31  Non-Fibrous Materials > 99 1.0 % dry 2024-08-31  White drywall compound patch on GWB - Office 132 - 6391A-16 (24H3604-16)   Matrix: Solid   Sampled: 2024-08-31  White drywall compound patch on GWB - Office 132 - 6391A-16 (24H3604-16)   Matrix: Solid   Sampled: 2024-08-31  Non-Asbestos Fibres Absent 0.5 % dry 2024-08-31  Non-Fibrous Materials > 99 1.0 % dry 2024-08-31  Non-Fibrous Materials > 99 1.0 % dry 2024-08-31  Black sealant between window frame and pane- Vestibule 134 - 6391A-17 (24H3604-17)   Matrix: Solid   Sampled: 2024-08-16  Polarized Light Microscopy Analysis  Comments Stop Positive % dry 2024-08-31	Non-Asbestos Fib	res	< 1	1.0	% dry	2024-08-31	
### Polarized Light Microscopy Analysis  Asbestos Fibres   Absent   0.5 % dry   2024-08-31   Non-Asbestos Fibres   < 1   1.0 % dry   2024-08-31   Non-Fibrous Materials   > 99   1.0 % dry   2024-08-31    **Splatter pattern stipple texture - Storage 125 - 6391A-15 (24H3604-15)   Matrix: Solid   Sampled: 2024-08-16  **Polarized Light Microscopy Analysis	Non-Fibrous Mate	erials	> 99	1.0	% dry	2024-08-31	
Asbestos Fibres	2024-08-16			Matrix: Solid   Sar	npled:		
Non-Asbestos Fibres	-	croscopy Analysis		<u> </u>	0/	0004.00.04	
Non-Fibrous Materials   > 99		uroo.			· · · · · · · · · · · · · · · · · · ·		
Splatter pattern stipple texture - Storage 125 - 6391A-15 (24H3604-15)   Matrix: Solid   Sampled: 2024-08-16							
Non-Fibrous Materials   > 99	Splatter pattern s 2024-08-16	stipple texture - S	Storage 125 - 6391A-15 (24H3604-15)		•	2021000	
Non-Asbestos Fibres	Splatter pattern s 2024-08-16	stipple texture - S	Storage 125 - 6391A-15 (24H3604-15)		•	2021000	
White drywall compound patch on GWB - Office 132 - 6391A-16 (24H3604-16)   Matrix: Solid   Sampled: 2024-08-16  Polarized Light Microscopy Analysis  Asbestos Fibres	Splatter pattern s 2024-08-16 Polarized Light Mic	stipple texture - S	Storage 125 - 6391A-15 (24H3604-15)	Matrix: Solid   Sar	npled:		
### Polarized Light Microscopy Analysis  Asbestos Fibres	Splatter pattern s 2024-08-16 Polarized Light Mid Asbestos Fibres	stipple texture - S croscopy Analysis	Storage 125 - 6391A-15 (24H3604-15)   Absent	Matrix: Solid   Sar	npled: % dry	2024-08-31	
Non-Asbestos Fibres < 1 1.0 % dry 2024-08-31 Non-Fibrous Materials > 99 1.0 % dry 2024-08-31  Black sealant between window frame and pane- Vestibule 134 - 6391A-17 (24H3604-17)   Matrix: Solid   Sampled: 2024-08-16  Polarized Light Microscopy Analysis  Comments Stop Positive % dry 2024-08-31	Splatter pattern s 2024-08-16 Polarized Light Mid Asbestos Fibres Non-Asbestos Fib	stipple texture - S croscopy Analysis	Storage 125 - 6391A-15 (24H3604-15)    Absent  < 1	Matrix: Solid   San	npled:  % dry % dry	2024-08-31 2024-08-31	
Non-Fibrous Materials > 99 1.0 % dry 2024-08-31  Black sealant between window frame and pane- Vestibule 134 - 6391A-17 (24H3604-17)   Matrix: Solid    Sampled: 2024-08-16  Polarized Light Microscopy Analysis  Comments Stop Positive % dry 2024-08-31	Splatter pattern s 2024-08-16 Polarized Light Mid Asbestos Fibres Non-Asbestos Fib Non-Fibrous Mate White drywall co 2024-08-16	croscopy Analysis eres erials mpound patch o	Absent <1 >99  n GWB - Office 132 - 6391A-16 (24H3604-15)	0.5 1.0 1.0 604-16)   Matrix: So	% dry % dry % dry lid   Sampled:	2024-08-31 2024-08-31	
Black sealant between window frame and pane- Vestibule 134 - 6391A-17 (24H3604-17)   Matrix: Solid   Sampled: 2024-08-16  Polarized Light Microscopy Analysis  Comments Stop Positive % dry 2024-08-31	Splatter pattern s 2024-08-16 Polarized Light Mid Asbestos Fibres Non-Asbestos Fib Non-Fibrous Mate White drywall co 2024-08-16 Polarized Light Mid Asbestos Fibres	croscopy Analysis erials erroscopy Analysis erials erroscopy Analysis	Absent < 1 > 99  n GWB - Office 132 - 6391A-16 (24H36  Absent	0.5 1.0 1.0 604-16)   Matrix: So	% dry % dry % dry lid   Sampled:	2024-08-31 2024-08-31 2024-08-31	
Sampled: 2024-08-16  Polarized Light Microscopy Analysis  Comments Stop Positive % dry 2024-08-31	Splatter pattern s 2024-08-16 Polarized Light Mid Asbestos Fibres Non-Asbestos Fib Non-Fibrous Mate White drywall co 2024-08-16 Polarized Light Mid Asbestos Fibres Non-Asbestos Fib	stipple texture - Scroscopy Analysis eres erials empound patch occoscopy Analysis eres	Absent <1 >Output  Absent <1 >99  n GWB - Office 132 - 6391A-16 (24H36)  Absent <1	0.5 1.0 1.0 604-16)   Matrix: So 0.5	% dry % dry lid   Sampled: % dry % dry	2024-08-31 2024-08-31 2024-08-31 2024-08-31	
Comments Stop Positive % dry 2024-08-31	Splatter pattern s 2024-08-16 Polarized Light Mid Asbestos Fibres Non-Asbestos Fib Non-Fibrous Mate White drywall co 2024-08-16 Polarized Light Mid Asbestos Fibres Non-Asbestos Fib	stipple texture - Scroscopy Analysis eres erials empound patch occoscopy Analysis eres	Absent <1 >Output  Absent <1 >99  n GWB - Office 132 - 6391A-16 (24H36)  Absent <1	0.5 1.0 1.0 604-16)   Matrix: So 0.5	% dry % dry lid   Sampled: % dry % dry	2024-08-31 2024-08-31 2024-08-31 2024-08-31	
, ,	Splatter pattern s 2024-08-16 Polarized Light Mid Asbestos Fibres Non-Asbestos Fib Non-Fibrous Mate White drywall co 2024-08-16 Polarized Light Mid Asbestos Fibres Non-Asbestos Fib Non-Fibrous Mate	croscopy Analysis erials eroscopy Analysis erials	Absent <1 >Output  Absent <1 >99  n GWB - Office 132 - 6391A-16 (24H36)  Absent <1 >99  Absent <99	0.5 1.0 1.0 <b>604-16)   Matrix: So</b> 0.5 1.0	% dry % dry % dry lid   Sampled: % dry % dry % dry % dry % dry % dry	2024-08-31 2024-08-31 2024-08-31 2024-08-31	
	Splatter pattern s 2024-08-16 Polarized Light Mid- Asbestos Fibres Non-Asbestos Fib Non-Fibrous Mate White drywall con 2024-08-16 Polarized Light Mid- Asbestos Fibres Non-Asbestos Fibres Non-Fibrous Mate Black sealant ber Sampled: 2024-0	croscopy Analysis  eres  erials  mpound patch o  croscopy Analysis  eres  erials  tween window from 8-16	Absent <1 >Output  Absent <1 >99  n GWB - Office 132 - 6391A-16 (24H36)  Absent <1 >99  ame and pane- Vestibule 134 - 6391A	0.5 1.0 1.0 <b>604-16)   Matrix: So</b> 0.5 1.0	% dry % dry % dry lid   Sampled: % dry % dry % dry % dry % dry % dry	2024-08-31 2024-08-31 2024-08-31 2024-08-31	

2024-08-31

2024-08-31

2024-08-31

Absent

< 1

> 99

0.5 % dry

1.0 % dry



REPORTED TO	Peak Environmental Ltd.	<b>WORK ORDER</b>	24H3604
PROJECT	6391A	REPORTED	2024-09-03 11:3

Analyte Result RL Units Analyzed Qualifier

Brown sealant on mechanical ducting - Crawlspace 001 - 6391A-19 (24H3604-19) | Matrix: Solid |

Sampled: 2024-08-16

Polarized Light Microscopy Analysis

Comments Stop Positive % dry 2024-08-31

- Not Tested

### Cementitious floor leveller - Office 147 - 6391A-20 (24H3604-20) | Matrix: Solid | Sampled: 2024-08-16

#### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-31

### Cementitious floor leveller - Office 148 - 6391A-21 (24H3604-21) | Matrix: Solid | Sampled: 2024-08-16

#### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-31

### Cementitious floor leveller - Office 150 - 6391A-22 (24H3604-22) | Matrix: Solid | Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31	
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31	
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-31	

# White drywall compound patch on GWB - Office 148 - 6391A-23 (24H3604-23) | Matrix: Solid | Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-31

# White drywall compound patch on GWB - Corridor 161 - 6391A-24 (24H3604-24) | Matrix: Solid |

Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-31

White drywall taping compound - Office 163 - 6391A-25 (24H3604-25) | Matrix: Solid | Sampled: 2024-08-16



REPORTED TO	Peak Environmental Ltd.	WORK ORDER	24H3604
PROJECT	6391A	REPORTED	2024-09-03 11:31

Analyte	Result	RL Units	Analyzed	Qualifie
White drywall taping compound - 2024-08-16, Continued	Office 163 - 6391A-25 (24H3604-25)	Matrix: Solid   Sampled:		
Asbestos Fibres	Absent	0.5 % dry	2024-08-31	
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31	
		1.0 % dry	2024-08-31	

# White drywall taping compound - Furnace Room 164 - 6391A-26 (24H3604-26) | Matrix: Solid | Sampled: 2024-08-16

Polarized Light Microscopy Analysis				
Asbestos Fibres	Absent	0.5 % dry	2024-08-31	
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31	
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-31	

# Off white with grey small stone pattern, paper back VSF - Delivery Room 165 - 6391A-27 (24H3604-27) | Matrix: Solid | Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31
Non-Asbestos Fibres	(30 - 40)	1.0 % dry	2024-08-31
Non-Fibrous Materials	(60 - 70)	1.0 % dry	2024-08-31

# Cream with beige swirl pattern, paper back VSF - Corridor 167 - 6391A-28 (24H3604-28) | Matrix: Solid | Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31
Non-Asbestos Fibres	(50 - 60)	1.0 % dry	2024-08-31
Non-Fibrous Materials	(40 - 50)	1.0 % dry	2024-08-31

# White drywall taping compound - Morgue 168 - 6391A-29 (24H3604-29) | Matrix: Solid | Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-31

# Green with black, non-slip, rubber mat - Custodial 173 - 6391A-30 (24H3604-30) | Matrix: Solid | Sampled: 2024-08-16

### Polarized Light Microscopy Analysis

Asbestos Fibres	Absent	0.5 % dry	2024-08-31	
Non-Asbestos Fibres	< 1	1.0 % dry	2024-08-31	
Non-Fibrous Materials	> 99	1.0 % dry	2024-08-31	



REPORTED TO PROJECT	Peak Environmenta 6391A			WORK ORDER REPORTED	24H3604 2024-09-0	3 11:31
Analyte		Result	RL	Units	Analyzed	Qualifie
Cream with beige 2024-08-16	e tile pattern, VSF - C	ustodial 173 - 6391A-31 (24H360	4-31)   Matrix: Solid	I   Sampled:		
Polarized Light Mic	croscopy Analysis					
Asbestos Fibres		Absent	0.5	% dry	2024-08-31	
Non-Asbestos Fib	res	(50 - 60)		% dry	2024-08-31	
Non-Fibrous Mate	rials	(40 - 50)		% dry	2024-08-31	
Chrysotile Asbesto Non-Asbestos Fib		(1 - 5) (30 - 40)		% dry % dry	2024-08-31	
Cement on mech	anical pipe fitting - B	oiler Room 178 - 6391A-32 (24H	3604-32)   Matrix: S	olid   Sampled:		
Polarized Light Mic		(1 - 5)	0.5	% dry	2024-08-31	
<u> </u>		· ,				
Non-Fibrous Mate		(60 - 70)		% dry	2024-08-31	
Cement on mech 2024-08-16 Polarized Light Mic Comments		oiler Room 178 - 6391A-33 (24H Stop Positive - Not Tested	3604-33)   Matrix: S	olid   Sampled:	2024-08-31	
Cement on mech 2024-08-16	anical pipe fitting - B	oiler Room 178 - 6391A-34 (24H	3604-34)   Matrix: S	olid   Sampled:		
Polarized Light Mic	croscopy Analysis					
Comments		Stop Positive - Not Tested		% dry	2024-08-31	
Cement on water	tank - Boiler Room 1	78 - 6391A-35 (24H3604-35)   Ma	trix: Solid   Sample	ed: 2024-08-16		
Polarized Light Mic	croscopy Analysis					
Chrysotile Asbesto		(1 - 5)	0.5	% dry	2024-08-31	
2.11 , 00 1110 / 100 0011		(1 - 3)	0.0		_0_ 00 01	

Cement on water tank - Boiler Room 178 - 6391A-36 (24H3604-36) | Matrix: Solid | Sampled: 2024-08-16

(20 - 30)

(70 - 80)

Polarized Light Microscopy Analysis

Non-Asbestos Fibres

Non-Fibrous Materials

Comments **Stop Positive** % dry 2024-08-31 - Not Tested

Cement on water tank - Boiler Room 178 - 6391A-37 (24H3604-37) | Matrix: Solid | Sampled: 2024-08-16

Polarized Light Microscopy Analysis

2024-08-31

2024-08-31

1.0 % dry



Non-Asbestos Fibres

Non-Fibrous Materials

REPORTED TO Peak Environmental Ltd. PROJECT 6391A				24H3604 2024-09-03 11:31		
Analyte		Result	RL	Units	Analyzed	Qualifie
Cement on water Continued	tank - Boiler Room 178 - 6	391A-37 (24H3604-37)   Ma	trix: Solid   Sample	ed: 2024-08-16,		
Polarized Light Mid	croscopy Analysis, Continued					
Comments	s	top Positive - Not Tested		% dry	2024-08-31	
	nering jacketing to fibreglas Impled: 2024-08-16	ss straight run - Boiler Roo	om 178 - 6391A-38 (	(24H3604-38)		
Polarized Light Mid	croscopy Analysis					
Asbestos Fibres		Absent	0.5	% dry	2024-08-31	
Non-Asbestos Fib	res	(1 - 5)		% dry	2024-08-31	
Non-Fibrous Mate	erials	(95 - 99)		% dry	2024-08-31	
Non-Asbestos Fib		(40 - 50) (60 - 70)		% dry % dry	2024-08-31	
	nering jacketing to fibreglas mpled: 2024-08-16	,		<u> </u>		
Polarized Light Mic	croscopy Analysis					
Asbestos Fibres		Absent	0.5	% dry	2024-08-31	
Non-Asbestos Fib	res	(10 - 20)	1.0	% dry	2024-08-31	
Non-Fibrous Mate	erials	(80 - 90)	1.0	% dry	2024-08-31	
White drywall tap 2024-08-16	oing compound - Boiler Roo	om 178 - 6391A-41 (24H36)	)4-41)   Matrix: Soli	d   Sampled:		
Polarized Light Mic	croscopy Analysis					
Chrysotile Asbesto	os	(1 - 5)	0.5	% dry	2024-08-31	
Non-Asbestos Fib	res	< 1	1.0	% dry	2024-08-31	
Non-Fibrous Mate	erials	(95 - 99)	1.0	% dry	2024-08-31	
Rubber baseboa Sampled: 2024-0	rd with adhering mastic - Vo 8-16	estibule 177A - 6391A-42 (	24H3604-42)   Matri	ix: Solid		
Polarized Light Mic	croscopy Analysis					
Asbestos Fibres		Absent	0.5	% dry	2024-08-31	
Nam Ashasta - Cit			4.0	0/	2024 00 24	

2024-08-31

2024-08-31

< 1

> 99

1.0 % dry



Non-Asbestos Fibres

Non-Fibrous Materials

REPORTED TO Peak Environmental Ltd. PROJECT 6391A				WORK ORDER REPORTED	24H3604 2024-09-03 11:31		
Analyte		Result	RL	Units	Analyzed	Qualifie	
White drywall tap 2024-08-16	oing compound - S	torage 141 - 6391A-43 (24H3604-43	)   Matrix: Solid   S	ampled:			
Polarized Light Mid	croscopy Analysis						
Comments		Stop Positive - Not Tested		% dry	2024-08-31		
White drywall co Sampled: 2024-0		GWB - Vestbule 136 - 6391A-44 (24	H3604-44)   Matrix:	Solid			
Polarized Light Mic	croscopy Analysis						
Asbestos Fibres		Absent	0.5	% dry	2024-08-31		
Non-Asbestos Fib	res	< 1		% dry	2024-08-31		
Non-Fibrous Mate	rials	> 99		% dry	2024-08-31		
Non-Asbestos Fib		<1		% dry	2024-08-31		
Asbestos Fibres Non-Asbestos Fib Non-Fibrous Mate		Absent < 1 > 99	1.0	% dry % dry % dry	2024-08-31 2024-08-31 2024-08-31		
Cream coloured Solid   Sampled:		tyrofoam to conc - Boiler Room 178	3 - 6391A-46 (24H36	604-46)   Matrix:			
Polarized Light Mic	croscopy Analysis						
Chrysotile Asbesto	os	(1 - 5)	0.5	% dry	2024-08-31		
Non-Asbestos Fib	res	< 1	1.0	% dry	2024-08-31		
Non-Fibrous Mate	rials	(95 - 99)	1.0	% dry	2024-08-31		
Grey fibre gum o 2024-08-16	n wall penetration	- Exterior West - 6391A-47 (24H360	14-47)   Matrix: Soli	d   Sampled:			
Polarized Light Mic	croscopy Analysis						
Asbestos Fibres		Absent	0.5	% dry	2024-08-31		
Non-Asbestos Fib	res	(1 - 5)		% dry	2024-08-31		
Non-Fibrous Mate	rials	(95 - 99)		% dry	2024-08-31		
Hard Silver seala Sampled: 2024-0		ducting - Exterior East - 6391A-48 (	24H3604-48)   Matr	ix: Solid			
Polarized Light Mic	croscopy Analysis						
Chrysotile Asbesto	os	(1 - 5)	0.5	% dry	2024-08-31		
Nam Askasta - Et			4.0	0/	2024 00 24		

2024-08-31

2024-08-31

< 1 (95 - 99) 1.0 % dry



### **APPENDIX 1: SUPPORTING INFORMATION**

REPORTED TO Peak Environmental Ltd. WORK ORDER 24H3604

**PROJECT** 6391A **REPORTED** 2024-09-03 11:31

Analysis Description	Method Ref.	Technique	Accredited	Location
Asbestos in Bulk Materials in Solid	EPA 600/R-93/116	Polarized Light Microscopy (PLM)	✓	Kelowna

### **Glossary of Terms:**

RL Reporting Limit (default)
% dry Percent (dry weight basis)

Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors

> Greater than the specified Result

EPA United States Environmental Protection Agency Test Methods

### **General Comments:**

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed.

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do <u>not</u> take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager:bwhitehead@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.



### **APPENDIX 2: QUALITY CONTROL RESULTS**

**REPORTED TO** Peak Environmental Ltd.

PROJECT 6391A

WORK ORDER REPORTED 24H3604 2024-09-03 11:31

The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- Blank Spike (BS): A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- Matrix Spike (MS): A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- Reference Material (SRM): A homogenous material of similar matrix to the samples, certified for the parameter(s) listed.
   Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polarized Light Microscopy Analysis	s, Batch B4H4522								
Blank (B4H4522-BLK1)			Prepared	I: 2024-08-3	30, Analyze	d: 2024-0	9-03		
Asbestos Fibres	Absent	0.5 % dry							
Non-Asbestos Fibres	< 1.0	1.0 % dry							
Non-Fibrous Materials	< 1.0	1.0 % dry							
Blank (B4H4522-BLK2)			Prepared	I: 2024-08-3	30, Analyze	d: 2024-0	9-03		
Asbestos Fibres	Absent	0.5 % dry							
Non-Asbestos Fibres	< 1.0	1.0 % dry							
Non-Fibrous Materials	< 1.0	1.0 % dry							
Duplicate (B4H4522-DUP1)	Source	ce: 24H3604-01	Prepared	I: 2024-08-3	30, Analyze	d: 2024-0	9-03		
Asbestos Fibres	Absent	0.5 % dry		Absent				55	
Non-Asbestos Fibres	< 1.0	1.0 % dry		< 1.0				55	
Non-Fibrous Materials	> 99	1.0 % dry		> 99				55	
Reference (B4H4522-SRM1)			Prepared	I: 2024-08-3	30, Analyze	d: 2024-0	9-03		
Chrysotile Asbestos	(5 - 10)	0.5 % dry	7.00		100	80-120			
Non-Asbestos Fibres	< 1.0	1.0 % dry	0.500		200	60-140			
Non-Fibrous Materials	(90 - 95)	1.0 % dry	93.0		100	60-140			
Reference (B4H4522-SRM2)			Prepared	I: 2024-08-3	30, Analyze	d: 2024-0	9-03		
Chrysotile Asbestos	(5 - 10)	0.5 % dry	7.00		100	80-120			
Non-Asbestos Fibres	< 1.0	1.0 % dry	0.500		200	60-140			

### Polarized Light Microscopy Analysis, Batch B4H4527

Blank (B4H4527-BLK1)			Prepared: 2024-08-30, Analyzed: 2024-08-31
Asbestos Fibres	Absent	0.5 % dry	
Non-Asbestos Fibres	< 1.0	1.0 % dry	
Non-Fibrous Materials	< 1.0	1.0 % dry	
Blank (B4H4527-BLK2)			Prepared: 2024-08-30, Analyzed: 2024-08-31
Asbestos Fibres	Absent	0.5 % dry	
Non-Asbestos Fibres	< 1.0	1.0 % dry	
Non-Fibrous Materials	< 1.0	1.0 % dry	



# **APPENDIX 2: QUALITY CONTROL RESULTS**

REPORTED TO PROJECT	Peak Environment 6391A	al Ltd.				WORK REPOR	ORDER RTED	24H3 2024	3604 1-09-03	11:31
Analyte		Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polarized Light Mid	croscopy Analysis, Ba	atch B4H4527, Co	ntinued							
Duplicate (B4H452	27-DUP1)	Sour	ce: 24H3604-11	Prepared	I: 2024-08-3	30, Analyze	ed: 2024-0	8-31		
Asbestos Fibres		Absent	0.5 % dry		Absent				55	
Non-Asbestos Fibres	<b>,</b>	< 1.0	1.0 % dry		< 1.0				55	
Non-Fibrous Material	ls	> 99	1.0 % dry		> 99				55	
Duplicate (B4H452	27-DUP2)	Sour	ce: 24H3604-44	Prepared	I: 2024-08-3	80, Analyze	ed: 2024-0	8-31		
Asbestos Fibres	•	Absent	0.5 % dry		Absent				55	
Non-Asbestos Fibres	<b>;</b>	< 1.0	1.0 % dry		< 1.0				55	
Non-Fibrous Material	ls	> 99	1.0 % dry		> 99				55	
Reference (B4H45	527-SRM1)			Prepared	I: 2024-08-3	30, Analyze	ed: 2024-0	8-31		
Chrysotile Asbestos		(1 - 5)	0.5 % dry	4.00		100	80-120			
Non-Asbestos Fibres	;	< 1.0	1.0 % dry	0.00			60-140			
Non-Fibrous Material	ls	(95 - 99)	1.0 % dry	96.0		100	60-140			
Reference (B4H45	27-SRM2)			Prepared	I: 2024-08-3	30, Analyze	ed: 2024-0	8-31		
Chrysotile Asbestos		(1 - 5)	0.5 % dry	4.00		100	80-120			
Non-Asbestos Fibres	1	< 1.0	1.0 % dry	0.00			60-140			
Non-Fibrous Material	ls	(95 - 99)	1.0 % dry	96.0		100	60-140			

District of Mackenzie HAZARDOUS & REGUL	ATED MATERIALS ASSESSMI	ENT REPORT		
LEAI	D IN PAINT AND OTE	HER HAZARDOU	S MATERIALS	





# **CERTIFICATE OF ANALYSIS**

**REPORTED TO** Peak Environmental Ltd.

951 Pinewood Place

West Kelowna, BC V1Z 3G7

**ATTENTION** Steve Ferguson

PO NUMBER 6391A PROJECT 6391A

PROJECT INFO Ernie Bodin Centre

WORK ORDER 24

24H3577

2024-08-29 16:59

**RECEIVED / TEMP** 2024-08-26 16:25 / NA

COC NUMBER No Number

#### Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



We've Got Chemistry



**REPORTED** 

Ahead of the Curve



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead Account Manager M what



# **TEST RESULTS**

Metals in Paint

REPORTED TO PROJECT	Peak Environmental Ltd. 6391A			WORK ORDER REPORTED	24H3577 2024-08-2	9 16:59
Analyte		Result	RL	Units	Analyzed	Qualifier
Cream on GWB -	Office 148 - ICP-01 (24H357	7-01)   Matrix: Solid   San	npled: 2024-08-16			
Metals in Paint						
Lead		880	80.0	mg/kg	2024-08-29	
Dark grey on woo	od door trim - Office 148 - IC	P-02 (24H3577-02)   Matr	ix: Solid   Sampled:	2024-08-16		
Metals in Paint						
Lead		1210	80.0	mg/kg	2024-08-29	
Sampled: 2024-0	rey undercoat on wood dooi 8-16	r - Storage 151 - ICP-03 (2	24H3577-03)   Matrix	c: Solid		
Metals in Paint		. 00 0	20.0		2024 00 20	
Lead		< 80.0	00.0	mg/kg	2024-08-29	
Beige on drywall	(P1) - Office 163 - ICP-04 (24	1H3577-04)   Matrix: Solic	i   Sampled: 2024-0	3-16		
Beige on drywall  Metals in Paint	(P1) - Office 163 - ICP-04 (24	4H3577-04)   Matrix: Solic	i   Sampled: 2024-0	3-16		
	(P1) - Office 163 - ICP-04 (24	4H3577-04)   Matrix: Solic	· ·	<b>3-16</b> mg/kg	2024-08-29	
Metals in Paint Lead	(P1) - Office 163 - ICP-04 (24	196	80.0	mg/kg	2024-08-29	
Metals in Paint Lead		196	80.0	mg/kg	2024-08-29	
Metals in Paint Lead Burgundy on wo		196	80.0	mg/kg	2024-08-29	
Metals in Paint  Lead  Burgundy on woo  Metals in Paint  Lead		196 P-05 (24H3577-05)   Matrix < 80.0	80.0  x: Solid   Sampled:	mg/kg <b>2024-08-16</b> mg/kg		
Metals in Paint Lead  Burgundy on woo  Metals in Paint Lead  Black on wood co	od - Delivery Room 165 - ICF	196 P-05 (24H3577-05)   Matrix < 80.0	80.0  x: Solid   Sampled:	mg/kg <b>2024-08-16</b> mg/kg		
Metals in Paint Lead  Burgundy on woo  Metals in Paint Lead  Black on wood co	od - Delivery Room 165 - ICF	196 P-05 (24H3577-05)   Matrix < 80.0	80.0  x: Solid   Sampled:  80.0  x: Solid   Sampled:	mg/kg <b>2024-08-16</b> mg/kg		
Metals in Paint  Lead  Burgundy on wo  Metals in Paint  Lead  Black on wood co  Metals in Paint  Lead	od - Delivery Room 165 - ICF	196 P-05 (24H3577-05)   Matrix < 80.0 P-06 (24H3577-06)   Matrix < 80.0	80.0  80.0  80.0  C: Solid   Sampled:	mg/kg 2024-08-16  mg/kg 2024-08-16  mg/kg	2024-08-29	
Metals in Paint Lead  Burgundy on woo  Metals in Paint Lead  Black on wood co  Metals in Paint Lead  White on wood -	od - Delivery Room 165 - ICF eiling - Crawlspace 001 - ICF	196 P-05 (24H3577-05)   Matrix < 80.0 P-06 (24H3577-06)   Matrix < 80.0	80.0  80.0  80.0  C: Solid   Sampled:	mg/kg 2024-08-16  mg/kg 2024-08-16  mg/kg	2024-08-29	
Metals in Paint Lead  Burgundy on woo  Metals in Paint Lead  Black on wood co  Metals in Paint Lead  White on wood -	od - Delivery Room 165 - ICF eiling - Crawlspace 001 - ICF	196 P-05 (24H3577-05)   Matrix < 80.0 P-06 (24H3577-06)   Matrix < 80.0	80.0  Solid   Sampled:  80.0  Solid   Sampled:  80.0  d   Sampled: 2024-0	mg/kg 2024-08-16  mg/kg 2024-08-16  mg/kg	2024-08-29	
Metals in Paint Lead  Burgundy on woo  Metals in Paint Lead  Black on wood of  Metals in Paint Lead  White on wood -  Metals in Paint Lead	od - Delivery Room 165 - ICF eiling - Crawlspace 001 - ICF	196 P-05 (24H3577-05)   Matrix	80.0  x: Solid   Sampled:  80.0  x: Solid   Sampled:  80.0  d   Sampled: 2024-0  80.0	mg/kg 2024-08-16  mg/kg 2024-08-16  mg/kg 8-16  mg/kg	2024-08-29	
Metals in Paint Lead  Burgundy on woo  Metals in Paint Lead  Black on wood of  Metals in Paint Lead  White on wood -  Metals in Paint Lead	od - Delivery Room 165 - ICF eiling - Crawlspace 001 - ICF Boiler Room 178 - ICP-07 (24	196 P-05 (24H3577-05)   Matrix	80.0  x: Solid   Sampled:  80.0  x: Solid   Sampled:  80.0  d   Sampled: 2024-0  80.0	mg/kg 2024-08-16  mg/kg 2024-08-16  mg/kg 8-16  mg/kg	2024-08-29	

Page 2 of 7

White on GWB - Corridor 172 - ICP-09 (24H3577-09) | Matrix: Solid | Sampled: 2024-08-16



Peak Environmental Ltd.

# **TEST RESULTS**

**REPORTED TO** 

Metals in Paint

Metals in Paint

Lead

Lead

PROJECT 6391A	Wildinionial Eta.	REPORTE	2024-08-29 16:59
Analyte	Result	RL Units	Analyzed Qualifi
White on GWB - Corridor 172 - ICP-09 (24H3577-09)   Matrix: Solid   Sampled: 2024-08-16, Continued  Wetals in Paint, Continued  Lead < 80.0 80.0 mg/kg 2024-08-29  Black on wood frames and trims - Corridor 105 - ICP-10 (24H3577-10)   Matrix: Solid   Sampled: 2024-08-16  Wetals in Paint  Lead 1470 80.0 mg/kg 2024-08-29  Dark Grey with burgundy undercoat on wood siding - Exterior West - ICP-11 (24H3577-11)   Matrix: Solid		ı	
Metals in Paint, Continued			
Lead	< 80.0	80.0 mg/kg	2024-08-29
Black on wood frames and 2024-08-16	trims - Corridor 105 - ICP-10 (24H3577-10)   I	/latrix: Solid   Sampled:	
Metals in Paint			
Lead	1470	80.0 mg/kg	2024-08-29
Dark Grey with burgundy เ   Sampled: 2024-08-16	undercoat on wood siding - Exterior West - IC	P-11 (24H3577-11)   Matrix: \$	Solid
Metals in Paint			
Lead	240	80.0 mg/kg	2024-08-29
	me - Exterior West - ICP-12 (24H3577-12)   Ma	trix: Solid   Sampled:	
Black on wood window fra 2024-08-16 <i>Metals in Paint</i>	me - Exterior West - ICP-12 (24H3577-12)   Ma	trix: Solid   Sampled:	

Grey on wood door - Exterior West - ICP-13 (24H3577-13) | Matrix: Solid | Sampled: 2024-08-16

White on wood door - Exterior West - ICP-14 (24H3577-14) | Matrix: Solid | Sampled: 2024-08-16

938

202

**WORK ORDER** 

80.0 mg/kg

80.0 mg/kg

24H3577

2024-08-29

2024-08-29



# **APPENDIX 1: SUPPORTING INFORMATION**

REPORTED TO Peak Environmental Ltd.

**PROJECT** 6391A **REPORTED** 2024-08-29 16:59

Analysis Description Method Ref. Technique Accredited Location

SALM in Solid ASTM E1645\* / EPA 6020B HNO3+H2O2 / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)

Richmond

**WORK ORDER** 

24H3577

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

#### Glossary of Terms:

RL Reporting Limit (default)

Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors

mg/kg Milligrams per kilogram (dry weight basis)

EPA United States Environmental Protection Agency Test Methods

#### **General Comments:**

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed.

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do <u>not</u> take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager:bwhitehead@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.



# **APPENDIX 2: QUALITY CONTROL RESULTS**

REPORTED TO Peak Environmental Ltd. WORK ORDER 24H3577
PROJECT 6391A REPORTED 2024-08-29 16:59

The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- Blank Spike (BS): A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- Matrix Spike (MS): A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
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   Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Metals in Paint, Batch B4H4396									
Blank (B4H4396-BLK1)			Prepared	I: 2024-08-2	29, Analyze	d: 2024-0	08-29		
Lead	< 80.0	80.0 mg/kg							
Reference (B4H4396-SRM1)			Prepared	I: 2024-08-2	29, Analyze	d: 2024-0	08-29		
Lead	987	80.0 mg/kg	1000		99	70-130			





# **CERTIFICATE OF ANALYSIS**

**REPORTED TO** Peak Environmental Ltd.

951 Pinewood Place

West Kelowna, BC V1Z 3G7

**ATTENTION** Steve Ferguson

6391A **PO NUMBER** 6391A **PROJECT** 

Ernie Bodin Centre **PROJECT INFO** 

**WORK ORDER** 

24H3414

**RECEIVED / TEMP REPORTED** 

**COC NUMBER** 

2024-08-26 16:25 / NA

2024-08-29 14:24

No Number

#### Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



We've Got Chemistry



Ahead of the Curve



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

It's simple. We figure the more you enjoy with fun and working our engaged team the more members; likely you are to give us continued opportunities to support you.

Through research, regulation and instrumentation, knowledge, are your analytical centre the knowledge technical you BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

**Brent Whitehead** Account Manager What



# **TEST RESULTS**

REPORTED TO	Peak Environmental Ltd.	WORK ORDER	24H3414
PROJECT	6391A	REPORTED	2024-08-29 14:24

				1
Analyte	Result	RL Units	Analyzed	Qualifier
Demolition Waste Stream - TCLP	P-01 (24H3414-01)   Matrix: Solid   Sam	pled: 2024-08-16		
TCLP Metals				
Lead	0.10	0.002 mg/L	2024-08-29	
TCLP Non-Volatile Extraction Details	s			
Extraction Fluid pH	4.96	pH units	2024-08-29	
Final Extract pH	5.19	pH units	2024-08-29	



# **APPENDIX 1: SUPPORTING INFORMATION**

**REPORTED TO** Peak Environmental Ltd.

PROJECT 6391A

WORK ORDER

24H3414

**REPORTED** 2024-08-29 14:24

Analysis Description	Method Ref.	Technique	Accredited	Location
TCLP Extraction in Solid	EPA 1311	20:1 Leach for 18 h		Richmond
TCLP Leachable Metals in Solid	EPA 200.2* / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

#### Glossary of Terms:

RL Reporting Limit (default) mg/L Milligrams per litre

pH units pH < 7 = acidic, ph > 7 = basic

EPA United States Environmental Protection Agency Test Methods

#### **General Comments:**

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed.

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# **APPENDIX 2: QUALITY CONTROL RESULTS**

REPORTED TO Peak Environmental Ltd. WORK ORDER 24H3414
PROJECT 6391A REPORTED 2024-08-29 14:24

The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- Method Blank (Blk): A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- Blank Spike (BS): A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- Matrix Spike (MS): A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- Reference Material (SRM): A homogenous material of similar matrix to the samples, certified for the parameter(s) listed.
   Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
		Prepared	I: 2024-08-2	29, Analyze	d: 2024-0	08-29		
< 0.010	0.010 mg/L							
		Prepared	I: 2024-08-2	29, Analyze	d: 2024-0	08-29		
0.388	0.010 mg/L	0.400		97	80-120			
	< 0.010	< 0.010 0.010 mg/L	Prepared < 0.010 mg/L Prepared	Prepared: 2024-08-2	Prepared: 2024-08-29, Analyze  < 0.010	Prepared: 2024-08-29, Analyzed: 2024-08-29,	Prepared: 2024-08-29, Analyzed: 2024-08-29  < 0.010	Prepared: 2024-08-29, Analyzed: 2024-08-29  < 0.010

#### TCLP Non-Volatile Extraction Details, Batch B4H4213

Blank (B4H4213-BLK1)		Prepared: 2024-08-28, Analyzed: 2024-08-29	
Extraction Fluid pH	4.96	pH units	
Final Extract pH	4.96	pH units	

# APPENDIX G METHODOLOGY

#### ASBESTOS-CONTAINING BUILDING MATERIALS

A complete inventory is carried out to record any materials which may contain asbestos as well as those known to not contain asbestos. The intent of this complete inventory is to demonstrate that all visible and accessible materials have been inspected and identified as either asbestos-containing or non-containing. Materials obviously not asbestos-containing (e.g. fiberglass, wood, metal, ceramic, concrete, etc.) are not listed in the materials description but are included on a per room basis in the Room by Room Inventory (Appendix C) to indicate building finishing materials.

# **Visual Inspection**

All accessible spaces of the building are entered and visually inspected. Any inaccessible spaces are listed in Survey Limitations.

- The surveyor carries out an initial visual assessment of the structure to determine building
  materials present and establish the number of homogeneous areas for each application. A
  homogeneous area is defined as an area containing material that is 'uniform in texture, colour,
  date of application, and identical in every other way'.
- 2. Each application is then placed into one of the following categories as defined by the Asbestos Hazard Emergency Response Act (AHERA).

<u>Surfacing Material</u>: defined as a material that is sprayed on, troweled on, or otherwise applied to surfaces (structural members, walls, ceilings, *etc.*) for acoustical, decorative, fireproofing, or other purposes.

<u>Thermal System Insulation</u>: defined as a material applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

<u>Miscellaneous</u>: defined as materials which do not fall into the above two categories - typically ceiling tiles and flooring applications.

3. A physical assessment is then carried out for each application to determine its condition to establish potential exposure risk to occupants or workers.

# Sampling

Sample collection is carried out according to the requirements defined in WorksafeBC OHS Guideline Part 20 which defines number and size requirements by area and material type. Bulk samples are collected and placed in uniquely identified and labelled plastic sample bags. The sample location is recorded and a photograph is taken of the sample with the location overview. The locations and quantities of the material is then recorded. A chain of custody is created to include each unique sample number, material type, and sample location.

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In some instances, applications are visually identified as 'Known Asbestos' based on the experience of the surveyor. Materials such as pre-1978 insulating cements, corrugated paper pipe insulation, asbestos pipe and cement boards are known to contain asbestos. If these materials are identified, they are noted as being asbestos-containing and no verification samples are collected.

Conversely a small number of applications may be designated as 'Known Non-Asbestos'. Such a designation is based on the experience of the surveyor and includes one or more of the following justifications: the age of the application is later than the use of asbestos in such products; product manufacturer has issued assurance that the product is asbestos-free; extensive previous sampling of identical material has consistently resulted as no asbestos detected.

# **Laboratory Analysis**

Collected samples are sent to an accredited laboratory for analysis using Polarized Light Microscopy (PLM) in accordance with the <u>NIOSH 9002</u> or EPA 600/R-93/116 method which specifies a level of detection (LOD) of 1% or less to determine asbestos content. As defined in Section 6.1 of the OHS Regulation, all materials containing 0.5 percent or greater of asbestos, and vermiculite insulation containing any asbestos, shall be considered to be asbestos-containing.

Where 'positive stop' is listed on laboratory reports, the laboratory did no further analysis of samples of the same homogenous application once a positive result was identified.

#### **LEAD BASED PAINT**

WorkSafeBC does not define lead based paint numerically. Instead, Exposure Risk Levels are assigned based on a Risk Assessment using several factors, including, but not limited to: lead concentration, type and duration of activity, and amount to be disturbed. For the purposes of this report, sampling and analysis for lead in paint may require up to three testing/analysis methods to determine the following:

- Worker risk of exposure to lead dust
- Risk to occupants, especially vulnerable persons (children, pregnant women, older persons)
- Disposal requirements for lead painted waste

Paint applications are grouped into homogeneous applications based on a visual inspection of paint colour and substrate. Testing of the painted surfaces is then carried out using methods deemed appropriate for the demolition/renovation scenario:

Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS) Analysis: To determine the total
concentration of lead in paint. The paint is tested in accordance with Analytical Method
BCMOE SALM V.2 / EPA 6020B. Reporting limit for this method is 80 mg/kg (ppm) for this
project.

• Toxicity Characteristic Leaching Procedure (TCLP): To quantify the concentration of leachable lead in paint in order to determine the disposal requirements of the lead painted waste. Materials with a sample result greater than 5 mg/L are classified as a hazardous waste (as defined in the B.C. Hazardous Waste Regulation), and require treatment and disposal at a site which accepts hazardous waste, such as the Swan Hills Treatment Centre in Alberta. Analytical method used is either EPA 200.2\* / EPA 6020B or Toxicity Characteristic Leachate Procedure (1311/7000B), with a reporting limit of 0.010 mg/L.

An increasing number of landfills now require that all painted (coated) materials with a total lead concentration greater than 100 ppm be further analyzed for leachable lead. Peak Environmental to date has not observed paint samples with a total lead concentration less than 1000 ppm to have a lead leachate result greater than the hazardous materials classification threshold of 5 mg/L. However, to adhere to the landfills' 100 ppm directive, all painted materials with a total lead concentration greater than 100 ppm are indicated for further TCLP analysis.

Samples for TCLP analysis are collected in accordance with ASTM E1908-20 which describes the combining of all lead waste components resulting from the renovation/demolition activity, and extracting one sample of the lead waste components proportionate to their volume in the total waste stream.

#### OTHER HAZARDOUS AND REGULATED MATERIALS

The Scope of Work for this project includes a visual inspection for the following regulated materials, except where noted as *not in scope*:

- Polychlorinated biphenyls (PCBs) in light ballasts
- Mercury in high voltage lighting, fluorescent light tubes and thermostats
- Lead products (eg: lead roof jacks/flashing, solder on copper pipe)
- Ozone depleting substances (ODS) equipment containing Freon or chlorofluorocarbons including refrigerators, freezers, wall-mounted air conditioners and roof top HVAC units.
- Toxic, flammable or explosive materials includes pesticides, herbicides, waste oil, fuel, paints, solvents and other hydrocarbon based fluids
- Biological contaminants mould, fecal matter or sharps /drug paraphernalia
- Silica in glass, gypsum board, plaster, stone, ceramic, bedding sand, brick, concrete, etc.
- Radioactive materials smoke detectors
- Storage tanks above ground, and below if evident; signs of soil contamination

# **Polychlorinated Biphenyls (PCBs)**

PCB-containing light ballasts were manufactured through 1980. Therefore, in buildings constructed prior to 1980, a visual inspection is carried out to tally the number of fluorescent light ballasts that potentially contain PCBs. Classification of potentially PCB or non-PCB for the purposes of this report is based on building/equipment age and ballast type. Conclusive identification is not possible without access to serial numbers, date or non-PCB stamps which often require removal of the light tubes or ballasts. T-8 style light fixtures were not inspected as they utilize a High Efficiency non-PCB ballast.

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#### Mercury

A visual inspection is done to identify and count any mercury containing thermostats, fluorescent light tubes or high voltage lights.

#### **Other Lead Products**

A visual inspection is done to identify other lead applications such as lead flashings or roof jacks and lead solder on copper pipe.

# **Ozone Depleting Substances**

An inspection for the presence of CFC or other regulated refrigerants is carried out to locate refrigerators, freezers and wall mounted air conditioning units or roof top HVAC units. HVAC units are noted in the report, however, no inspection of such units is carried out to identify refrigerants.

# **Toxic, Flammable or Explosive Materials**

The building and surrounding area are inspected for any toxic, flammable or explosive materials, however, no inspection for underground storage tanks is performed to ascertain potential soil contamination from spillage during tank filling, or leakage from the tank or supply / return lines. Underground storage tanks are listed where there are above ground indications of such tanks. Any contaminated soil encountered during tank excavation must be collected and remediated as required by the Ministry of Environment.

## **Biological Contaminants**

The inspection includes biological contaminates such as mould, fecal matter, and potential sharp objects, all of which would require worker awareness and Personal Protective Equipment.

## **Crystalline Silica**

A visual inspection is carried out for applications which commonly contain crystalline silica.

#### **Radioactive Materials**

Smoke detectors are noted.

# APPENDIX H REGULATORY AGENCIES

#### Provincial Occupational Health and Safety Regulations

Workplace health and safety is regulated in British Columbia by WorkSafeBC under the Workers Compensation Act (effective April 15, 1998), as amended by the Workers' Compensation (Occupational Health and Safety) Amendment Act (effective October 1, 1999) inclusive of Part 3 Division 3, Sections 115 to 124 General Duties of Employers, Workers and Others and Part 5.54 Exposure Control Plan. The Act defines the general duties and obligations of the employer, employees and others at the work site.

Specific actions and work practices are outlined in the WorkSafeBC Occupational Health and Safety (OHS) Regulation for specific work practices.

The OHS Regulation contains legal requirements that must be met by all workplaces under the inspection jurisdiction of WorkSafeBC. Asbestos is governed by Section 6 - Substance Specific Requirements, specifically Section 6.1 through 6.32 and by Section 20 - Construction, Excavation and Demolition, specifically Section 20.112 Hazardous Materials.

WorkSafeBC has published the following manuals:

# Safe Work Practices for Handling Asbestos and Safe Work Practices for Handling Lead

These manuals outline basic information on asbestos and lead respectively, related health hazards, requirements for worker protection, safe work procedures and principles that should be followed in selecting the most suitable abatement techniques. These documents provide a guide to current practices which are to be followed in the Province of British Columbia.

Regulatory Change: A Primer on Protecting Workers from Silica and Rock Dust Exposure - Changes to the Occupational Health and Safety Regulation has been published to clarify employer requirements to protect workers from exposure to harmful effects of silica dust.

# **Environmental Regulations**

In British Columbia, environmental matters pertaining to production and disposal of waste generally fall under the jurisdiction of the Ministry of Environment (MoE), pursuant to the Environmental Management Act 2003 (SBC 2003).

The Hazardous Waste Regulation BC Reg. 63/88, OC 268/88, including amendments as established by the MoE, outlines the requirements for the storage, transportation, treatment, recycling and disposal of hazardous wastes in the Province of British Columbia. The regulation outlines the materials and criteria to be used to characterize waste as hazardous.

Ozone Depleting substances are regulated by the Ozone Depleting Substances and Other Halocarbons Regulation\* (B.C. Reg. 387/99, as amended by B.C. Reg. 220/2006).

PCBs are regulated by the Canadian Environmental Protection Act (SOR/2008-273).

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Mercury containing products are regulated by the Canadian Environmental Protection Act (SOR /2014-254).

Transportation of Hazardous or Regulated Waste

The transportation of hazardous wastes is governed under the Federal Transportation of Dangerous Goods Act and Regulations (SOR / 2008-34) which outline the requirements for storage, handling, and transportation of regulated products and waste.