



**Environmental Consulting
Occupational Health**

PRE-RENOVATION DESIGNATED SUBSTANCES AND HAZARDOUS MATERIALS ASSESSMENT

**ABSORPTION CHILLER DECOMMISSIONING
(230467-274385)
OPP GENERAL HEADQUARTERS
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SUBMITTED TO:

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MAY 9, 2025
ECOH Project No. 29240

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1 INTRODUCTION

ECOH Management Inc. (ECOH) was retained by Colliers Project Leaders (Colliers) to complete a designated substances and hazardous materials assessment in the chiller room in the basement of Mechanical Room 7, and the Mechanical 7 rooftop within the Ontario Provincial Police General Headquarters (OPP GHQ) facility located at 777 Memorial Avenue in Orillia, Ontario (hereafter referred to as the "Project Area"). The assessment included a visual assessment for the presence of Designated Substances (asbestos, lead, mercury, etc.) and other hazardous materials (such as mould, UFFI, PCBs, etc.) and the collection of bulk lead samples and wipe samples to be analyzed for lead content. ECOH understands that the survey was requested to identify potential environmental considerations associated with the Project Area and to provide recommendations as necessary to fulfill requirements set forth within the Ministry of Labour Codes as well as the Ontario Occupational Health and Safety Act. Mr. Nirmal Soni of ECOH performed the survey on April 15, 2025.

The following report presents the sampling and analytical methodologies, observations, results, conclusions and recommendations.

2 SURVEY SCOPE OF WORK AND GENERAL METHODOLOGY

To ensure familiarity with the building, ECOH made reference to facility floor plans and other documents provided by the Client prior to commencing the assessment. ECOH looked for potential environmental concerns and the most common applications of building materials made with designated substance and hazardous material based on historical applications.

The area surveyed and assessed was based on the Client's project requirements (i.e. area where work will be completed). Representative samples of settled dust were collected during the investigation and analyzed for lead content.

3 SAMPLING AND ANALYTICAL METHODOLOGY

Lead Wipe Sampling

Appropriate wipe sample locations were determined by ECOH during the survey.

Wipe samples for lead were collected within the Project Area following SW846-7000B Method using pre-moistened lead dust wipes manufactured by Lynx Products. Dust wipes meet standards outlined within the American Material (ASTM) Designation E1792: Standard specification for wipe sampling material for lead surface dust. The pre-moistened wipes are 20cm x 13cm and contains water, polyorbate 20, methylparaben, and propylparaben. The wipe samples were submitted along with field blank(s) to EMSL Testing Laboratories for analysis by Flame Atomic Adsorption (SW846-7000B).

Samples were collected by wiping a 100cm² surface with 3-4 vertical S-strokes. The wipe was then folded inwards and the sample area was wiped again using 3-4 horizontal S-strokes. The wipe was folded inward once more and wiped using 3-4 vertical S-strokes.

Each wipe, including blanks were placed in an individual sample bag prior to transportation to the laboratory.

Refer to Appendix A for the Chain of Custody and the Certificate of Analysis for wipe sampling. Refer to Appendix B for Project Area floor plans indicating sample locations.

4 EXPOSURE VALUES GUIDELINES

Lead Wipe Sampling

Currently, there are no regulations regarding allowable concentration of lead dust on surfaces. There are, however, several different guidelines from which information can be used to draw a reasonable conclusion as to acceptable levels of lead in dust. These guidelines indicate different levels of allowable lead for different types of facilities and for site-specific conditions. The guideline value that is most applicable to site conditions of this project is 200 µg/ft². This guideline value has been established by the;

- 1) US Department of the Navy; Bureau of Medicine and Surgery, Navy Environmental Health Centre; *"Indoor Firing Ranges Industrial Hygiene Technical Guide"*, dated May 2002.
- 2) Environmental Abatement Council of Ontario (EACO): *"Lead Guideline for Construction, Renovation, Maintenance or Repair"*, dated January 2025. (i.e. the clearance standard after lead abatement work).

5 OBSERVATIONS AND DISCUSSION

1. The areas of investigation included the Chiller Room within Mechanical Room 7 basement and rooftop, and as per the Client's project requirements and based on project drawings provided to ECOH.
2. General site conditions and asbestos-related information for the Project Area includes the following.
 - a. Interior walls are composed of non-asbestos material (concrete block, poured concrete, metal panels)
 - b. Ceiling systems are composed of non-asbestos material (metal and poured concrete)
 - c. Flooring materials are composed of non-asbestos materials (poured concrete)
 - d. Mechanical systems (i.e. plumbing, HVAC systems, mechanical equipment, etc.) are either not insulated, or insulated with materials not suspected of containing asbestos (e.g. fibreglass, arma-flex, PVC, etc.).
 - e. Foam insulation was observed on the Chiller. Three (3) samples of this material were collected (29240-ASB-01A-C) and determined by laboratory analysis to be non-asbestos.

- f. Grey mechanical gasket observed on the Chiller. Three (3) samples of this material were collected (29240-ASB-02A-C) and determined by laboratory analysis to be **asbestos-containing (55% Chrysotile)**.
- g. Red mechanical gasket observed on the Chiller. Three (3) samples of this material were collected (29240-ASB-03A-C) and determined by laboratory analysis to be non-asbestos.
- h. Grey caulking observed on exterior cooling towers. Three (3) samples of this material were collected (29240-ASB-04A-C) and determined by laboratory analysis to be non-asbestos.
- i. Black caulking observed on exterior cooling towers. Three (3) samples of this material were collected (29240-ASB-05A-C) and determined by laboratory analysis to be non-asbestos.
- j. Structural concrete and steel building components are not insulated.

Please refer to Table 1 for a summary of the results for asbestos sampling.

TABLE 1 Summary of Asbestos Sampling			
Sample Number	Sample Location	Description of Material	Result
29240-ASB-01A	Chiller Room	Foam Insulation – Chiller Pipes	None Detected
29240-ASB-01B	Chiller Room	Foam Insulation – Chiller Pipes	None Detected
29240-ASB-01C	Chiller Room	Foam Insulation – Chiller Pipes	None Detected
29240-ASB-02A	Chiller Room	Grey Chiller Gasket	55% Chrysotile
29240-ASB-02B	Chiller Room	Grey Chiller Gasket	Positive Stop (Not Analyzed)
29240-ASB-02C	Chiller Room	Grey Chiller Gasket	Positive Stop (Not Analyzed)
29240-ASB-03A	Chiller Room	Red Chiller Gasket	None Detected
29240-ASB-03B	Chiller Room	Red Chiller Gasket	None Detected
29240-ASB-03C	Chiller Room	Red Chiller Gasket	None Detected
29240-ASB-04A	Mechanical Room 7 Exterior	Grey Caulking on Cooling Towers	None Detected
29240-ASB-04B	Mechanical Room 7 Exterior	Grey Caulking on Cooling Towers	None Detected

TABLE 1 Summary of Asbestos Sampling			
Sample Number	Sample Location	Description of Material	Result
29240-ASB-04C	Mechanical Room 7 Exterior	Grey Caulking on Cooling Towers	None Detected
29240-ASB-05A	Mechanical Room 7 Exterior	Black Caulking on Cooling Towers	None Detected
29240-ASB-05B	Mechanical Room 7 Exterior	Black Caulking on Cooling Towers	None Detected
29240-ASB-05C	Mechanical Room 7 Exterior	Black Caulking on Cooling Towers	None Detected
	<i>Shading Indicates Positive Sample</i>		

3. Although no regulations exist in Ontario, guidelines indicate that paints and surface coatings that contain 0.5% lead concentration by dry weight (i.e. concentrations of lead at or above 0.5%, or 5000 parts per million (ppm), which is comparable to 1 milligram per square centimetre (mg/cm²) when using an XRF analyzer) is considered to be a “lead-based paint or surface coating”. Paints or surface coatings that contain concentrations of lead greater than 0.1% by dry weight (1000 ppm), and less than 0.5% by dry weight (5000 ppm), is considered to be a “lead-containing paint or surface coating”. Paints or surface coatings that contain concentrations of lead at, or below, 0.1% by dry weight (1000 ppm) is considered to be a “low-level lead paint or surface coating”.

Please refer to Table 2 for a summary of the bulk paint chip analysis results for lead.

TABLE 2 Summary of Analysis of Bulk Paint Chip Samples			
Sample Number	Sample Location	Description of Material	Result for Lead (ppm)
29240-Pb-01	Mechanical Room 7 – Roof	Grey Paint on Cooling Towers	<71 ppm
	<i>Shading Indicates Positive Sample</i>		

4. Sound baffling panels, known to contain lead, were not observed above ceiling within the project area during this assessment.

No other major sources of lead-containing products were observed during this survey. However, the following should be noted.

- Lead may be present in wiring connectors and electric cable sheathing,

- Lead may be present in solder joints on copper piping,
 - Lead may be present in cast iron pipe joint packing, and
 - Lead may be present in glazing of ceramic tiles.
5. Excess moisture, conducive to mould growth, has been previously identified on piping insulations throughout mechanical room areas. Visibility of the fibreglass and paper components of pipe insulation was limited during this assessment due to the presence of PVC pipe insulation jacketing, however, it shall be assumed that minor visible mould growth may be present beneath PVC pipe jacketing throughout the project areas.
 6. Free crystalline silica in the form of common construction sand is present in all concrete and masonry products within the work areas.
 7. Fluorescent lamp ballasts present within the Project Area are not suspected to contain polychlorinated biphenyls (PCBs) due to the date of building construction (i.e. after 1981).
 8. Other potential sources of PCBs within the Project Area, such as transformers, were not assessed for PCB content because this equipment is not expected to be affected during work of this project.
 9. Mercury vapour is assumed to be present within fluorescent lamp bulbs.
 10. Other designated substances including, Arsenic, Acrylonitrile, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates, Ozone Depleting Substances, and Vinyl Chloride Monomer were not noted in significant quantities or forms, if at all, within the Project Area.

6 SAMPLE RESULTS

For reference, the laboratory analytical reports are provided in Appendix A. Refer to Appendix B for Project Area floor plans indicating sample locations.

Table 3 below indicates the sample collection information and results for lead wipe sampling.

TABLE 3 Summary of Lead Concentrations in Wipe Samples			
Sample Number	Sample Location	Sample Area (cm²)	Result for Lead (ug/ft²) (Guideline is 200 ug/ft²)
29240-DW-01	Left Pump Surface (Basement - Mechanical Room 7)	100	430 µg/ft ²
29240-DW-02	Middle Pump Surface (Basement - Mechanical Room 7)	100	420 µg/ft ²
29240-DW-03	Right Pump Surface (Basement - Mechanical Room 7)	100	550 µg/ft ²

TABLE 3 Summary of Lead Concentrations in Wipe Samples			
Sample Number	Sample Location	Sample Area (cm ²)	Result for Lead (ug/ft ²) (Guideline is 200 ug/ft ²)
29240-DW-04	Chiller Pipe Surface (Basement - Mechanical Room 7	100	400 µg/ft ²
29240-DW-05	Chiller Pipe Surface (Basement - Mechanical Room 7	100	410 µg/ft ²
29240-DW-06	Chiller Pipe Surface (Basement - Mechanical Room 7	100	370 µg/ft ²
29240-DW-07	Chiller Surface (Basement - Mechanical Room 7	100	520 µg/ft ²
29240-DW-08	Chiller Surface (Basement - Mechanical Room 7	100	420 µg/ft ²
29240-DW-09	Chiller Surface (Basement - Mechanical Room 7	100	1300 µg/ft ²
29240-DW-10	Floor Surface (Basement - Mechanical Room 7	100	450 µg/ft ²
29240-DW-11	Floor Surface (Basement - Mechanical Room 7	100	480 µg/ft ²
29240-DW-12	Floor Surface (Basement - Mechanical Room 7	100	630 µg/ft ²
29240-DW-13	Field Blank	N/A	<8.0 µg/wipe
29240-DW-14	Field Blank	N/A	<8.0 µg/wipe
<i>Results that exceed or approach the Guideline Limit of 200 ug/ft²</i>			

1. Results of wipe testing for lead-in-dust indicate concentrations within the Project Area higher than guideline values. All Twelve (12) of the samples collected from project area surfaces revealed lead concentrations which exceeded the guideline of 200 µg/ft².

For the purposes of this project, based on current and prior sampling results, it shall be presumed that all mechanical piping and associated equipment within the Chiller Room in basement of Mechanical Room 7 are contaminated with lead-dust.

7 CONCLUSIONS AND RECOMMENDATIONS

The following recommendations meet requirements of the Occupational Health and Safety Act. Asbestos recommendations meet the requirements of the Designated Substance – Regulation respecting *Asbestos on Construction Projects and in Buildings and Repair Operations*, Ontario Regulation 278/05. Based upon the observations of this assessment, ECOH offers the following for your consideration.

1. As asbestos-containing materials (ACM) are present within the Project Area, ECOH recommends that all workers have asbestos awareness and respirator training before commencing work that will impact the asbestos-containing areas. Asbestos awareness training will provide on-site workers; the understanding of asbestos-related health and safety issues; the ability to recognize ACM and any situation that may present a potential asbestos exposure, and the ability to respond appropriately to an inadvertent disturbance of ACM in the work area. An Asbestos Management Plan should also be prepared for the Site.

The following is recommended for the removal or disturbance of asbestos-containing materials, **if required**:

- Type 1 Asbestos Safety Precautions should be utilized for the disturbance or removal, of grey mechanical gaskets provided that materials are wetted to control the spread of dust or fibres and work is done only by means of non-powered hand-held tools.
2. All work should employ worker hygiene practices in compliance with Environmental Abatement Council of Canada (EACC) document; “*Construction Worker Hygiene Practices Guideline*”, dated 2014.
 3. For the purposes of this project, based on current and prior sampling results, it shall be presumed that all mechanical piping and associated equipment within the Project Area is contaminated with lead-dust.

Work requiring disturbance of the settled dust on piping, access above suspended ceilings, and/or proactive cleaning of settled dust in the Project Area(s), where lead-in-dust is above 200 µg/ft², should be conducted following Class 2 lead safety precautions detailed in the Ministry of Labour document *Guideline - Lead on Construction Projects*, dated November 2022 and the Environmental Abatement Council of Canada (EACC) document; “*Lead Guideline for Construction, Renovation, Maintenance or Repair*”, dated January 2025.

4. Any work involving the disturbance of building materials confirmed or assumed to contain lead (e.g. wiring connectors or electric cable sheathing, ceramic tiles, etc.) must be conducted following recommendations detailed within the Ministry of Labour document *Guideline - Lead on Construction Projects*, dated November 2022 and the Environmental Abatement Council of Canada (EACC) document; “*Lead Guideline for Construction, Renovation, Maintenance or Repair*”, dated January 2025.

5. Renovation, demolition or general construction work involving the removal of paints with trace concentrations of lead (i.e. paints that are considered low-level lead paint or surface coatings) can be completed without lead specific safety precautions provided that;
 - 1) Work does not include 'fume generating activities' (heat producing) such as welding, torching, burning, high temperature cutting, etc.,
 - 2) Work does not include aggressive removal of painted surfaces by grinding or sand-blasting,
 - 3) Dust levels are maintained below $3\text{mg}/\text{m}^3$, and
 - 4) General health and safety construction procedures are implemented, which would include dust suppression methods, proper respiratory protection (minimum of a 1/2-face respirator) and protective clothing, as is appropriate for the work being completed.
6. Any work that may disturb materials with suspected mould growth and water damage must be completed following mould safety procedures detailed within the following standards.
 - a. Canadian Construction Association, Standard Construction Document CCA 82, 2004; "mould guidelines for the Canadian construction industry", and
 - b. Environmental Abatement Council of Canada (EACC) document; "Mould Abatement Guidelines", Edition 3, 2015.
7. Any work involving the disturbance of materials that may contain silica should be conducted following recommendations detailed in the Ministry of Labour document "*Guideline - Silica on Construction Projects*", dated April 2011.
8. As no asbestos-containing materials were identified within the Project Area, that are suspected of being disturbed during future renovation work, asbestos safety precautions are not required.

During work of the project, if additional materials are revealed beyond what are described in this report (i.e. materials not identified or materials that are not homogenous to those identified or materials that become revealed during the work), additional testing for asbestos-content should be completed immediately and prior to disturbance of the material. Alternatively, these materials can be assumed to contain asbestos and the appropriate level of asbestos safety precautions must be implemented.
9. The presence of mercury within assembled units (e.g. vapour within fluorescent light bulbs, or liquid within wall-mounted thermostats) should not be considered a hazard provided that the assembled units remain sealed and intact. Avoid inhalation of mercury vapour is exposed/released.

10. Other designated substances, if present, would not be expected to be a source of concern during work of this project and should be adequately addressed using general health and safety precautions including, in part, the use of dust suppression techniques and appropriate respiratory protection.
11. Details of the above investigation and recommendations are based upon the scope of work understood by ECOH at the time of assessment. Should changes occur to any aspect of the project scope of work, the assessment to determine if additional site investigations are required should be completed by ECOH.

8 STATEMENT OF LIMITATIONS

Due to the nature of building construction, and on-going building activities, some limitations exist to the thoroughness of a building assessment. The field observations, measurements and analysis are considered sufficient in detail and scope to form a reasonable basis for the findings and conclusions presented in this report. The observations, results and conclusions drawn by ECOH Management Inc. (ECOH) are limited to the specific scope of work for which ECOH was retained, and are based solely on information generated as a result of the specific scope of work authorized by Colliers Project Leaders. Only those items that are capable of being observed, and are reasonably obvious to ECOH personnel or have been identified to ECOH by other parties, can be reported. ECOH has exercised a degree of thoroughness and competence that is consistent with the profession during the execution of this assessment. ECOH considers the opinions and information as they are presented in this report to be factual at the time of the assessment. The conclusions are limited to the specific locations of where testing and/or observations were completed during the course of the assessment.

It is important to note that work was completed with the utmost care and our extensive expertise in carrying out assessments. ECOH believes that the information collected during the assessment concerning the Work Area is reliable. No other warranties are implied or expressed. ECOH, to the best of its knowledge, believes this report to be accurate, however, ECOH cannot guarantee the completeness or accuracy of information supplied to ECOH by third parties. It should also be noted that any investigation regarding the presence of hazardous materials in the work area is based on interpretation of conditions determined at specific sampling locations, and conditions may vary between sampling locations.

ECOH is an Environmental Consulting Company and as such any results or conclusions presented in this report should not be construed as legal advice. The material in this report reflects ECOH's professional interpretation of information available at the time of report preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. ECOH accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. Should additional information become available that suggests other environmental issues of concern beyond that described in this report, ECOH retains the right to review this information and modify conclusions and recommendations presented in this report accordingly.

9 SIGN-OFF

We trust that this report meets with your requirements and we thank for the opportunity to be of service. Should you have any questions, please do not hesitate to contact us at (905) 795-2800.

ECOH

Environmental Consulting
Occupational Health

Prepared By:



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APPENDIX A
WIPE SAMPLE LABORATORY ANALYTICAL REPORT

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Received: 4/15/2025 04:02 PM
Collected: 4/15/2025

Project: **29240 - 777 Memorial Avenue, Orillia, ON****Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)***

<i>Client Sample</i>	<i>Description</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Area Sampled</i>	<i>RDL</i>	<i>Lead Concentration</i>
29240-DW-01 552506853-0001	Site: Left Pump Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	430 µg/ft ²
29240-DW-02 552506853-0002	Site: Middle Pump Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	420 µg/ft ²
29240-DW-03 552506853-0003	Site: Right Pump Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	550 µg/ft ²
29240-DW-04 552506853-0004	Site: Chiller Pipe Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	400 µg/ft ²
29240-DW-05 552506853-0005	Site: Chiller Pipe Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	410 µg/ft ²
29240-DW-06 552506853-0006	Site: Chiller Pipe Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	370 µg/ft ²
29240-DW-07 552506853-0007	Site: Chiller Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	520 µg/ft ²
29240-DW-08 552506853-0008	Site: Chiller Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	420 µg/ft ²
29240-DW-09 552506853-0009	Site: Chiller Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	1300 µg/ft ²
29240-DW-10 552506853-0010	Site: Floor Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	450 µg/ft ²
29240-DW-11 552506853-0011	Site: Floor Surface (Ground Floor Mechanical Room M1)	4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	480 µg/ft ²

Rowena Fanto, Lead Supervisor
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. * Analysis following Lead in Dust by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 8 ug/wipe. Ug/wipe = ug/ft² x area sampled in ft². Unless noted, results in this report are not blank corrected. The lab is not responsible for data reported in ug/ft² which is dependent upon the area provided by non-lab personnel. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON AIHA LAP, LLC-ELLAP Accredited #196142

Initial report from 04/23/2025 09:48:59

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Received: 4/15/2025 04:02 PM
Collected: 4/15/2025

Project: **29240 - 777 Memorial Avenue, Orillia, ON****Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)***

<i>Client Sample</i>	<i>Description</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Area Sampled</i>	<i>RDL</i>	<i>Lead Concentration</i>
29240-DW-12		4/15/2025	4/17/2025	100 cm ²	74 µg/ft ²	630 µg/ft ²
552506853-0012	Site: Floor Surface (Ground Floor Mechanical Room M1)					
29240-DW-13		4/15/2025	4/17/2025	N/A	8.0 µg/wipe	<8.0 µg/wipe
552506853-0013	Site: Field Blank					
29240-DW-14		4/15/2025	4/17/2025	N/A	8.0 µg/wipe	<8.0 µg/wipe
552506853-0014	Site: Field Blank					

Rowena Fanto, Lead Supervisor
or other approved signatory

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Samples analyzed by EMSL Canada Inc. Mississauga, ON AIHA LAP, LLC-ELLAP Accredited #196142

Initial report from 04/23/2025 09:48:59

APPENDIX B
BULK ASBESTOS & LEAD SAMPLE LABORATORY ANALYTICAL
REPORT



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EMSL Canada Order: 552506856

Customer ID: 55ECOH45

Customer PO: 29240

Project ID:

Attention: Nirmal Soni

ECOH Management, Inc.

75 Courtneypark Drive West

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Phone: (905) 795-2800

Fax: (905) 795-2870

Received Date: 04/15/2025 4:00 PM

Analysis Date: 04/23/2025

Collected Date: 04/15/2025

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
29240-ASB-01A 552506856-0001	Foam Insulation on Chiller Pipes (Loc. Ground Floor Mechanical Room M1)	Black/Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29240-ASB-01B 552506856-0002	Foam Insulation on Chiller Pipes (Loc. Ground Floor Mechanical Room M1)	Black/Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29240-ASB-01C 552506856-0003	Foam Insulation on Chiller Pipes (Loc. Ground Floor Mechanical Room M1)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29240-ASB-02A 552506856-0004	Gray Gasket on Chiller Pipes (Loc. Ground Floor Mechanical Room M1)	Gray Fibrous Homogeneous		45% Non-fibrous (Other)	55% Chrysotile
29240-ASB-02B 552506856-0005	Gray Gasket on Chiller Pipes (Loc. Ground Floor Mechanical Room M1)				Positive Stop (Not Analyzed)
29240-ASB-02C 552506856-0006	Gray Gasket on Chiller Pipes (Loc. Ground Floor Mechanical Room M1)				Positive Stop (Not Analyzed)
29240-ASB-03A 552506856-0007	Red Gasket on Chiller Pipes (Loc. Ground Floor Mechanical Room M1)	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29240-ASB-03B 552506856-0008	Red Gasket on Chiller Pipes (Loc. Ground Floor Mechanical Room M1)	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29240-ASB-03C 552506856-0009	Red Gasket on Chiller Pipes (Loc. Ground Floor Mechanical Room M1)	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29240-ASB-04A 552506856-0010	Gray Caulking on Cooling towers (Loc. Mechanical Room - Roof)	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29240-ASB-04B 552506856-0011	Gray Caulking on Cooling towers (Loc. Mechanical Room - Roof)	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 04/23/2025 13:45:23



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3

Tel/Fax: (289) 997-4602 / (289) 997-4607

<http://www.EMSL.com / torontolab@emsl.com>

EMSL Canada Order: 552506856

Customer ID: 55ECOH45

Customer PO: 29240

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
29240-ASB-04C 552506856-0012	Gray Caulking on Cooling towers (Loc. Mechanical Room - Roof)	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29240-ASB-05A 552506856-0013	Black Caulking on Cooling towers (Loc. Mechanical Room - Roof)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29240-ASB-05B 552506856-0014	Black Caulking on Cooling towers (Loc. Mechanical Room - Roof)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29240-ASB-05C 552506856-0015	Black Caulking on Cooling towers (Loc. Mechanical Room - Roof)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Hassan Moez (4)

Vanessa Gallego (9)

Matthew Davis or other approved signatory
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 04/23/2025 13:45:23

**EMSL Canada Inc.**

2756 Slough Street, Mississauga, ON L4T 1G3

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<http://www.EMSL.com>torontolab@emsl.com

EMSL Canada Or 552506858

CustomerID: 55ECOH45

CustomerPO: 29240

ProjectID:

Attn: **Nirmal Soni**
ECOH Management, Inc.
75 Courtneypark Drive West
Unit 1
Mississauga, ON L5W 0E3

Phone: (905) 795-2800
Fax: (905) 795-2870
Received: 4/15/2025 04:01 PM
Collected: 4/15/2025

Project: 29240 / DSS, 777 Memorial Avenue, Orillia, ON

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

<i>Client SampleDescription</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>RDL</i>	<i>Lead Concentration</i>
29240-Pb-01	4/15/2025	4/16/2025	0.2244 g	71 ppm	<71 ppm
552506858-0001	Site: Gray Paint on Cooling Towers (Loc. Mechanical Room - Roof)				

Rowena Fanto, Lead Supervisor
or other approved signatory

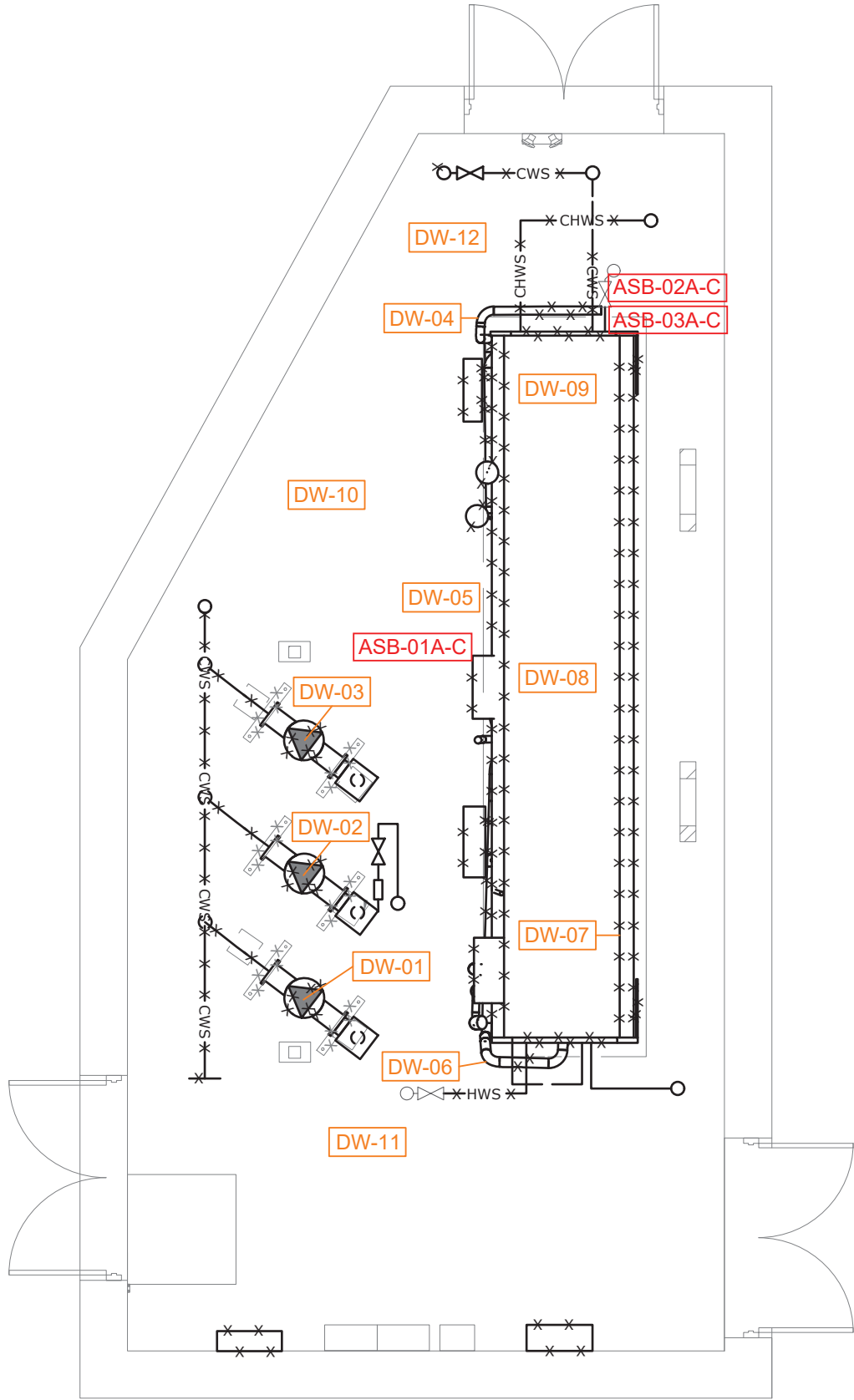
EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. * Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.0064% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON AIHA LAP, LLC-ELLAP Accredited #196142

Initial report from 04/23/2025 09:39:25

APPENDIX C
FLOOR PLANS - SAMPLE LOCATIONS

P:\2020 - 2029\2020 - Colliers, Asbestos Chiller Decommissioning, DSS\5-CAD\DWG



Legend

DW-01

Lead Wipe Sample Location - Exceeds
Guideline Limit (200 µg/ft²)
(29240-DW-xx)

Pb01

Lead Bulk Sample Location
(29240-Pb-xx)

ASB-01

Asbestos Bulk Sample Location 29240-
ASB-01

All information relating to room size and location is approximate and for visual aid only. ECOH does not guarantee the drawing to be complete, absolute, accurate or current. The drawing should not be used by any party in lieu of obtaining architectural drawings.

Figure 1

Ground Floor Mechanical Room (M1)

BUILDING NAME:
Lincoln M Alexander Building

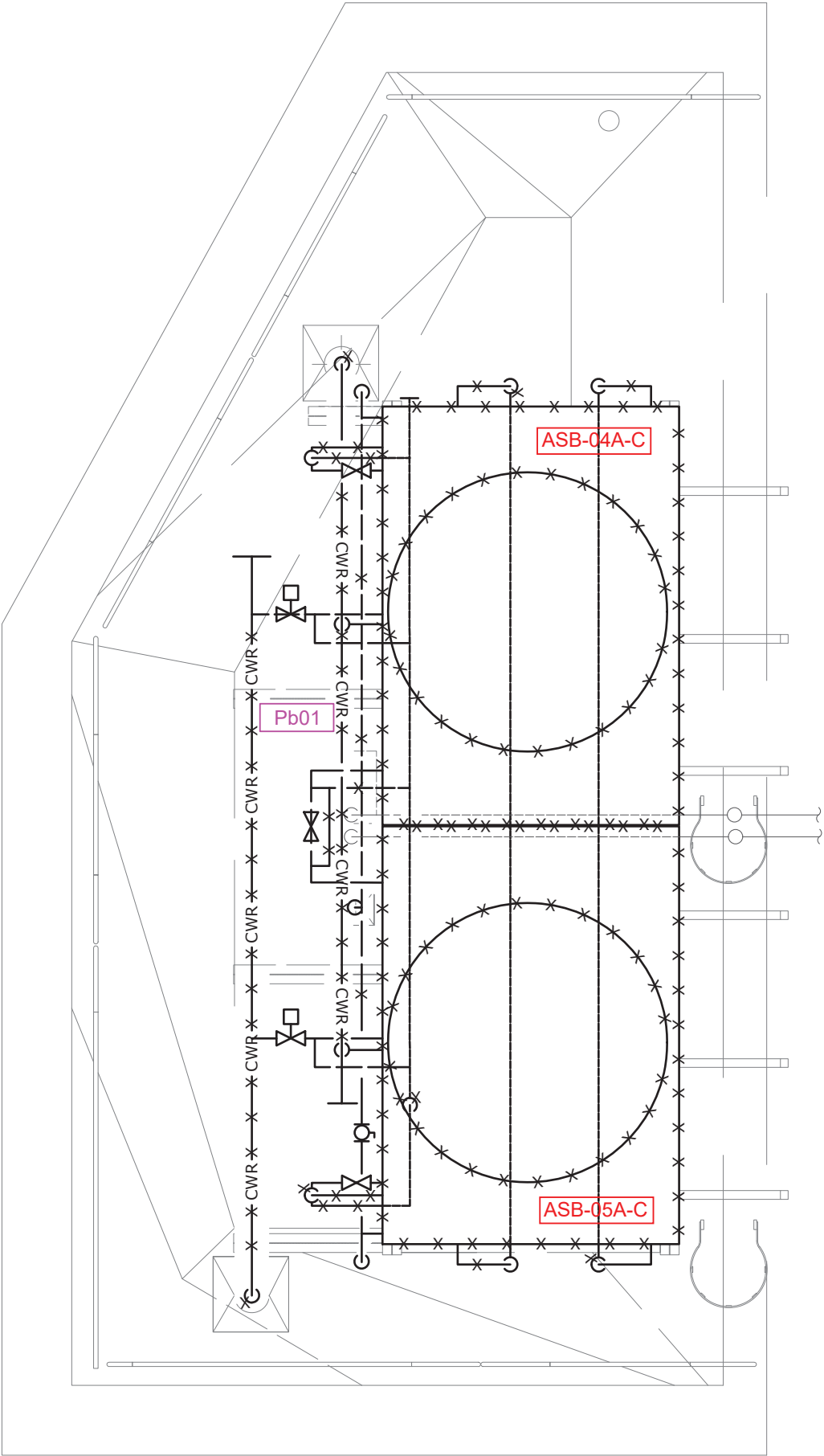
LOCATION:
777 Memorial Avenue,
Orillia, Ontario

PROJECT:
Pre-Renovation Designated Substances Survey

CLIENT:
Colliers

PROJECT NUMBER: 29240 **DATE:** Apr. 2025 **DRW BY:** EM

CAD FILE: FIGS P29240 777 Memorial Orillia **SCALE:** Not to Scale **CHK BY:** ZR



Legend

DW-01

Lead Wipe Sample Location - Exceeds
Guideline Limit (200 µg/ft²)
(29240-DW-xx)

Pb01

Lead Bulk Sample Location
(29240-Pb-xx)

ASB-01

Asbestos Bulk Sample Location 29240-
ASB-01

All information relating to room size and location is approximate and for visual aid only. ECOH does not guarantee the drawing to be complete, absolute, accurate or current. The drawing should not be used by any party in lieu of obtaining architectural drawings.

Figure 2

Rooftop Mechanical Room

BUILDING NAME:
Lincoln M Alexander Building

LOCATION:
777 Memorial Avenue,
Orillia, Ontario

PROJECT:
Pre-Renovation Designated Substances Survey

CLIENT: Colliers

PROJECT NUMBER: 29240	DATE: Apr. 2025	DRW BY: EM
------------------------------	------------------------	-------------------

CAD FILE: FIGS P29240 777 Memorial Orillia	SCALE: Not to Scale	CHK BY: ZR
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APPENDIX D
SITE PHOTOGRAPHS



Client Name:

Colliers Project Leaders

Project Location:

777 Memorial Ave, Orillia, ON

Project No.

29240

Photo No. 1.

Date: April 15,
2025

Location:

Basement - Chiller
Room – Mechanical
Room 7 Basement

Description:

Representative
photo of pumps.

*Lead wipe samples
were collected from
this surface (29240-
DW-01-03) and
determined by
laboratory analysis
to **exceed the
Guideline Limit of
200 ug/ft2***

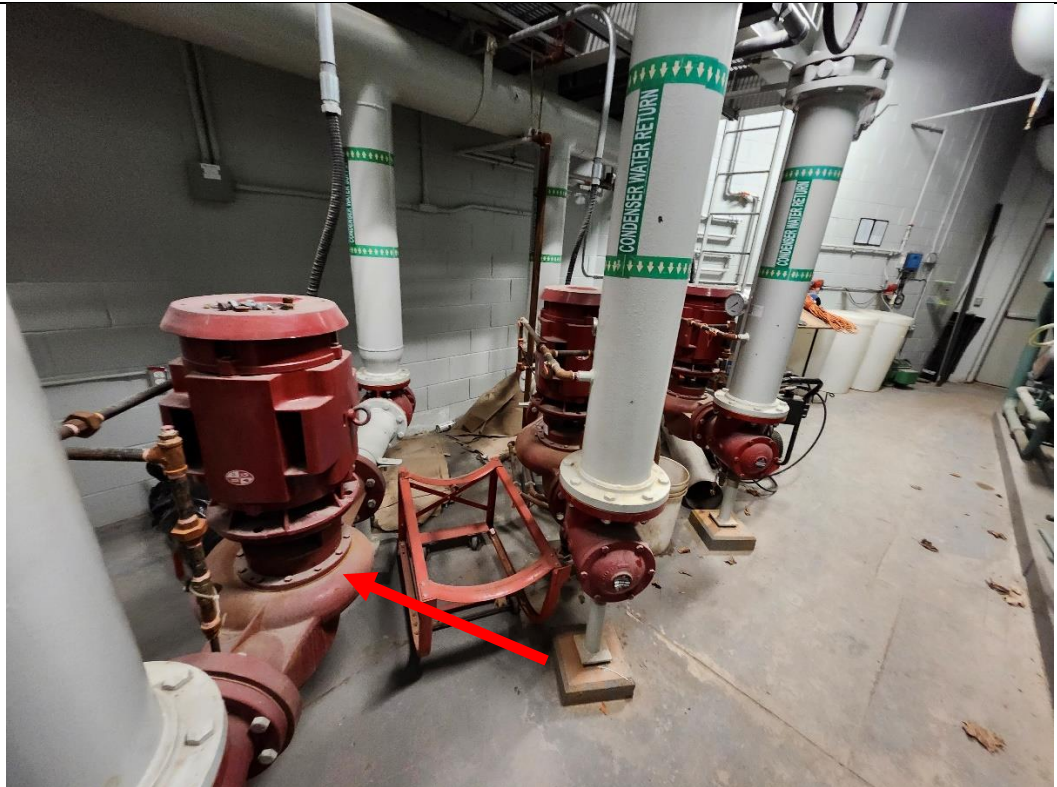


Photo No. 2.

Date: April 15,
2025

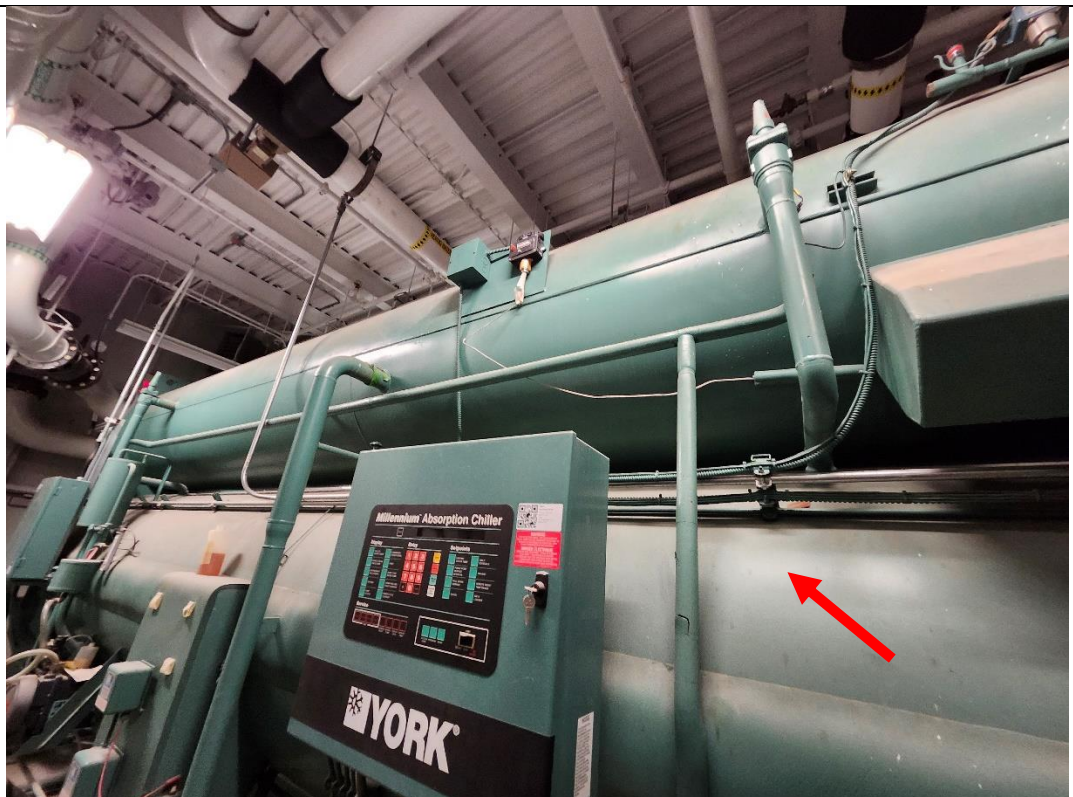
Location:

Chiller Room –
Mechanical Room 7
Basement

Description:

Representative
photo of chiller unit.

*Lead wipe samples
were collected from
this surface (29240-
DW-07-09) and
determined by
laboratory analysis
to **exceed the
Guideline Limit of
200 ug/ft2***





Client Name:

Colliers Project Leaders

Project Location:

777 Memorial Ave, Orillia, ON

Project No.

29240

Photo No. 3.

Date: April 15,
2025

Location:

Mechanical Room 7
– Rooftop

Description:

Representative
photo of grey paint
on rooftop unit

*This material was
sampled (29240-Pb-
01) and determined
by laboratory
analysis to be low-
level lead
containing.*



Photo No. 4.

Date: April 15,
2025

Location:

Chiller Room –
Mechanical Room 7
Basement

Description:

**Asbestos-
containing** grey
mechanical gasket.

