WARATAH
PROPERTY INSPECTIONS

Hazardous Materials Survey

Prepared For

Balito Investments

142-146 Pitt Road, North Curl Curl NSW

Waratah Property Inspections | WEC121.HMS_v1.0 | 19 June 2023

Contents

Report Title	Hazardous Materials Survey
Project Reference Number:	WEC121.HMS_v1.0
Document Date:	19 June 2023

Document Control

Recipient	Mr Grant Price Balito Investments
Original	Waratah Environmental Consulting Soft Copy

Author

Jordan Thomas
Senior Environmental Scientist
LAA001497

Executive Summary

Mr Grant Price of Balito Investments (the client) engaged Waratah Environmental Consulting (Waratah) to conduct a Hazardous Materials Survey of the properties located at 142-146 Pitt Road, North Curl Curl NSW (the Site).

The purpose of this Hazardous Materials Survey was to detail the findings of destructive sampling and subsequent quantitative risk assessment of potential hazardous building materials found at the site in order to facilitate demolition / refurbishment of the inspected structures. Recommendations will be made for the management of any identified hazardous materials in accordance with SafeWork NSW guidelines.

Summary of Hazardous Materials

Location	ACM (friable)	ACM (bonded)	SMF	Lead Paint	PCBs
142-146 Pitt Road, North Curl Curl SW	Yes	Yes	Yes	Yes	Yes

Notes:
ACM – Asbestos Containing Materials
SMF – Synthetic Mineral Fibres
PCBs – Poly-Chlorinated Biphenyls
Complete Register of Hazardous Materials detailed in **Appendix A**

Recommendations

Waratah makes the following recommendations for remedial activities and / or further investigations:

- Friable asbestos debris and loose fibres must be removed from gutters by a Class A licensed asbestos removalist;
- Weathered / friable sections of corrugated cement sheeting roof should be stabilised with the application of an adhesive;
- An asbestos management plan (AMP) should be completed by a suitably qualified occupational hygienist prior to any works that have the potential to disturb ACM / any removal works;
- Any flaking paint to window frames must be stabilised with the application of an adhesive;
- The presence of any potential hazardous materials should be confirmed in areas identified as *No Access*; and
- The sub-floor and ceiling cavity should be managed under an *unexpected finds protocol.*

1. Introduction

Mr Grant Price of Balito Investments (the client) engaged Waratah Environmental Consulting (Waratah) to conduct a Hazardous Materials Survey of the properties located at 142-146 Pitt Road, North Curl Curl NSW (the Site).

The purpose of this Hazardous Materials Survey was to detail the findings of destructive sampling and subsequent quantitative risk assessment of potential hazardous building materials found at the site in order to facilitate demolition / refurbishment of the inspected structures. Recommendations will be made for the management of any identified hazardous materials in accordance with SafeWork NSW guidelines.

The investigatory sampling works were complete on 8 June 2023 by a suitably qualified Occupational Hygienist / Licensed Asbestos Assessor (LAA). All collected samples were delivered to NATA accredited SGS Laboratory, Alexandria NSW.

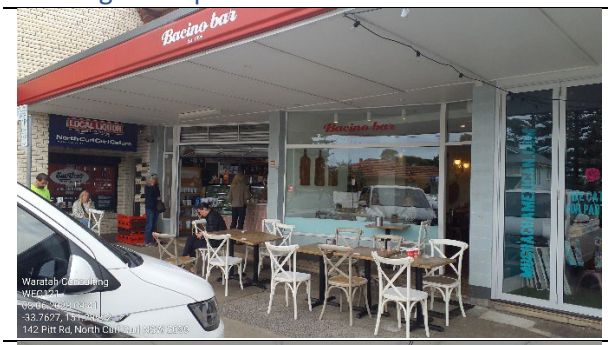
Waratah understands that this HMS is required to facilitate demolition and redevelopment of the site buildings.

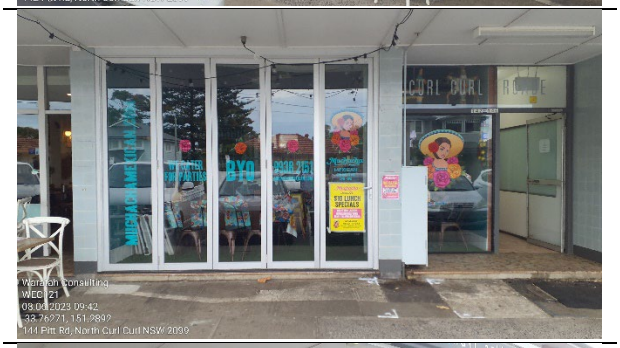
The findings of this report detail the works completed by Waratah, which include the following:

- Inspection of sitewide structures;
- Sampling of any suspected hazardous materials, including but not limited to, asbestos containing materials (ACM), synthetic mineral fibres (SMF), Lead-based paint (LBP) and Polychlorinated Biphenyls (PCBs);
- Delivery of samples to a NATA accredited laboratory for analytical analysis; and
- Data interpretation and reporting of findings.

1.1. Site Description

Site Address	142-146 Pitt Road, North Curl Curl NSW
Lot / Section / Deposition Plan	Lots 28-30 of DP394337
Building Description	





The subject building comprises two-level mixed-use building with ground level commercial and second level residential apartments.
External walls comprise brick with vinyl tile covered flooring and corrugated fibre cement roof.
A free standing shed / bathroom building exists in the rear of the property, comprising fibre cement walls and corrugated metal roof.

2. Methodology

This Hazardous Material Survey (HazMat) was conducted in order to identify the presence, condition and associated risk of potentially hazardous building materials located within the subject site. Waratah notes that inspected materials were limited to the accessible building construction materials, including observable services. Where suspected hazardous materials were suspected, representative samples were collected and submitted to a NATA accredited laboratory for analysis.

In accordance with SafeWork NSW, investigatory works were not completed within confined spaces nor at heights greater than 2m above ground or floor level unless the appropriate permits had been sought. Where suspected hazardous materials could not be sampled, the occupational hygienist used professional experience to appropriately analyse the status of the material of potential concern.

2.1. Asbestos Containing Materials

ACM was analysed in accordance with *How to Safely Remove Asbestos* (SafeWork NSW, 2019) which defines the two forms of ACM, these include;

- **Friable**: Any ACM that exists in respirable form (dimension of ≤7mm x ≤7mm x ≤2mm), any ACM damaged by fire, any ACM considered to be in a weathered or poor condition and ACM that can be pulverised by normal hand pressure.
- **Bonded**: Any ACM in a bonded matrix that is considered to be in fair or good condition and that cannot be pulverised by normal hand pressure. It may exist in various fibre cements, vinyl coverings, pipe lagging, ropes and fabric.

Suspected ACMs were sampled, where possible, and delivered to a NATA accredited laboratory for asbestos presence / absence analysis in accordance with Australian Standard AS4964-2004. The detection limit of the analysis is detailed in **Appendix C**.

2.2. Lead Based Paint

All accessible paint systems were sampled and analysed for their lead content. The sampling program included all structural features that may have contained LBPs. Australian Standard AS 4361.2-2017 *Guide to Lead Paint Management* defines LBP as a paint coat or component of a paint system whose lead content is in excess of 0.1% by weight of the dry film.

2.3. Synthetic Mineral Fibre

All accessible SMFs were sampled and analysed in accordance with the guidelines documented the SafeWork Australia *Code of Practice for the safe use of Synthetic Mineral Fibres* (2006).

2.4. Polychlorinated Biphenyls

Suspected fluorescent light fittings and other electrical components were assessed for the potential presence of PCBs in accordance with ANZECC (1997) *Identification of PCB Containing Capacitors Information Booklet.*

2.5. Inaccessible Areas

The investigation achieved the desired scope of works, however the sub-floor cavity was not inspected due to lack of man hole access. The inspection of the ceiling cavity was limited to what could be safely observed from a 4ft ladder.

3. Risk Assessment

The Hazardous Material Register assesses the risk associated with each suspected hazardous material based on the product type; friability and condition of the material; accessibility requirements and material treatment requirements.

Risk factors are defined as the following:

3.1. Accessibility

- Regular: Areas accessible by all personnel within the building
- Occasional: Areas of infrequent use, not used by all personnel daily
- Maintenance only: Areas accessible by maintenance workers only

3.2. Condition

- Good: Material in new or acceptable condition with minimal damage
- Fair: Material with minor damage or deterioration
- Poor: Material in weathered, damaged or deteriorated condition

3.3. Friability

- Friable: material that can be pulverised by normal hand pressure
- Bonded: fibrous material bound within an adhesive matrix

3.4. Priority Rating

- Priority 1 – Immediate Risk
  Materials that pose an immediate risk to human health based on type, condition and location. Area must be made safe immediately and remedial works is required as soon as practically achievable.
- Priority 2 – Moderate Risk
  Unstable / damaged materials that pose an elevated risk to human health based on type, condition and location. Materials should be made safe immediately with remedial action recommended.
- Priority 3 – Low Risk
  Stable materials with minor damage that may degrade due to environmental conditions. It is recommended that materials be stabilised and repaired. Controls / make-safes should be implemented to prevent further degradation.
- Priority 4 – Negligible Risk
  Materials that present negligible risk to human health in current condition. Materials should be maintained in current condition.
- Inaccessible
  Material could not be accessed during site inspection works. Materials should be reassessed should access be granted.

4. Conclusion

Based on the survey of the site located at 142-146 Pitt Road, North Curl Curl NSW, the following hazardous materials were identified (refer to **Table 1**).

Table 1 - Summary of Hazardous Materials

Location	Material Description
142-146 Pitt Road, North Curl Curl NSW	
Internal, second level, hallways, storage rooms and apartments, surface of walls	Lead based, White paint system
Internal, throughout, surface of window frames	Lead based, White paint system
External, throughout, surface of window frames	Lead based, White paint system
External, shed / toilet block building, walls	Asbestos containing, Cement sheeting
External, roof	Asbestos containing, Cement sheeting
External, adjacent roof, gutters	Asbestos containing, Loose fibres
External, adjacent shop fronts, eaves	Asbestos containing, Cement sheeting
Internal, throughout, ceiling	SMF, Cement sheeting
External, rear of units, balcony, hot water systems	SMF lining
Internal, shop 4, central portion of shop	SMF lining
Internal, shop 4, rear portion of shop, pipes	SMF lagging
External, adjacent shop fronts, bottom of roof, fluorescent light fittings	PCB Capacitors
Internal, Shop 4 & 5, bottom of ceiling, fluorescent light fittings	PCB Capacitors

4.1. Lead-Based Paint

Removal of LBP is required in accordance with the following guidance:

- *Australian Standard AS 4361.2-2017 Guide to Lead Based Paint Management;*
- *NOHSC (1994a) National Standard for the Control of Inorganic Lead at Work;*

LBPs on structures from residential / educational / child-care premises must be removal prior to demolition. Any LBP waste generated is pre-classified as Hazardous Waste (EPA, 2014) unless LBP is prior removed.

Waratah recommend that all workers within the immediate vicinity of LBP removal works, wear a half face respirator (AS1716 - Standard) with a P2 safety rating. Any personnel wearing a P2 respirator is required to be clean shaven to ensure adequate seal of the mask-to-face interface.

4.2. Asbestos

Any asbestos containing materials (ACM) should be removed prior to the commencement of any demolition / refurbishment works. ACM removal should be completed in accordance with the following regulations and codes of practice;

- *NSW Work Health & Safety Act 2017;*
- SafeWork NSW (2019) *How to manage and control asbestos in the workplace;* and
- SafeWork NSW (2019) *How to safely remove asbestos.*

It is recommended that all ACM removal be conducted in accordance with a site-specific asbestos management plan (AMP) and subsequent asbestos removal control plan.

The AMP should detail the condition, quantity and location of any ACM designated for removal; all safety control measures required for the duration of ACM removal; any requirement for ongoing monitoring including but not limited to airborne asbestos monitoring (AAMs); and any additional site clearance requirements.

5. Limitations

This report has been prepared for the sole use of the client. Waratah take no responsibility for the use of this document by any third party. This report does not provide any legal advice and has been prepared under the direct instructions of the client.

Unless specific detail is otherwise provided, this report pertains to the visible and accessible areas of building materials contained within the cadastral boundaries stated in **Section 1.1**. This report does not assess the potential of any submerged hazardous materials nor any materials outside of the defined subject area. As such, hazardous materials may be present beneath soil surfaces, in accessible areas of the subject site or adjacent properties. Should any suspected hazardous materials be encountered during future works, an appropriately licenced Occupational Hygienist should be engaged to provide advice on the proper management of the subject material. Any suspicious materials encountered during future works should be assumed to contain hazardous materials until analytical confirmation can be obtained.

Any volumes, sizes or quantity of suspected hazardous materials detailed within this report have been estimated during the site investigation works.

This report should be read in its entirety, this report should not be separated or read in part as this has the potential to affect the findings of the report.

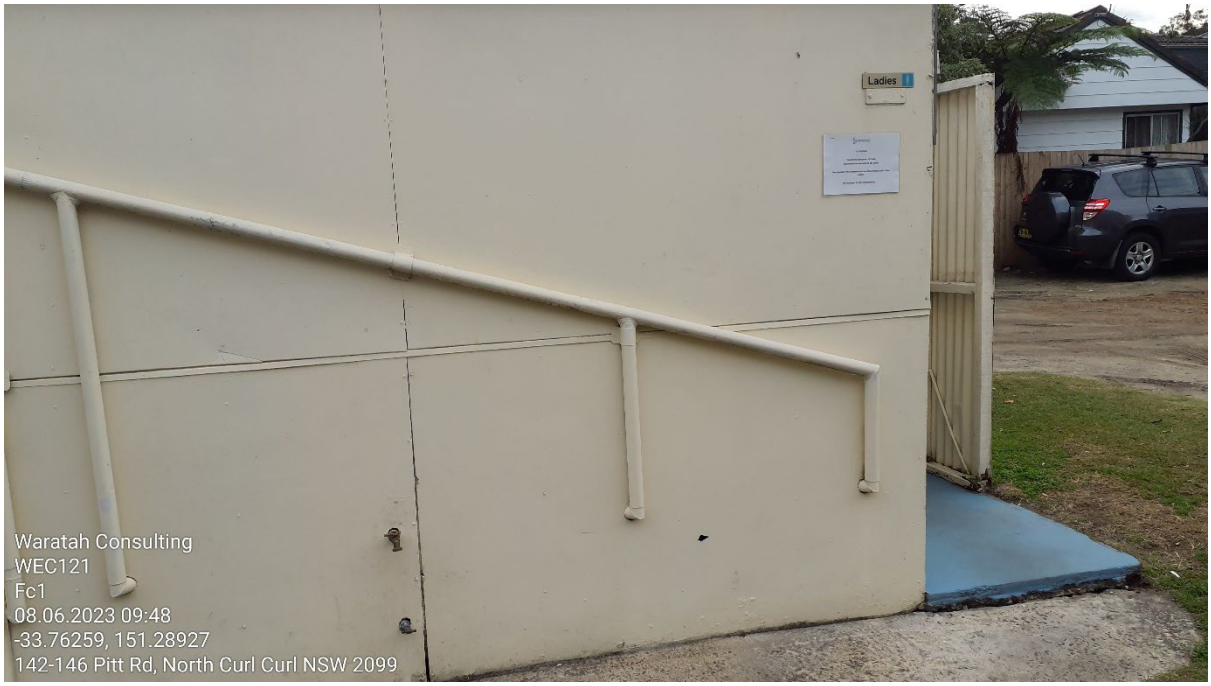
This report has been prepared by a suitably trained professional with a degree of care and diligence considered to be in conjunction with industry standards. Waratah, however, does not accept any responsibility or liability for the loss, damage, injury or death suffered by any party arising from the use of this report.

Appendix A – Hazardous Material Register

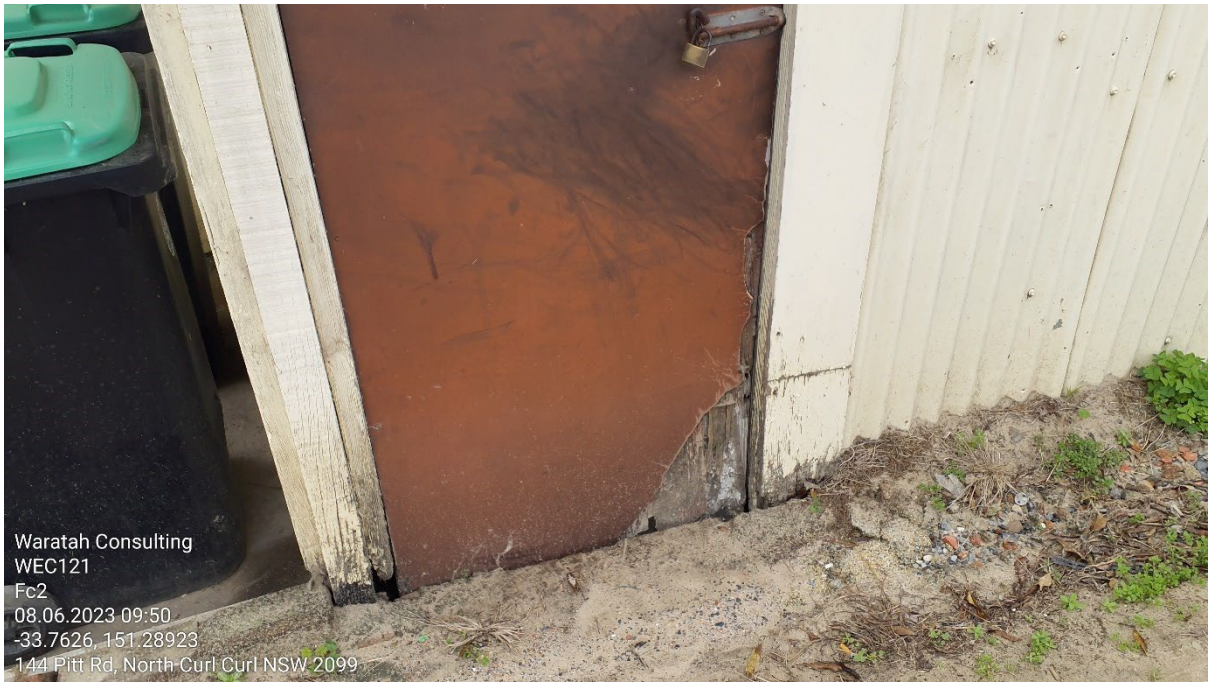
Location Description	Material	Condition	Sample ID	Analytical Result	Estimated Quantity	Accessibility	Priority Rating	Recommendations	Photograph Register
142-146 Pitt Road, North Curl Curl NSW									
LBP									
Internal, Shop 1, surface of walls	White paint system	Good	Pb1	<0.001%	250 m²	NA	NA	NA	Photograph 12
Internal, Shop 1, surface of walls	Blue paint system	Good	Pb2	<0.001%	20 m²	NA	NA	NA	Photograph 13
Internal, second level, hallways, storage rooms and apartments, surface of walls	**White paint system**	**Good**	**Pb3**	**0.10%**	**1,000 m²**	**Regular**	**Priority 3 – low risk**	**Avoid abrasive activities in vicinity of material during demolition.**	**Photograph 14**
Internal, throughout, surface of window frames	**White paint system**	**Fair**	**Pb4**	**2.8%**	**50 m²**	**Regular**	**Priority 2 – moderate risk**	**Stabilise flaking paint. Avoid abrasive activities in vicinity of material during demolition.**	**Photograph 15**
External, throughout, surface of window frames	**White paint system**	**Good**	**Pb5**	**0.15%**	**20 m²**	**Occasional**	**Priority 3 – low risk**	**Avoid abrasive activities in vicinity of material during demolition.**	**Photograph 16**
ACM									
External, shed / toilet block building, walls	**Cement sheeting**	**Good**	**Fc1**	**Amosite, Crocidolite and Chrysotile asbestos detected**	**100 m²**	**Regular**	**Priority 3 – low risk**	**Avoid damaging material. Remove prior to demolition.**	**Photograph 1**
External, shed / toilet block building, door	Cement sheeting	Fair	Fc2	No asbestos detected. Organic fibres detected.	2 m²	NA	NA	NA	Photograph 2
External, roof	**Cement sheeting**	**Poor**	**Fc3**	**Amosite & Chrysotile asbestos.**	**300 m²**	**Maintenance only**	**Priority 2 – Moderate risk**	**Stabilise flaking sections with application of an adhesive. Remove prior to demolition under friable asbestos safety controls.**	**Photograph 3**
External, adjacent roof, gutters	**Loose fibres**	**Poor**	**Visual assessment**	**Presumed same as Fc3**	**2 m²**	**Maintenance only**	**Priority 2 – Moderate risk**	**Clean debris from gutters. Remove prior to demolition under friable asbestos safety controls.**	**Photograph 4**
Internal, throughout hallways, common areas and storage closets, top of floor	Vinyl tile	Good	VT1	No asbestos detected. Organic fibres detected.	100 m²	NA	NA	NA	Photograph 5
External, adjacent shop fronts, eaves	**Cement sheeting**	**Good**	**Visual assessment**	**Presumed to contain asbestos**	**100 m²**	**Maintenance only**	**Priority 4 – Negligible risk**	**Avoid damaging material. Remove prior to demolition. Confirm presence of asbestos.**	**Photograph 8**
SMF									

Location Description	Material	Condition	Sample ID	Analytical Result	Estimated Quantity	Accessibility	Priority Rating	Recommendations	Photograph Register
Internal, throughout, ceiling	Cement sheeting	Good	Visual assessment	Presumed to contain SMF	500 m²	Maintenance only	Priority 4 – Negligible risk	Remove during demolition	Photograph 6
External, rear of units, balcony, hot water systems	Internal lining	Good	Visual assessment	Presumed to contain SMF	10 units	Regular	Priority 4 – Negligible risk	Avoid damaging. Remove during demolition.	Photograph 7
Internal, shop 4, central portion of shop	SMF lining	Good	Visual assessment	Presumed to contain SMF	10 m²	Maintenance only	Priority 4 – Negligible risk	Avoid damaging. Remove during demolition.	Photograph 10
Internal, shop 4, rear portion of shop, pipes	Lagging	Fair	Visual assessment	Presumed to contain SMF	3 m²	Maintenance only	Priority 4 – Negligible risk	Avoid damaging. Remove during demolition.	Photograph 11
PCBs									
External, adjacent shop fronts, bottom of roof, fluorescent light fittings	Capacitors	Good	Visual assessment	Presumed to contain PCBs	5 units	Maintenance only	Priority 4 – Negligible risk	Avoid damaging capacitors. Remove during demolition.	Photograph 8
Internal, Shop 4 & 5, bottom of ceiling, fluorescent light fittings	Capacitors	Good	Visual assessment	Presumed to contain PCBs	10 units	Maintenance only	Priority 4 – Negligible risk	Avoid damaging capacitors. Remove during demolition.	Photograph 9
Not Accessible									
Internal, ground level, Shop 3									
Internal, second level, unit 3 & 4									

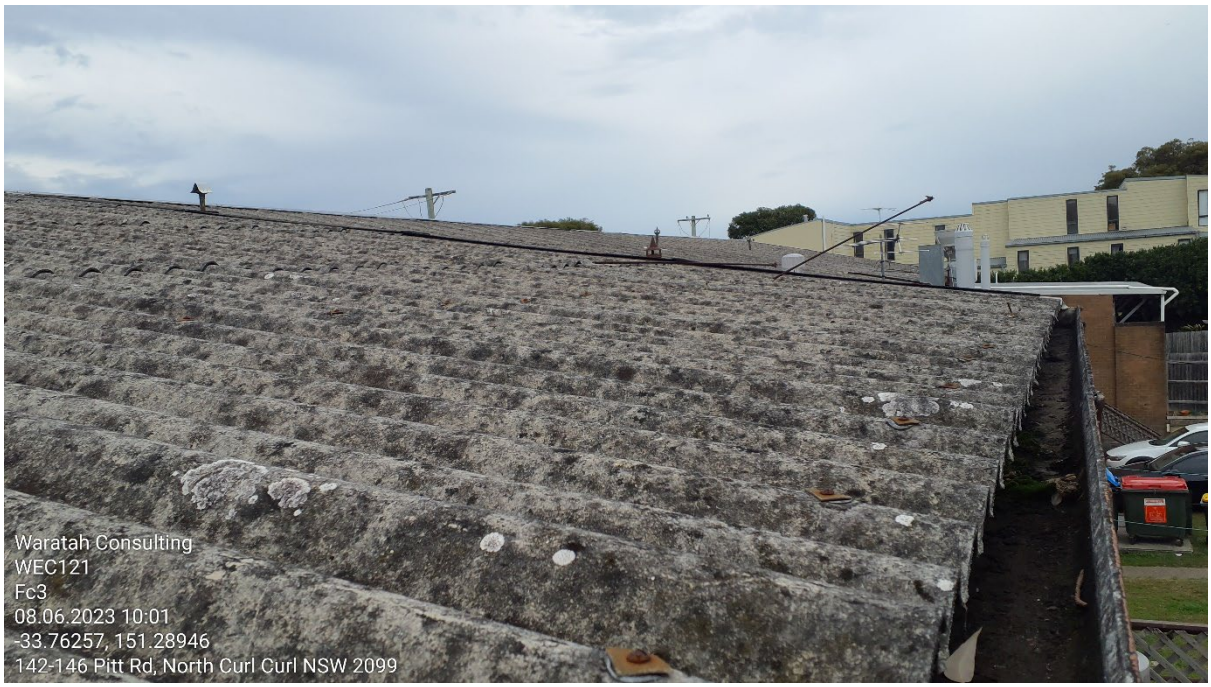
Appendix B – Photograph Register



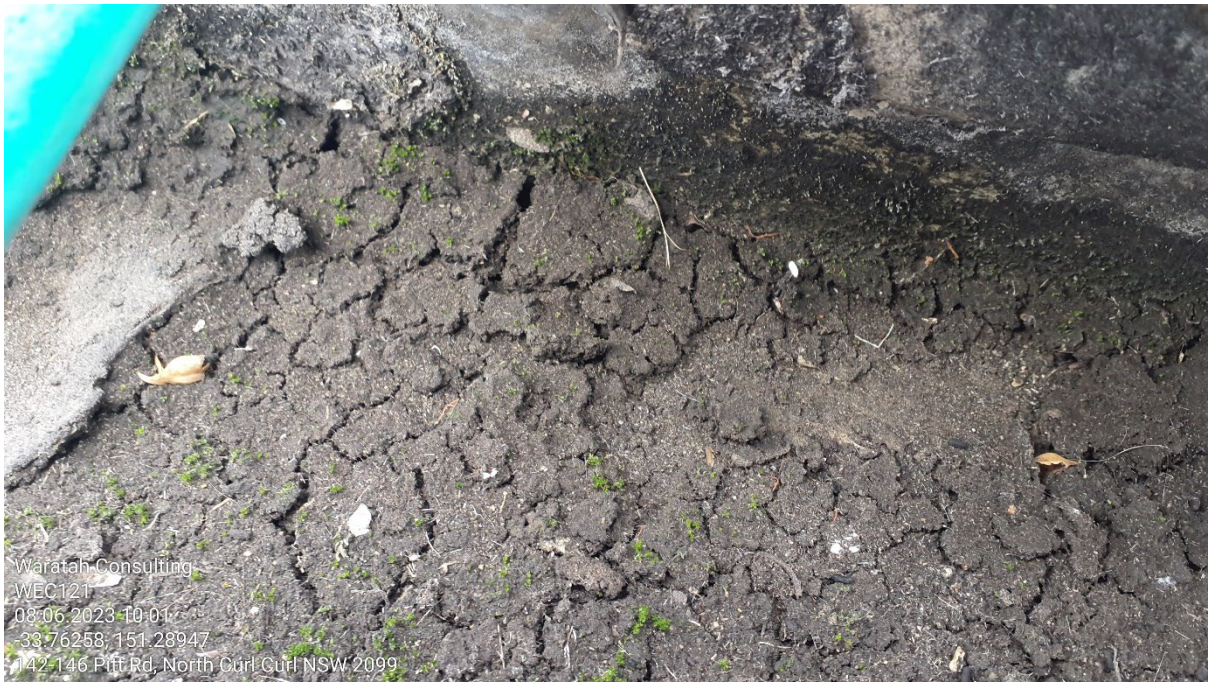
Photograph 1:
External, shed / toilet block building, walls, fibre cement sheeting



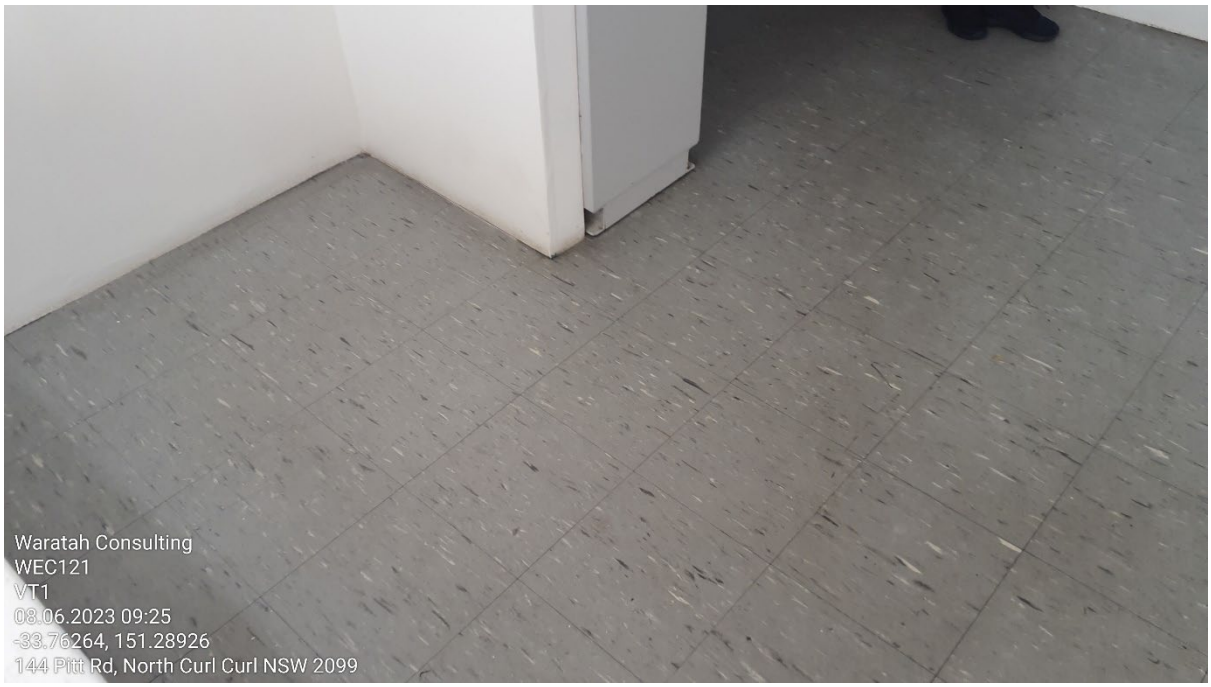
Photograph 2:
External, shed / toilet block building, door, fibre cement sheeting



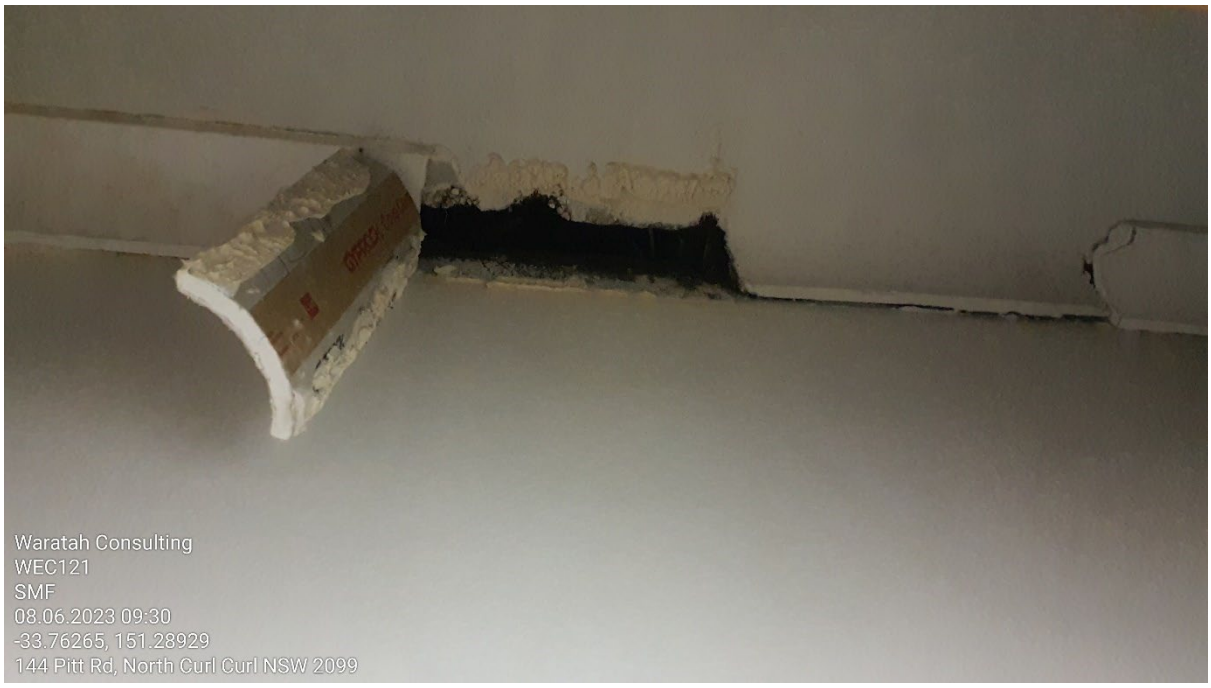
Photograph 3:
External, roof, corrugated fibre cement sheeting.



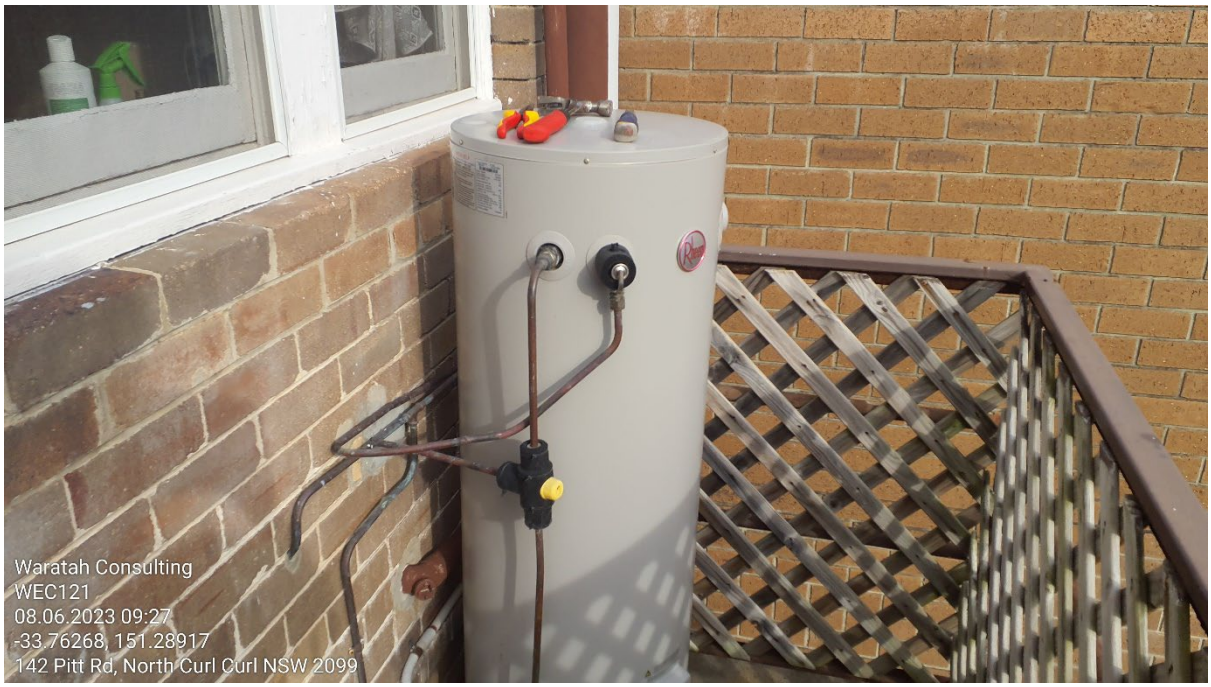
Photograph 4:
External, adjacent roof, gutters, loose fibres.



Photograph 5:
Internal, throughout hallways, common areas and storage closets, top of floor, vinyl tiles.



Photograph 6:
Internal, throughout, ceiling

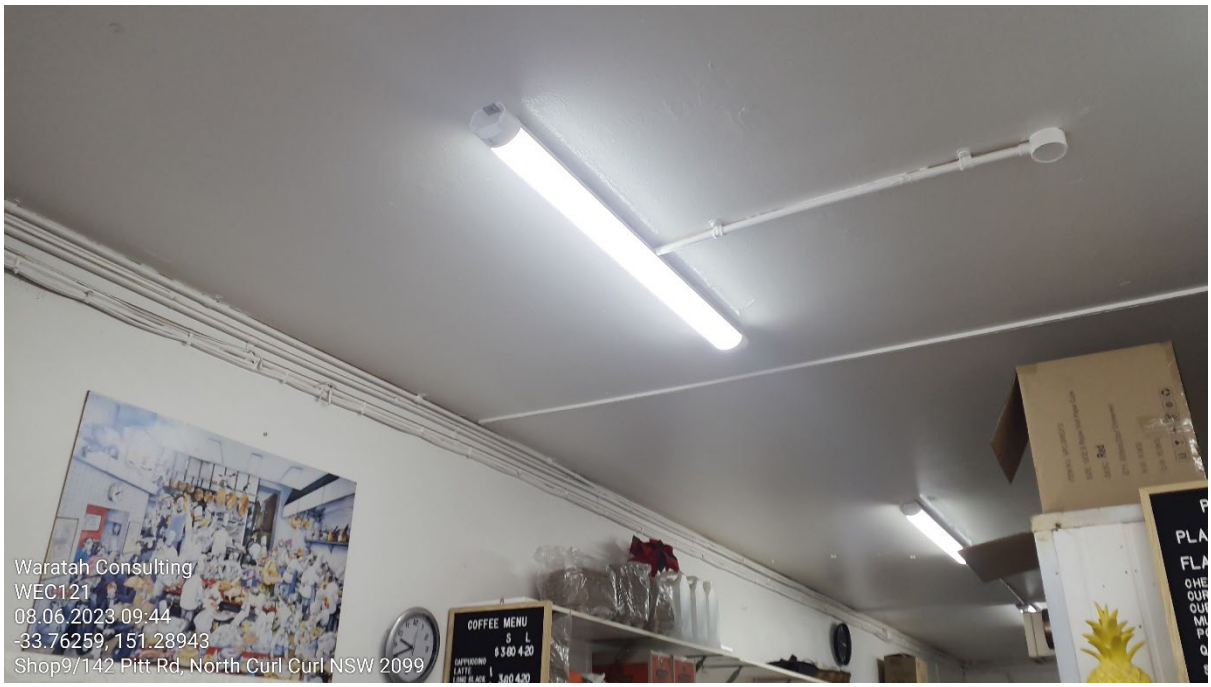


Photograph 7:

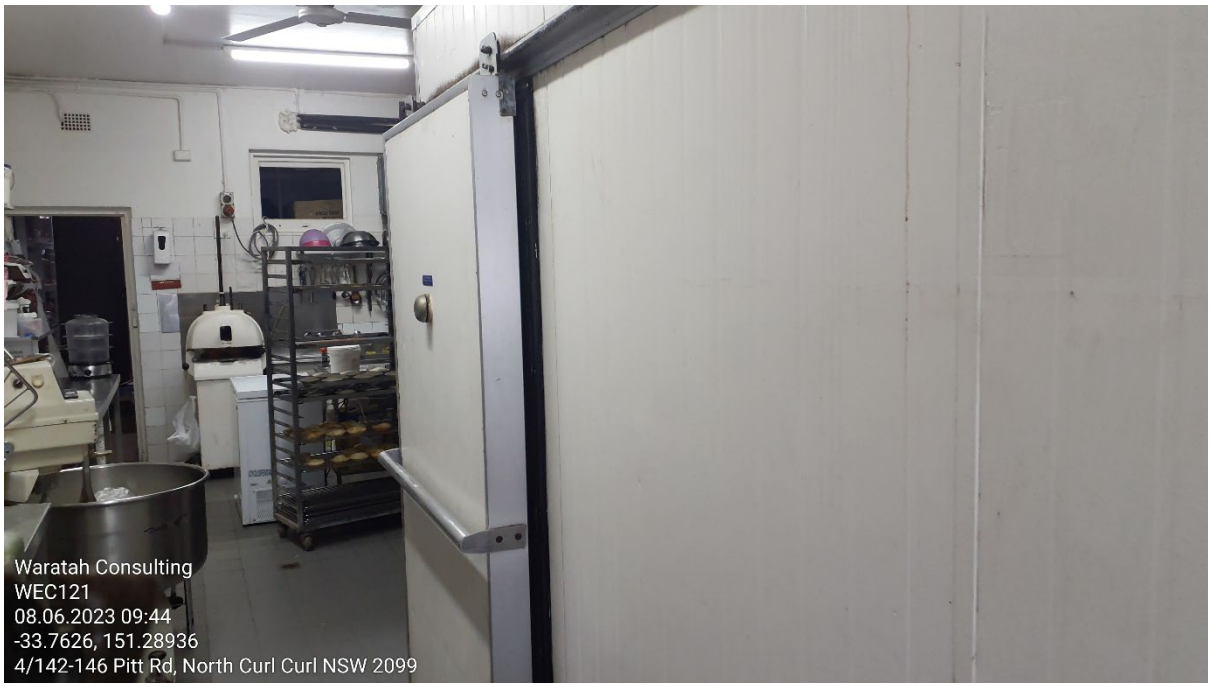
External, rear of unit 2, balcony, hot water system

Photograph 8:

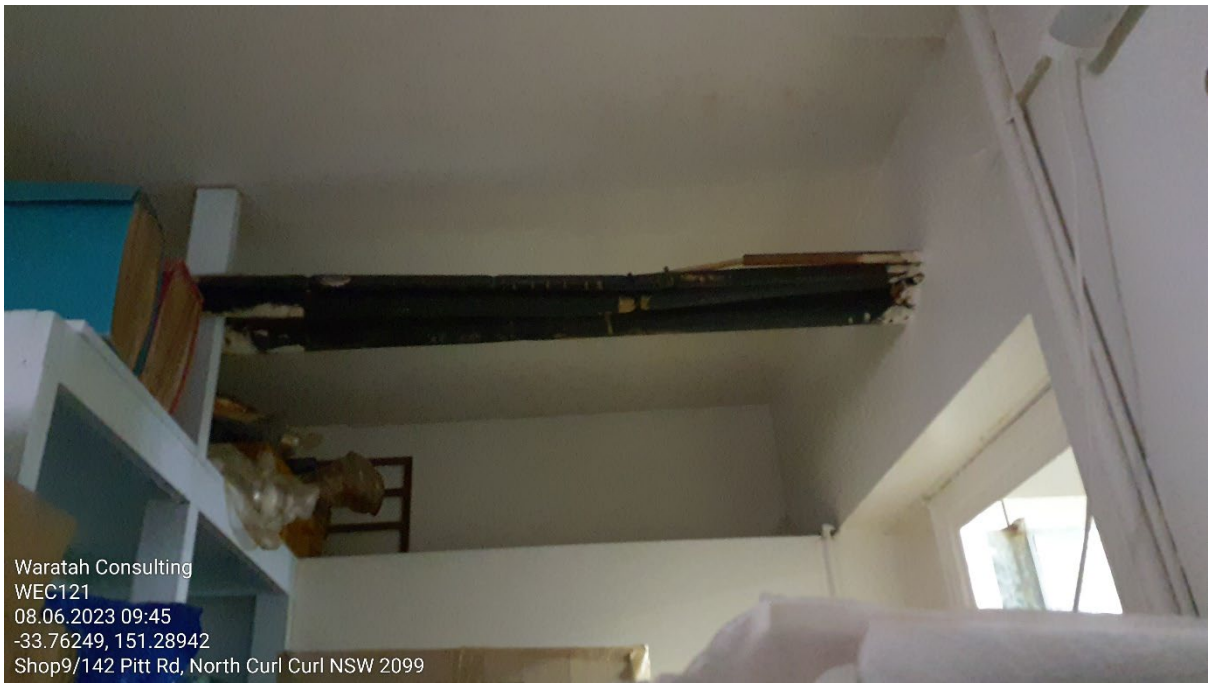
1. External, adjacent shop fronts, eaves, cement sheeting
2. External, adjacent shop fronts, bottom of roof, fluorescent light fittings, capacitors



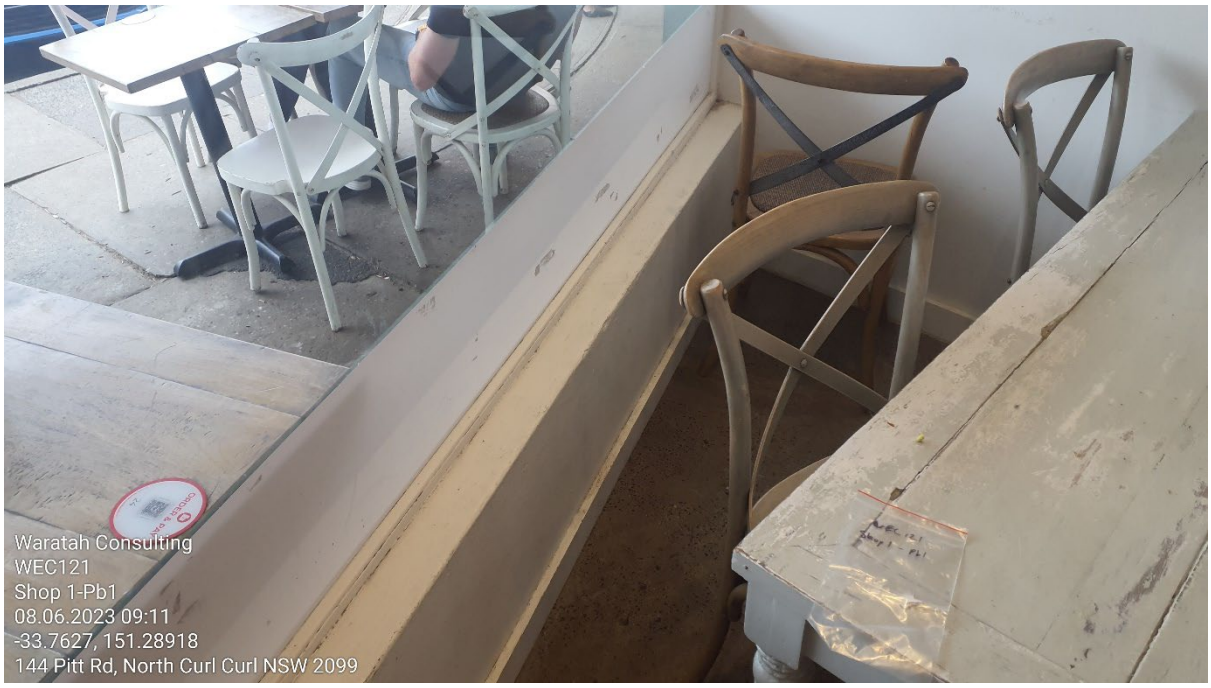
Photograph 9:
Internal, shop 4 & 5, bottom of ceiling, fluorescent light fittings, capacitors.



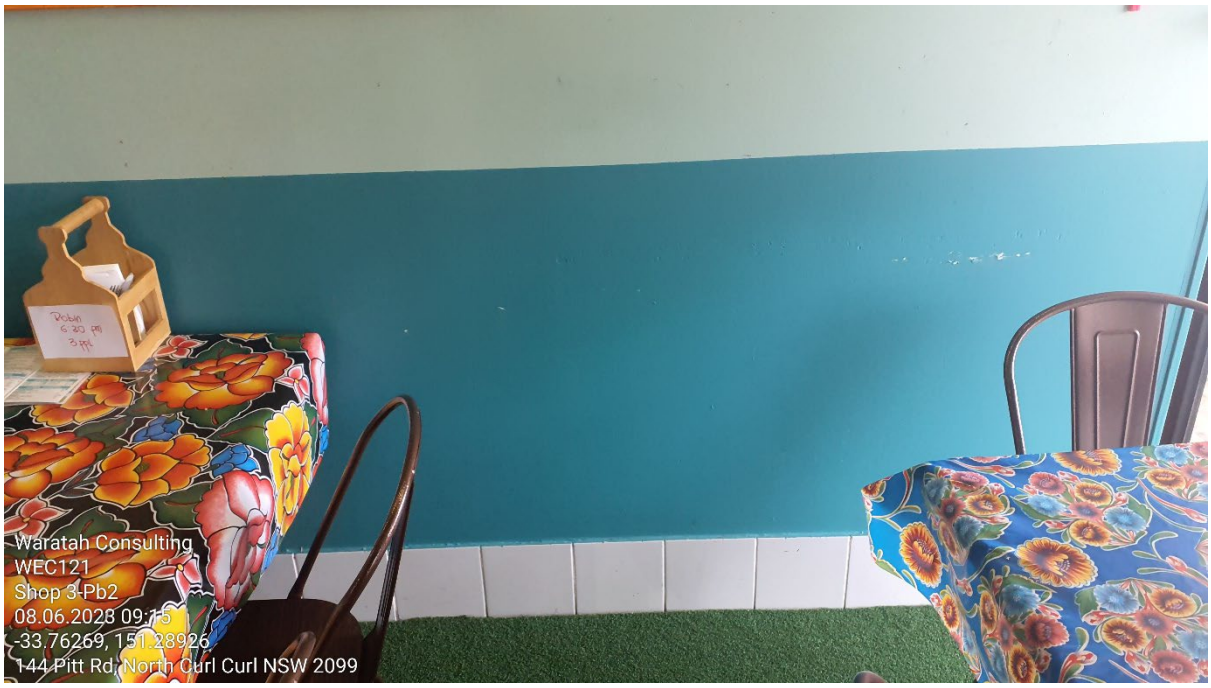
Photograph 10:
Internal, shop 4, central portion of shop, cool room, smf lining



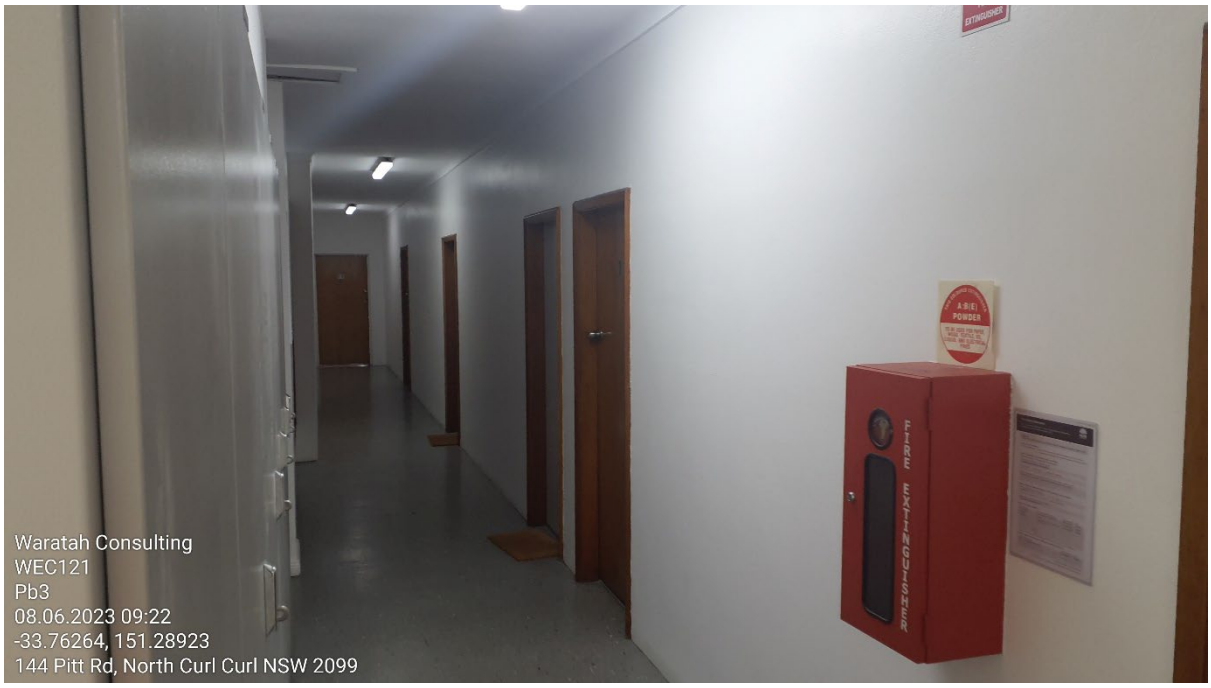
Photograph 11:
Internal, shop 4, rear portion of shop, bottom of ceiling, pipe lagging



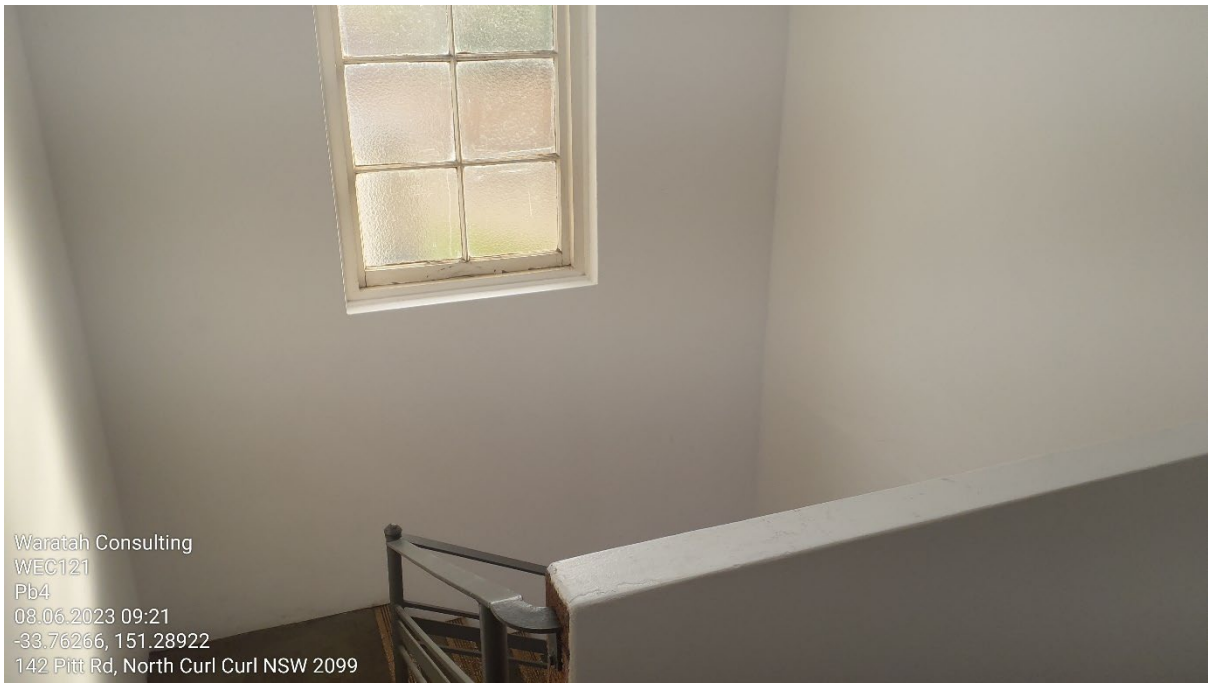
Photograph 12:
Internal, shop 1, surface of walls, white paint system



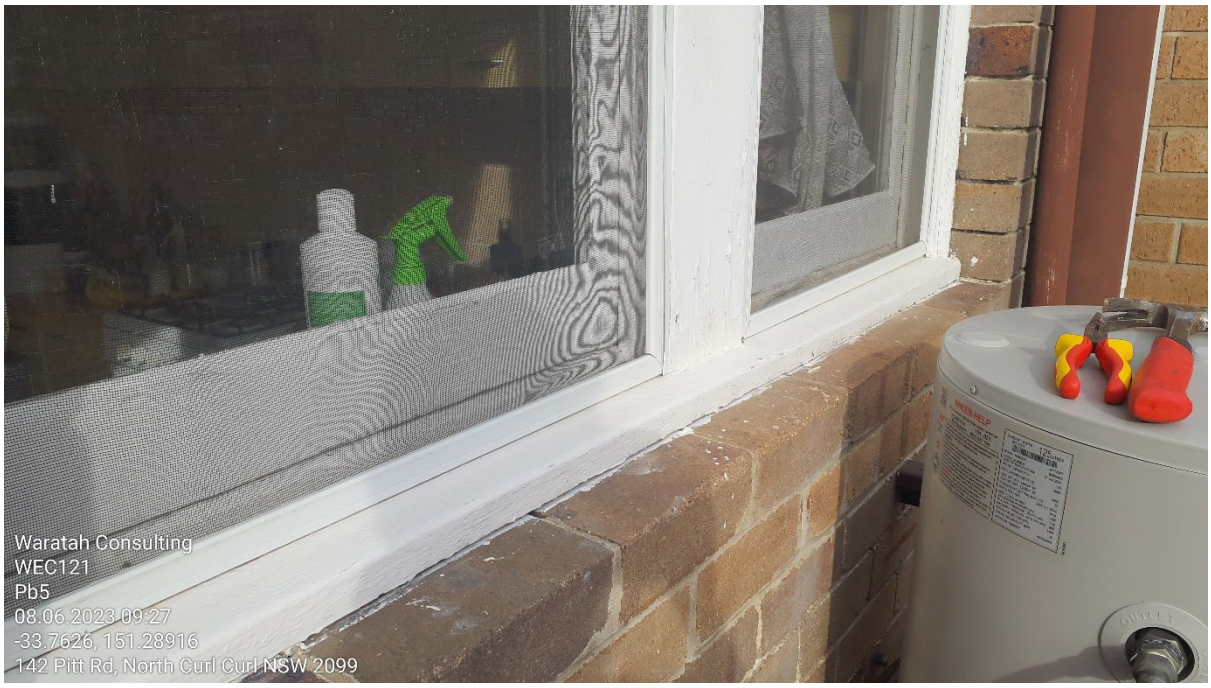
Photograph 13:
Internal, shop 2, surface of walls, blue paint system



Photograph 14:
Internal, second level, hallways, storage rooms and apartments, surface of walls, white paint system



Photograph 15:
Internal, second level, throughout, window frames, white paint system



Photograph 16:
External, throughout, window frames, white paint system

Appendix C – Chain of Custody and Sample Receipt Advice

CHAIN OF CUSTODY & ANALYSIS REQUEST

Page ____ of ____

SGS Environmental Services Sydney
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Telephone No: (02) 85940400
Facsimile No: (02) 85940499
Email: au.samplereceipt.sydney@sgs.com

Lab)

SGS EHS Sydney COC

SE248883

Company Name:	WARATAH	Project Name/No:	WEC 121
Address:	142-146 Pitt Rd. North Curl Curl NSW	Purchase Order No:	
		Results Required Date:	Standard TAT
		Telephone:	Fax:
Contact Name:		Email Results to:	J-Thomas @WaratahConsulting.com.au @
Quotation No:			

SGS ID	Client Sample ID	Sampling Date/ Time	Matrix (Tick as appropriate) Soil Sample	Water Sample	Other	NO. OF CONTAINERS	ANALYSIS REQUESTED ACM	Pb-Paint
1	FC1	8.06.23			x	1	x	
2	FC2				x	1	x	
3	FC3				x	1	x	
4	CA - UT 1				x	1	x	
5	Shop 1 - Pb1				x	1		x
6	Shop 3 - Pb2				x	1		x
7	CA - Pb3				x	1		x
8	CA - Pb4				x	1		x
9	F3 - Pb5				x	1		x

Additional Report Formats
- ☐ NEPM
- ☐ CSV
- ☐ ESDAT
- ☐ DQO
- ☐ GO, Guidelines ---------
- ☐ Others _____

Notes/Guidelines/LOR/ Special instructions

Relinquished By:	Date/Time: 8.06.23	Received By:	Date/Time: 8-6-23 3:45
Relinquished By:	Date/Time:	Received By:	Date/Time:
Samples Intact: Yes / No	Temperature: 14.5 °C	Sample Security Sealed: Yes / No	Hazards: *e.g. may contain Asbestos*
Comments / Subcontracting details:			

Appendix D – Analytical Results

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Jordan Thomas
Client	WARATAH PROPERTY INSPECTIONS
Address	PO BOX 1163 NSW 2040
Telephone	(Not specified)
Facsimile	(Not specified)
Email	J.Thomas@WaratahConsulting.com.au
Project	**WEC 121**
Order Number	**WEC 121**
Samples	9

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE248883 R0**
Date Received	8/6/2023
Date Reported	19/6/2023

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

Asbestos subcontracted to SGS Cairns, 2/58 Comport St, Portsmith QLD 4870, NATA Accreditation Number: 2562, Site Number: 3146. Report No CE167453

SIGNATORIES

Kamrul AHSAN

Senior Chemist

Fibre ID in bulk materials [AN602/AS4964] Tested: 19/6/2023

PARAMETER	UOM	LOR	FC1 MATERIAL - 8/6/2023 SE248883.001	FC2 MATERIAL - 8/6/2023 SE248883.002	FC3 MATERIAL - 8/6/2023 SE248883.003	CA-UT 1 MATERIAL - 8/6/2023 SE248883.004
Asbestos Detected	No unit	-	Yes	No	Yes	No

Metals in Paint by ICPOES [AN065/AN320] Tested: 9/6/2023

PARAMETER	UOM	LOR	Shop1-Pb1 PAINT - 8/6/2023 SE248883.005	Shop3-Pb2 PAINT - 8/6/2023 SE248883.006	CA-Pb3 PAINT - 8/6/2023 SE248883.007	CA-Pb4 PAINT - 8/6/2023 SE248883.008	F3-Pb5 PAINT - 8/6/2023 SE248883.009
Lead, Pb	%w/w	0.001	<0.001	<0.001	**0.10**	**2.8**	**0.15**

METHOD	METHODOLOGY SUMMARY
AN065/AN320	A portion of paint chips sample is digested with nitric acid to solubilise the metals into solution. Digest then analysed by ICP OES with result calculated back to the as received paint sample basis .
AN602/AS4964	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602/AS4964	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf). The fibres detected may or may not be asbestos fibres.
AN602/AS4964	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
***	Indicates that both * and ** apply.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

STATEMENT OF QA/QC PERFORMANCE

SE248883 R0

CLIENT DETAILS

Contact	Jordan Thomas
Client	WARATAH PROPERTY INSPECTIONS
Address	PO BOX 1163 NSW 2040
Telephone	(Not specified)
Facsimile	(Not specified)
Email	J.Thomas@WaratahConsulting.com.au
Project	**WEC 121**
Order Number	**WEC 121**
Samples	9

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE248883 R0**
Date Received	08 Jun 2023
Date Reported	19 Jun 2023

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

Sample counts by matrix	4 Material, 5 Paint	Type of documentation received	COC
Date documentation received	8/6/2023	Samples received in good order	Yes
Samples received without headspace	N/A	Sample temperature upon receipt	19.5C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes		

HOLDING TIME SUMMARY

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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Metals in Paint by ICPOES — **Method: ME-(AU)-[ENV]AN065/AN320**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Shop1-Pb1	SE248883.005	LB282119	08 Jun 2023	08 Jun 2023	05 Dec 2023	09 Jun 2023	05 Dec 2023	14 Jun 2023
Shop3-Pb2	SE248883.006	LB282119	08 Jun 2023	08 Jun 2023	05 Dec 2023	09 Jun 2023	05 Dec 2023	14 Jun 2023
CA-Pb3	SE248883.007	LB282119	08 Jun 2023	08 Jun 2023	05 Dec 2023	09 Jun 2023	05 Dec 2023	14 Jun 2023
CA-Pb4	SE248883.008	LB282119	08 Jun 2023	08 Jun 2023	05 Dec 2023	09 Jun 2023	05 Dec 2023	14 Jun 2023
F3-Pb5	SE248883.009	LB282119	08 Jun 2023	08 Jun 2023	05 Dec 2023	09 Jun 2023	05 Dec 2023	14 Jun 2023

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Metals in Paint by ICPOES — **Method: ME-(AU)-[ENV]AN065/AN320**

Sample Number	Parameter	Units	LOR	Result
LB282119.001	Lead, Pb	%w/w	0.001	<0.001

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean
The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR
Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may give a different calculated RPD.

No duplicates were required for this job.

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Metals in Paint by ICPOES — **Method: ME-(AU)-[ENV]AN065/AN320**

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB282119.002	Lead, Pb	%w/w	0.001	0.010	0.01035	70 - 130	100

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.

MATRIX SPIKE DUPLICATES

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Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
***	Indicates that both * and ** apply.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.
①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to relevant report comments for further information.

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Jordan Thomas
Client	WARATAH PROPERTY INSPECTIONS
Address	PO BOX 1163 NSW 2040
Telephone	(Not specified)
Facsimile	(Not specified)
Email	J.Thomas@WaratahConsulting.com.au
Project	**WEC 121**
Order Number	**WEC 121**
Samples	4

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE248883 R0**
Date Received	08 Jun 2023
Date Reported	19 Jun 2023

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

Asbestos subcontracted to SGS Cairns, 2/58 Comport St, Portsmith QLD 4870, NATA Accreditation Number: 2562, Site Number: 3146. Report No CE167453

SIGNATORIES

ANALYTICAL REPORT

SE248883 R0

RESULTS

Fibre ID in bulk materials — Method AN602/AS4964

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE248883.001	FC1	Other	19x13x3mm Fibrous cement sheet	08 Jun 2023	Amosite, Chrysotile & Crocidolite Asbestos Detected	
SE248883.002	FC2	Other	15x9x5mm Fibrous cement sheet	08 Jun 2023	No Asbestos Detected Organic Fibres Detected	
SE248883.003	FC3	Other	15x15x4mm Fibrous cement sheet	08 Jun 2023	Amosite & Chrysotile Asbestos Detected	
SE248883.004	CA-UT 1	Other	10x9x5mm Leveller/concrete	08 Jun 2023	No Asbestos Detected Organic Fibres Detected	

METHOD SUMMARY

SE248883 R0

METHOD	METHODOLOGY SUMMARY
AN602/AS4964	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602/AS4964	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf). The fibres detected may or may not be asbestos fibres.
AN602/AS4964	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples , Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	NATA accreditation does not cover the performance of this service .
			**	-	Indicative data, theoretical holding time exceeded.
			***	-	Indicates that both * and ** apply.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.
Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy , including dispersion staining.
Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining . Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos -containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety .