

## LANE COVE WEST DEVELOPMENT PTY LTD



## Hazardous Materials Survey


67 Mars Road, Lane Cove West NSW

# Document Control

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Author	Technical Reviewer
	
<b>Fiona Zhang</b> Environmental Engineer	<b>Nikolce Aleksieski</b> Environmental Scientist / Occupational Hygienist SafeWork NSW Licensed Asbestos Assessor (LAA001430)

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## Executive Summary

EI Australia (EI) was engaged by Lane Cove West Development Pty Ltd ('the client') to conduct a Hazardous Materials Survey (HMS) for the property located at 67 Mars Road, Lane Cove West NSW (herein referred to as 'the site'). The purpose of this HMS is to present the findings of a qualitative risk assessment of the hazardous building materials located on the site. The site inspection was undertaken on 31 May 2022.

This report has been developed to assist the client with the preparation for demolition works at the site. EI understands that the proposed works on site will involve the demolition of existing site structures.

### Key Findings

The overall status of each hazardous material type is tabulated below.

Site Name	ACM (friable)	ACM (Non-friable)	SMF	LBP	PCBs
67 Mars Road, Lane Cove West	Yes	Yes	Yes	Yes	Yes

Note 1 Hazardous materials may be present within any inaccessible area stated in the register in **Appendix A**.

The identified hazardous building materials were ranked **Priority 3 to Priority 4** (i.e. stable and posing negligible to low health risk under present conditions). No immediate remedial action was deemed necessary.

Refer to **Appendix A** for the formal Hazardous Materials Register.

# 1. Introduction

## 1.1 Background and Purpose

EI Australia (EI) was engaged by Lane Cove West Development Pty Ltd ('the client') to conduct a Hazardous Materials Survey (HMS) for the property located at 67 Mars Road, Lane Cove West NSW (herein referred to as 'the site').

EI understands that the proposed works on site will involve the demolition of existing site structures.

This report documents the findings of the HMS performed by EI, which involved inspection of the buildings on site for the presence of hazardous materials, sampling of potential hazardous materials, and subsequent laboratory analysis for the relevant hazardous substances. In addition, this report provides recommendations for the safe management of hazardous materials during the demolition works.

## 1.2 Scope of Works

The aim of the HMS was to:

- Ascertain whether the buildings on site contained hazardous material(s), including;
  - Asbestos-containing materials (ACM);
  - Synthetic mineral fibre (SMF) materials;
  - Lead-based paint systems (LBP); and
  - Polychlorinated biphenyls (PCB) containing materials;
- Undertake a qualitative risk assessment of the hazardous materials contained within the buildings;
- Develop control strategies for the ongoing management of hazardous materials contained within the buildings;
- Identify and provide recommendations where remedial works are needed; and
- Prepare a report with the findings of the inspection, including the hazardous materials register and recommendations for the ongoing management or remedial works.

## 2. Site Description

### 2.1 Property Identification and Location

The site identification details and associated information are presented in **Table 2-1**.


**Table 2-1 Site Identification and Location**

Attribute	Description
Street Address	67 Mars Road, Lane Cove West NSW
Location Description	8.8 km north-west of Sydney CBD, bound by Mars Road (south), Sirius Road (west) and light industrial properties (north and east).
Site Coordinates	Northern-eastern corner of site (GDA2020-MGA56): <ul style="list-style-type: none"><li>▪ Easting: 328506.282;</li><li>▪ Northing: 6257444.238.</li></ul> (Source: <a href="http://maps.six.nsw.gov.au">http://maps.six.nsw.gov.au</a> )
Lots and Deposited Plans (DP)	Lot 10 in DP 1036457
Site Area	Approximately 9431 m <sup>2</sup> .

### 2.2 Building Descriptions

A brief description of each building/structure inspected is located in **Table 2-2**.

**Table 2-2 Building Descriptions**

Description	Photo
<b>67 Mars Road</b>  Contained a two-storey warehouse building. The building had a corrugated asbestos roof, brick / concrete external walls, brick / concrete / fibre cement sheeting internal walls, timber / metal / fibre cement sheeting / SMF ceilings and concrete / vinyl tile / wooden flooring. There were no additional structures on this property.	

### 3. General Methodology

The survey was conducted to identify the presence and condition of hazardous building materials within the site. For the purpose of this survey, hazardous building materials included:

- Asbestos containing materials (ACMs);
- Synthetic Mineral Fibre (SMF) insulation materials;
- Lead based paints (LBPs) applied to building surfaces; and
- Fluorescent light capacitor fittings, containing polychlorinated biphenyls (PCBs).

The scope of the survey was limited to inspection of the accessible building construction materials, including finishes and operational services, with the collection of representative samples suspected of containing a hazardous substance (listed above), where it was permissible to do so.

Due to the destructive nature of the sampling process or access constraints, it is not possible to collect samples of all (suspected) materials. Where it was not possible to collect a sample, the inspector used their professional experience to make a judgement on the status of the material, or area, concerned. Where the inspector believed the material could contain asbestos, LBP, SMF and/or PCB, this was recorded in the survey report and the corresponding material should be treated as hazardous.

#### 3.1 Asbestos

This component of the survey was carried out in accordance with the guidelines documented in the SafeWork NSW (2019) *How to Manage and Control Asbestos in the Workplace* and SafeWork NSW (2019) *How to Safely Remove Asbestos*. Below are definitions of the two forms of asbestos.

##### ***Non Friable asbestos material***

Non-friable (bonded) asbestos is any material that contains asbestos in a bonded matrix. It may consist of Portland cement or various resin/binders and cannot be crushed by hand when dry.

##### ***Friable asbestos material***

Friable asbestos is any material that contains asbestos and is in the form of a powder or can be crumbled, pulverized or reduced to powder by hand pressure when dry.

Samples of suspected ACMs were laboratory analysed for their asbestos content (presence / absence), in accordance with Australian Standard AS4964-2004 *Method for the Qualitative Identification of Asbestos in Bulk Samples*. The reporting limit of the method was 0.1 g/kg. Refer to **Appendix B** for the laboratory documentation.

#### 3.2 Lead in Paint

Painted surfaces were sampled and laboratory analysed for their lead (Pb) content. The sampling program was representative of the various types of paints found within the site, concentrating on areas where LBPs may have been used (e.g. exterior gloss paints, window and door architraves, skirting boards, etc.).

Australian Standard AS 4361.2-2017 *Guide to Lead Paint Management, Part 2: Lead Paint in Residential, Public and Commercial Buildings* defines LBP as a paint film or component coat of a paint system in which the lead content (calculated as lead metal) is in excess of 0.1% by weight of the dry film, as determined by laboratory testing. The NSW *Work Health and Safety*

*Regulation 2017* currently defines a lead process as works on paint containing more than 1.0% by dry weight of lead. Refer to **Appendix B** for the laboratory documentation.

### 3.3 Synthetic Mineral Fibres (SMF)

This component of the survey was carried out in accordance with the guidelines documented in the *Safe Work Australia Code of Practice for the Safe Use of Synthetic Mineral Fibres* [NOHSC: 2006 (1990)]. This code broadly identifies SMF materials found or suspected of being present during the survey based on a visual assessment.

### 3.4 Polychlorinated Biphenyls (PCBs)

Where safe access was gained, detailed information of capacitors in light fittings and other electrical equipment were noted for cross-referencing with the Australian and New Zealand Environmental and Conservation Council (ANZECC, 1997) *Identification of PCB Containing Capacitors Information Booklet*. This document defines PCB materials and wastes as follows:

<2 mg/kg	- PCB free.
2 mg/kg - <50 mg/kg	- Non-Scheduled PCB material or waste.
>50 mg/kg	- Scheduled PCB material or waste.
>100,000 mg/kg (10%)	- Concentrated PCB material

Due to the inherent hazard in accessing electrical components, or other reasons such as height restrictions, immovable equipment and furniture, some light fittings may not be safely accessed. In these instances, comment was made on the likelihood of PCB-containing materials, based upon age and appearance.

## 4. Risk Assessment

The building located at 67 Mars Road, Lane Cove West NSW was the subject of a Hazardous Materials Survey. The Hazardous Materials Register, presented in **Appendix A**, assesses the risks associated with each identified hazardous material. In order to assess the health risks associated with asbestos, LBP, SMF and PCBs the following must be considered:

- Product type;
- Friability of the material;
- Condition;
- Accessibility requirements for building and/or maintenance;
- Exposed surface area; and
- Surface treatment (if any).

The purpose of the material risk assessment is to establish the relative risk posed by specific hazardous building materials identified in this assessment. The following risk factors are defined to assist in determining the relative health risk posed by each item.

### 4.1 Friability

The friability of a material describes the ease by which the material can be crumbled, which in turn, can increase the release of fibres into the air. Therefore, friability is only applicable to asbestos and SMF.

- **Friable asbestos** can be crumbled, pulverised, or reduced to powder by hand pressure, which makes it more dangerous than non-friable asbestos.
- **Non-friable asbestos** is typically comprised of asbestos fibres tightly bound in a non-asbestos matrix. If accidentally damaged or broken these ACMs may release fibres initially but will not continue to do so.
- **Bonded SMF** describes a synthetic fibrous material which has a specific designed shape and exists within a stable manufactured product.
- **Un-bonded SMF** is a loosely packed synthetic fibrous material which has no adhesive or cementitious binding properties.
- **Friable lead based paints** exhibit signs of severe deterioration and crumbled, pulverised, or reduced to powder by hand pressure.
- **Non-friable lead based paints** have remained adhered to the surface and are not easily removed.

### 4.2 Condition

The condition of the hazardous building materials identified during the assessment is reported as being **good**, **fair** or **poor**.

- **Good** refers to a material that is in sound condition with no or very minor damage or deterioration.
- **Fair** refers to a material that is generally in a sound condition, with some areas of damage or deterioration.
- **Poor** refers to a material that is extensively damaged or deteriorated.

### 4.3 Accessibility

- **Regular:** in an occupied space of the building and accessible to all personnel using/entering the building.
- **Occasional:** buildings or rooms that are used infrequently.
- **Maintenance Only:** accessible to maintenance personnel only.

### 4.4 Priority Ratings

The risk elements above are used to rate the overall health risk posed by the presence of the hazardous materials:

#### ***Priority 1: Immediate Risk Level***

Materials which, due to their present condition and location, present an immediate health risk. The material and area surrounding should be isolated from personnel with remedial actions recommended to be undertaken at the earliest practicable time.

#### ***Priority 2: Elevated Risk Level***

Damaged or unstable materials which present an elevated health risk if disturbed to personnel within the vicinity, and have potential for contamination to be spread to other areas. The material should be stabilised immediately, with remedial actions considered for the material.

#### ***Priority 3: Low Risk Level***

Stable materials that have minor areas of damage requiring remedial action or are likely to be subject to damage or degrade due to environmental conditions. It is recommended that maintenance work be performed to stabilise and repair damaged areas. Controls should be implemented to protect these materials from further damage or degrading factors.

#### ***Priority 4: Negligible Risk Level***

Stable materials that present a negligible health risk unless damaged. These materials should be maintained in good condition. They should be reassessed prior to any works that will impact the material.

#### ***Inaccessible:***

The location was not accessed during the survey and a priority rating could not be applied. Once a location is accessed, the priority rating should be reassessed prior to any works at will be undertaken in this location.

## 5. Summary of Results

Based on the inspection of the structural materials making up the building designated for demolition, the identified hazardous materials are summarised in **Table 5-1**. Handling recommendations and material specific work plans are outlined in **Section 6**. Photographs of the identified materials are presented in the register in **Appendix A**.

**Table 5-1 Summary Hazardous Materials**

Building	Location	Material Description
<b>67 Mars Road, Lane Cove West (External)</b>	Internal, several rooms (Lane Cove Return and Earn office areas)	Potential hazardous materials
	Roof	Corrugated asbestos cement sheeting
	Roof, gutters and down-pipe	Fibrous residue sourced from the roof
	Eaves	Asbestos cement sheeting
	Walls	Asbestos cement sheeting
	Building surroundings, floor debris	Asbestos cement sheeting
	Doors, eaves and frames	Green LBP
	Substations	PCB containing capacitor
	Celling	PCB containing single tube fluorescent light fittings (assumed)
<b>67 Mars Road, Lane Cove West (Internal)</b>	First floor - Internal, subfloor and ceiling spaces	Potential hazardous materials
	First floor - Infill panels (warehouse area)	Asbestos cement sheeting
	First floor – Walls and support beam ceiling (warehouse area)	White spongy fibrous material
	First floor – Ceiling building edges (warehouse area)	Grey spongy fibrous material
	First floor - Electrical switchboard	Back board and millboard
	First floor – Fire door	Inner core – fire proofing
	First floor – Safe door	Inner core – fire proofing
	First floor - Air conditioning (warehouse area)	SMF insulation
	First floor - Ceiling (warehouse area)	SMF insulation
	First floor - Ceiling tiles (office area)	Compressed SMF
	First floor – Ceiling building edges (warehouse)	SMF Grey spongy fibrous material
	First floor - Doors	LBP
	First floor - Ceiling	PCB containing single tube fluorescent light fittings (assumed)
	First floor - Electrical switchboard	PCB containing capacitor

Building	Location	Material Description
	Second floor - Internal, subfloor and ceiling spaces	Potential hazardous materials
	Second floor - Internal, several rooms	Potential hazardous materials
	Second floor - Floor (bathroom)	Grey vinyl floor tile
	Second floor - Beneath wooden	Grey vinyl floor tile
	Second floor - Ceiling (office area)	Compressed SMF
	Second floor – Ceiling (bathroom)	White LBP
	Second floor - Ceiling (office area)	PCB containing single tube fluorescent light fittings
	Second floor - Electrical switchboard	PCB containing capacitor

Note 1 Hazardous materials may be present within any inaccessible area stated in the register in **Appendix A**.

## 6. Recommendations

### 6.1 Asbestos

Asbestos materials should be removed prior to the commencement of any demolition works that may cause their disturbance. The removal of these materials is to be done in accordance with *NSW Work Health and Safety Act and Regulations 2017* and the following SafeWork NSW approved codes of practice:

- SafeWork NSW (2019) *How to Manage and Control Asbestos in the Workplace*; and
- SafeWork NSW (2019) *How to Safely Remove Asbestos*

The asbestos removal works require a minimum Class A licenced asbestos removal contractor. At the completion of asbestos removal works a clearance certificate is required.

Results from improper demolition practices associated with non-friable which can elevate the classification of the materials identified within the buildings or extend the areas required to be remediated.

The following recommendations must be observed as minimum requirements during the removal of all ACM.

- The work area should be barricaded and appropriate signage installed.
- The ACM should be sealed or wetted with water.
- ACM should be removed with minimal breakage and where applicable, should be lowered to the ground not dropped.
- Where ACMs are too large to fit into an asbestos labelled waste bag, the ACM should be stacked or placed on a 200µm plastic ground sheet or lined skip bin and not allowed to lie about the site where they may be further broken or crushed by machinery or workers.
- Asbestos waste is to be securely packaged and labelled. Asbestos waste bags are to be double bagged while ACM in polythene sheeting should be double wrapped with adhesive tape applied to the entire length of every overlap to secure materials to minimise the risk of the polythene sheeting tearing or splitting.

- Any dust and/or ACM debris remaining around the removal area should be cleaned up using an approved “H” type HEPA vacuum cleaner.
- All asbestos containing waste is to be disposed at an approved disposal facility (contact local council or SafeWork NSW for nearest asbestos waste facility).

Where asbestos is to be removed, the licenced asbestos removal contractor should prepare an asbestos removal control plan prior to undertaking any removal works.

#### **6.1.1 Asbestos Removal Control Plan**

A site-specific Asbestos Removal Control Plan (ARCP) must be prepared by the Asbestos Removalist Contactor to document the management measures required to address the risks associated with potential exposure to asbestos. The ARCP must cover:

- Work area isolation (barrier protection, buffer zone);
- Removal methods (friable/non-friable);
- Contamination control methods (decontamination procedures); and
- Health and safety procedures (respiratory protection).

Asbestos removal works at the site, including the disturbance of any asbestos-impacted soils, must be managed strictly in accordance with the ARCP.

#### **6.1.2 Asbestos Fibre Air Monitoring**

There is no requirement to undertake asbestos fibre air monitoring during the removal of the non-friable asbestos materials on the boundary of the work areas. However as a matter of due diligence asbestos fibre air monitoring is recommended to be undertaken on the boundary of the work areas. Asbestos fibre air monitoring is required during friable asbestos removal works. Asbestos fibre air monitoring is required to be undertaken by a company independent of the demolition and /or asbestos removal company. The asbestos fibre air monitoring should be undertaken by a company that is NATA (National Association of Testing Authorities) accredited.

#### **6.1.3 Asbestos Roofing**

The composition of the asbestos cement products used in roofing is a mixture of Portland cement, sand, binders and various combinations of both asbestos and non-asbestos fibres. The fibres are bound within the cement matrix and cannot be released in significant airborne quantities unless the cement matrix is severely disrupted.

Asbestos roofing is prone to weathering, where the surface is exposed to the elements causing long term slow degradation. During this degradation the growth of lichens on the external surface of the roof is common, with the lichens adding to the erosion of the cement matrix. Once the cement matrix begins to be eroded from the surface of the sheeting, asbestos fibres are exposed. Consequently, the weathered surface of the sheet has a thin friable layer of asbestos and lichen.

The presence of asbestos fibres does not constitute a measurable asbestos related health risk to the occupants of buildings. The health effects associated with exposure to asbestos fibres are due to inhalation of airborne asbestos fibres in the respirable size range, generally caused by severe disruption of fibres (eg. Using power tools to cut asbestos products).

However, slough/erosion of fibre from the weathered surface of the roof sheets results in the accumulation of asbestos laden dusts under the lap joints (of the sheets) and in the gutters, etc. The amount of erosion of asbestos from the exposed surface of the sheet is dependent on the level of surface degradation and environmental factors (e.g. heavy rain and hail). The stormwater run-off from roofs clad with weathered cement sheeting can be heavily contaminated with free asbestos fibres (particularly following periods of heavy rain and hail), resulting in accumulation at the bottom of down pipes and in gutters.

## Site Roof Conditions

The roof contained damages to localised areas. The drainage system is likely to drain directly from the asbestos cement sheet roof to the ground surfaces and there is unlikely to be a significant presence of free asbestos fibres within gutter deposits. Please remain diligent around surfaces adjacent to the corrugated asbestos roofing.

### 6.1.4 Management of Asbestos Waste

The transportation and management of asbestos waste must be carried out in accordance with Part 7 of the *Protection of the Environment Operations (Waste) Regulation 2014*, which includes:

- Appropriate packaging, sealing, covering and/or wetting of the waste, as is required for the form of the asbestos contamination (i.e. bonded asbestos, friable asbestos or asbestos-contaminated soil);
- Reporting on transportation of asbestos waste by the transporter to the NSW EPA as required under Part 7, Section 79 of the *Waste Regulation 2014*; and

Disposal to an appropriately licensed (i.e. lawful) premises, with proper advice to the occupier of the premises, while incorporating measures for the prevention of dust generation, in accordance with Part 7, Section 80 of the *Waste Regulation 2014*.

Any ACM removed from the site should be tracked from the time of their removal from the structure until their disposal. Tracking of all ACM should be completed on the EPAs WasteLocate system. This system will require all details of the ACM to be transported, including but not limited to:

- Origin of material;
- Material type;
- Approximate volume; and
- Truck registration number.

Disposal locations will be determined by the remediation contractor. Disposal location, waste disposal documentation (i.e. weighbridge dockets, trip tickets and consignment disposal confirmation) and the above listed information should be provided to the remediation consultant for reporting purposes.

### 6.1.5 Asbestos Clearance Inspection

Under Clause 473 of the *NSW Work Health and Safety Regulation 2017*, a clearance inspection is required following the removal of any ACM by a competent person. A clearance inspection is to be carried out and a clearance certificate issued before the area can be re-occupied, following removal works. The company undertaking the clearance inspection should be independent of the demolition and / or asbestos removal company.

## 6.2 Synthetic Mineral Fibres

SMF materials should be removed during any demolition works that may cause their disturbance. SMF materials must be handled and removed in accordance with the *NSW Work Health and Safety Regulation 2017* and the *Safe Work Australia Synthetic Mineral Fibres National Standard* (NOHSC:1004) and *National Code of Practice* (NOHSC:2006).

The following guidance documents should be consulted for guidance regarding removal and disposal of SMF:

- *National Standard for the Safe Use of Synthetic Mineral Fibres* [NOHSC:1004 (1990)];

- *National Code of Practice for the Safe Use of Synthetic Mineral Fibres* [NOHSC:2006 (1990)]; and
- *Code of Practice for the Safe Use of Synthetic Mineral Fibres* (NOHSC, 1993).

These documents should be referred to for the disposal SMF materials. Under the EPA (2014) *Waste Classification Guidelines*, “synthetic fibre waste from materials such as fibreglass, polyesters and other plastics, being waste that is packaged securely to prevent dust emissions, but excluding asbestos waste which is a special waste”, is pre-classified as *General Solid Waste (Non Putrescible)*.

### 6.3 Polychlorinated Biphenyl Capacitors

All metal-cased capacitors, including fluorescent light fittings, should be assumed as containing PCBs. Any leaking PCB-containing capacitors identified should be removed and disposed prior to the commencement of any demolition works that may cause their disturbance.

The following recommendations must be observed when removing / handling PCB containing capacitors.

- Small quantities of PCBs are usually found in sealed containers known as capacitors. PCB-containing capacitors are unlikely to pose a health risk unless they become damaged and leak. Care must be taken when handling a damaged capacitor to ensure that spillage does not occur.
- The person handling any (damaged) capacitor should use disposable gloves. Wear gloves that are made of materials that are resistant to PCBs, such as Viton, polyethylene, polyvinyl alcohol (PVA), polytetrafluoroethylene (PTFE), butyl rubber, nitrile rubber or neoprene. Mid-arm length gauntlets may be required. Do not use gloves made of polyvinyl chloride (PVC) or natural rubber (latex).
- Wear disposable overalls made of Tyvek or materials with similar chemical resistant properties.
- When working with overhead equipment (e.g. fluorescent light fixtures), wear a full face shield and appropriate hair protection.
- Wash any non-disposable contaminated equipment with kerosene and collect the kerosene for disposal as a PCB-contaminated waste.
- PCB-containing equipment (capacitors, ballasts, etc.) is to be placed in a polyethylene bag, which then is to be placed in a sealable metal container. This container must be clearly marked with the details of the contents and must be maintained in good order (that is, no visible signs of damage or corrosion). If some of these materials are leaking, the container should be partially filled with an absorbent material, such as a commercial absorbent, kitty litter or a diatomaceous earth. The plastic wrapped leaking components can then be placed in the container.
- If PCB vapours are suspected (e.g. PCB leaks onto a hot surface in a confined space), wear a suitable respirator. Use a cartridge respirator suitable for chlorinated vapours. It is always prudent to ensure adequate ventilation. NOTE: PCBs do not vaporise readily at room temperature.
- Do not smoke while handling PCB capacitors.
- After handling PCBs, even if gloves were worn, wash hands well in warm, soapy water before eating, drinking, smoking, handling food or drink, or using toilet facilities.

PCB capacitors are to be disposed at a licenced waste facility. If PCB concentration is above the threshold concentration for PCBs scheduled waste (i.e. >50mg/kg), the waste must be also be transported by a suitably licenced contractor. For further details on this, contact the NSW EPA.

## 7. Statement of Limitations

This report has been prepared by EI Australia (EI) pursuant to EI Australia's Terms and Conditions.

The report is for the sole use by Lane Cove West Development Pty Ltd. No responsibility is accepted for the use of any part of this report in any other context or for any other purpose or by other third parties. This report does not purport to provide legal advice. This report is prepared in response to specific instructions from Lane Cove West Development Pty Ltd.

Unless otherwise stated in this report, the survey evaluates the presence of hazardous materials in/on the building(s) of the identified site, and excludes buried waste materials, contaminated dusts, and soils. The findings presented in this report are the result of a site walkover inspection, sampling, laboratory analysis, interviews with site personnel, and review of any documentation provided to EI. To the best of EI's knowledge, and in view of these limitations, the findings presented in this report represent a reasonable interpretation of the building materials on the site at the time of investigation.

This report relies upon data, surveys, measurements, and/or results taken at, or under, the particular times and conditions specified in this report. Any conclusions or recommendations only apply to the findings at that particular time.

EI is not a professional quantity surveyor (QS) organisation. Any areas, volumes, tonnages or any other quantities noted in this report are indicative estimates only. The services of a professional QS organisation should be engaged if quantities are to be relied upon.

The report should not be separated or reproduced in part, and EI should be retained to assist other professionals who may be affected by the issues addressed in this report to ensure the report is not misused in any way. In the interests of Work Health and Safety, and in the absence of a comprehensive testing program, EI recommends that where there is doubt over the composition of any suspect material, it should be assumed to contain asbestos until verified otherwise by appropriate analysis.

This report must be read in its entirety, and must not be copied, distributed or referred to in part. This report is not intended to be used for the purpose of tendering, preparation of costing or budgets, programming of works, refurbishment works or demolition works, unless expressly stated. The report must not be reproduced without the written approval of EI.

This report was conducted by trained personnel who have exercised reasonable care, skill and diligence. However, except for any non-excludable statutory provision, EI gives no warranty in relation to its services or the report, and is not liable for any loss, damage, injury or death suffered by any party (whether caused by negligence or otherwise) arising from or relating to the services or the use or otherwise of this report. All conclusions and recommendations made in this report are of the professional opinions of EI personnel involved with the project, and while normal checking of the accuracy of data has been conducted, any circumstances outside the scope of this report, or which are not made known to EI personnel, and which may impact on those opinions, are not the responsibility of EI.

### **Inaccessible areas**

It is noted that given the constraints of practicable access encountered during the HMS, the following areas were not accessed or inspected:

- Wall cavities and set ceilings;
- Fire doors;
- Ceiling voids;
- Within those areas accessible only by dismantling equipment;
- Concealed within the building structure;
- Within voids or internal areas of plant, equipment, air-conditioning ducts, etc;
- Energised services, gas, electrical, and pressurised vessels;
- Areas deemed unsafe or hazardous at time of inspection;
- Within totally inaccessible areas such as voids and cavities created and intimately concealed within the building structure. These voids are only accessible during major demolition works; and
- Height restricted areas, including building roof areas.

Should demolition operations entail disturbance of materials in these locations, further investigation and sampling of specific areas should be conducted as part of an asbestos and lead management and abatement program, as per 'AS 2601-2001: The Demolition of Structures', prior to any works proceeding.

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## Appendix A - Hazardous Materials Register

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**Table A.1 Key and Explanatory Notes to Hazardous Building Material Register**

Column Heading	Description
Location	A detailed description of the location of the hazardous building material relevant to this entry.
Material Type	<p>The specific hazardous building material type, e.g.</p> <p>Asbestos: asbestos cement sheet, corrugated asbestos cement sheet, vinyl asbestos tiles, etc.</p> <p>SMF: foil backed SMF, compressed SMF ceiling tiles, SMF insulation to upper surface of ceiling, etc.</p> <p>Paint: Beige coloured lead-based paint system.</p> <p>PCB: Metal case capacitor 'Plessey 6.5 µF Type APF 265CR'.</p> <p><b><i>If inaccessible areas are noted, any of the above material types may be present.</i></b></p>
Friability	If the material can be crushed to a powder by hand pressure.
Sample	Sample Reference number allocated to the sample collected from this material.
Results	Laboratory analytical results. Refer to <b>Appendix B</b> for laboratory analytical reports.
Quantity	The approximate quantity of hazardous building material relevant to this location. Depending on the nature of the material, the quantity is given as an area (m <sup>2</sup> ), length (m), number of pieces/units or not determined (ND).
Condition	<p><b>Good:</b> good and stable condition.</p> <p><b>Fair:</b> early signs of deterioration or localised areas of damage. For PCB capacitors this would include evidence of seals deteriorating.</p> <p><b>Poor:</b> the material is in poor condition and remedial action is required, e.g. deteriorated friable asbestos materials, capacitors are leaking, etc.</p> <p><b>Unknown:</b> the area was inaccessible</p>
Accessibility	<p><b>Regular:</b> in the occupied space of the building and accessible to all personnel using/entering the building.</p> <p><b>Occasional:</b> buildings or rooms that are used infrequently.</p> <p><b>Maintenance Only:</b> accessible to maintenance personnel only.</p> <p><b>Inaccessible:</b> the area was not able to be accessed during the inspection.</p>
Risk Rating	<p>The allocated priority rating for this entry, refer Section 4.4.</p> <p>If the location was not accessible the risk rating is not able to be determined and shall be listed as inaccessible.</p>
Recommendations	Recommended actions for demolition works or damaged material.
Photograph	Photograph of location where sample was taken.

Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW


Location	Material Type	Friability	Sample	Analysis Result:	Quantity	Condition and Accessibility	Priority	Recommendations/ Comments	Photograph of material
External									
Inaccessible/Limited Access									
Internal, several rooms (Lane Cove Return and Earn office areas)	Potential hazardous materials	Unknown	Inaccessible	-	Not determined	Unknown Regular	Unknown	Inaccessible at the time of inspection. When areas are accessible, confirm status of hazardous materials.	
Asbestos									
Hydrant Booster (western site boundary)	Bituminous material	Non-friable	A1	No asbestos detected	-	-	-	-	
Roof	Corrugated asbestos cement sheeting	Non-friable	Visual inspection (positive)	-	Throughout	Fair Regular and Maintenance Only	Priority 3: Low Risk Level	Remove prior to demolition works	
Roof, gutters and down pipes	Fibrous residue sourced from the roof	Friable	Visual inspection (positive)	-	Throughout	Fair Regular and Maintenance Only	Priority 3: Low Risk Level	Remove prior to demolition works	

Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW


Eaves	Asbestos cement sheeting	Non-friable	Visual inspection (positive)	-	<50m <sup>2</sup>	Good Maintenance only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Window frame	Putty	Non-friable	A11	No asbestos detected	-	-	-	-	
Walls	Asbestos cement sheeting	Non-friable	Visual inspection (positive)	-	Throughout	Good Regular	Priority 3: Low Risk Level	Remove prior to demolition works	
Building surroundings, floor debris	Asbestos cement sheeting debris	Non-friable	Visual inspection (positive)	-	Unknown	Good Regular	Priority 4: Negligible Risk Level	Remove prior to demolition works	
SMF									
-	-	-	-	-	NA	NA	NA	NA	


Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW

Paints




Doors, eaves and frames	Green LBP	Not flaking	Visual inspection (positive)	-	Throughout	Good Regular and Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
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PCBs





Substations (southern site boundary)	PCB containing capacitor	NA	Visual inspection (positive)	-	2 Units	Good Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works (if required)	
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Ceiling	PCB containing single tube fluorescent light fittings	NA	Visual Inspection (positive)	-	2 Units	Fair Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
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Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW

Location	Material Type	Friability	Sample	Analysis Result:	Quantity	Condition and Accessibility	Priority	Recommendations/ Comments	Photograph of material
Internal - First floor									
Inaccessible/Limited Access									
Internal, subfloor and ceiling spaces	Potential hazardous materials	Unknown	Inaccessible	-	Not determined	Unknown Maintenance only	Unknown	Inaccessible at the time of inspection due to height restriction and safety concerns.  When areas are accessible, confirm status of hazardous materials.	
Asbestos									
Infill panels (warehouse area)	Asbestos cement sheeting	Non-friable	Visual inspection (positive)	-	NA	Fair Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
	Asbestos cement sheeting	Non-Friable	A3	Amosite, Chrysotile & Crocidolite Asbestos Detected	NA	Fair Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
	Walls and support beam ceiling (warehouse area)	White spongy fibrous material	A2	No asbestos detected	Throughout	-	-	-	

Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW

Ceiling building edges (warehouse area)	Grey spongy fibrous material	Friable	A4	No asbestos detected SMF detected	Throughout	Fair Regular and Maintenance Only	Priority 3: Low Risk Level	Remove prior to demolition works	
Floor (warehouse area)	Sealant	Non-friable	A5	No asbestos detected	<20m <sup>2</sup>	-	-	-	
Floor – (office area)	Grey vinyl floor tile	Non-friable	A6	No asbestos detected	<50m <sup>2</sup>	-	-	-	
Electrical switchboard	Back board and millboard	Non-friable	Visual inspection (positive)	-	6 Units	Good Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	


Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW

Fire Door	Inner core – fire proofing	Friable	Visual inspection (positive)	-	2 Units	Good Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Safe Door	Inner core – fire proofing	Friable	Visual inspection (positive)	-	1 Units	Good Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
SMF									
Air conditioning (warehouse area)	SMF insulation	NA	Visual inspection (positive)	-	NA	Good Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	

Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW

Ceiling (warehouse area)	SMF insulation	NA	Visual inspection (positive)	-	NA	Good Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Ceiling (office area)	Compressed SMF	NA	Visual inspection (positive)	-	Throughout	Fair Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Ceiling building edges (warehouse area)	Grey spongy fibrous material	Friable	A4	No asbestos detected SMF detected	Throughout	Fair Regular and Maintenance Only	Priority 3: Low Risk Level	Remove prior to demolition works	

Paints

Doors	LBP	Not flaking	Visual Inspection (positive)	-	Throughout	Good Regular and Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
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Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW



PCBs

Ceiling	PCB containing single tube fluorescent light fittings	NA	Visual Inspection (positive)	-	Throughout	Good Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Electrical switchboard	PCB containing capacitor	NA	Visual Inspection (positive)	-	6 Units	Fair to Good Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	

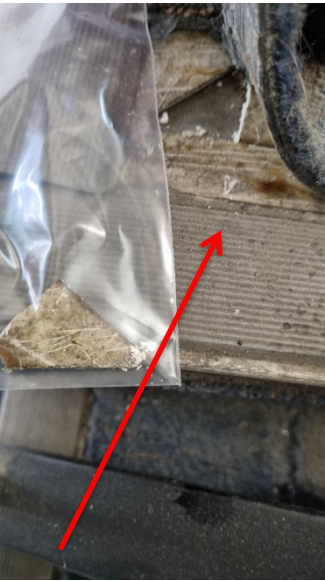
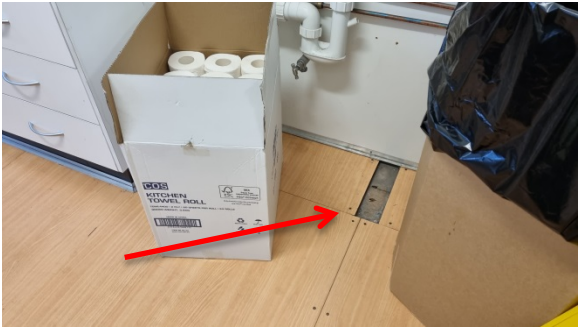


Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW

Location	Material Type	Friability	Sample	Analysis Result:	Quantity	Condition and Accessibility	Priority	Recommendations/ Comments	Photograph of material
Internal - Second floor									
Inaccessible/Limited Access									
Internal, subfloor and ceiling spaces	Potential hazardous materials	Unknown	Inaccessible	-	Not determined	Unknown Maintenance only	Unknown	Inaccessible at the time of inspection due to height restriction and safety concerns.  When areas are accessible, confirm status of hazardous materials.	
Internal, several rooms	Potential hazardous materials	Unknown	Inaccessible	-	Not determined	Unknown Regular	Unknown	Inaccessible at the time of inspection due to rubbish and safety concerns.  When areas are accessible, confirm status of hazardous materials.	

Asbestos


Floor (bathroom)	Grey vinyl floor tile	Non-friable	Visual inspection (positive)	-	<20m <sup>2</sup>	Fair Regular and Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Floor (cleaning room)	Cream vinyl floor tile	Non-friable	A7	No asbestos detected	<10m <sup>2</sup>	-	-	-	

Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW


Beneath carpet	Cream vinyl floor tile	Non-friable	A8	No asbestos detected	NA	-	-	-	
Beneath wooden floor	Grey vinyl floor tile	Non-friable	A9	No asbestos detected	NA	-	-	-	
Floor (kitchen)	White vinyl floor tile	Non-friable	A10	No asbestos detected	<10m <sup>2</sup>	-	-	-	
SMF									
Ceiling (office area)	Compressed SMF	NA	Visual inspection (positive)	-	Throughout	Fair Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	


Hazardous Materials Register  
67 Mars Road, Lane Cove West NSW

Paints

Ceiling (bathroom)	White LBP	Flaking	P1	0.049%w/w	<10m <sup>2</sup>	-	-	-	
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PCB

Ceiling	PCB containing single tube fluorescent light fittings	NA	Visual Inspection (positive)	-	Throughout	Good Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
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Electrical switchboard	PCB containing capacitor	NA	Visual Inspection (positive)	-	6 Units	Fair to Good Maintenance Only	Priority 4: Negligible Risk Level	Remove prior to demolition works	
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## Appendix B - Laboratory Documents

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Sheet 1 of 1						Sample Matrix				Analysis																	Comments
Site: 67 Mars Rd. Lane Cove					Project No: E25663																				HM <sup>A</sup> Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc  HM <sup>B</sup> Arsenic Cadmium Chromium Lead Mercury Nickel		
Laboratory:		SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499																									
Sample ID	Laboratory ID	Container Type	Sampling Date      Time		SOIL	WATER	0.45 µm field filtered	OTHER	HM <sup>A</sup> /TRH/BTEX/PAHs OC/OP/PCB/Asbestos	HM <sup>A</sup> /TRH/BTEX/PAHs	HM <sup>A</sup> /TRH/BTEX	BTEx	VOCs	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	Leach	TCLP HM <sup>B</sup> / PAH	
A1	1	ZUB	31/5/22 PM					X						X													
A2	2																										
A3	3																										
A5	4																										
A6	5																										
A7	6																										
A8	7																										
A9	8																										
A10	9																										
A11	10																										
P1	11																										
Container Type: J = solvent washed, acid rinsed, Teflon sealed glass jar S = solvent washed, acid rinsed glass bottle P = natural HDPE plastic bottle VC = glass vial, Teflon Septum ZLB = Zip-Lock Bag					Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.											Report with EI Waste Classification Table <input type="checkbox"/>											
Suite 6.01, 55 Miller Street, PYRMONT NSW 2009 Ph: 9516 0722 lab@eiaustralia.com.au  eiaustralia Contamination   Remediation   Geotechnical  COC March 2018 FORM v5 - SGS					Sampler's Name (EI):					Received by (SGS):					Sampler's Comments:												
					Print [Signature]					Print [Signature]																	
					Signature [Signature]					Signature [Signature]																	
					Date 1/6/22					Date 1/6/22 1:40																	
					IMPORTANT: Please e-mail laboratory results to: lab@eiaustralia.com.au																						



## SAMPLE RECEIPT ADVICE

SE232650

### CLIENT DETAILS

Contact Li Wei  
Client EIAUSTRALIA  
Address SUITE 6.01  
55 MILLER STREET  
PYRMONT NSW 2009  
  
Telephone 61 2 95160722  
Facsimile (Not specified)  
Email li.wei@eiaustralia.com.au  
  
Project **E25663 67 Mars Rd, Lane Cove**  
Order Number **E25663**  
Samples 11

### 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  
  
Samples Received Wed 1/6/2022  
Report Due Mon 6/6/2022  
SGS Reference **SE232650**

### SUBMISSION DETAILS

This is to confirm that 11 samples were received on Wednesday 1/6/2022. Results are expected to be ready by COB Monday 6/6/2022. Please quote SGS reference SE232650 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provided	SGS	Sample cooling method	None
Samples received in correct containers	Yes	Sample counts by matrix	10 Material 1 Paint
Date documentation received	1/6/2022	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	N/A
Sample temperature upon receipt	19.1°C	Sufficient sample for analysis	Yes
Turnaround time requested	Three days		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

### COMMENTS

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## SAMPLE RECEIPT ADVICE

SE232650

### CLIENT DETAILS

Client **EI AUSTRALIA**

Project **E25663 67 Mars Rd, Lane Cove**

### SUMMARY OF ANALYSIS

No.	Sample ID	Fibre ID in bulk materials	Metals in Paint by ICPOES
001	A1	1	-
002	A2	1	-
003	A3	1	-
004	A5	1	-
005	A6	1	-
006	A7	1	-
007	A8	1	-
008	A9	1	-
009	A10	1	-
010	A11	1	-
011	P1	-	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .

## CLIENT DETAILS

Contact Li Wei  
 Client EI AUSTRALIA  
 Address SUITE 6.01  
 55 MILLER STREET  
 PYRMONT NSW 2009  
 Telephone 61 2 95160722  
 Facsimile (Not specified)  
 Email li.wei@eiaustralia.com.au  
 Project **E25663 67 Mars Rd, Lane Cove**  
 Order Number **E25663**  
 Samples 11

## 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 **SE232650 R0**  
 Date Received 01 Jun 2022  
 Date Reported 06 Jun 2022

## COMMENTS

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

Samples # 1,4-10 : No trace asbestos fibres detected using trace analysis technique.  
 Asbestos analysed by Approved Identifier Ravee Sivasubramaniam .

## SIGNATORIES



Bennet LO  
 Senior Chemist



Ravee SIVASUBRAMANIAM  
 Hygiene Team Leader

			Sample Number	SE232650.001	SE232650.002	SE232650.003	SE232650.004
			Sample Matrix	Material	Material	Material	Material
			Sample Date	31 May 2022	31 May 2022	31 May 2022	31 May 2022
			Sample Name	A1	A2	A3	A5
Parameter	Units	LOR					

## Fibre ID in bulk materials Method: AN602 Tested: 6/6/2022

FibreID

Asbestos Detected	No unit	-	No	No	Yes	No
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## Metals in Paint by ICPOES Method: AN065/AN320 Tested: 6/6/2022

Lead, Pb	%w/w	0.001	-	-	-	-
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			Sample Number	SE232650.005	SE232650.006	SE232650.007	SE232650.008
			Sample Matrix	Material	Material	Material	Material
			Sample Date	31 May 2022	31 May 2022	31 May 2022	31 May 2022
			Sample Name	A6	A7	A8	A9
Parameter	Units	LOR					

## Fibre ID in bulk materials Method: AN602 Tested: 6/6/2022

FibreID

Asbestos Detected	No unit	-	No	No	No	No
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## Metals in Paint by ICPOES Method: AN065/AN320 Tested: 6/6/2022

Lead, Pb	%w/w	0.001	-	-	-	-
----------	------	-------	---	---	---	---

			Sample Number	SE232650.009	SE232650.010	SE232650.011
			Sample Matrix	Material	Material	Paint
			Sample Date	31 May 2022	31 May 2022	31 May 2022
			Sample Name	A10	A11	P1
Parameter	Units	LOR				

**Fibre ID in bulk materials** Method: AN602 Tested: 6/6/2022

FibreID						
Asbestos Detected	No unit	-	No	No	No	-

**Metals in Paint by ICPOES** Method: AN065/AN320 Tested: 6/6/2022

Lead, Pb	%w/w	0.001	-	-	0.049
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MB blank results are compared to the Limit of Reporting

LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.

DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

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

Parameter	QC Reference	Units	LOR	MB	LCS %Recovery
Lead, Pb	LB250199	%w/w	0.001	<0.001	106%

## 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

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

Fibres/material that cannot be unequivocally 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

AS4964.2004 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

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	NATA accreditation does not cover the performance of this service.	QFH	QC result is above the upper tolerance
**	Indicative data, theoretical holding time exceeded.	QFL	QC result is below the lower tolerance
***	Indicates that both * and ** apply.	-	The sample was not analysed for this analyte
		NVL	Not Validated

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:

- 1 Bq is equivalent to 27 pCi
- 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](http://www.sgs.com.au/en-gb/environment-health-and-safety).

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## STATEMENT OF QA/QC PERFORMANCE

SE232650 R0

### CLIENT DETAILS

Contact Li Wei  
Client EI AUSTRALIA  
Address SUITE 6.01  
55 MILLER STREET  
PYRMONT NSW 2009  
  
Telephone 61 2 95160722  
Facsimile (Not specified)  
Email li.wei@eiaustralia.com.au  
  
Project **E25663 67 Mars Rd, Lane Cove**  
Order Number **E25663**  
Samples 11

### 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 **SE232650 R0**  
Date Received 01 Jun 2022  
Date Reported 06 Jun 2022

### 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

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

### Fibre ID in bulk materials

Method: ME-(AU)-[ENV]AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
A1	SE232650.001	LB250218	31 May 2022	01 Jun 2022	31 May 2023	06 Jun 2022	31 May 2023	06 Jun 2022
A2	SE232650.002	LB250218	31 May 2022	01 Jun 2022	31 May 2023	06 Jun 2022	31 May 2023	06 Jun 2022
A3	SE232650.003	LB250218	31 May 2022	01 Jun 2022	31 May 2023	06 Jun 2022	31 May 2023	06 Jun 2022
A5	SE232650.004	LB250218	31 May 2022	01 Jun 2022	31 May 2023	06 Jun 2022	31 May 2023	06 Jun 2022
A6	SE232650.005	LB250218	31 May 2022	01 Jun 2022	31 May 2023	06 Jun 2022	31 May 2023	06 Jun 2022
A7	SE232650.006	LB250218	31 May 2022	01 Jun 2022	31 May 2023	06 Jun 2022	31 May 2023	06 Jun 2022
A8	SE232650.007	LB250218	31 May 2022	01 Jun 2022	31 May 2023	06 Jun 2022	31 May 2023	06 Jun 2022
A9	SE232650.008	LB250218	31 May 2022	01 Jun 2022	31 May 2023	06 Jun 2022	31 May 2023	06 Jun 2022
A10	SE232650.009	LB250218	31 May 2022	01 Jun 2022	31 May 2023	06 Jun 2022	31 May 2023	06 Jun 2022
A11	SE232650.010	LB250218	31 May 2022	01 Jun 2022	31 May 2023	06 Jun 2022	31 May 2023	06 Jun 2022

### 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
P1	SE232650.011	LB250199	31 May 2022	01 Jun 2022	27 Nov 2022	06 Jun 2022	27 Nov 2022	06 Jun 2022

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 identifier 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.



METHOD BLANKS

SE232650 R0

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
LB250199.001	Lead, Pb	%w/w	0.001	<0.001

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier 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

No duplicates were required for this job.



## LABORATORY CONTROL SAMPLES

SE232650 R0

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 %
LB250199.002	Lead, Pb	%w/w	0.001	0.011	0.01035	70 - 130	106

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 identifier 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 are calculated as Relative Percent Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the

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](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.

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## CLIENT DETAILS

Contact Li Wei  
 Client EI AUSTRALIA  
 Address SUITE 6.01  
 55 MILLER STREET  
 PYRMONT NSW 2009

Telephone 61 2 95160722  
 Facsimile (Not specified)  
 Email li.wei@eiaustralia.com.au

Project **E25663 67 Mars Rd, Lane Cove**  
 Order Number **E25663**  
 Samples 10

## 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 **SE232650 R0**  
 Date Received 01 Jun 2022  
 Date Reported 06 Jun 2022

## COMMENTS

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

Samples # 1,4-10 : No trace asbestos fibres detected using trace analysis technique.  
 Asbestos analysed by Approved Identifier Ravee Sivasubramaniam .

## SIGNATORIES



Ravee SIVASUBRAMANIAM  
 Hygiene Team Leader

### RESULTS

Fibre ID in bulk materials

Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE232650.001	A1	Other	40x10x3mm Bituminous Material	31 May 2022	No Asbestos Detected Organic Fibres Detected	
SE232650.002	A2	Other	Approx 15g White Spongy Fibrous Material	31 May 2022	No Asbestos Detected Synthetic Mineral Fibres Detected	
SE232650.003	A3	Other	15x5x3mm Cement Sheet Fragment	31 May 2022	Amosite, Chrysotile & Crocidolite Asbestos Detected	
SE232650.004	A5	Other	20x10x4mm Bituminous Fragment	31 May 2022	No Asbestos Detected Organic Fibres Detected	
SE232650.005	A6	Other	50x15x2mm Vinyl Tile Fragment	31 May 2022	No Asbestos Detected	
SE232650.006	A7	Other	35x20x2mm Vinyl Tile Fragment	31 May 2022	No Asbestos Detected	
SE232650.007	A8	Other	30x25x2mm Vinyl Tile Fragment	31 May 2022	No Asbestos Detected	
SE232650.008	A9	Other	20x10x2mm Vinyl Tile Fragment	31 May 2022	No Asbestos Detected	
SE232650.009	A10	Other	65x20x2mm Vinyl Tile Fragment	31 May 2022	No Asbestos Detected	
SE232650.010	A11	Other	25x10x3mm Putty Fragment	31 May 2022	No Asbestos Detected	

## METHOD

## METHODOLOGY SUMMARY

AN602	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	Fibres/material that cannot be unequivocally 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	AS4964.2004 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.
Amphiboles	-	Amosite and/or Crocidolite	**	-	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](http://www.sgs.com.au/en-gb/environment-health-and-safety).

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## SAMPLE RECEIPT ADVICE

SE232725

### CLIENT DETAILS

Contact Li Wei  
Client EIAUSTRALIA  
Address SUITE 6.01  
55 MILLER STREET  
PYRMONT NSW 2009  
  
Telephone 61 2 95160722  
Facsimile (Not specified)  
Email li.wei@eiaustralia.com.au  
  
Project **E25663 67 Mars Rd, Lane Cove**  
Order Number **E25663**  
Samples 1

### 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  
  
Samples Received Wed 1/6/2022  
Report Due Fri 3/6/2022  
SGS Reference **SE232725**

### SUBMISSION DETAILS

This is to confirm that 1 sample was received on Wednesday 1/6/2022. Results are expected to be ready by COB Friday 3/6/2022. Please quote SGS reference SE232725 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provided	Client	Sample cooling method	None
Samples received in correct containers	Yes	Sample counts by matrix	1 Material
Date documentation received	1/6/2022	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	N/A
Sample temperature upon receipt	19.1°C	Sufficient sample for analysis	Yes
Turnaround time requested	Two Days		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

### COMMENTS

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## SAMPLE RECEIPT ADVICE

SE232725

### CLIENT DETAILS

Client **EI AUSTRALIA**

Project **E25663 67 Mars Rd, Lane Cove**

### SUMMARY OF ANALYSIS

		Fibre ID in bulk materials
No.	Sample ID	
001	A4	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.  
The numbers shown in the table indicate the number of results requested in each package.  
Please indicate as soon as possible should your request differ from these details .  
Testing as per this table shall commence immediately unless the client intervenes with a correction .



## CLIENT DETAILS

Contact Li Wei  
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 Address SUITE 6.01  
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 PYRMONT NSW 2009

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 Facsimile (Not specified)  
 Email li.wei@eiaustralia.com.au

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 Order Number **E25663**  
 Samples 1

## 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 **SE232725 R0**  
 Date Received 01 Jun 2022  
 Date Reported 03 Jun 2022

## COMMENTS

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

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.

## SIGNATORIES



Ravee SIVASUBRAMANIAM  
 Hygiene Team Leader



## ANALYTICAL REPORT

SE232725 R0

### RESULTS

Fibre ID in bulk materials

Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE232725.001	A4	Other	Approx 10g Spongy Fibrous Material	31 May 2022	No Asbestos Detected Synthetic Mineral Fibres Detected	

## METHOD

## METHODOLOGY SUMMARY

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## FOOTNOTES

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