Report

HAZARDOUS MATERIALS SURVEY

One Carrington Development

Prepared for:
Brookfield Multiplex Australasia

Project No.
21582

Date:
10-01-14

AIRSAFE

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EXECUTIVE SUMMARY

The inspection identified the following hazardous materials:

Location	Material					
	Asbestos		SMF	PCB's	Lead Paint	Lead Dust
	Bonded	Friable				
Menzies Hotel – North Wing						
External	✓	✓	✓	×	✓	×
Plant Rooms	✓	✓	✓	×	✓	×
Levels 11-1	✓	✓	✓	×	×	×
Basement	✓	✓	✓	×	✓	×
Menzies Hotel – South Wing						
External	×	✓	✓	×	✓	×
Plant Rooms	✓	✓	✓	×	×	×
Levels 16-Basement	✓	✓	✓	×	×	×
Wynyard Lane Car Park						
External	×	×	✓	×	×	×
Internal	✓	✓	✓	×	×	×
301 George Street - Commercial						
External	×	✓	✓	×	×	×
Internal	✓	×	✓	×	×	×
301 George Street - Retail						
Internal	✓	✓	✓	×	×	×

Airsafe recommends that for items identified in the asbestos register requiring action refer to Section 4.

Any areas, which include asbestos containing materials, should be signposted with warning signs to ensure that the asbestos is not unknowingly disturbed without the correct precautions being taken.

The Hazardous materials survey, including any risk assessments, should be reviewed every 12 months or earlier.

Confirmed SMF materials should be maintained in good condition and removed under controlled conditions prior to any refurbishment works.

Confirm the status of suspected capacitors within fluorescent light fittings prior to refurbishment or demolition in the presence of a licensed electrician. Confirmed PCB- containing electrical equipment should be handled with care and disposed of in accordance with EPA guidelines.

REFERENCES

- AS 4964 – 2004 Method for the qualitative identification of asbestos in bulk samples
- Code of Practice: How to Manage and Control Asbestos in the Workplace [December 2011] Safe Work Australia.
- Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)]
- Guide to Lead Paint Management Part 2: Residential and Commercial Buildings [AS 4361.2 - 1998]
- Identification of PCB-Containing Capacitors [ANZECC, 1997]
- Polchlorinated Biphenyls Management Plan [ANZECC, 2003]
- Schedule B (7a) Guideline on Health-Based Investigation Levels [National Environment Protection (Assessment of Site Contamination) Measure 1999]
- Synthetic Mineral Fibres (SMF) – Information Sheet [Workers Health Centre, 2002]
- National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)]
- Code of Practice: How to Safely Remove Asbestos [December 2011] Safe Work Australia.
- Work Health and Safety Act 2011.
- Work Health and Safety Regulation 2011.
- WorkCover Guide 2008 – Working With Asbestos.

TERMS AND DEFINITIONS

AC	-	Asbestos Cement
ACM	-	Asbestos-Containing Material
DECC	-	Department of Environment and Climate Change
HEPA	-	High Efficiency Particulate Air
NATA	-	National Association of Testing Authorities, Australia
NES	-	National Exposure Standard
PCBs	-	Polychlorinated Biphenyls
PPE	-	Personal Protective Equipment
SMF	-	Synthetic Mineral Fibre

1 INTRODUCTION

1.1 AUTHORISATION

This inspection and report was authorized by Mr Andrew Johnston of Brookfield Multiplex Australasia.

1.2 SCOPE OF WORK

The scope of work involved a survey of the three (3) sites 301 George Street, Menzies Hotel and Wynyard Lane Car Park to determine the location, extent and condition of hazardous materials including asbestos, lead, SMF, and PCBs.

1.3 SITE DESCRIPTION

The site is located at 14 Carrington Street and 301 George Street, Sydney.

Figure 1: Site Location.

1.4 METHODOLOGY

1.4.1 Asbestos

An inspection of the premises has been carried out in order to identify, as far as practicable, all ACM in the workplace in accordance with the Code of Practice: How to Manage and Control Asbestos in the Workplace [December 2011] Safe Work Australia.

Representative samples of materials suspected of containing asbestos have been taken by competent personnel and inaccessible areas presumed to contain asbestos. Once such a presumption has been made, the material must be treated as an ACM, with work practices and disposal criteria as required for the presence of asbestos, until the material is removed or testing has confirmed that it does not, in fact, contain asbestos.

Samples have been analysed in accordance with AS 4964 – 2004 *Method for the qualitative identification of asbestos in bulk samples*.

A risk assessment has been carried out to ensure the associated risks of the identified ACM are assessed. The risk assessment takes account of the condition of the ACM (e.g whether they are friable or bonded and stable, and whether they liable to damage or deterioration), the likelihood of exposure, and whether the nature or location of any work to be carried out is likely to disturb the ACM. Decisions about control measures to protect workers have been made depending on the assessed risks to health.

The locations of all ACM and any inaccessible areas, as well as the types and condition of asbestos have been recorded in the asbestos register.

1.4.2 Lead

Representative samples of paint systems suspected of containing lead have been taken in accordance with *Guide to Lead Paint Management Part 2: Residential and Commercial Buildings* [AS 4361.2 - 1998].

Ceiling dust samples have been taken in accordance with *Managing Lead Contamination in Home Maintenance, Renovation and Demolition Practices. A guide for Councils* [EPA, 2003]. Results have been compared to *Schedule B (7a) Guideline on Health-Based Investigation Levels* [National Environment Protection (Assessment of Site Contamination) Measure 1999].

Samples have been analysed for lead content by Envirolab Serices Pty Ltd [NATA Accredited Laboratory 2901].

1.4.3 SMF

This report broadly identifies SMF materials located during the visual inspection of the site.

1.4.4 PCBs

Representative light fittings were inspected and the specifications of the capacitors crossed referenced against the electrical equipment known to contain PCBs listed in *Identification of PCB-Containing Capacitors* [ANZECC, 1997].

1.5 INACCESSIBLE AREAS

Limited or no access was available to the following areas at the time of inspection:

Menzies Hotel – North & South Wings

- All Levels - Ceiling space [Limited access]
- All Levels – Riser Cupboards [Limited access]
- Internal areas of machinery located in various areas on site [No access]

Wynyard Lane Car Park

- All Levels - Ceiling space [No access]
- All Levels – Riser Cupboards [Limited access]
- Internal areas of machinery located in various areas on site [No access]
- Railcorp Plant Rooms and Areas [No access]

301 George Street, Sydney – Commercial & Retail

- All Levels - Ceiling space [Limited access]
- All Levels – Riser Cupboards [Limited access]
- Internal areas of machinery located in various areas on site [No access]

Care should be taken if future refurbishment, demolition or maintenance works need to access these areas.

1.6 LIMITATIONS

This report has been prepared to meet the requirements outlined in the scope of work. It does not include evaluation of any other issues. Airsafe performed the services in a professional manner, in accordance with relevant guidelines and standards, and generally accepted industry practices. Airsafe does not make any other warranty, expressed or implied, as to the professional advice contained in this report.

The survey was based on a visual inspection of the specified areas. It should be noted that this assessment is reflective of the current site conditions and cannot be regarded as absolute without extensive invasion of structures. Only materials that were physically accessible at the time of inspection were sampled. Consequently, without substantial demolition of the building, it is not possible to guarantee that every hazardous material has been located. Care should be taken during the course of normal site works, refurbishment or demolition works when entering any previously inaccessible areas. If suspect materials are encountered, works should cease in the area until samples have been collected and analysed by competent personnel.

The presence of any residual hazardous materials from prior removal works cannot always be ascertained without extensive intrusive investigation which has not been undertaken as part of this survey.

As the buildings were in use at the time of inspection, only non-destructive sampling techniques were used. The survey is not intended for use or referral for the purpose of demolition, refurbishment, renovations or structural alterations. In the event of future demolition, refurbishment, renovation or structural alterations further investigation, which may entail destructive testing, shall be required.

It should be noted that the sampling program was limited to the collection of representative samples of suspect materials for analysis. Other materials of similar appearance are assumed to have a similar content.

The report does not cover any inaccessible areas identified during the inspection. These may include wall cavities, ceiling voids, height restricted areas, service shafts, ducts, internal areas of equipment and machinery, areas concealed within the building structure, or energised services. Hazardous materials should be presumed to be present in all inaccessible areas until removed or confirmed through testing that it does not, in fact, contain asbestos.

Where information has been supplied to Airsafe for the purpose of preparing this report, the information is assumed to be both adequate and accurate. The information provided, therefore, has not been verified or audited. Airsafe will not be liable in relation to incorrect conclusions should any information be incorrect, misrepresented or otherwise not fully disclosed.

Limitations apply to analytical methods used in the identifications of some asbestos containing materials. These limitations may be due to samples collected from non-homogenous materials not being representative, the presence of masking agents, and low concentrations of asbestos fibres. As such, sample analysis results should be considered indicative only.

This report was prepared for the sole use of the client identified on the cover page and only for the purpose for which it was prepared. Any reliance on this report by third parties shall be at their own risk and may not contain sufficient information for purposes of other parties or for other uses.

This report is not intended to be used for the purposes of tendering, programming of works, refurbishment works or demolition works unless used in conjunction with a specification detailing the extent of the works. This report must be read in its entirety and must not be copied, distributed or referred to in part only. The report must not be reproduced without the written approval of Airsafe.

2 GENERAL INFORMATION

2.1 ASBESTOS

2.1.1 Effects on Health

Asbestos is formed in fibre bundles and, as it is further processed or disturbed, the fibre bundles become progressively finer and more hazardous to health. The small fibres are the most dangerous. They are invisible to the naked eye and, when inhaled, penetrate the deepest part of the lungs (respirable fibres).

Significant health risks may arise from the inhalation of airborne asbestos fibres. Compared with straight amphibole fibres, such as amosite and crocidolite, chrysotile fibres are curly and less likely to penetrate the deepest parts of the lung.

Breathing in fibres brings a risk of asbestosis, lung cancer and mesothelioma. Evidence suggests that asbestos causes gastrointestinal and laryngeal cancers in humans, but to a far lesser extent than lung cancer. Usually, asbestos related diseases have a delay or latency period of 20 to 40 years between first exposure and the onset of symptoms and detection of the disease. Asbestos-related diseases can appear or progress even after a person is no longer exposed.

Asbestosis is the scarring of lung tissue that can result from the inhalation of substantial amounts of asbestos over a period of years. It results in breathlessness that may lead to disability and, in some cases, death. Minor changes in X-ray images may be detected for many years without any symptoms of asbestosis or progression of the disease.

Lung cancer is related to the amount of fibre that is breathed in and the risk of lung cancer is greatly increased in those who also smoke tobacco.

Mesothelioma is a cancer of the pleura (outer lung lining) or the peritoneum (the lining of the abdominal cavity). The risk of mesothelioma is less with chrysotile than with other types of asbestos. Both pleural and peritoneal mesothelioma can result from exposure to amosite and crocidolite. Exposure of humans to chrysotile alone has caused few pleural mesotheliomas, and has never produced peritoneal mesothelioma without exposure to either amosite or crocidolite. Mesothelioma rarely occurs in less than 15 years from first exposure, and most cases occur over 30 years after first exposure.

As for many cancer-causing substances, no safe level of exposure for lung cancer or mesothelioma has been identified. However, the amount of asbestos fibre in the air that people inhale is the important factor in determining the level of health risk. The highest risks involve inhaling air that contains a high concentration of asbestos fibre.

Asbestos fibres may be released into the air whenever they are disturbed, and especially during the following activities:

- any direct action on ACM, such as drilling, boring, cutting, filing, brushing, grinding, sanding, breaking, smashing or blowing with compressed air (State legislation prohibits most of these actions);
- the inspection or removal of ACM from workplaces (including vehicles, plant and equipment);
- the maintenance or servicing of materials from vehicles, plant, equipment or workplaces;
- the renovation or demolition of buildings containing ACM.

Non-friable ACM that has been subjected to extensive weathering or deterioration also has a higher potential to release asbestos fibres into the air.

2.1.2 Asbestos Classification

Under NSW OHS legislation, material that contains asbestos is referred to as friable or bonded.

2.1.2.1 Bonded Asbestos Material

Bonded asbestos material is any material that contains asbestos in a bonded matrix. It may consist of Portland cement or various resins/binders, and cannot be crushed by hand when dry. Asbestos cement (AC) products and electrical meter boards in good condition are examples of bonded asbestos material.

A large number of products made from bonded asbestos material are still found in Australian buildings, motor vehicles and plant components. These products include:

- flat (fibro), corrugated or compressed asbestos cement sheeting
- asbestos cement pipes such as electrical, water, drainage and flue pipes
- brake and clutch linings.

2.1.2.2 Friable Asbestos Material

Friable asbestos material 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. Examples of friable asbestos include:

- sprayed limpet
- asbestos cloth and rope
- millboard
- pipe lagging
- boiler lagging.

Any asbestos cement products that have been subjected to weathering, or damaged by hail, fire or water blasting, are considered to be friable asbestos and an asbestos removal contractor with a WorkCover licence for friable asbestos is required for its removal.

2.1.3 Control Measures

The ultimate goal is for all workplaces to be free of ACM. Where practicable, consideration should be given to the removal of ACM during renovation, refurbishment, and maintenance, rather than other control measures such as enclosure, encapsulation or sealing.

The control measures required for identified and presumed ACM should be determined from the risk assessment and should follow the following principles:

Control Measure 1 - If the ACM are friable and not in a stable condition, and there is a risk to health from exposure, they should be removed by an asbestos removalist as soon as practicable.

Control Measure 2 - If the ACM are friable but are in a stable condition and are accessible, serious consideration should be given to their removal. If the removal is not immediately practicable, short-term control measures, such as sealing and enclosure, may be able to be used until removal is possible.

Control Measure 3 - If the ACM are not friable and are in a good, stable condition, minimising disturbance and encapsulation may be appropriate controls.

Control Measure 4 - Any remaining ACM should be clearly labelled, where possible, and regularly inspected to ensure they are not deteriorating or otherwise contributing to an unacceptable health risk.

These control measures reflect the following hierarchy of controls:

1 - Elimination/removal (most preferred);

2 - Isolation/enclosure/sealing;

3 - Engineering controls;

4 - Safe Work Practices (administrative controls); and

5 - Personal Protective Equipment (PPE) (least preferred).

ACM need to be removed before demolition, partial demolition, renovation or refurbishment if they are likely to be disturbed by those works in accordance with the Code of Practice: How to Safely Remove Asbestos [Safe Work Australia, 2011].

2.2 LEAD

Lead in any form is toxic to humans when ingested and inhaled. Repeated inhalation or ingestion of lead dust or paint particles may produce the cumulative effects of lead poisoning.

2.2.1 Lead Paint

White lead (lead carbonate) was once the principle white pigment in paints for houses and public buidings.

Lead paint, as defined by the *Guide to Lead Paint Management – Part 2: Residential and Commercial Buildings* [AS 4361.2 – 1998], is that which contains in excess of 1% lead by weight.

Many older homes and buildings still contain lead paint, even though it may be covered with layers of more recent paint. It was used mainly on exterior surfaces and to a lesser extent on interior doors and architraves, especially in undercoats and primers where concentrations of up to 20% lead were commonly

used. Interior walls were not commonly painted with paint with paint containing white lead, but some colours did contain red, yellow or orange lead-chrome pigments.

Although all paints manufactured for Australian dwellings from the 1980s onwards will have contained less than 1% lead, it is possible that industrial paints, having higher concentrations of lead, may have been applied to housing and commercial buildings.

Lead paint removal methods give rise to two potential health problems, i.e. inhalation or ingestion of lead paint by the workers and public in the vicinity of the structure and the deposition of lead paint on nearby footpaths, streets or soil where they may be resuspended, tracked into houses or buildings where it can be inhaled or ingested.

2.2.2 Lead in Ceiling Dust

The presence of lead deposits within ceiling spaces may result from renovation of that building or may emanate from other external sources such as; atmospheric deposits caused by leaded petrol used in motor vehicles; residues from nearby industrial sites, such as smelters; or other lead paint removal projects being performed in the vicinity of the building.

Lead concentrations should not exceed the Health-Based Investigation Level of 1500mg/kg for Exposure Setting F [Commercial/Industrial: includes premises such as shops and offices as well as factories and industrial sites] as stated in Schedule B (7a) Guideline on Health-Based Investigation Levels [National Environment Protection (Assessment of Site Contamination) Measure 1999].

2.3 SMF

Synthetic Mineral Fibre (SMF) is a generic term used to describe a number of fibrous material made from glass, rock, alumina and silica.

SMF has been widely used as alternatives to asbestos in insulation and fire-rating products and as reinforcement in cement, plaster and plastic materials. SMF products are used extensively in commercial and residential buildings for insulation from temperature and sound.

Short term exposure to SMF can result in skin and eye irritation, and upper respiratory tract irritation.

Long term exposure to SMF was shown to be associated with a slightly increased risk of lung cancer among exposed workers in early SMF industries.

Provided SMF work is carried out in accordance with the *National Code of Practice for the Safe Use of Synthetic Mineral Fibres* [NOHSC: 2006 (1990)] and compliance is maintained with the exposure standards then there is a negligible health risk associated with exposure to SMF under present-day manufacturing and usage patterns.

SMF materials can be classified into two main categories based on the friability and potential for release of airborne fibres. *Bonded* materials are defined as those manufactured using binding or sealing agents to hold the SMF in a batt or blanket form. Additionally, some bonded materials may be clad in various coverings on one or more sides. The advantage of the presence of binding agents is that they significantly reduce fibre release during handling. *Unbonded* materials are defined as those manufactured without the use of any binding agents, facing/cladding or other sealants. There are two main applications of undonded materials: wet spray and loose-fill.

2.4 PCBs

PCBs is the common name for polychorinated biphenyls. These synthetic compounds are chemically stable, have good insulating properties and do not degrade appreciably over time or with exposure to high temperatures. These properties made PCBs very useful in electrical devices such as capacitors.

If these chemicals are released into the environment, they do not readily break down and can accumulate in fatty tissues of animals. The longevity of PCBs and their affinity for fatty tissue can result in PCBs moving up and concentrating though the food chain.

PCBs can enter the body in three ways; absorption through the skin, inhalation of vapour, or ingestion. The likelihood of becoming sick from PCB exposure increased with the length of time and the amount of material that a person might come in contact with. The most commonly observed symptom in people exposed to high levels of PCBs is an acne-like rash known as chloracne. PCBs may also cause damage to the liver and the nervous system, with the possibility of causing cancer.

The major use of PCBs in the electrical industry has been as an insulating fluid inside transformers and capacitors. These transformers and capacitors have ranged in size from the very large transformers, which contain several thousand litres of PCBs and were typically used by electrical supply businesses and heavy industries, to the small capacitors which may only contain several millliliters of PCBs and were used in farming equipment and on commercial premises. Capacitors containing PCBs were installed in various types of equipment including fluorescent light fittings during the 1950's, 60's and 70's.

3 RESULTS

Site: One Carrington Development
Client: Brookfield Multiplex Australasia
Inspection Dates: November 18 - December 11, 2013
Inspected By: Benjamin Willetts

3.1 ASBESTOS REGISTER

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Menzies Hotel – North Wing								
External Areas								
Roof Top Level - External – throughout – waterproofing bituminous sealant	Bituminous waterproofing	Previously identified as containing asbestos	Positive	1	Bonded	Stable	3	
All Levels - External – External Façade – between block work – caulking sealant	Caulking	21582-1/1	Positive	2	Friable	Stable	2	
All Levels – External – window frames – glass sealant	Mastic	21582-1/2	Positive	3	Friable	Stable	2	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Internal Areas								
All Levels – Throughout – Fire Doors – internal core	Fire door core	Labeled asbestos containing	Positive	4	Friable	Stable	2	
Upper Water Tank Level – adjacent access ladder - redundant pipe work - gaskets	Fibrous gaskets	Similar to 21582-1/4	Assumed positive	-	Friable	Stable	2	
Roof Top Level – Air Supply/Exhaust Plant Room – ceiling lining - insulation	Vermiculite	21582-1/3	Negative	-	-	-	-	-
Roof Top Level – Air Supply/Exhaust Plant Room – old electrical distribution cupboard – internal insulation	Fibrous insulation	Not sampled due to live power	Confirm once access is made available	5				
Roof Top Level – Boiler Plant Room – back of boiler - gasket	Fibrous gasket	21582-1/4	Positive	6	Friable	Stable	2	
Roof Top Level – Boiler Plant Room – boiler – rope flange	Fibrous flange	21582-1/5	Positive	7	Friable	Stable	2	
Lift Motor Room Level – Lift Motor Room - throughout – various lift motors – brake pads	Bituminous brake pads	Previously identified as containing asbestos	Positive	8	Bonded	Stable	3	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Lift Motor Room Level – Lift Motor Room – throughout – Control Cabinets – cable insulation	Fibrous insulation	Previously identified as containing asbestos	Positive	9	Friable	Stable	2	
Levels 11 – 1 – Common Areas – ceiling space – ceiling slab insulation	Fibrous paper insulation	21582-1/6	Negative	-	-	-	-	-
Level 11 – 1 – Common Areas – ceiling space – air conditioning ductwork – penetrations – fire rating	Fibrous insulation	21582-1/7	Negative	-	-	-	-	-
Levels 11 – 1 – Common Areas – ceiling space – wall penetrations – fire rating	Mastic	21582-1/8	Negative	-	-	-	-	-
Levels 11 – 1 – Laundry Store Room - flooring	Vinyl floor tiles	21582-1/9	Positive	10	Bonded	Stable	3	
Level 9 – Common Area – adjacent Switch Room – ceiling space – air conditioning ductwork – flange sealant	Mastic	21582-1/10	Negative	-	-	-	-	-
Ground Level – Fire Exit Door – internal core	Fire door core	No access to internal core	Presumed positive due to age	Similar to 4	Friable	Stable	2	
Ground Level – Offices Plant Room – Fire Door – internal core	Fire door core	No access to internal core	Presumed positive due to age	Similar to 4	Friable	Stable	2	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Ground Level – Swimming Pool Area – north-eastern Fire Exit Door – internal core	Fire door core	No access to internal core	Presumed positive due to age	Similar to 4	Friable	Stable	2	
Lower Ground Level – Fire Exit Door – internal core	Fire door core	No access to internal core	Presumed positive due to age	Similar to 4	Friable	Stable	2	
Lower Ground Level – Movie Link/Commas Room - flooring	Vinyl floor tiles	21582-1/11	Positive	11	Bonded	Stable	4	
Basement Level – North West Fire Exit Door – internal core	Fire door core	No access to internal core	Presumed positive due to age	Similar to 4	Friable	Stable	2	
Basement Level – Laundry and Lift Lobby - flooring	Vinyl floor tiles	21582-1/12	Positive	Similar to 11	Bonded	Stable	4	
Basement Level – Boiler Plant Room – Boiler 2 - flue	Fibrous gasket	Previously identified as containing asbestos	Positive	-	Friable	Stable	2	
Basement Level – Boiler Plant Room – Boiler 2 – base plate seal to flue	Mastic	Previously identified as containing asbestos	Positive	-	Friable	Stable	2	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Menzies Hotel – South Wing								
External Areas								
Level 16 – Window Frames - sealant	Mastic	21582-1/13	Positive	12	Friable	Stable	2	
Level 16 – Roof Top Area – waterproofing bituminous sealant	Bituminous membrane	21582-14	Negative	-	-	-	-	-
Lower Ground Level – Loading Dock – Exhaust Duct - insulation	Fibrous insulation	21582-1/15	Negative	-	-	-	-	-
External Areas								
Level 16 – Plant Room – Northern Riser and ceiling space – black electrical cable – insulation (presumed to continue through riser down all levels)	Bituminous rope insulation	21582-1/16	Positive	13	Friable	Stable	2	
Lift Motor Room – adjacent Entrance Door – electrical distribution cupboard – backing boards	Bituminous backing boards	Not sampled due to live power. Previously identified as containing asbestos	Positive	14	Bonded	Stable	4	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Lift Motor Room – Lift Motors – brake shoes	Bituminous brake shoes	Not sampled due to live components. Previously identified as containing asbestos	Positive	15	Bonded	Stable	4	
Level 15 – Plant Room – Entrance Door – internal core	Fire door core	No access to internal core	Presumed positive due to age	16	Friable	Stable	2	
Level 15 - Plant Room – throughout – pipe work - insulation	Fibrous lagging	Previously identified as containing asbestos	Positive	17	Friable	Stable	2	
Level 15 – Plant Room – throughout – pipe work - gaskets	Fibrous gaskets	21582-1/17	Positive	18	Friable	Stable	2	
Level 15 – Plant Room – throughout – air conditioning duct work and penetrations – fire rating	Fibrous insulation	21582-1/18	Negative	-	-	-	-	-
Level 15 – Plant Room – South-eastern Corner – Air Handling Unit – lagged pipes (x2)	Bituminous insulation	21582-1/19	Negative	-	-	-	-	-
Level 15 – Plant Room – Opposite Northern Fire Stairwell – two (2) electrical cupboards – internal backing boards	Bituminous backing boards	Not sampled due to live power. Previously identified as containing asbestos	Positive	19	Bonded	Stable	4	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Level 15 – 'Lifties' Room – Riser Cupboard – two (2) hot water pipes - insulation	Fibrous lagging	Previously identified as containing asbestos	Positive	20	Friable	Stable	2	
Level 15 – Lifties Room – Riser Cupboard – one (1) large electrical distribution board	Bituminous backing board	Not sampled due to live power	Confirm once access is made available	21				
Level 15 – Lifties Room – Riser Cupboard - black electrical cable – insulation (presumed to continue through riser down all levels)	Bituminous rope insulation	Similar to 21582-1/16	Positive	22	Bonded	Stable	4	
Level 15 – Level 4 – Main Electrical Riser – two (2) large hot water pipes - insulation	Fibrous lagging	Previously identified as containing asbestos	Positive	Similar to 22	Friable	Stable	2	
Level 14 – Basement – Fire Stairwell – Fire Exit Doors	Fire door core	Labeled as containing asbestos	Positive	29	Friable	Stable	2	
Level 14 - 2 – Common Areas – Riser Cupboards – air conditioning duct work - sealant	Mastic	21582-1/21	Negative	-	-	-	-	-
Level 14 – Staff Lift Foyer – ceiling - insulation	Vermiculite	21582-1/20	Negative	-	-	-	-	-
Level 14 – Laundry Store – adjacent Staff Lift Entry Door - flooring	Grey vinyl floor tiles	21582-1/22	Positive	23	Bonded	Stable	4	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Level 14 – Staff Sink Room – adjacent Lifts - flooring	Grey vinyl floor tiles	Similar to 21582-1/22	Positive	Similar to 23	Bonded	Stable	4	
Level 6 – Staff Area – adjacent lifts - flooring	Grey vinyl floor tiles	Similar to 21582-1/22	Positive	Similar to 23	Bonded	Stable	4	
Level 4 – Store Room – north of electrical riser – pipe work	Fibrous lagging	Not sampled due to encapsulation. Previously identified as limpet asbestos.	Positive	24	Friable	Stable	2	
Level 3 ½ - Plant Room – hot water pipe work	Fibrous lagging	Not sampled due to encapsulation. Previously identified as limpet asbestos.	Positive	25	Friable	Stable	2	
Level 3 ½ - Plant Room – hot water pipe work – gaskets	Fibrous gaskets	21582-1/23	Positive	26	Friable	Stable	2	
Level 2 – Banquet Kitchen – AV Room – hot water pipe work	Fibrous lagging	Not sampled due to encapsulation. Previously identified as limpet asbestos.	Positive	27	Friable	Stable	2	
Level 1 – Main Kitchen – northern service void – lower wall behind tiles	Fibrous cement sheeting	No access. Previously identified as containing asbestos	Positive	-	Bonded	Stable	4	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Level 1 – Various Riser Cupboards – hot water pipes - insulation	Fibrous lagging	No access. Previously identified as containing asbestos	Positive	-	Friable	Stable	2	
Larder Level – Glass Store – throughout - debris	Fibrous lagging debris	No access. Previously identified as containing asbestos	Positive	-	Friable	Unstable	1	
Ground Level – Security Managers Office – ceiling space – pipe work	Fibrous lagging	Previously identified as containing asbestos	Positive	Similar to 24	Friable	Stable	2	
Ground Level – Service Corridor – adjacent Lifts - flooring	Dark beige vinyl floor tiles	21582-1/24	Positive	28	Bonded	Stable	4	
Ground Level – Service Corridor – adjacent Lifts - flooring	Light beige vinyl floor tiles	21582-1/25	Negative	-	-	-	-	-
Basement Level – Boiler Room – hot water pipe work - gaskets	Fibrous gaskets	Previously identified as containing asbestos	Positive	30	Friable	Stable	2	
Basement Level – Workshop – eastern plumber riser – pipe work	Fibrous lagging	Previously identified as containing asbestos	Positive	Similar to 24	Friable	Stable	2	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Wynyard Lane Car Park								
Internal – Upper Tunnel (Level 2) – throughout – beams – encapsulated insulation	Fibrous lagging	Not sampled due to encapsulation. Previously identified as limpet asbestos.	Positive	31	Friable	Stable	2	
Internal – Upper Tunnel (Level 2) – throughout - dust	Dust and debris	21582-1/26-1/28	Negative	-	-	-	-	-
Internal – Upper and Lower Tunnels (Levels 2 & 1) – throughout – support columns – encapsulated insulation	Fibrous lagging	Not sampled due to encapsulation. Previously identified as limpet asbestos.	Positive	32 & 33	Friable	Stable	2	
Internal – Upper Tunnel (Level 2) – below Mezzanine Level – concrete ceiling beams - waterproofing	Bituminous membrane	21582-1/31	Negative	-	-	-	-	-
Internal – Lower Tunnel (Level 1) – throughout - dust	Dust and debris	21582-1/29-1/30	Negative	-	-	-	-	-
Internal – Upper Tunnel (Level 2) – Plant Room – external fire doors (small)	Fire door core	Not sampled due to access. Previously identified as containing asbestos.	Positive	34	Friable	Stable	2	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Internal – Upper Tunnel (Level 2) – Plant Room – internal – lagging debris	Fibrous lagging	Not sampled due to access. Previously identified as containing asbestos.	Positive	-	Friable	Unstable	1	
Internal – Upper Tunnel (Level 2) – adjacent K5 - ceiling area - insulation overspray	Fibrous lagging	Previously identified as containing asbestos	Positive	-	Friable	Stable	2	
Internal – Lower Tunnel (Level 1) – Plant Room – external fire doors (small)	Fibrous lagging	Not sampled due to access. Previously identified as containing asbestos.	Positive	Similar to 34	Friable	Unstable	1	
Internal – Lower Tunnel (Level 1) – Western Side Recesses – wall cladding	Fibrous cement sheeting	Previously identified as containing asbestos.	Positive	Similar to 33	Bonded	Stable	4	
Internal – Lower Tunnel (Level 1) – adjacent southern ramp – lower brick work - insulation overspray	Fibrous lagging	Previously identified as containing asbestos	Positive	-	Friable	Stable	2	
Internal – Lower Tunnel (Level 1) – Car Park Entrance – ten (10) metres west of entrance – riser cupboard – lagging debris	Fibrous lagging	Not sampled. Previously identified as containing asbestos.	Positive	35	Friable	Unstable	1	
Internal – Lower Tunnel (Level 1) – Car Park Entrance – Menzies Hotel Entry – awning – ceiling lining	Masonite	21582-1/32	Negative	-	-	-	-	-

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Internal – Lower Tunnel (Level 1) – Northern Section – South-western wall – electrical distribution board	Bituminous backing board	21582-1/33	Positive	36	Bonded	Stable	4	
Internal – Basement Levels – throughout - dust	Dust and debris	21582-1/34-1/35	Negative	-	-	-	-	-
Internal – Basement Level – Tunnel 2 – Entrance Area – north-eastern old wall cladding	Fibreboard	21582-1/36	Positive	37	Bonded	Stable	3	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
301 George Street - Commercial								
External								
Lower Rooftop Level (Level 14) – throughout - waterproofing	Bituminous membrane	21582-1/37	Negative	-	-	-	-	-
Ground Level – Wynyard Lane Area – Small Fire Doors – internal core	Fire door core	Not sampled due to access. Previously identified as containing asbestos.	Positive	Similar to 34	Friable	Stable	2	
Internal								
Level 15 – Lift Motor Room – Lift Motors – brake pads	Fibrous brake pads	Not sampled due to live power	Assumed positive	38	Bonded	Stable	3	
Level 15 – Lift Motor Room – Electrical Switchboard Cupboard – internal arc shields	Fibrous cement arc shields	Not sampled due to live power	Confirm once access is made available	39				
Level 15 – Stairwell – ceiling insulation	Fibrous insulation	21582-1/38	Negative	-	-	-	-	-
Level 14 – Plant Room – throughout – structural beams and ceiling - insulation	Fibrous insulation	21582-1/39	Negative	-	-	-	-	-

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Level 14 – Plant Room – Air Conditioning Ductwork – flange joints - sealant	Mastic	21582-1/40	Negative	-	-	-	-	-
Level 14 – Plant Room – Air Conditioning Ductwork – throughout - gaskets	Fibrous gaskets	21582-1/41	Negative	-	-	-	-	-
Level 14 – Plant Room – Hot Water Pipe Work – throughout - gaskets	Fibrous gaskets	21582-1/42	Negative	-	-	-	-	-
Level 14 – Plant Room – southern area - flooring	Waterproof membrane	21582-1/44	Negative	-	-	-	-	-
Levels 14 – 1 – Electrical Riser Cupboard – main power cable - insulation	Bituminous rope lagging	21582-1/43	Previously identified as positive. Found to be negative					
Levels 14-1 – Electrical Riser Cupboard – floor penetrations/overspray insulation	Fibrous insulation	21582-1/45	Negative	-	-	-	-	-
Level 13 – Lift Well – middle lift – eastern pipe work – insulation overspray	Vermiculite	21582-1/46	Negative	-	-	-	-	-
Levels 13-1 – Throughout Level – ceiling space – ceiling slab - insulation	Vermiculite	21582-1/47	Negative	-	-	-	-	-

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Levels 13-1 – Throughout Level – ceiling space – air conditioning duct work – flange joints - sealant	Mastic	21582-1/48	Negative	-	-	-	-	-
Levels 13-1 – Throughout Level – window frames - sealant	Mastic	21582-1/49	Negative	-	-	-	-	-
Levels 13 – 1 – Throughout – beneath carpet – old flooring	Grey vinyl floor tiles	21582-1/50	Positive	40	Bonded	Stable	4	
Level 3 – Main Western Riser – large pipe work - gaskets	Fibrous gaskets	21582-1/51	Positive	41	Bonded	Stable	3	
Level 3 – Hydrant Booster Pump Room – pipework - gaskets	Fibrous gaskets	21582-1/52	Negative	-	-	-	-	-
Level 3 – Hydrant Booster Control Panel Riser – floor penetrations - insulation	Fibrous insulation	21582-1/53	Negative	-	-	-	-	-
Level 2 – Western Hallway Area – ceiling space – large pipe work - gaskets	Fibrous gaskets	Similar to 21582-1/51	Assumed positive	42	Bonded	Stable	3	
Loading Dock – Large Ductwork - insulation	Fibrous insulation	21582-1/54	Negative	-	-	-	-	-

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
301 George Street - Retail								
External								
No asbestos containing materials identified as containing asbestos								
Internal								
Menzies Arcade – Level 2 – Fire Hydrant Hose Reel Cupboard – adjacent escalators – overspray insulation	Fibrous insulation	21582-1/55	Negative	-	-	-	-	-
Menzies Arcade – Level 2 – Retail Store No. 7 – Rear Store Rooms – pipe work	Fibrous lagging	Previously identified as containing asbestos	Positive	-	Friable	Unstable	1	
Menzies Arcade – Level 2 – Retail Store No. 7 – Rear Store Rooms – hallway – ceiling space – insulation overspray	Fibrous lagging	Previously identified as containing asbestos	Positive	-	Friable	Unstable	1	
Mezzanine Level – Fire Control Room - Fire Hydrant Cupboard – pipe work – beneath new insulation – old pipe lagging residue	Fibrous lagging debris	No access at time of inspection. Previously identified as positive.	Positive	-	Friable	Stable	2	
Mezzanine Level – Store Room and Ceiling Spaces – adjacent to the Fire Control Room – pipe work - beneath new insulation – old pipe lagging residue	Fibrous lagging debris	No access at time of inspection. Previously identified as positive.	Positive	-	Friable	Stable	2	

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Mezzanine Level – Plant Room – throughout – pipe work - gaskets	Fibrous gaskets	21582-1/56	Positive	Similar to 30	Friable	Stable	2	
Mezzanine Level – Plant Room – southern area – thermal insulation wall cladding and debris	Fibrous millboard sheets	-	-	-	-	-	-	Removed – Nov. 2013
Mezzanine Level – Plant Room – plant area – pipe work - pipe lagging debris	Fibrous lagging	-	-	-	-	-	-	Removed – Nov. 2013
Mezzanine Level – Plant Room – plant area – beneath pipe work – pipe lagging debris	Fibrous lagging	-	-	-	-	-	-	Removed – Nov. 2013
Mezzanine Level – Plant Room – South-western Corner – pipe work	Fibrous lagging	Previously identified as containing asbestos	Positive	Similar to 24	Friable	Stable	2	
Mezzanine Level – North-eastern Male Toilet – man hole cover	Fibrous cement sheeting	21582-1/57	Positive	-	Bonded	Stable	4	
Mezzanine Level – North-western Area – Good Lift Lobby – large lift doors	Fire door core	Previously identified as containing asbestos	Positive		Friable	Stable	2	
Mezzanine Level – McDonalds Storage Area – electrical distribution cupboard – internal insulation/boards	Bituminous backing boards	Not sampled due to live power. Previously identified as containing asbestos	Confirm once access is made available	-				

Location	Material	Sample ID	Sample Status	Photo No.	Asbestos Classification	Condition	Control Measure	Action Taken
Mezzanine Level – throughout - flooring	Grey vinyl floor tiles	Previously identified as containing asbestos	Positive	Similar to 40	Bonded	Stable	4	
Hunter Arcade Level – Eastern Fire Escape – Meter Room – Switchbox – internal insulation/boards	Bituminous backing boards	Not sampled due to live power. Previously identified as containing asbestos	Confirm once access is made available	-				
Hunter Arcade Level – Eastern Area – Garment Alterations Shop – pipe work	Fibrous lagging	Previously identified as containing asbestos	Positive	Similar to 24	Friable	Stable	1	

3.2 LEAD

3.2.1 Lead Paint

Location	Sample ID	Sample Status	Photo No.	Condition	Action Required	Action Taken
Menzies Hotel – North Wing						
External – Ground Level – walls – yellow paint	21582-2/3	>1% lead by weight	43	Poor [Flaking. Peeling, chalking]	Presents a hazard in it's current state. Remove of encapsulate paint	
External – Ground Level to Rooftop Level – window frames – brown paint	21582-2/4	>1% lead by weight	43	Poor [Flaking. Peeling, chalking]	Presents a hazard in it's current state. Remove of encapsulate paint	
External – Ground Level - Rooftop Level – window frames – green paint	21582-2/5	>1% lead by weight	44	Poor [Flaking. Peeling, chalking]	Presents a hazard in it's current state. Remove of encapsulate paint	
Internal – Level Lift Motor Room – ceiling & walls – beige paint	21582-2/6	>1% lead by weight	45	Poor [Flaking. Peeling, chalking]	Presents a hazard in it's current state. Remove of encapsulate paint	
Internal – Eastern Stairwell – throughout – walls – grey/green paint	21582-2/7	<1% lead by weight	-	-	-	-
Internal – Basement – Hot Water Tank Area - throughout – walls – blue paint	21582-2/8	>1% lead by weight	-	Poor [Flaking. Peeling, chalking]	Presents a hazard in it's current state. Remove of encapsulate paint	

Location	Sample ID	Sample Status	Photo No.	Condition	Action Required	Action Taken
Menzies Hotel – South Wing						
External – Level 16 – throughout – off-white paint	21582-2/1	<1% lead by weight	-	-	-	-
External – Level 3 ½ - northern wall – beige paint	21582-2/2	>1% lead by weight	46	Poor [Flaking. Peeling, chalking]	Presents a hazard in it's current state. Remove of encapsulate paint	-
Internal – Fire Stairwell – throughout – walls – white paint	21582-2/9	<1% lead by weight	-	-	-	-
Wynyard Lane Car Park						
Internal – Upper Tunnel (Level 2)– various areas - walls – beige paint	21582-2/10	<1% lead by weight	-	-	-	-
Internal – Upper Tunnel (Level 2) – throughout – walls/columns – white paint	Similar to 21582-2/12	<1% lead by weight	-	-	-	-
Internal – Upper Tunnel (Level 2) – throughout – lower walls/columns – blue paint	Similar to 21582-2/13	<1% lead by weight	-	-	-	-
Internal – Lower Tunnel (Level 1) – throughout – walls/columns – white paint	20755-2/12	<1% lead by weight	-	-	-	-

Location	Sample ID	Sample Status	Photo No.	Condition	Action Required	Action Taken
Internal – Lower Tunnel (Level 1) – throughout – lower walls/columns – blue paint	21582-2/13	<1% lead by weight	-	-	-	-
Internal – Lower Tunnel (Level 1) – various areas – walls – grey paint	21582-2/11	<1% lead by weight	-	-	-	-
Internal – Lower Tunnel (Level 1) – various areas – walls – black paint	21582-2/14	<1% lead by weight	-	-	-	-
301 George Street - Commercial						
External – Wynyard Lane Area – walls – white paint	21582-2/23	<1% lead by weight	-	-	-	-
Internal – Level 15 – Lift Motor Room – beams – brown paint	21582-2/20	<1% lead by weight	-	-	-	-
Internal – Level 14 – Plant Room – structural beams – red paint	21582-2/21	<1% lead by weight	-	-	-	-
Internal – Level 3 – Hydrant Booster Pump Room – pipe work – yellow paint	21582-2/22	>1% lead by weight	47	Poor [Flaking. Peeling, chalking]	Presents a hazard in it's current state. Remove of encapsulate paint	-

Location	Sample ID	Sample Status	Photo No.	Condition	Action Required	Action Taken
301 George Street - Retail						
Internal – Mezzanine Level Plant Room – walls – green paint	-	Assumed to contain <1% lead by weight	-	-	-	-

3.2.2 Lead in Ceiling Dust

Location	Sample ID	Sample Status	Photo No.	Action Required	Action Taken
Menzies Hotel – North Wing					
No dust suspected of containing elevated levels of lead located throughout building at time of inspection					
Menzies Hotel – South Wing					
No dust suspected of containing elevated levels of lead located throughout building at time of inspection					
Wynyard Lane Car Park					
Internal – Upper Tunnel (Level 2) - Ceiling space – top of pipe work - dust	21582-2/15-17	Less than Health-Based Investigation Level	-	-	-
Internal – Lower Tunnel (Level 1) - Ceiling space – top of pipe work - dust	21582-2/18-19	Less than Health-Based Investigation Level	-	-	-
301 George Street - Commercial					
No dust suspected of containing elevated levels of lead located throughout Levels 15-1 at time of inspection					

Location	Sample ID	Sample Status	Photo No.	Action Required	Action Taken
301 George Street - Retail					
Menzies Arcade – Ground Level – ceiling space – adjacent Escalators - dust	21582-2/24	Less than Health-Based Investigation Level	-	-	-

3.3 SMF

Location	Material	Photo No.	Form	Condition	Action Required	Action Taken
Menzies Hotel – North Wing						
Rooftop Level						
External – throughout – pipe work – internal insulation	Preformed insulation	1	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Internal – Air Supply/Exhaust Plant Room – throughout – ceiling insulation	Sprayed insulation	48	Non-bonded	Unstable. Accessible	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Internal – Air Supply/Exhaust Plant Room – throughout – pipe work – internal insulation	Preformed insulation	Similar to 1	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Internal – Boiler Room – throughout – ceiling insulation	Sprayed insulation	Similar to 48	Non-bonded	Unstable. Accessible	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	

Location	Material	Photo No.	Form	Condition	Action Required	Action Taken
Internal – Boiler Room – throughout – pipe work – internal insulation	Preformed insulation	Similar to 1	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Levels 11 – Basement Level						
Throughout – ceiling space – insulation overspray	Sprayed insulation	49	Non-bonded	Unstable. Inaccessible	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Throughout – pipe work – internal insulation	Preformed insulation	Similar to 48	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Throughout – air conditioning duct work – internal insulation	Preformed insulation	49	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	

Location	Material	Photo No.	Form	Condition	Action Required	Action Taken
Menzies Hotel – South Wing						
Rooftop Level						
External – throughout – pipe work – internal insulation	Preformed insulation	Similar to 1	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Levels 16 - Basement						
Internal - All Plant Rooms – pipe work - gaskets	Preformed gasket insulation	50	Bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Internal - All Levels – throughout - pipe work – internal insulation	Preformed insulation	50	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Internal - All Levels - Riser Cupboards (vertical) – throughout – fire rating - insulation	Preformed insulation	-	Bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	

Location	Material	Photo No.	Form	Condition	Action Required	Action Taken
Internal - Multiple Levels – Plant Rooms – ceiling/ductwork - insulation	Sprayed insulation	51	Non-bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Internal - Multiple Levels – Kitchens - hot water systems – internal insulation	Preformed insulation	52	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Wynyard Lane Car Park						
All Levels						
Throughout – ductwork – internal insulation	Preformed insulation	53	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Entrance Area – ductwork – sprayed insulation	Sprayed insulation	54	Non-bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	

Location	Material	Photo No.	Form	Condition	Action Required	Action Taken
301 George Street - Commercial						
Rooftop Level						
External – Air Conditioning Units – internal insulation	Preformed insulation	55	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
External – waterproofing layer	Preformed insulation	55	Bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Levels 15 – Level 1						
Internal – Levels 15 and 14 – throughout - ceiling insulation	Sprayed insulation	56	Non-bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Internal – Levels 15 – 1 – riser cupboards – fire rating – floor penetrations - insulation	Preformed insulation	57	Bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	

Location	Material	Photo No.	Form	Condition	Action Required	Action Taken
Internal – Various Levels – hanging ceiling - cellulose tiles	Cellulose ceiling tiles	58	Bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Internal – Plant Rooms – internal and external insulation	Preformed insulation	-	Bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Internal – Loading Dock – duct work – external insulation	Sprayed insulation	59	Non-bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
301 George Street - Retail						
All Levels						
Throughout – air conditioning duct work – internal insulation	Preformed insulation	60	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	

Location	Material	Photo No.	Form	Condition	Action Required	Action Taken
Menzies Arcade – Ceiling Space – throughout – insulation packing – top of partitions	Preformed insulation	-	Bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Mezzanine Level – Plant Room – pipe insulation	Preformed insulation	-	Bonded	Stable. Inaccessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
Mezzanine Level – Sprinkler Valve Room – duct work - woven gasket	Preformed gasket	-	Bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	
George Street Ramps –ceiling space – loose insulation	Preformed insulation debris	-	Non-bonded	Stable. Accessible.	Procedures and precautions detailed in the National code of Practice for the Safe Use of Synthetic mineral Fibres [NOHSC: 2006 (1990)] should be followed in the management and removal/treatment of all SMF materials.	

3.4 PCBs

Location	Specification	Sample Status	Photo No.	Condition	Action Required	Action Taken
Menzies Hotel – North Wing						
	No light capacitors containing PCB's identified at time of inspection.					
Menzies Hotel – South Wing						
	No light capacitors containing PCB's identified at time of inspection.					
Wynyard Lane Car Park						
	No light capacitors containing PCB's identified at time of inspection.					
301 George Street - Commercial						
	No light capacitors containing PCB's identified at time of inspection.					

Location	Specification	Sample Status	Photo No.	Condition	Action Required	Action Taken
301 George Street - Retail						
No light capacitors containing PCB's identified at time of inspection.						

4 RECOMMENDATIONS

All hazardous materials identified in the areas included in the refurbishment works should be removed in accordance with the following recommendations.

4.1 ASBESTOS

4.1.1 Responsibilities and Licensing

Persons in adjoining properties that might be affected by the asbestos removal activities must be consulted.

WorkCover NSW requires that certain asbestos removal work be licensed under the *Work Health and Safety Regulation 2011*.

An AS A: Friable Asbestos Licence is required to remove friable asbestos.

Friable asbestos licence holders are also authorised to undertake bonded asbestos work so there is no need to obtain a bonded asbestos license if the contractor already holds a friable.

The client is responsible for ensuring an asbestos removalist carries out the removal of ACM. The client should request details of the contactor's asbestos removal license prior to any removal of ACM. A copy of the notification must be displayed at the place of work.

Before starting work, a site-specific permit approving the friable asbestos project must be obtained. A permit will not be granted without a current licence. A copy of the permit must be displayed at the place of work.

The asbestos removalist must ensure the removal is adequately supervised and is carried out in a safe manner by ensuring that a nominated supervisor recognised by WorkCover is on site at all times when licensed work is being carried out.

All persons involved in the removal of ACM must be competent for the tasks allocated to them. The licence holder must ensure asbestos workers have had training in safe work methods in asbestos work.

4.1.2 Site Preparation

Preparation activities include minimising the number of people present and gathering the correct tools, PPE, decontamination materials, barricades, warning signs, etc at the workplace before any work commences.

The responsible person should ensure the security and safety of the asbestos removal site and asbestos work area at all times, particularly if the removal process is to take place over several days or an extended period of time.

The asbestos removal site should be clearly defined to ensure that non-essential people do not enter and to clearly delineate the removal site and warn persons that asbestos removal work is being carried out (e.g. through the placement of barriers and signs or other warning devices). All barriers and warning signs should remain in place until a clearance to re-occupy has been granted.

Before removal tasks commence plastic sheeting (for containment) may need to be placed on the floor or other surfaces that may be contaminated with asbestos dust. If the removal work is not being carried out in an enclosure, the surfaces to be worked on should be cleaned, by either wet wiping or vacuuming, to minimise exposure from the disturbance of asbestos fibres that might be on the surfaces prior to the commencement of removal tasks.

4.1.3 General Requirements for Asbestos Removal

Asbestos removal works should be carried out in accordance with the requirements of the *Code of Practice: How to Safely Remove Asbestos* [December 2011] Safe Work Australia.

Wherever possible, dry ACM should not be worked on.

Techniques that prevent the generation of airborne asbestos fibres should be used.

4.1.4 Asbestos Removal Equipment

Care should be taken in selecting tools for asbestos removal tasks.

In addition to having to be suitable for these tasks, all tools should prevent or minimse the generation and dispersion of airborne asbestos fibres as much as possible.

The use of power tools in asbestos removal work should be avoided because of the possibility of internal contamination, which commonly occurs with such devices.

In general, manually operated hand tools are preferred.

A constant low-pressure water supply is required for wetting down asbestos. This can be achieved with a mains-supplied garden hose fitted with a pistol grip. If no water supply is readily available, a portable pressurised vessel, such as a pump-up garden sprayer, may be able to be used.

Asbestos vacuum cleaners should comply with the requirements of AS 3544-1988 *Industrial Vacuum Cleaners for Particulates Hazardous to Health* and AS 4260-1997 *High Efficiency Particulate Air Filters (HEPA) – Classification, Construction and Performance*.

Warning: Domestic vacuum cleaners are unsuitable and should never be used, even if they have a HEPA filter.

Asbestos vacuum cleaners should only be used for collecting small pieces of asbestos dust and debris. Larger pieces should never be broken into smaller sizes so they can be vacuumed.

4.1.5 Personal Protective Equipment (PPE)

All persons engaged in asbestos removal work should wear respiratory protective equipment (RPE) conforming with the requirements of AS/NZS1716-2003 *Respiratory Protective Devices*.

The selection, use and maintenance of respirators should be in accordance with AS/NZS1715-1994 *Selection Use and Maintenance of Respiratory Protective Devices*.

Protective clothing should be provided and worn at all times during all work in the asbestos work area prior to the final clearance inspection.

Protective clothing should be made from materials which provide adequate protection against fibre penetration. Coveralls should not have external pockets or Velcro fastenings because these features are easily contaminated and difficult to decontaminate.

Disposable coveralls are preferred. They should never be reused, and must be disposed of as asbestos waste.

4.1.6 Decontamination

The type of decontamination required will depend on the type of asbestos (i.e. friable or non-friable); the work method used, and site conditions.

Decontamination must include the asbestos work area, all tools and equipment and personal decontamination.

All contaminated materials, including cleaning rags, plastic sheeting and PPE etc, must be disposed of as asbestos waste.

Some asbestos removal work necessitates the use of decontamination units.

4.1.7 Waste Removal

Loose asbestos waste should not be allowed to accumulate within the asbestos work area.

Asbestos waste should be collected in heavy-duty 200 µm (minimum thickness) polythene bags that are no more than 1200 mm long and 900 mm wide.

The bags should be labelled with an appropriate warning, clearly stating that they contain asbestos and that dust creation and inhalation should be avoided.

If it is not feasible to use asbestos waste bags, drums or bins, because of the volume or size of the asbestos wastes, a waste skip, vehicle tray or similar container that has been double lined with heavy-duty plastic sheeting (200 µm minimum thickness) may be used. Once the skip is full, its contents should be completely sealed with the plastic sheeting.

4.1.8 Disposal of Asbestos Waste

All asbestos waste should be removed from the workplace by a competent person and transported and disposed of in accordance with all relevant State legislation and guidelines for the transport and disposal of asbestos waste.

All asbestos waste must be transported in a covered leak-proof vehicle and:

- not mixed with general building waste;
- not taken to a waste facility for recycling.

Only vehicles licensed by the DECC can transport friable asbestos waste in the metropolitan area.

Asbestos in any form must be disposed of in a manner approved by the DECC and at a waste facility licensed by the DECC to accept asbestos waste.

NSW licensed landfills that accept asbestos waste from the public are listed by region on the DECC website.

Vehicles and their containers must be cleaned before leaving the waste facility.

Contact the DECC and/or the local council for details of waste facilities that can accept asbestos waste.

To demonstrate proof of proper disposal, copies of asbestos waste disposal receipts are to be kept for inspection by WorkCover, the DECC or the local council.

4.1.9 Air Monitoring

Air monitoring should be performed whenever ACM are being removed, to ensure the control measures are effective.

Air monitoring should be performed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003 (2005)].

4.1.10 Clearance to Reoccupy

A visual inspection involving an examination of the asbestos work area should be carried out, prior to the resumption of normal work in the area by unprotected personnel, to confirm that the asbestos removal work has been completed and there is no visual evidence of dust and debris.

Particular attention should be paid to ledges, the tops of air-conditioning ducts, cracks in the floor, folds in plastic sheeting and crevices or other areas which may have been overlooked during the initial clean-up.

The clearance inspection must be conducted by a competent person who is independent from the person responsible for the removal work.

4.2 LEAD

4.2.1 Responsibilities

The owners of the building should manage the property in such a manner as to effectively control any health risk to occupants, contractors and others arising from lead dust. They should ensure occupants are sufficiently informed about and protected from the hazards associated with lead paint in the property.

Where lead management work is to be undertaken by contractors, the owner should use only accredited contractors for the work, who understand the hazards associated with lead paint and follow the procedures outlined in this document. The contracted work should be undertaken in such a way as to protect employee health and safety, in addition to that of tenants and the general public.

Occupants should be informed of the hazards associated with the lead management works.

4.2.1.1 Notification

The contractor must notify WorkCover of proposed lead risk work for each work site, 60 days before the work is commenced.

4.2.1.2 Compliance Program

Contractors should develop and implement a written compliance plan prior to the commencement of the job where employee exposure to lead, without respect to respiratory protection, may be in excess of the NES.

4.2.2 Protection of Personnel

All workers who may be exposed to lead on the project should be protected to avoid personal injury or harm, as well as to prevent lead dust or debris from being carried off the work site to potentially affect others.

4.2.2.1 Training

All contractors who undertake lead management work for buildings should ensure that employees have the required level of specialized training for that class of work.

4.2.2.2 Exposure

The employer is required to assure that no employee is exposed to lead at concentrations in excess of the NES of 0.15 mg/m^3 as determined by air monitoring.

4.2.2.3 Protective Clothing

Operatives involved in the lead management work should wear protective clothing suitable for the particular process adopted and observe the following:

(a) Wear a properly fitted particulate respirator when preparing lead paint management work. If using a disposable type, only those with double head straps are suitable. Respirators should meet the requirements of AS 1716.
(b) Maintain respirator filters in accordance with AS 1715 and ensure that all protective equipment is cleaned and stored properly.
(c) Wear overalls and a head covering to prevent dust accumulation in clothing and hair. Contaminated overalls should not be worn offsite as this can spread lead contamination and put family members and the public at risk.
(d) Wear disposable booties and gloves.

The employer is required to provide protective clothing and equipment appropriate to the hazard. Lead contaminated clothing should not be removed from the work site by the employee. Clean work clothing is to be provided daily to the employees whose exposure levels are above the NES. The employer is required to provide for the cleaning, laundering, or disposal of protective clothing and equipment, and is to repair or replace required protective clothing and equipment as needed to maintain effectiveness. The employer should ensure that all protective clothing is removed at the completion of a work shift.

4.2.2.4 Personal Hygiene

Operatives involved in paint removal work are to observe the following:

(a) Do not smoke while removing paint, as hand to mouth contact may increase the risk of swallowing or inhaling lead paint dust.
(b) Wash hands before eating, drinking, personal hygiene or smoking. Do not eat or smoke in the work area.
(c) Place contaminated overalls in clean polyethylene bags before removing them from the work area, as they are a significant source of contamination to others.
(d) All work clothes worn underneath disposable overalls should be changed daily and laundered separately from other domestic clothing and linen. When laundering contaminated clothes, store them away from other clothes. Do not shake prior to laundering. Disposable overalls provide a simple and safe method of protection.
(e) Clean equipment thoroughly of dust and paint fragments before it leaves the work area. A HEPA filter vacuum clean followed by a wet wipe is normally sufficient.
(f) HEPA filter vacuum then wash or wet wipe clean boots and gloves with a damp cloth at the end of each work day.

4.2.2.5 Responsible Person

A responsible person should be on-site at all times during lead exposure producing operations to implement and maintain the compliance program.

4.2.2.6 Medical Surveillance

Employees who are exposed to lead concentrations should receive medical examinations by an authorized medical practitioner in accordance with Guidelines for Health Surveillance [NOHSC: 7039 (1995)]. The employee's blood lead level should be examined prior to commencement, within the first month of being engaged, again one month later, and then at intervals relevant to the lead level achieved.

4.2.3 Site Preparation

4.2.3.1 Regulated Area

A regulated area should be established at the work site to identify areas, outside of which airborne concentrations of lead can reasonably be expected not to exceed the NES. The regulated area should be identified by appropriate signs and barriers, such as rope, tape, or other visual or physical means.

Workers within the regulated area should be required to wear nominated protective clothing and equipment and will be subject to lead exposure assessment.

Residents, members of the public and other workers should not be allowed access to areas undergoing lead management work until completion of the work and all necessary clean-up procedures.

4.2.3.2 Signs

Sign posting should be erected to adequately inform employees and the public of the presence of lead and the possible need to utilize respirators and other appropriate protective equipment. Signs should be in accordance with AS 1319, be clearly visible during all hours and be maintained in a clean and legible condition.

Phrases to be placed on the sign may include 'Warning', 'Lead Work Area', 'Authorized Personnel Only', and 'Respirators and Protective Clothing Required in this Area'.

4.2.3.3 Containment of Lead Bearing Dust and Debris

Measures that will ensure that lead dust, fumes and debris will be contained within the area include the following:

(a) Place ground sheets below the work area, ensuring they are large enough to contain all the dust generated. Disposable polyethylene sheeting should be used and the edges sealed using heavy duty tape. The plastic ground sheets should be maintained so that as soon as a tear is detected, the ground sheet is repaired or replaced.
(b) Work in such a way as to minimize dust and fume generation and the transfer of debris away from the immediate work area. Avoid working when wind or draughts could cause debris to be blown away from the work area.
(c) Remove accumulated dust frequently to prevent it spreading from the immediate work area. As a minimum, do this on a daily basis using a vacuum cleaner fitted with a HEPA filter for dust and particulate removal.
(d) Wipe down all surfaces. After vacuum removal, there are still likely to be dust traces remaining. Remove these by wiping surfaces with a damp cloth, which is disposed of after use. It is important to use a detergent in the water as this improves cleaning efficiency.

4.2.4 Procedures for Removal

4.2.4.1 Lead in Paint

Lead paint abatement involves the suppression, reduction or elimination of the hazard from a building. All work should be carried out in accordance with the requirements of the *Guide to Lead Paint Management – Part 2: Residential and Commercial Buildings* [AS 4361.2 – 1998].

Replacement of painted items is the least hazardous way of dealing with lead paint. In this process components with lead paint on them are removed in large pieces and replaced with new materials. This may be a viable option for articles such as timber architraves, doors and windows, cupboards, gutters and downpipes, and exterior cladding weatherboards.

Other advantages are that labour requirements are reasonable and work can often be completed quickly. Current regulations in most States would allow disposal of these components as regular construction waste. The cost of supplying replacement materials and components may be high, especially with items such as doors and windows.

The care and skill level of the renovator needs to be high or other components may be damaged during the removal processes. Renewal costs may be reduced by labour savings when the replacement of items, such as windows, is an intended part of the renovation.

When dealing with historical buildings, replacement of components may not be possible.

Removal of building materials or components may generate or disturb lead contaminated dust accumulated in void spaces. However, the option of removal and replacement is considered a moderate-risk procedure.

Removal of lead paint is the least favoured because it has the greatest potential to generate hazardous dust. Recommended methods for the removal of lead paint that minimize the quantities of dust generated include the following:

(a) *Wet scraping and wet sanding*

These are the safest methods for the removal of lead paint.

Wet scraping involves moistening the paint with water from an atomizing bottle or similar device and then removing it from the surface using a scraper, usually hand-held. Drop sheets of thick, impervious plastic are used to catch the debris for collection and disposal. This method generates a minimum of dust. Scraping can be slow and further cleaning or smoothing may be needed to remove residues or to feather edges. Scraping may also lead to damage of soft substrates such as plaster or softwood.

Wet sanding is accomplished by dipping the abrasive paper in water before use. Only manual sanding can be performed and care should be taken near electrical outlets.

The run-off from wet sanding and scraping will carry suspended particles which should be collected with sponges or mops. If run-off is allowed to escape between floor-boards, into or under floor coverings or behind architraves, it will dry out and regenerate the dust hazard.

(b) *On-site chemical stripping*

Chemical paint strippers will soften and swell the paint, allowing it to be easily removed with a scraper. The residue is usually a gel-like paste that is easily contained and handled. Stripping is suitable for most surfaces such as timber, render or steel.

Some water-borne strippers are caustic and require skin, face and eye protection during use, as well as protection of non-target surfaces. Some chemical strippers contain flammable or hazardous volatile solvents and most require good ventilation through open windows and exhaust fans. Strippers containing methylene chloride should only be used in well ventilated areas. Some chemical strippers can cause surface damage to particular substrates. Stripped wastes should not be allowed to enter the sewer or stormwater drains.

(c) *Off-site chemical stripping*

This involves removing components and shipping them to a paint stripping establishment where they are immersed in baths of chemicals. The lead residue is retained at the establishment for controlled disposal. The stripped components are then returned to the site for re-installation.

Care needs to be exercised when adopting some immersion-type chemical stripping processes as the technique may be inappropriate for some component materials which could be damaged or suffer a shortened life.

The advantage of this process is that removal of hazardous material is nearly complete and neither the renovator nor the occupants will be exposed to chemical by-products. Some dust may be generated when the component is removed from the building, but this would be less than for other paint removal methods. Removal can be considered a moderate risk renovation procedure.

This method is limited to removable components such as windows, doors and trim. There is some potential for damage to components during the removal and reinstallation procedures, and building skills may be required. There may also be some time delay between the removal and re-installation with resulting inconvenience and security problems. Both the logistics of removal and the physical limits of the facilities at the stripping shop may also control the size of the components which can be handled.

(d) Removal by heat gun and scraper

The application of heat to paint by a stream of heated air softens it and allows removal by scraping. As the operator may be in intimate contact with some airborne lead particles and toxic gases in the breathing zone, the process therefore requires a high degree of care and personal protection. If local overheating is allowed to occur, some of the components of the paint may vaporize and carry lead and other hazardous materials into the air. These vapours may be inhaled or will settled as dust.

NOTE: Toxic fumes may be generated at temperature as low as 200ºC.

When removed, the paint will quickly cool and become brittle and care must be taken that this paint is not unduly crushed or allowed to be carried from the work area on feet. The 'molten' paint formed during the heating operation should be scraped into a suitable container before it rehardens, to avoid subsequent abrading of the paint surface which could generate paint flakes or dust.

This method of removal is not recommended for use in poorly ventilated areas. Occupants and members of the public should not be present when heat guns are used to remove lead paint.

4.2.4.2 Lead in Ceiling Dust

All traces of lead dust should be removed from the ceiling space in accordance with the requirements of the *Guide to Lead Paint Management – Part 2: Residential and Commercial Buildings* [AS 4361.2 – 1998].

Large disposable items and debris should be placed in plastic bags and sealed. All surfaces in the work area should be vacuumed using a HEPA filter vacuum until no residue of dust remains.

4.2.5 Waste Management

4.2.5.1 Waste Collection

Collection of lead containing waste from the work area should be performed at least once per day. The removal of debris from the work area to storage containers should be performed without releasing lead or other potentially hazardous materials into the environment. The preferred method of collection is a vacuuming system that provides a completely closed pathway for conveyance of debris. If it cannot be avoided, shoveling or sweeping should be minimized and performed with care.

Consumable supplies such as disposable clothing, rags and brushes, as well as worn out reusable items, such as tarpaulins and air filters contaminated with lead should collected and disposed of accordingly.

4.2.5.2 Wastewater

All wastewater from equipment decontamination and worker hygiene practices such as showers and laundry facilities should be collected and send to a liquid waste treatment plant.

4.2.5.3 Waste Containers

All waste containing lead should be stored in a manner to prevent the entry of any hazardous material into the environment. Leak-proof drums, bins and skips are generally acceptable. Drum lids or bin covers should be firmly secured on the containers and the containers should be clearly marked to identify its contents.

4.2.5.4 Waste Storage

Waste storage sites should be located on well-drained ground which is away from areas where water run-off may occur. Waste storage sites should be adequately protected and displayed with warning signs.

Waste should not be stored at temporary storage areas for long periods of time. Waste should be disposed of appropriately as soon as practically possible.

4.2.5.5 Waste Transport

During waste moving operations, precautions should be taken to prevent damage to containers that could result in the spillage of the contents, or entry into waters, air or land.

Movement of waste from the job site is to be performed by a properly licensed carrier. The carrier should ensure that the waste received is properly packaged and meets all transportation regulations. Transporters should also ensure that the manifest/dockets are properly completed and the containers labelled as to their contents.

4.2.5.6 Waste Disposal

In accordance with the *Waste Classification Guidelines Part 1: Classifying Waste* [DECC, 2008], lead paint waste other than solely from residential premises or educational or child care institutions has been classified as Hazardous Waste.

4.2.6 Air Monitoring

Air monitoring for lead should be conducted during all lead works. Calculated concentrations for lead should be less than the time-weighted average exposure standard of 0.15 mg/m^3 for lead as stated in the *Adopted National Exposure Standard for Atmospheric Contaminants in the Occupational Environment* [NOHSC: 1003 (1995)].

4.2.7 Clearance Testing

After completion of all work and after appropriate clean-up of all relevant areas both inside and outside the building, a clearance inspection should be carried out to determine if there has been a significant impact on the property and surrounding areas from the work and if the building is safe for normal use.

4.3 SMF

4.3.1 Responsibilities

4.3.1.1 Consultation

When SMF materials are to be removed from a workplace, there must be full consultation, information-sharing and involvement by everyone in the workplace, including employers, workers and contractors, at each step of the SMF removal process, using the established consultative mechanisms.

Persons in adjoining areas that might be affected by the asbestos removal activities must also be consulted.

4.3.1.2 Responsibilities of Clients

The client is responsible for ensuring a suitably qualified contractor carries out the removal of SMF.

The client should nominate one or more persons to liase with the contractor.

The client should request details of the contactor's qualifications prior to any removal of SMF.

4.3.1.3 Responsibilities of Contractors

The employer shall provide appropriate instruction, training and supervision to enable employees to safely perform their tasks. Employees shall be instructed in safe work practices for handling SMF materials and, where necessary, correct procedures for the selection, wearing and maintenance of personal protective clothing and equipment. The extent of instruction and training shall be appropriate to the duties of the individual within the organisation and be sufficiently detailed to ensure that the individual understands not only the procedural and safety requirements, but also the reasons for these requirements. Employers should ensure appropriate site maintenance, follow proper procedures to minimise the creation and spread of fibres and/or dust and ensure that the disposal of SMF waste is carried out in accordance with the requirements of the local waste disposal authority.

Employees shall ensure that work is carried out so as to incorporate the work practices as instructed. Employees shall wear, when required, and in the manner instructed, the personal protective equipment which is supplied. Employees shall report to the employer any observed malfunctions in the work

practices. Employees shall take part in any jointly agreed instruction or training program provided by the employer.

The contractor must develop a SMF removal control plan, specific to the site, before commencing any SMF removal work. The SMF removal control plan should be based on the removal requirements contained within this technical specification. The contractor should consult with the client to finalise the SMF removal control plan, and the client should be provided with a final copy of this plan. The presence or likelihood of other hazards associated with the SMF removal work should be assessed by the contractor (e.g. work at heights, work in confined spaces, electrical safety and heat stress).

The contractor must ensure the removal is adequately supervised and is carried out in a safe manner by ensuring that a nominated supervisor is on site at all times when work is being carried out. The contractor should ensure all supervisory personnel have a detailed knowledge of the precautions and procedures outlined in this technical specification. The supervisory personnel should ensure that the client is reliably and regularly informed of the progress of the removal work.

All persons involved in the removal of SMF must be competent for the tasks allocated to them. The contractor must ensure workers have had training in safe work methods in SMF work.

Supervisors and employees who work with SMF shall be provided with adequate information, instruction and training about working safely with SMF. This should include:

(a) any health information relating to SMF handling and/or exposure;
(b) the importance of controlling the creation of SMF and/or fibrous dust in the atmosphere to the lowest workable levels;
(c) the probable exposure levels associated with the type of job;
(d) how safe work practices, such as control measures, respiratory protective equipment and protective clothing, can be used effectively;
(e) the role and significance of air monitoring;
(f) employer responsibilities; and
(g) employee responsibilities.

4.3.2 Site Preparation

The removal area should be clearly designated and barriers erected to prevent casual access. Persons not involved in the removal should not be within 3 metres of the designated area.

Where workable, the removal area should be contained to minimise the transfer of dust to other work areas.

Potential entry points to the asbestos work area should be signposted or labelled in accordance with AS1319-1994 *Safety Signs for the Occupational Environment*. An example of an appropriate sign is as follows:

SMF WORK AREA
FOLLOW SAFETY INSTRUCTIONS

4.3.3 General Requirements for Removal

All work practices should be designed to minimise the release of any airborne fibre or dust.

SMF materials should be removed wet where possible to suppress dust generation.

Hand tools should always be used in preference to power tools in any removal works.

Work areas should be cleaned regularly to remove any build up of fibres and/or dust. Visible waste materials should be removed promptly to avoid being trampled and spread about.

4.3.3.1 Removal of Bonded Material

Any physical abrasion, including cutting, should be kept to a minimum during removal. Such removal can be performed in a dry condition is there is minimal physical abrasion. Only in circumstances where heat or other causes have made the bonded SMF attach itself to the substrate should physical abrasion take place. If this occurs, removal should be performed as for unbonded SMF removal.

4.3.3.2 Removal of Unbonded Material

The unbonded material should be thoroughly wetted before removal takes place. Dry removal may be necessary when there are electrical and heat considerations. Increased respiratory protection may be necessary when working in enclosed or poorly ventilated spaces or where the SMF insulation has undergone physical change.

4.3.4 Personal Protective Equipment (PPE)

4.3.4.1 Respiratory Protective Equipment

A half-face (Class L or M) respirator should be used by personnel directly involved in removal work.

Respirators shall be correctly fitted, maintained in good condition, and kept in clean storage when not in use.

Replaceable filters and cartridges should be replaced regularly, in accordance with guidelines issued by the manufacturer.

The protection offered by some types of respirators may be affected by personal characteristics such as beards and the wearing of glasses or googles. Appropriate respirators to ensure protection should be used. All respirators shall comply with the provisions of *Selection, Use and Maintenance of Respiratory Protective Devices* [AS 1715 – 1994] and *Respiratory Protective Devices* [AS 1716 – 2003].

4.3.4.2 Protective Clothing

Disposable coveralls or long sleeve, loose fitting clothing and gloves should be used by all personnel directly involved in the removal work to minimise skin irritation. To avoid undue heat stress and general discomfort to the wearer, consideration should be given to the type of material chosen for this clothing. Launderable clothing should be washed regularly, separate from other laundry to avoid cross-contamination and subsequent skin irritation of non-workers.

Where overhead work is involved, goggles and head covering should be worn to avoid eye irritation or injury.

4.3.4 Decontamination

4.3.4.1 Workplace Decontamination

On completion of the job, the work area should be cleaned using an industrial vacuum cleaner. Wet mopping and wiping can be utilized if an industrial cleaner is not available.

Once visible dust has been cleaned up, containment material should be removed in a manner that minimises the liberation of any trapped dust.

4.3.4.2 Personal Hygiene

Adequate washing facilities shall be available, on site, to wash and treat both skin and eye irritation. Separate change areas should be provided to minimise the transfer of dust to general work areas.

PPE must be removed and hand and face washed thoroughly with soap and water before eating or smoking.

Amenity rooms shall be kept free of any fibres and/or dust as far as is workable.

4.3.5 Waste Removal

Prior to removal from the designated work area, all waste material should be sealed in containers, plastic bags or other methods, which prevent fibre and/or dust emission.

Packaging and transport of SMF should be done so as to minimise the release of fibres and/or dust.

If the removal of SMF materials is not immediately possible, they should be stored in low traffic areas, and in intact containers or under plastic sheet covers.

4.3.6 Disposal of SMF Waste

In accordance with the *Waste Classification Guidelines Part 1: Classifying Waste* [DECC, 2008], synthetic fibre waste from materials such as fiberglass, polyesters and other plastics, being waste that is packaged securely to prevent dust emissions, has been pre-classified as General Solid Waste (Non-Putrescible).

4.3.7 Air Monitoring

Air monitoring should be performed during SMF removal to ensure the control measures are effective.

Air monitoring should be performed in accordance with the *Guidance Note on the Membrane Filter Method for the Estimation of Airborne Synthetic Mineral Fibres* [NOHSC: 3006 (1989)].

4.3.8 Clearance to Reoccupy

A visual inspection involving an examination of the SMF work area should be carried out, prior to the resumption of normal work in the area by unprotected personnel, to confirm that the SMF removal work has been completed and there is no visual evidence of debris.

Particular attention should be paid to ledges, the tops of air-conditioning ducts, cracks in the floor, folds in plastic sheeting and crevices or other areas which may have been overlooked during the initial clean-up.

The clearance inspection must be conducted by a competent person who is independent from the person responsible for the removal work.

APPENDIX A - PHOTOGRAPHS

Photo 1: Bitumonous waterproofing membrane containing asbestos and pipe work containing internal SMF insulation on the North Wing Rooftop Level – Menzies Hotel.

Photo 2: Caulking containing asbestos on the external façade to the North Wing – Menzies Hotel.

Photo 3: Window mastic containing asbestos on the external window frames of the North Wing – Menzies Hotel.

Photo 4: A sample of a Fire Door assumed to contain asbestos core throughout the North Wing – Menzies Hotel.

Photo 5: Two (2) electrical switchboards located within the Air Supply/Exhaust Plant Room on the Rooftop Level of the North Wing – Menzies Hotel.

Photo 6: One (1) gasket containing asbestos located at the back of the boiler within the Boiler Room on the Rooftop Level of the North Wing – Menzies Hotel.

Photo 7: One (1) rope flange containing asbestos on the boiler within the Boiler Room on the Rooftop Level of the North Wing – Menzies Hotel.

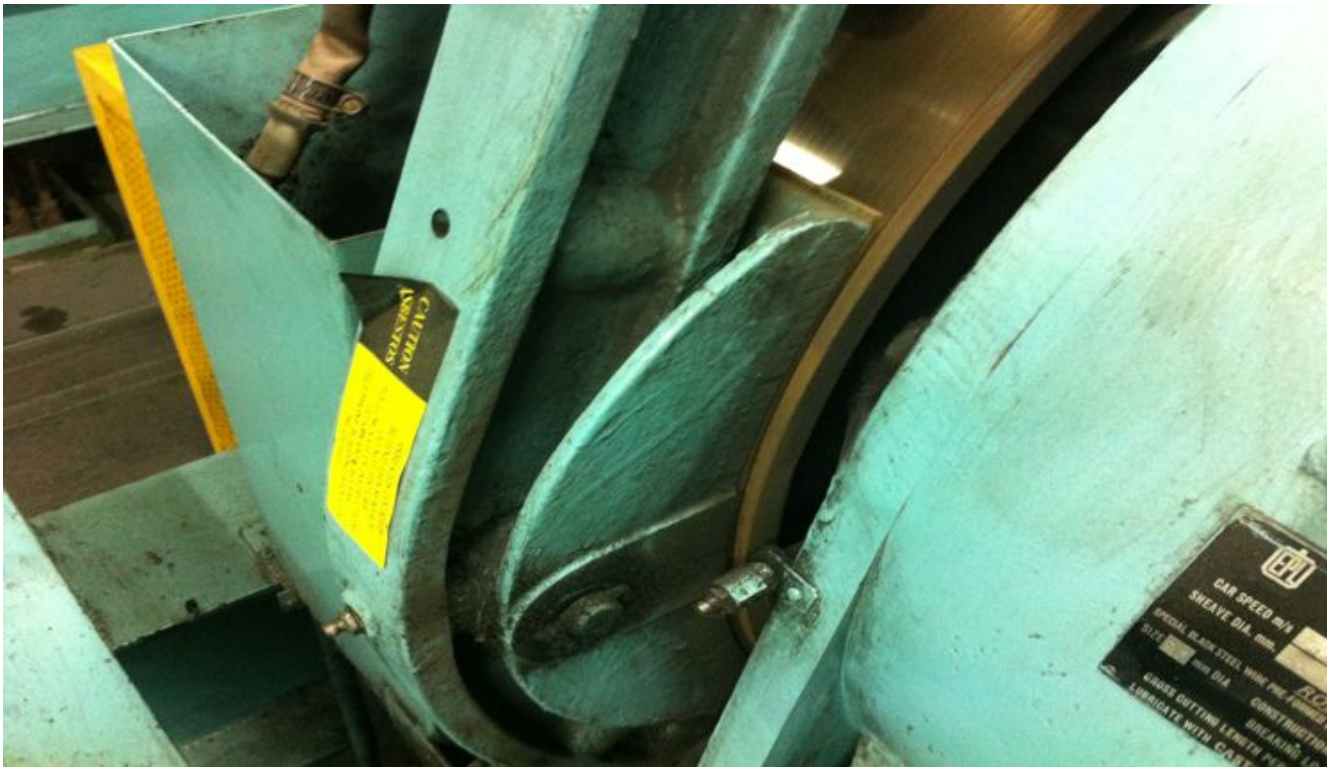


Photo 8: Bituminous brake pads assumed to contain asbestos within the Lift Motor Room of the North Wing – Menzies Hotel.

Photo 9: Cable insulation containing asbestos within the Control Cabinets of the Lift Motor Room of the North Wing – Menzies Hotel.

Photo 10: Vinyl floor tiles containing asbestos within the Laundry Room on Level 7 of the North Wing – Menzies Hotel.

Photo 11: Vinyl floor tiles containing asbestos within the Movie Link/Commas Room on the Lower Ground Level of the North Wing – Menzies Hotel..

Photo 12: Mastic containing asbestos on the external window frames on Level 16 of South Wing – Menzies Hotel.

Photo 13: Bituminous rope insulation containing asbestos on the main electrical cable on Level 16 of the South Wing – Menzies Hotel.

Photo 14: Two (2) electrical switchboards containing asbestos located within the Plant Room on the Lift Motor Room Level of the South Wing – Menzies Hotel.

Photo 15: Bituminous brake pads assumed to contain asbestos within the Lift Motor Room of the South Wing – Menzies Hotel.

Photo 16: A sample of a Fire Door assumed to contain asbestos core throughout the South Wing – Menzies Hotel.

Photo 17: Pipe work containing asbestos insulation located throughout the Plant Room on Level 15 of the South Wing – Menzies Hotel.

Photo 18: Asbestos gaskets located in the Plant Room on Level 15 of the South Wing – Menzies Hotel.

Photo 19: One (1) of two (2) bituminous backing boards containing asbestos adjacent the entrance door to the Plant Room on Level 15 of the South Wing – Menzies Hotel.

Photo 20: Two (2) large asbestos wrapped pipes within the Lifties Room on Level 15 of the South Wing – Menzies Hotel.

Photo 21: One (1) electrical distribution cupboard within the Lifties Room on Level 15 of the South Wing – Menzies Hotel.

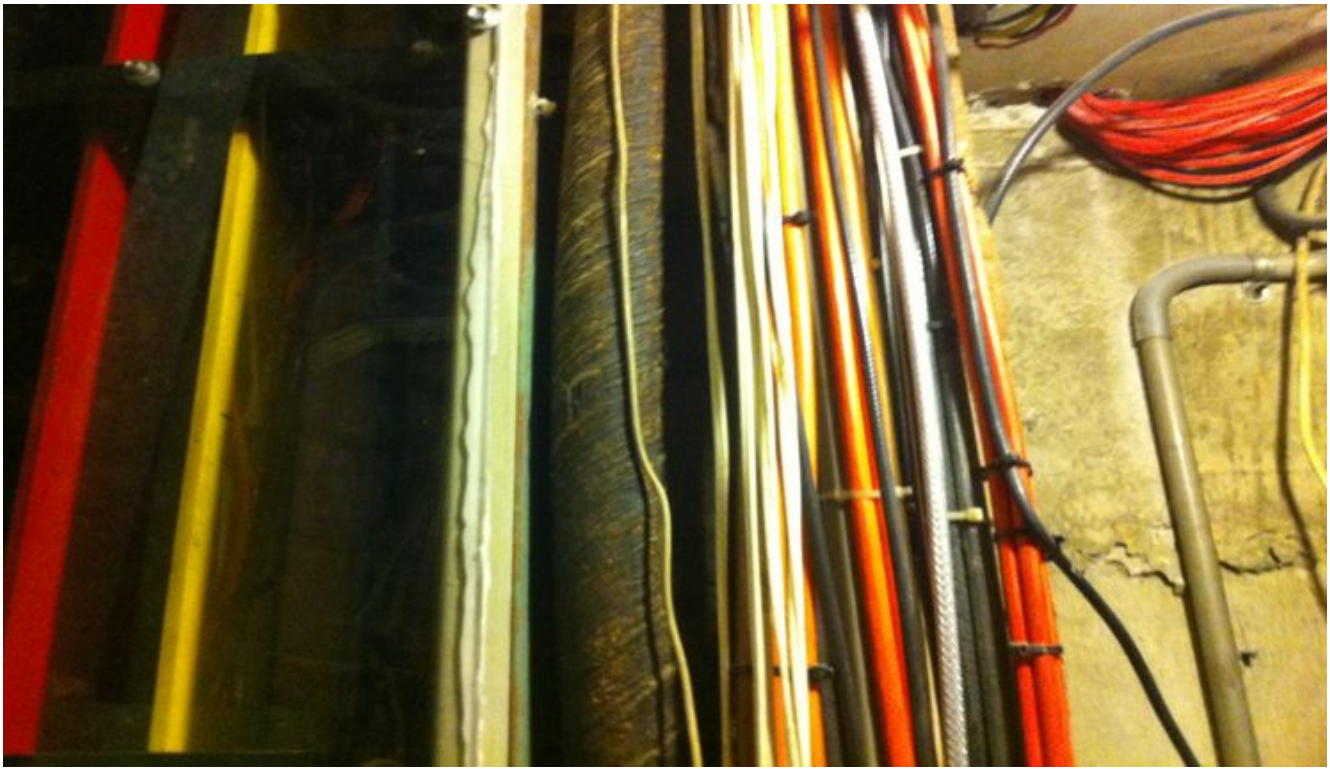


Photo 22: Bituminous rope insulation on the main electrical cable located within the riser cupboard of Level 15 of the South Wing – Menzies Hotel.

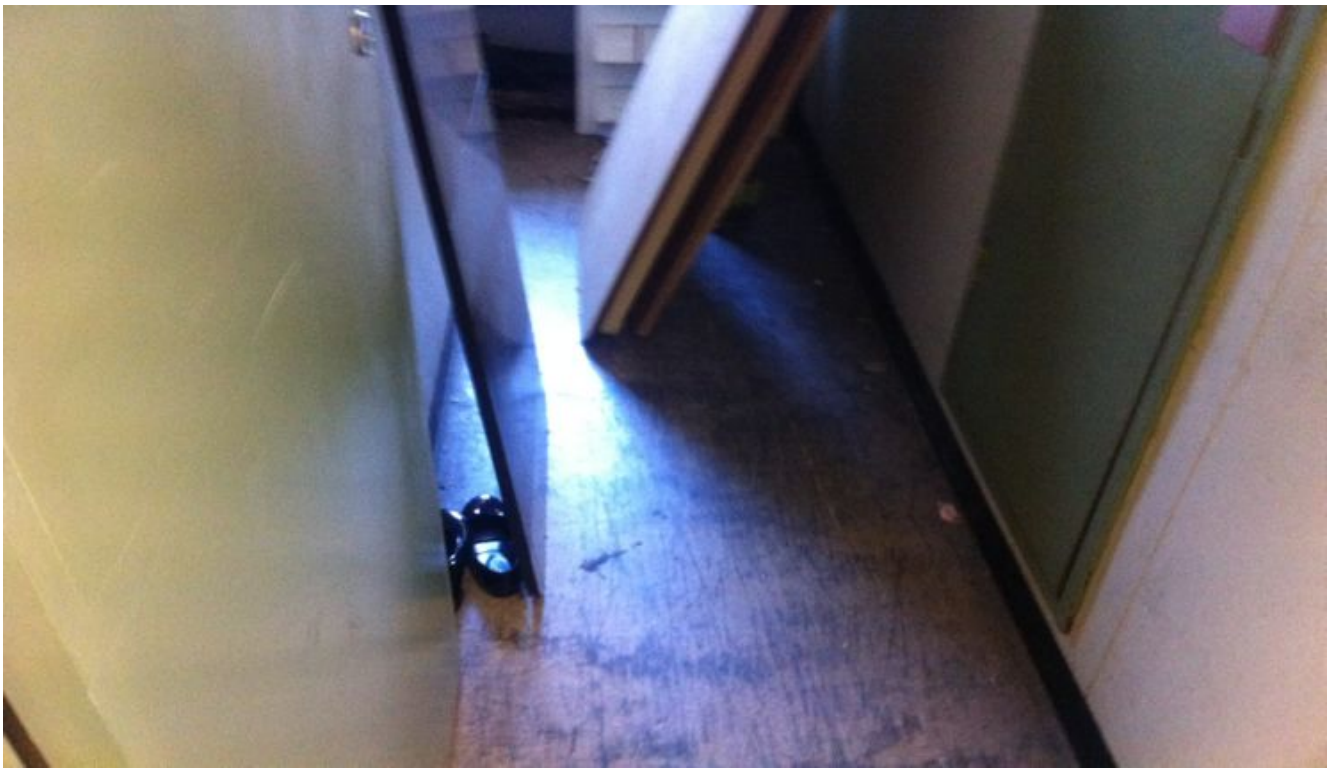


Photo 23: Vinyl floor tiles containing asbestos within the Laundry Store on Level 14 of the South Wing – Menzies Hotel.

Photo 24: Asbestos insulated pipe work in the Store Room on Level 4 of the South Wing – Menzies Hotel.

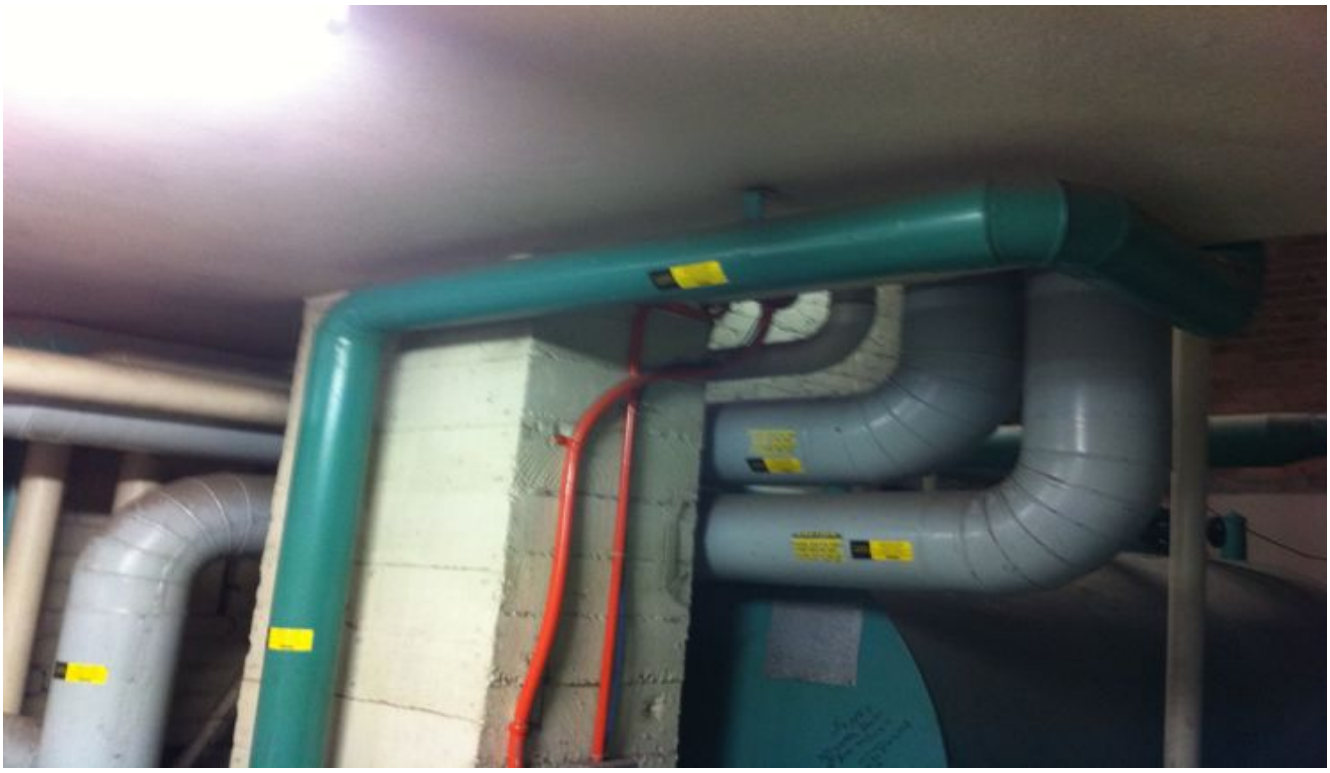


Photo 25: Asbestos insulated pipe work in the Plant Room on Level 3 ½ of the South Wing – Menzies Hotel.

Photo 26: Asbestos gaskets in the Plant Room on Level 3 ½ of the South Wing – Menzies Hotel.

Photo 27: Two (2) large asbestos wrapped pipes within the AV Room of the Banquet Kitchen on Level 2 of the South Wing – Menzies Hotel.

Photo 28: Dark brown vinyl floor tiles containing asbestos throughout the Service Corridor on the Ground Level of the South Wing – Menzies Hotel.

Photo 29: One (1) fire door containing asbestos from the Fire Stairs of the South Wing – Menzies Hotel.

Photo 30: Hot water pipe work gaskets located within the Boiler Room on the Basement Level of the South Wing – Menzies Hotel.

Photo 31: Encapsulated ceilings containing asbestos lagging insulation located throughout the Upper Tunnel of the Wynyard Lane Car Park.

Photo 32: Encapsulated columns containing asbestos lagging insulation located throughout the Upper and Lower Tunnels of the Wynyard Lane Car Park.

Photo 33: Encapsulated columns containing asbestos lagging insulation located throughout the Upper and Lower Tunnels of the Wynyard Lane Car Park.

Photo 34: Fire doors containing asbestos on the Upper Level Plant Rooms of the Wynyard Lane Car Park.

Photo 35: Asbestos lagging debris located within the Plumbers Riser Cupboard adjacent to the Entrance of the Wynyard Lane Car Park.

Photo 36: Bituminous backing board containing asbestos on the south-western wall of the Northern Section of the Lower Tunnel of Wynyard Lane Car Park.

Photo 37: Asbestos cement sheeting on the old wall cladding to the Basement Level Tunnel 1 within Wynyard Lane Car Park.

Photo 38: Bituminous brake pads containing asbestos on the Lift Motors located within the Lift Motor Room on Level 15 – 301 George Street, Sydney.

Photo 39: One (1) electrical switchboard containing asbestos arc shields within the Lift Motor Room on Level 15 – 301 George Street, Sydney.

Photo 40: Vinyl floor tiles containing asbestos beneath the carpet on all Tenanted Levels of 301 George Street, Sydney.

Photo 41: One (1) asbestos gasket on the large copper pipe work within the Main Western Riser on Level 3 of 301 George Street, Sydney.

Photo 42: One (1) asbestos gasket on the large copper pipe work within the ceiling space of the Main Hallway on Level 2 of 301 George Street, Sydney

Photo 43: Brown and yellow paint containing elevated levels of lead on the external area of the North Wing – Menzies Hotel.

Photo 44: Green paint containing elevated levels of lead on the external window frames of the North Wing – Menzies Hotel.

Photo 45: Beige paint containing elevated levels of lead on the ceiling and walls within the Lift Motor Room on the North Wing – Menzies Hotel.

Photo 46: Beige paint containing elevated levels of lead on the external walls of Level 3 ½ on the South Wing – Menzies Hotel.

Photo 47: Yellow paint containing elevated levels of lead on pipe work within the Hydrant Booster Pump Room on Level 3 of 301 George Street, Sydney.

Photo 48: Sprayed SMF insulation on the ceiling of the Boiler Room on the Rooftop Level of the North Wing – Menzies Hotel.

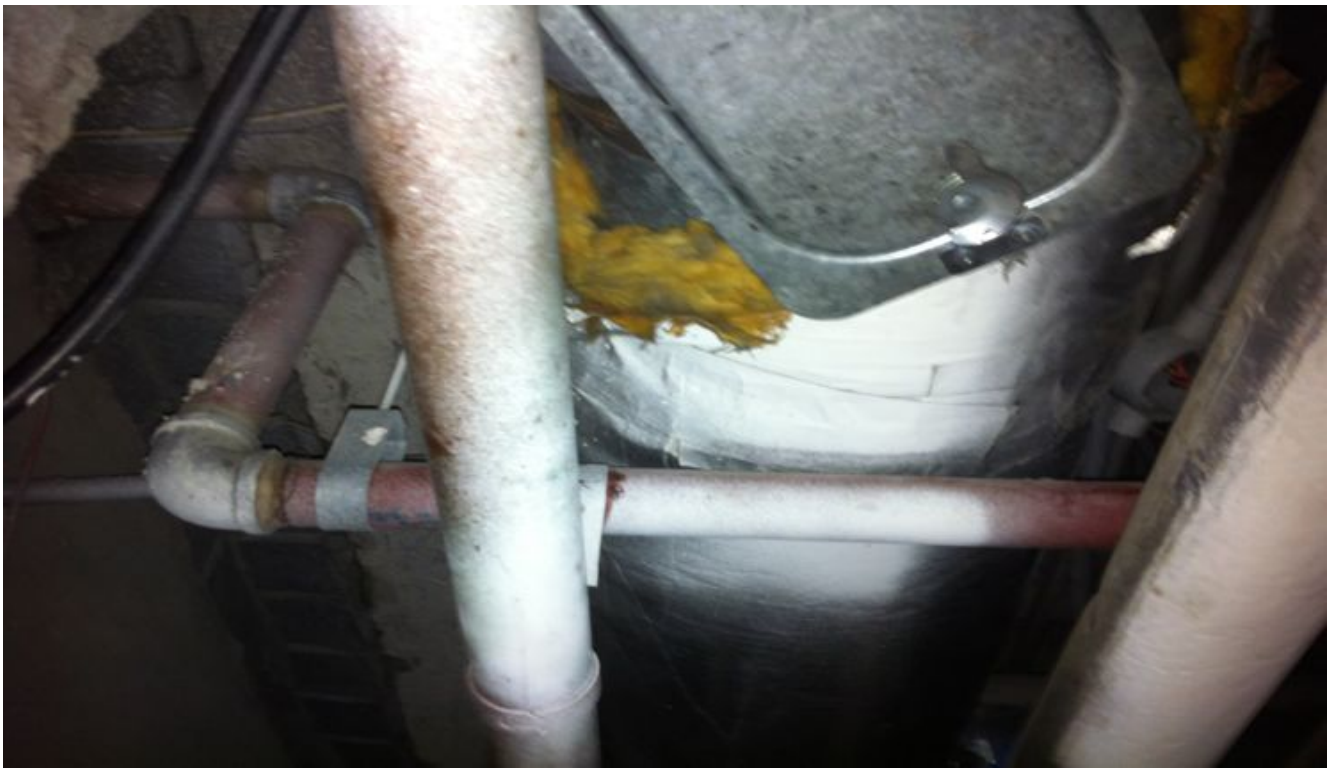


Photo 49: SMF insulation surrounding ductwork and oversprayed SMF insulation throughout ceiling spaces of the North Wing – Menzies Hotel.

Photo 50: Pipe work containing SMF insulation throughout the Plant Rooms within the South Wing – Menzies Hotel.

Photo 51: Sprayed SMF insulation located within Plant Rooms throughout the South Wing – Menzies Hotel.

Photo 52: Various hot water systems containing internal SMF insulation located throughout the South Wing – Menzies Hotel.

Photo 53: Ductwork containing internal SMF insulation located throughout the Wynyard Lane Car Park.

Photo 54: Sprayed SMF insulation located adjacent to the entrance to the Wynyard Lane Car Park.

Photo 55: SMF waterproofing and air conditioning units containing SMF insulation on the Rooftop Level of 301 George Street, Sydney.

Photo 56: SMF insulation on the ceiling of the Fire Stairwell of 301 George Street, Sydney.

Photo 57: SMF fire rating in the penetrations within the riser cupboards of 301 George Street, Sydney.

Photo 58: Cellulose ceiling tiles containing SMF within the Tenancies of 301 George Street, Sydney.

Photo 59: SMF insulation on the ductwork within the Loading Dock of 301 George Street, Sydney.

Photo 60: SMF insulation within the air conditioning ductwork of the Retail Areas of 301 George Street, Sydney.

APPENDIX B – TEST REPORTS

TEST REPORT

December 12, 2013

Andrew Johnston
Brookfield Multiplex Australasia
GPO Box 172
SYDNEY NSW 2001

Your Reference: One Carrington Development
Job Number: 21582

Attention: Andrew Johnston

Dear Andrew,

In accordance with your instructions, Airsafe tested samples from the above site for asbestos content.

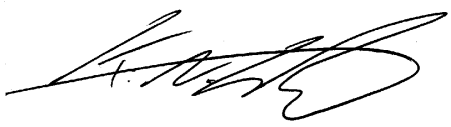
The following samples were processed on the dates indicated.

Samples:	57 Samples
Date of Sampling:	18-29/11/13
Date of Analysis:	07/12/13
Date of Preliminary Report Sent:	Not Issued

The results and associated quality control are contained in the following pages of this report.

Should you have any queries regarding this report please contact the undersigned.

Yours faithfully
AIRSAFE OHC PTY LIMITED



Kieran White
Approved Identifier and Signatory

PROJECT: One Carrington Development **JOB NO: 21582**

Sample No	Location/Reference	Description of sample	Asbestos ID in material
21582-1/1	Menzies Hotel – North Wing – External – Ground Level – between sandstone blocks – caulking	8x5x4mm caulking fragment	**Chrysotile asbestos detected**
21582-1/2	Menzies Hotel – North Wing – External – Ground Level – window frames - sealant	142x9x6mm window putty fragment	**Chrysotile asbestos detected**
21582-1/3	Menzies Hotel – North Wing – Roof Top Level – Air Supply/Exhaust Plant Room – ceiling insulation	4g fibrous insulation	No asbestos detected
21582-1/4	Menzies Hotel – North Wing – Internal – Roof Top Level – Boiler Plant Room – boiler – gasket	3x2x1mm fibrous gasket fragment	**Chrysotile asbestos detected**
21582-1/5	Menzies Hotel – North Wing – Internal – Roof Top Level – Boiler Plant Room – boiler – rope flange	4x4x2mm fibrous rope fragment	**Chrysotile asbestos detected**
21582-1/6	Menzies Hotel – North Wing – Internal – Level 11 – Common Areas – ceiling space – beneath ceiling slab – paper insulation	104x66x1mm fibrous paper fragment	No asbestos detected [Organic fibres detected]
21582-1/7	Menzies Hotel – North Wing – Internal - Level 11 – Common Areas – ceiling space – western hall - air conditioning duct work penetration	4g fibrous insulation	No asbestos detected [Organic fibres detected]
21582-1/8	Menzies Hotel – North Wing – Internal - Level 11 – Common Areas – ceiling space – eastern hallway - wall penetration	10x4x3mm mastic fragment	No asbestos detected
21582-1/9	Menzies Hotel – North Wing – Internal – Level 7 – Laundry Store Room - flooring	120x115x2mm beige vinyl floor tile fragment and orange adhesive	**Chrysotile asbestos detected in vinyl floor tile sample**
21582-1/10	Menzies Hotel – North Wing – Internal – Level 9 – western hallway – air conditioning duct work – flange sealant	5x5x2mmmastic fragment	No asbestos detected
21582-1/11	Menzies Hotel – North Wing – Internal – Lower Ground Level – Commas Room - flooring	80x44x2mm beige vinyl floor tile and orange adhesive fragment	**Chrysotile asbestos detected in vinyl floor tile sample**
21582-1/12	Menzies Hotel – North Wing – Internal – Basement Level – adjacent lifts - flooring	156x72x2mm beige vinyl floor tile fragment and orange adhesive	**Chrysotile asbestos detected in vinyl floor tile sample**
21582-1/13	Menzies Hotel – South Wing – External – Rooftop Level (16) – window frames - sealant	9x6x4mm mastic fragment	**Chrysotile asbestos detected**
21582-1/14	Menzies Hotel – South Wing – External – Rooftop Level (16) - waterproofing	11x5x4mm bitumen fragment	No asbestos detected
21582-1/15	Menzies Hotel – South Wing – External – Lower Ground Level – Loading Zone – exhaust duct - insulation	5g fibrous insulation	No asbestos detected [Organic fibres detected]
21582-1/16	Menzies Hotel – South Wing – Internal – Level 16 – Plant Room – main electrical cable insulation - insulation	5x4x2mm bituminous insulation fragment	**Chrysotile asbestos detected**
21582-1/17	Menzies Hotel – South Wing – Internal – Level 15 – Plant Room - hot water pipe work - gasket	5x2x1mm fibrous gasket fragment	**Chrysotile asbestos detected**

Sample No	Location/Reference	Description of sample	Asbestos ID in material
21582-1/18	Menzies Hotel – South Wing – Internal – Level 15 – Plant room – air conditioning duct work – insulation	4g fibrous insulation	No asbestos detected [Organic fibres detected]
21582-1/19	Menzies Hotel – South Wing – Internal – Level 15 – Plant Room – south-eastern area – air handling unit – pipe work – insulation	13x10x1mm bituminous pipe insulation	No asbestos detected [Organic fibres detected]
21582-1/20	Menzies Hotel – South Wing – Internal – Level 14 – Staff Lift Foyer – ceiling – insulation	4g vermiculite	No asbestos detected
21582-1/21	Menzies Hotel – South Wing – Internal – Level 12 – Riser – adjacent 1208-1210 – air conditioning duct work – sealant	6x4x2mm mastic fragment	No asbestos detected
21582-1/22	Menzies Hotel – South Wing – Internal – Level 14 – Laundry Store – flooring	80x44x2mm grey vinyl floor tile fragment	**Chrysotile asbestos detected**
21582-1/23	Menzies Hotel – South Wing – Internal – Level 11 – Ceiling Space – adjacent 1144 – sprayed insulation	4g fibrous insulation	No asbestos detected [Organic fibres detected]
21582-1/23	Menzies Hotel – South Wing – Internal – Level 3 ½ - Plant Room – pipe work – gaskets	8x4x1mm fibrous gasket fragment	**Chrysotile asbestos detected**
21582-1/24	Menzies Hotel – South Wing – Internal – Ground Level – Staff Lift Lobby – flooring	78x20x3mm dark beige vinyl floor tile and black adhesive glue fragment	**Chrysotile asbestos detected in vinyl floor tile sample** No asbestos detected in black adhesive
21582-1/25	Menzies Hotel – South Wing – Internal – Ground Level – Staff Lift Lobby – flooring	24x12x3mm light beige vinyl floor tile fragment and orange adhesive glue	No asbestos detected
21582-1/26	Wynyard Lane Car Park – Upper Tunnel – southern area – top of pipe work	6g dust	No asbestos detected
21582-1/27	Wynyard Lane Car Park – Upper Tunnel – middle area – top of pipe work	3g dust	No asbestos detected
21582-1/28	Wynyard Lane Car Park – Upper Tunnel – northern area – top of pipe work	5g dust	No asbestos detected
21582-1/29	Wynyard Lane Car Park – Lower Tunnel – northern area – ground surface	6g dust	No asbestos detected
21582-1/30	Wynyard Lane Car Park – Lower Tunnel – middle area – ground surface	10g dust	No asbestos detected
21582-1/31	Wynyard Lane Car Park – Lower Tunnel – beneath Mezzanine – ceiling waterproofing	10x5x2mm bituminous membrane fragment	No asbestos detected
21582-1/32	Wynyard Lane Car Park – Lower Tunnel – Car Park Entrance Area – Menzies Hotel Entry – awning – ceiling lining	6x2x1mm Masonite fragment	No asbestos detected
21582-1/33	Wynyard Lane Car Park – Lower Tunnel – Northern Section – southern area – electrical distribution board	2x2x1mm bituminous backing board fragment	**Chrysotile asbestos detected**
21582-1/34	Wynyard Lane Car Park – Basement Level 1 – middle area – ground surface	3g dust	No asbestos detected
21582-1/35	Wynyard Lane Car Park – Basement Level 2 – middle area – ground surface	4g dust	No asbestos detected

Sample No	Location/Reference	Description of sample	Asbestos ID in material
21582-1/36	Wynyard Lane Car Park – Basement Level 2 – northern entrance area – north-eastern old wall cladding	23x12x5mm fibreboard fragment	**Chrysotile asbestos detected [Organic fibres detected]**
21582-1/37	301 George Street – External – Rooftop Level (14) – adjacent door - waterproofing	18x10x4mm bituminous membrane fragment	No asbestos detected [Organic fibres detected]
21582-1/38	301 George Street – Internal – Fire Stairwell – Level 15 - adjacent Lift Motor Room – ceiling insulation	4g fibrous insulation	No asbestos detected [Synthetic mineral fibres detected]
21582-1/39	301 George Street – Internal – Level 14 Plant Room – structural beam	5g fibrous insulation	No asbestos detected [Synthetic mineral fibres detected]
21582-1/40	301 George Street – Internal – Level 14 Plant Room – air conditioning ductwork - sealant	13x7x1mm mastic fragment	No asbestos detected
21582-1/41	301 George Street – Internal – Level 14 Plant Room – Air Conditioning Ductwork - gaskets	7x4x3mm bituminous gasket fragment	No asbestos detected
21582-1/42	301 George Street – Internal – Level 14 Plant Room – hot water pipe work – adjacent calorifier - gasket	4x2x2mm bituminous gasket fragment	No asbestos detected
21582-1/43	301 George Street – Internal – Level 14 Plant Room – exposed riser cupboard – electrical cable - insulation	5x3x2mm bituminous cable insulation	No asbestos detected [Organic fibres detected]
21582-1/44	301 George Street – Internal – Level 14 Plant Room – southern area - flooring	12x7x1mm waterproof membrane fragment	No asbestos detected
21582-1/45	301 George Street – Internal – Level 12 – Electrical Riser Cupboard – floor penetrations	4g insulation	No asbestos detected
21582-1/46	301 George Street – Internal – Lift Well – middle lift – eastern pipe work – insulation overspray	1g vermiculite	No asbestos detected
21582-1/47	301 George Street – Internal – Level 11 – eastern tenancy – ceiling space – ceiling slab - ceiling insulation	4g vermiculite	No asbestos detected
21582-1/48	301 George Street – Internal – Level 11 – eastern tenancy – air conditioning duct work – flange joints - sealant	9x5x2mm mastic fragment	No asbestos detected
21582-1/49	301 George Street – Internal – Level 11 – eastern tenancy – window frame - sealant	13x8x5mm mastic fragment	No asbestos detected
21582-1/50	301 George Street – Internal – Level 11 – eastern tenancy – beneath carpet – old flooring	80x44x3mm grey vinyl floor tile fragment	Chrysotile asbestos detected
21582-1/51	301 George Street – Internal – Level 3 – Main Western Riser – large pipework - gasket	8x3x1mm fibrous gasket fragment	Chrysotile asbestos detected
21582-1/52	301 George Street – Internal – Level 3 – Hydrant Booster Pump Room – pipe work - gasket	3x2x1mm fibrous gasket fragment	No asbestos detected
21582-1/53	301 George Street – Internal – Level 3 – Hydrant Booster Control Panel Riser – floor penetration - insulation	18x15x3mm mastic fragment	No asbestos detected
21582-1/54	301 George Street – Internal – Loading Dock Area – duct work - insulation	5g vermiculite	No asbestos detected

Sample No	Location/Reference	Description of sample	Asbestos ID in material
21582-1/55	301 George Street – Internal – Menzies Arcade – Level 2 – Fire Hose Reel Cupboard – internal overspray insulation	1g fibrous insulation	No asbestos detected [Synthetic mineral fibres detected]
21582-1/56	301 George Street – Internal – Mezzanine Level – Plant Room – plant area – pipe work - gasket	4x3x1mm fibrous gasket fragment	Chrysotile asbestos detected
21582-1/57	301 George Street – Internal – Mezzanine Level – North-eastern Male Toilet – man hole cover	3x2x2mm fibrous cement sheet fragment	Chrysotile asbestos detected

Method: AS102 - Method for the Qualitative Identification of Asbestos in Bulk Samples. Samples have been analysed using polarized light microscopy including dispersion staining.

Sampling: All samples have been taken by Airsafe personnel in accordance with the sampling plan detailed in Method AS102.

Quality Control: A duplicate is a separate portion of a sample being analysed which is treated the same as the other samples in the batch. A duplicate is prepared at least every 10 samples.

Note: The results relate only to the samples tested.

Result Codes:

[INS] : Insufficient Sample for this test
* : Not part of NATA Accreditation
[N/A] : Not Applicable

Environmental Conditions: N/A

Comment: Even after disintegration of certain bulk samples (vinyl tiles and bituminous type materials), the detection of fibres may be difficult when using Polarised Light Microscopy and Dispersion Staining Techniques. This may be due to the matrix of the sample (uneven distribution), or fine fibres that are difficult to detect and positively identify.

TEST REPORT

December 10, 2013

Andrew Johnston
Brookfield Multiplex Australasia
GPO Box 172
SYDNEY NSW 2001

Your Reference: One Carrington Development
Job Number: 21582

Attention: Andrew Johnston

Dear Andrew,

In accordance with your instructions, Airsafe tested samples from the above site for lead content.

The following samples were processed on the dates indicated.

Samples:	17 Paints
Date of Sampling:	18-29/11/13
Date of Analysis:	06/12/13
Date of Preliminary Report Sent:	Not Issued

The results and associated quality control are contained in the following pages of this report.

Should you have any queries regarding this report please contact the undersigned.

Yours faithfully
AIRSAFE OHC PTY LIMITED

Benjamin Willetts
Consultant

PROJECT: **One Carrington Development** **JOB NO:** **21582**

Sample No	Location/Reference	Lead in paint %
21582-2/1	Menzies Hotel – South Wing – Level 16 – External – walls – off-white paint	0.054
21582-2/2	Menzies Hotel – South Wing – Level 3 ½ - External – northern wall – beige paint	**6.7**
21582-2/3	Menzies Hotel – North Wing – Lower Ground Level - External - – Wynyard Lane – walls – yellow paint	**7.2**
21582-2/4	Menzies Hotel – North Wing – Lower Ground Level – External - Wynyard Lane – window frames – brown paint	**14**
21582-2/5	Menzies Hotel – North Wing – Lower Ground Level – External - Wynyard Lane – window frames – green paint	**15**
21582-2/6	Menzies Hotel – North Wing – Lift Motor Room - Internal – walls – beige paint	**1.1**
21582-2/7	Menzies Hotel – North Wing – Level 8 – Internal – Eastern Stairwell – walls – grey/green paint	0.16
21582-2/8	Menzies Hotel – North Wing – Basement Level – Internal – Hot Water Tank Area – walls – blue paint	**1.5**
21582-2/9	Menzies Hotel – South Wing – Level 14 – Fire Stairwell – walls – white paint	0.15
21582-2/10	Wynyard Lane Car Park – Mezzanine Level – Internal – walls - beige paint	<0.05
21582-2/11	Wynyard Lane Car Park – Basement – Tunnel 1 – Internal – walls – grey paint	<0.05
21582-2/12	Wynyard Lane Car Park – Basement – Tunnel 1 – Internal – walls – white paint	<0.05
21582-2/13	Wynyard Lane Car Park – Lower Tunnel – lower areas – blue paint	<0.05
21582-2/14	Wynyard Lane Car Park – Lower Tunnel – walls – black paint	0.077
21582-2/20	301 George Street – Level 15 – Lift Motor Room – Internal – structural beams – brown paint	**3.6**
21582-2/21	301 George Street – Level 14 – Plant Room – Internal – structural beams – red paint	0.086
21582-2/22	301 George Street – Level 3 – Hydrant Booster Pump Room – pipe work – yellow paint	**6.9**

Method: Paint analysed by Envirolab Services Pty Ltd [NATA Accredited Laboratory 2901] using Method ID - Metals.4 – Digestion of Paint chips for Lead determination by ICP-AES.

Sampling: All samples have been taken by Airsafe personnel in accordance with the sampling plan outlined in the Guide to Lead Paint Management Part 2: Residential and Commercial Buildings [AS 4361.2-1998].

Quality Control: N/A

Note: The results relate only to the samples tested.

Result Codes:
[N/A] : Not Applicable
[INS] : Insufficient Sample for this test

Environmental Conditions: N/A

Comment: Paint with more than 1% lead require careful and immediate measures to control the hazard as stated in the Guide to Lead Paint Management Part 2: Residential and Commercial Buildings [AS 4361.2-1998].

TEST REPORT

December 19, 2013

Andrew Johnston
Brookfield Multiplex Australasia
GPO Box 172
SYDNEY NSW 2001

Your Reference: One Carrington Development
Job Number: 21582

Attention: Andrew Johnston

Dear Andrew,

In accordance with your instructions, Airsafe tested samples from the above site for lead content.

The following samples were processed on the dates indicated.

Samples:	1 Paint
Date of Sampling:	10/12/13
Date of Analysis:	19/12/13
Date of Preliminary Report Sent:	Not Issued

The results and associated quality control are contained in the following pages of this report.

Should you have any queries regarding this report please contact the undersigned.

Yours faithfully
AIRSAFE OHC PTY LIMITED

Benjamin Willetts
Consultant

PROJECT: **One Carrington Development** **JOB NO:** **21582**

Sample No	Location/Reference	Lead in paint %
21582-2/23	301 George Street – External – Wynyard Lane – walls – white paint	<0.05

Method: Paint analysed by Envirolab Services Pty Ltd [NATA Accredited Laboratory 2901] using Method ID - Metals.4 – Digestion of Paint chips for Lead determination by ICP-AES.

Sampling: All samples have been taken by Airsafe personnel in accordance with the sampling plan outlined in the Guide to Lead Paint Management Part 2: Residential and Commercial Buildings [AS 4361.2-1998].

Quality Control: N/A

Note: The results relate only to the samples tested.

Result Codes:
[N/A] : Not Applicable
[INS] : Insufficient Sample for this test

Environmental Conditions: N/A

Comment: Paint with more than 1% lead require careful and immediate measures to control the hazard as stated in the Guide to Lead Paint Management Part 2: Residential and Commercial Buildings [AS 4361.2-1998].

TEST REPORT

December 10, 2013

Andrew Johnston
Brookfield Multiplex Australasia
GPO Box 172
SYDNEY NSW 2001

Your Reference: One Carrington Development
Job Number: 21582

Attention: Andrew Johnston

Dear Andrew,

In accordance with your instructions, Airsafe tested ceiling dust samples from the above site for lead content.

The following samples were processed on the dates indicated.

Samples:	5 Dust
Date of Sampling:	26/11/13
Date of Analysis:	06/12/13
Date of Preliminary Report Sent:	Not Issued

The results and associated quality control are contained in the following pages of this report.

Should you have any queries regarding this report please contact the undersigned.

Yours faithfully
AIRSAFE OHC PTY LIMITED

Benjamin Willetts
Consultant

PROJECT: **One Carrington Development** **JOB NO:** **21582**

Sample No	Location/Reference	Lead mg/kg
21582-2/15	Wynyard Lane Car Park – Internal – Upper Tunnel – southern area - dust	320
21582-2/16	Wynyard Lane Car Park – Internal – Upper Tunnel – middle area - dust	260
21582-2/17	Wynyard Lane Car Park – Internal – Upper Tunnel – northern area - dust	300
21582-2/18	Wynyard Lane Car Park – Internal – Lower Tunnel – middle area - dust	280
21582-2/19	Wynyard Lane Car Park – Internal – Lower Tunnel – northern area - dust	290

Method: Dust analysed by Envirolab Services Pty Ltd [NATA Accredited Laboratory 2901] using Method ID – Metals.20 ICP-AES – Determination of various metals by ICP-AES.

Sampling: All samples have been taken by Airsafe personnel in accordance with the sampling plan outlined in the Guide to Lead Paint Management Part 2: Residential and Commercial Buildings [AS 4361.2-1998].

Quality Control: N/A

Note: The results relate only to the samples tested.

Result Codes:
[N/A] : Not Applicable
[INS] : Insufficient Sample for this test

Environmental Conditions: N/A

Comment: Lead concentration is less than the Health-Based Investigation Level of 1500mg/kg for Exposure Setting F [Commercial/Industrial: includes premises such as shops and offices as well as factories and industrial sites] as stated in Schedule B (7a) Guideline on Health-Based Investigation Levels [National Environment Protection (Assessment of Site Contamination) Measure 1999].

Where lead concentrations are reported above this guideline, ceiling dust should be removed and further dust sampling performed to verify lead concentrations have fallen below this limit.

TEST REPORT

December 19, 2013

Andrew Johnston
Brookfield Multiplex Australasia
GPO Box 172
SYDNEY NSW 2001

Your Reference: One Carrington Development
Job Number: 21582

Attention: Andrew Johnston

Dear Andrew,

In accordance with your instructions, Airsafe tested ceiling dust samples from the above site for lead content.

The following samples were processed on the dates indicated.

Samples:	1 Dust
Date of Sampling:	10/12/13
Date of Analysis:	19/12/13
Date of Preliminary Report Sent:	Not Issued

The results and associated quality control are contained in the following pages of this report.

Should you have any queries regarding this report please contact the undersigned.

Yours faithfully
AIRSAFE OHC PTY LIMITED

Benjamin Willetts
Consultant

PROJECT: **One Carrington Development** **JOB NO:** **21582**

Sample No	Location/Reference	Lead mg/kg
21582-2/24	Menzies Arcade – Level 2 – adjacent Lift – ceiling space - dust	79

Method: Dust analysed by Envirolab Services Pty Ltd [NATA Accredited Laboratory 2901] using Method ID – Metals.20 ICP-AES – Determination of various metals by ICP-AES.

Sampling: All samples have been taken by Airsafe personnel in accordance with the sampling plan outlined in the Guide to Lead Paint Management Part 2: Residential and Commercial Buildings [AS 4361.2-1998].

Quality Control: N/A

Note: The results relate only to the samples tested.

Result Codes:
[N/A] : Not Applicable
[INS] : Insufficient Sample for this test

Environmental Conditions: N/A

Comment: Lead concentration is less than the Health-Based Investigation Level of 1500mg/kg for Exposure Setting F [Commercial/Industrial: includes premises such as shops and offices as well as factories and industrial sites] as stated in Schedule B (7a) Guideline on Health-Based Investigation Levels [National Environment Protection (Assessment of Site Contamination) Measure 1999].

Where lead concentrations are reported above this guideline, ceiling dust should be removed and further dust sampling performed to verify lead concentrations have fallen below this limit.

APPENDIX C – CHAIN OF CUSTODY

AIRSAFE
93 Beattie Street Balmain NSW 2041 Australia
T. 02 9555 9034 | F. 02 9555 9035
info@airsafe.net.au | www.airsafe.net.au
ABN 85 143 863 496

CHAIN OF CUSTODY

PROJECT NAME: One Carrington Development
JOB NO: 21582
CONTACT: Kieran White
REPORT TO: info@airsafe.net.au
PRIOR STORAGE: Esky / Fridge / Ice

TO: Envirolab Services Pty Ltd
12 Ashley Street
Chatswood NSW 2067

CONTACT: T. 02 9910 6200
F. 02 9910 6201

ATTENTION: Aileen Hie
ahie@envirolabservices.com.au

ENVIROLAB Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 101739
Date Received: 3 Dec '13
Time Received: 4:10 5pm
Received by:
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

LAB ID	Sample Information				Tests Required																	Comments
					Inorganics								Organics					Other				
	Sample ID	Date Sampled	Sampled By	Sample Type	As	Cd	Cr	Cu	Pb	Ni	Zn	Hg	BTEX	TRH	PAHs	OC/OP Pesticides	PCBs	TCLP (PAHs)	TCLP (Metals)	Asbestos		Provide as much information as possible
1	21582-2/1	—	BW	Paint					✓													
2	21582-2/2	"	"	"					✓													
3	21582-2/3	"	"	"					✓													
4	21582-2/4	"	"	"					✓													
5	21582-2/5	"	"	"					✓													
6	21582-2/6	"	"	"					✓													
7	21582-2/7	"	"	"					✓													
8	21582-2/8	"	"	"					✓													
9	21582-2/9	"	"	"					✓													

Relinquished By (Company):	AIRSAFE OHC PTY LTD	**Received By (Company):**	ELS
Print Name:	BENJAMIN WILLETT	**Print Name:**	Hoho
Date and Time:	03/12/2013	**Date and Time:**	3 Dec '13 @ 5pm
Signature:		**Signature:**	

Turnaround Time:	
Same Day	
1 Day	
2 Day	
3 Day	✓
Standard	

Chain of Custody [Issued 01/07/10 – Kieran White]

Page 1 of 1

AIRSAFE

AIRSAFE
93 Beattie Street Balmain NSW 2041 Australia
T. 02 9555 9034 | F. 02 9555 9035
info@airsafe.net.au | www.airsafe.net.au
ABN 85 143 863 496

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 101738
Date Received: 3 Dec '13
Time Received: 5 pm
Received by: HO
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

CHAIN OF CUSTODY

PROJECT NAME: One Carrington Development
JOB NO: 21582
CONTACT: Kieran White
REPORT TO: info@airsafe.net.au
PRIOR STORAGE: Esky / Fridge / Ice

TO: Envirolab Services Pty Ltd
12 Ashley Street
Chatswood NSW 2067

CONTACT: T. 02 9910 6200
F. 02 9910 6201

ATTENTION: Aileen Hie
ahie@envirolabservices.com.au

Lab ID	Sample ID	Date Sampled	Sampled By	Sample Type	Inorganics: As	Cd	Cr	Cu	Pb	Ni	Zn	Hg	Organics: BTEX	TRH	PAHs	OC/OP Pesticides	PCBs	Other: TCLP (PAHs)	TCLP (Metals)	Asbestos		Comments
1	21582-2/10	—	Bw	Paint					✓													
2	21582-2/11	"	"	"					✓													
3	21582-2/12	"	"	"					✓													
4	21582-2/13	"	"	"					✓													
5	21582-2/14	"	"	"					✓													
6	21582-2/15	"	"	Dust					✓													
7	21582-2/16	"	"	"					✓													
8	21582-2/17	"	"	"					✓													
9	21582-2/18	"	"	"					✓													
10	21582-2/19	"	"	"					✓													

Relinquished By (Company): AIRSAFE OHC QLD LTD	**Received By (Company):** ELS	**Turnaround Time:**	Same Day
Print Name: BENJAMIN WILLETTS	**Print Name:** Helio		1 Day
Date and Time: 03/12/2013	**Date and Time:** 3 Dec '13 @ 5 pm		2 Day
Signature: Ben Willetts	**Signature:**		3 Day ✓
			Standard

Chain of Custody [Issued 01/07/10 – Kieran White]

Page 1 of 1

AIRSAFE
93 Beattie Street Balmain NSW 2041 Australia
T. 02 9555 9034 | F. 02 9555 9035
info@airsafe.net.au | www.airsafe.net.au
ABN 85 143 863 496

CHAIN OF CUSTODY

PROJECT NAME: One Carrington Development
JOB NO: 21582
CONTACT: Kieran White
REPORT TO: info@airsafe.net.au
PRIOR STORAGE: Esky / Fridge / Ice

TO: Envirolab Services Pty Ltd
12 Ashley Street
Chatswood NSW 2067
CONTACT: T. 02 9910 6200
F. 02 9910 6201
ATTENTION: Aileen Hie
ahie@envirolabservices.com.au

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 101740
Date Received: 3 Dec '13
Time Received: 5 pm
Received by: HO
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

LAB ID	Sample ID	Date Sampled	Sampled By	Sample Type	Inorganics: As	Cd	Cr	Cu	Pb	Ni	Zn	Hg	Organics: BTEX	TRH	PAHs	OC/OP Pesticides	PCBs	Other: TCLP (PAHs)	TCLP (Metals)	Asbestos		Comments
1	21582-2/20	–	BW	Paint					✓													
2	21582-2/21	–	"	"					✓													
3	21582-2/22	–	"	"					✓													

Relinquished By (Company):	AIRSAFE OHC PTY LTD	**Received By (Company):**	ELS
Print Name:	BENJAMIN WILLETTS	**Print Name:**	HOHO
Date and Time:	03/12/2013	**Date and Time:**	3 Dec '13 & 5 pm
Signature:		**Signature:**	

Turnaround Time:

Same Day	
1 Day	
2 Day	
3 Day	✓
Standard	

Chain of Custody [Issued 01/07/10 – Kieran White]

Page 1 of 1

AIRSAFE
93 Beattie Street Balmain NSW 2041 Australia
T. 02 9555 9034 | F. 02 9555 9035
info@airsafe.net.au | www.airsafe.net.au
ABN 85 143 863 496

CHAIN OF CUSTODY

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 102612
Date Received: 16/12/13
Time Received: 15:00
Received by: AK
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

PROJECT NAME: One Carrington Development.
JOB NO: 21582
CONTACT: Kieran White
REPORT TO: info@airsafe.net.au
PRIOR STORAGE: Esky / Fridge / Ice

TO: Envirolab Services Pty Ltd
12 Ashley Street
Chatswood NSW 2067
CONTACT: T. 02 9910 6200
F. 02 9910 6201
ATTENTION: Aileen Hie
ahie@envirolabservices.com.au

Sample Information				Tests Required																	Comments
				Inorganics								Organics					Other				
Sample ID	Date Sampled	Sampled By	Sample Type	As	Cd	Cr	Cu	Pb	Ni	Zn	Hg	BTEX	TRH	PAHs	OC/OP Pesticides	PCBs	TCLP (PAHs)	TCLP (Metals)	Asbestos		Provide as much information as possible
1 – 21582-2/22	10/12/13	BW	Paint					✓													
2 – 21582-2/24	"	"	Dust					✓													

Relinquished By (Company):	AIRSAFE ONE PTY LTD	**Received By (Company):**	ELS
Print Name:	BENJAMIN WILLETTS	**Print Name:**	A. Weir
Date and Time:	16/12/13	**Date and Time:**	16/12/13 15:00
Signature:		**Signature:**	

Turnaround Time:

Same Day	
1 Day	
2 Day	
3 Day	✓
Standard	

Chain of Custody [Issued 01/07/10 – Kieran White]

Page 1 of 1

APPENDIX D – ANALYSIS RESULTS

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS **101739**

Client:
Airsafe Laboratories
93 Beattie St
Balmain
NSW 2041

Attention: Kieran White

Sample log in details:

Your Reference:	**21582, One Carrington Development**
No. of samples:	9 Paints
Date samples received / completed instructions received	03/12/2013 / 03/12/2013

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date:	6/12/13 / 6/12/13
Date of Preliminary Report:	None Issued

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Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:

Jacinta Hurst
Laboratory Manager

Client Reference: **21582, One Carrington Development**

Lead in Paint Our Reference: Your Reference Type of sample	UNITS ---------- ----------	101739-1 21582-2/1 Paint	101739-2 21582-2/2 Paint	101739-3 21582-2/3 Paint	101739-4 21582-2/4 Paint	101739-5 21582-2/5 Paint
Lead in paint	%w/w	0.054	6.7	7.2	14	15

Lead in Paint Our Reference: Your Reference Type of sample	UNITS ---------- ----------	101739-6 21582-2/6 Paint	101739-7 21582-2/7 Paint	101739-8 21582-2/8 Paint	101739-9 21582-2/9 Paint
Lead in paint	%w/w	1.1	0.16	1.5	0.15

Client Reference: 21582, One Carrington Development

Method ID	Methodology Summary
Metals-004	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

Client Reference: 21582, One Carrington Development

QUALITY CONTROL Lead in Paint	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Lead in paint	% w / w	0.05	Metals-004	<0.05	101739-2	6.7 || 6.3 || RPD: 6	LCS-1	114%

Client Reference: 21582, One Carrington Development

Report Comments:

Asbestos ID was analysed by Approved Identifier:	Not applicable for this job
Asbestos ID was authorised by Approved Signatory:	Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS **101738**

Client:
Airsafe Laboratories
93 Beattie St
Balmain
NSW 2041

Attention: Kieran White

Sample log in details:

Your Reference:	**21582, One Carrington Development**
No. of samples:	5 Paints 5 Dusts
Date samples received / completed instructions received	03/12/2013 / 03/12/2013

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date:	6/12/13 / 6/12/13
Date of Preliminary Report:	None Issued

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Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:

Jacinta Hurst
Laboratory Manager

Client Reference: 21582, One Carrington Development

Lead in Paint Our Reference: Your Reference Type of sample	UNITS ---------- ----------	101738-1 21582-2/10 Paint	101738-2 21582-2/11 Paint	101738-3 21582-2/12 Paint	101738-4 21582-2/13 Paint	101738-5 21582-2/14 Paint
Lead in paint	%w/w	<0.05	<0.05	<0.05	<0.05	0.077

Client Reference: 21582, One Carrington Development

Lead (dust) Our Reference: Your Reference Type of sample	UNITS ---------- ----------	101738-6 21582-2/15 Dust	101738-7 21582-2/16 Dust	101738-8 21582-2/17 Dust	101738-9 21582-2/18 Dust	101738-10 21582-2/19 Dust
Lead	mg/kg	320	260	300	280	290

Method ID	Methodology Summary
Metals-004	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.

Client Reference: 21582, One Carrington Development

QUALITY CONTROL Lead in Paint	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Lead in paint	% w / w	0.05	Metals-004	<0.05	101738-1	<0.05 || <0.05	LCS-1	103%
QUALITY CONTROL Lead (dust)	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Lead	mg/kg	1	Metals-020 ICP-AES	<1	101738-6	320 || 350 || RPD: 9	LCS-1	104%

Client Reference: **21582, One Carrington Development**

Report Comments:

Asbestos ID was analysed by Approved Identifier:	Not applicable for this job
Asbestos ID was authorised by Approved Signatory:	Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

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enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS **101740**

Client:
Airsafe Laboratories
93 Beattie St
Balmain
NSW 2041

Attention: Kieran White

Sample log in details:

Your Reference:	**21582, One Carrington Development**
No. of samples:	3 Paints
Date samples received / completed instructions received	03/12/2013 / 03/12/2013

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date:	6/12/13 / 6/12/13
Date of Preliminary Report:	None Issued

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Results Approved By:

Jacinta Hurst
Laboratory Manager

Client Reference: 21582, One Carrington Development

Lead in Paint Our Reference: Your Reference Type of sample	UNITS ---------- ----------	101740-1 21582-2/20 Paint	101740-2 21582-2/21 Paint	101740-3 21582-2/22 Paint
Lead in paint	% w/w	3.6	0.086	6.9

Client Reference: 21582, One Carrington Development

Method ID	Methodology Summary
Metals-004	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

Client Reference: 21582, One Carrington Development

QUALITY CONTROL Lead in Paint	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Lead in paint	%w/w	0.05	Metals-004	<0.05	[NT]	[NT]	LCS-1	114%

Client Reference: **21582, One Carrington Development**

Report Comments:

Asbestos ID was analysed by Approved Identifier:	Not applicable for this job
Asbestos ID was authorised by Approved Signatory:	Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

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Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
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enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS **102612**

Client:
Airsafe Laboratories
93 Beattie St
Balmain
NSW 2041

Attention: Kieran White

Sample log in details:

Your Reference:	**21582, One Carrington Development**
No. of samples:	1 Paint 1 Dust
Date samples received / completed instructions received	16/12/2013 / 16/12/2013

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date:	19/12/13 / 19/12/13
Date of Preliminary Report:	None Issued

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Results Approved By:

Jacinta Hurst
Laboratory Manager

Client Reference: **21582, One Carrington Development**

Lead (dust)		
Our Reference:	UNITS	102612-2
Your Reference	----------	21582-2/24
Type of sample	----------	Dust
Lead	mg/kg	79

Client Reference: 21582, One Carrington Development

Lead in Paint Our Reference: Your Reference Type of sample	UNITS ---------- ----------	102612-1 21582-2/23 Paint
Lead in paint	% w/w	<0.05

Client Reference: 21582, One Carrington Development

Method ID	Methodology Summary
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-004	Digestion of Paint chips/scrapings/liquids for Metals determination by ICP-AES/MS and or CV/AAS.

Client Reference: 21582, One Carrington Development

QUALITY CONTROL Lead (dust)	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-1	98%
QUALITY CONTROL Lead in Paint	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Lead in paint	%w/w	0.05	Metals-004	<0.05	[NT]	[NT]	LCS-1	97%

Client Reference: **21582, One Carrington Development**

Report Comments:

Asbestos ID was analysed by Approved Identifier:	Not applicable for this job
Asbestos ID was authorised by Approved Signatory:	Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
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