

HPG GENERAL PTY LTD



Hazardous Materials Survey



13-19 Canberra Avenue, St Leonards NSW

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Executive Summary

HPG General Pty Ltd engaged EI Australia (EI) to conduct a Hazardous Materials Survey for the property located at 13-19 Canberra Avenue, St Leonards NSW (herein referred to as 'the site').

The purpose of this Hazardous Materials Survey is to present the findings of a qualitative risk assessment of the hazardous building materials located on the site. The site inspection was undertaken on 29 June 2021.

This report has been developed to assist HPG General Pty Ltd with the preparation for the redevelopment of the site. EI understand that proposed redevelopment of the site shall involve the demolition of existing structures.

Key Findings

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

Table 1 Key Findings

Site Name	ACM (friable)	ACM (Non-friable)	SMF	LBP	PCBs
19 Canberra Ave	No	Yes	Yes	Yes	Yes
17 Canberra Ave	No	Yes	Yes	No	No
15 Canberra Ave	No	Yes	Yes	No	No
13 Canberra Ave	No	Yes	Yes	No	Yes

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

Remedial Works Required

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

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

1. Introduction

1.1 Background and Purpose

EI Australia (EI) was engaged by HPG General Pty Ltd to conduct a Hazardous Materials Survey (HMS) for the site located at 13-19 Canberra Avenue, St Leonards NSW.

EI understand that proposed redevelopment of the site shall involve demolition of existing structures. As such, a HMS is required as part of a Development Application (DA) submission to Council prior to demolition works.

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

1.2 Scope of Works

The aim of the HMS was to:

- Inspection of the site buildings, to ascertain whether they contained hazardous material(s), namely:
 - Asbestos-containing materials (ACM);
 - Synthetic mineral fibre (SMF) materials;
 - Lead-based paint systems (LBP); and
 - Polychlorinated biphenyls (PCB) containing materials;
- Undertake a qualitative risk assessment of the identified hazardous materials;
- Provide recommendations where remedial works were needed; and
- Prepare a report with the findings of the survey, including a hazardous material register and recommendations (control strategies) for the on-going management of the identified hazardous materials.

2. Site Description

2.1 Property Identification and Location

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


Table 2-1 Site Identification and Location

Attribute	Description
Street Address	13-19 Canberra Avenue, St Leonards NSW
Location Description	5km north-northwest of the Sydney central business district. Located at south side of the Pacific Highway on Canberra Avenue.
Site Coordinates	Coordinates of the south-east corner (under GDA2020-MGA56): Easting: 332871.983; Northing: 6255641.335. (Source: https://maps.six.nsw.gov.au/)
Site Area	2,629 m ² (Ref. Survey Plan by DSP Surveyors , Ref. 20316CANBERRA13-19, 18/12/2020)

2.2 Building Descriptions

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

Table 2-2 Building Descriptions

Description
<p>19 Canberra Avenue</p> <p>The property consists of a single story residential house.</p> <p>The building consists of brick external and internal walls, ceramic tiled roofing,, fibre cement sheeting (FSC) and Masonite ceiling. House includes 2 backyard sheds and a garage unit.</p> <p>Note: The ceiling, walls and/or subfloor cavity was inaccessible.</p>


17 Canberra Avenue

The property consists of a single story residential house.

The building consists of brick external walls, brick and plasterboard internal walls, ceramic tiled roofing, fibre cement sheeting (FSC) and plasterboard ceiling. House includes a carport area.

Note: The ceiling, walls and/or subfloor cavity was inaccessible.



15 Canberra Avenue

The property consists of a double story residential house.

The building consists of brick external walls, brick and plasterboard internal walls, ceramic tiled roofing, plasterboard ceiling, fibre cement sheeting (FCS) awning boards and eaves. House includes a backyard shed and a carport area.

Note: The ceiling, walls and/or subfloor cavity was inaccessible.



13 Canberra Avenue

The property consists of a single story residential house.

The building consists of brick external walls, brick and plasterboard internal walls, ceramic tiled roofing, timber and FCS ceiling, awning boards and eaves. House includes a backyard shed and a garage unit.

Note: The ceiling, walls and/or subfloor cavity was inaccessible.



3. General Methodology

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

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

The scope of the survey was limited to inspection of the accessible building construction materials, including finishes and operational services, with the collection of representative samples suspected of containing a hazardous substance (listed above), where it was permissible to do so. Limitations were placed on the ambit of the inspection, due to access restrictions on some parts of the site.

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

3.1 Asbestos

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

Non Friable asbestos material

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

Friable asbestos material

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

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

3.2 Lead in Paint

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

Australian Standard AS 4361.2-2017 *Guide to Lead Paint Management, Part 2: Lead Paint in Residential, Public and Commercial Buildings* defines LBP as a paint film or component coat of a paint system in which the lead content (calculated as lead metal) is in excess of 0.1% by weight of the dry film, as determined by laboratory testing. The NSW *Work Health and Safety Regulation 2017* currently defines a lead process as works on paint containing more than 1.0% by dry weight of lead.

3.3 Synthetic Mineral Fibres (SMF)

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

3.4 Polychlorinated Biphenyls (PCBs)

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

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

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

4. Risk Assessment

The building located at 13-19 Canberra Avenue, St Leonards NSW was the subject of a Hazardous Materials Survey. The Hazardous Materials Register, presented in **Appendix A**, assesses the risks associated with each identified hazardous material. In order to assess the health risks associated with asbestos, LBP, SMF and PCBs the following must be considered:

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

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

4.1 Friability

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

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

4.2 Condition

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

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

4.3 Accessibility

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

4.4 Priority Ratings

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

Priority 1: Immediate Risk Level

A material which, due to its present condition and location, presents an immediate health risk. The material and area surrounding should be isolated from personnel with remedial action(s) undertaken at the earliest practicable time.

Priority 2: Elevated Risk Level

Damaged or unstable material which, if disturbed, presents an elevated health risk to personnel within the vicinity and has potential for contamination to be spread to other areas. The material should be stabilised immediately, with remedial action(s) considered.

Priority 3: Low Risk Level

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

Priority 4: Negligible Risk Level

Stable material that presents a negligible health risk unless damaged. Such material should be maintained in good condition. It should be reassessed prior to any works that will impact the material.

Inaccessible:

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

5. Summary of Survey

The identified hazardous materials on the surveyed buildings are listed in **Table 5-1**. Recommendations for their handling and disposal are outlined in **Section 6**. Photographs of the identified materials are presented in the register in **Appendix A**.

Table 5-1 Summary Hazardous Materials

Building	Location	Material Description
19 Canberra Avenue		
Main Building, External	Rear eaves	Asbestos cement sheeting (ACM)
	Rear wall panels	Asbestos cement sheeting (ACM)
Main Building, Internal	Ceiling, floor and/ or wall cavities	Possible Hazardous Materials
	Front sun room, Ceiling and upper wall	Asbestos cement sheeting (ACM)
	Hall walls (adj. to kitchen),	Asbestos cement sheeting (ACM)
	Laundry ceiling	Asbestos cement sheeting (ACM)
	Kitchen ceiling	Asbestos cement sheeting (ACM)
	Internal and external, Walls, window and door frames	Lead Based Paint (white colour)
	Ceiling and floor cavity, ducting	Synthetic Mineral Fibre (SMF) Insulation
Garage, External	Eaves and gable	Asbestos cement sheeting (ACM)
Garage, Internal	Foiled back roof insulation	Synthetic Mineral Fibre (SMF)
	Internal, fluorescent light capacitor fitting	PCBs
Outhouse, External	Gable	Asbestos cement sheeting (ACM)
	Internal, fluorescent light capacitor fitting	PCBs
17 Canberra Avenue		
Main Building, External	Porch ceiling	Asbestos cement sheeting (ACM)
Main Building, Internal	Ceiling, floor and/ or wall cavities	Possible Hazardous Materials
	Sun room ceiling	Asbestos cement sheeting (ACM)
	Ceiling cavity, ducting	Synthetic Mineral Fibre (SMF) Insulation
Carport, External	Gable and eaves	Asbestos cement sheeting (ACM)

Carport, Internal	Foiled back roof insulation	Synthetic Mineral Fibre (SMF)
15 Canberra Avenue		
Main Building, External	Porch ceiling	Asbestos cement sheeting (ACM)
	First floor balcony ceiling and gables	Asbestos cement sheeting (ACM)
	Eaves	Asbestos cement sheeting (ACM)
Main Building, Internal	Ceiling, floor and/ or wall cavities	Possible Hazardous Materials
	Wall and ceiling cavity, ducting	Synthetic Mineral Fibre (SMF) insulation
Carport	Gable	Asbestos cement sheeting (ACM)
13 Canberra Avenue		
Main Building, External	Gable	Asbestos cement sheeting (ACM)
Main Building, Internal	Ceiling, floor and/or ceiling cavities	Possible Hazardous Materials
	Ceiling and extension walls	Asbestos cement sheeting (ACM)
	Laundry ceiling	Asbestos cement sheeting (ACM)
	Ceiling cavity, ducting	Synthetic Mineral Fibre (SMF) insulation
Garage, Internal	Internal, fluorescent light capacitor fitting	PCBs

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

6. Recommendations

6.1 Asbestos

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

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

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

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

- The work area should be barricaded and appropriate signage installed.
- The ACM should be sealed or wetted with water.
- ACM should be removed with minimal breakage and where applicable, should be lowered to the ground not dropped.
- Where ACMs are too large to fit into an asbestos labelled waste bag, the ACM should be stacked or placed on a 200µm plastic ground sheet or lined skip bin and not allowed to lie about the site where they may be further broken or crushed by machinery or workers.
- Asbestos waste is to be securely packaged and labelled. Asbestos waste bags are to be double bagged while ACM in polythene sheeting should be double wrapped with adhesive tape applied to the entire length of every overlap to secure materials to minimise the risk of the polythene sheeting tearing or splitting.
- Any dust and/or ACM debris remaining around the removal area should be cleaned up using an approved "H" type HEPA vacuum cleaner.
- All asbestos containing waste is to be disposed at an approved disposal facility (contact local council or SafeWork NSW for nearest asbestos waste facility).

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

6.1.1 Asbestos Removal Control Plan

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

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

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

6.1.2 Asbestos Fibre Air Monitoring

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

6.1.3 Management of Asbestos Waste

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

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

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

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

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

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

6.1.4 Asbestos Clearance Inspection

Under Clause 473 of the *NSW Work Health and Safety Regulation 2017*, a clearance inspection is required following the removal of any ACM by a suitably qualified person (e.g. Occupational Hygienist/Environmental Scientist) as defined in the WH&S 2017 regulations, with a subsequent clearance certificate issued prior to the area being re-occupied under non-asbestos conditions.

A Licensed Asbestos Assessor will need to conduct the clearance inspection for any friable asbestos identified within the site. The company undertaking the clearance inspection should be independent of the demolition and/or asbestos removal company.

6.2 Synthetic Mineral Fibres

SMF materials should be removed during any demolition works that may cause their disturbance. SMF materials must be handled and removed in accordance with the *NSW Work Health and Safety*

Regulation 2017 and the Safe Work Australia Synthetic Mineral Fibres National Standard (NOHSC:1004) and National Code of Practice (NOHSC:2006).

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

- *National Standard for the Safe Use of Synthetic Mineral Fibres [NOHSC:1004 (1990)];*
- *National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006 (1990)]; and*
- *Code of Practice for the Safe Use of Synthetic Mineral Fibres (NOHSC, 1993).*

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

6.3 Lead Paint

Site structures should be managed in accordance with the procedures detailed in the following references:

- Australian Standard AS 4361.2-2017 *Guide to Lead Paint Management, Part 2: Lead Paint in Residential, Public and Commercial Buildings*;
- NOHSC (1994a) *National Standard for the Control of Inorganic Lead at Work*; and
- NOHSC (1994b) *National Code of Practice for the Control and Safe Use of Inorganic Lead at Work*.

There are currently no legislative requirements for the general removal of stable lead-containing painted materials for structures remaining *in situ*.

The following recommendations must be observed as a minimum requirement when working with lead paint to reduce the potential for lead dust exposure.

- LBPs on structures otherwise from residential premises, educational or child care institutions are to be removed from all surfaces prior to demolition.
- Lead paint waste arising otherwise from residential premises, educational or child care institutions has been pre-classified as *Hazardous Waste* under the NSW EPA (2014) *Waste Classification Guidelines*.
- All building materials with lead paint are to be disposed as *Hazardous Waste*, unless the lead paint is removed prior to demolition.
- Wear an approved (Australian Standard AS1716) half face respirator or dust mask with a 'P2' (dust and fumes) protection rating if working directly with materials coated with lead paint during the demolition works.
- Wear work clothes that do not catch dust or flakes in pockets or cuffs. Consider using disposable overalls.
- Use an industrial vacuum cleaner fitted with High Efficiency Particulate Air (HEPA) filters for dust and debris clean up.
- When working on lead paint surfaces:
 - Use heavy-duty plastic sheeting to seal off work areas and collect debris;
 - Place a plastic drop sheet under the area to be worked upon (ensuring it extends a minimum of two metres from the base of the wall or structure and an extra metre for each storey being worked on (consider height and use more plastic if needed));
 - Fold the edge of the plastic nearest the wall and/or structure and secure it with tape, in order to prevent any dust falling between the edge of the plastic and the wall or structure; and
 - Fold and brace external edges of the plastic drop sheet.
- Wet any lead paint surface to be sanded or cut. Use water sparingly and do not spray water on power tools (e.g. drills). Wet the wall or structure to dampen down for dust control.
- Do not use open flame burners on lead paint.
- At the completion of the works, plastic sheeting used during lead paint removal is to be folded and sealed to ensure the materials are contained within the plastic sheeting.

The *NSW Work Health and Safety Regulation 2017* require that a person conducting a business or undertaking (PCBU) must notify SafeWork NSW of any lead risk work being undertaken. The PCBU must assess each lead process to determine whether lead risk work is being carried out. If a PCBU cannot determine whether lead risk work is being carried out, then the process is taken to include lead risk work until it can be determined that lead risk work is not being undertaken. A notification of lead

risk work form must be submitted to SafeWork NSW at least seven days before lead work begins. These forms are available on the SafeWork NSW website and lodgement instructions are listed on the forms.

6.4 Polychlorinated Biphenyl Capacitors

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

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

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

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

7. Statement of Limitations

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

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

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

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

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

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

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

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Inaccessible areas

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


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

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




Appendix A - Hazardous Materials Register

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



Register Section	Description
Location	A detailed description of the location of the hazardous building material relevant to this entry.
Material Type	<p>The specific hazardous building material type. For example:</p> <p>Asbestos: asbestos cement sheeting, corrugated asbestos cement sheet, vinyl asbestos tiles, etc.</p> <p>Paint: White coloured lead-based paint system.</p> <p>SMF: foil backed SMF, compressed SMF ceiling tiles, SMF insulation to upper surface of ceiling, etc.</p> <p>PCB: Metal case capacitor 'Plessey 6.5 µF Type APF 265CR'.</p> <p><i>If inaccessible areas are noted, any of the above material types may be present.</i></p>
Friability	If the material can be crushed to a powder by hand pressure.
Sample	Sample reference number allocated to the sample collected from this asbestos containing material. Refer to Appendix B .
Results	Laboratory analytical results. Refer to Appendix B for laboratory analytical reports.
Quantity	The approximate quantity of hazardous building material relevant to this location. Depending on the nature of the material, the quantity is given as an area (m ²), length (m), number of pieces/units or not determined (ND).
Condition	<p>Good: good and stable condition.</p> <p>Fair: early signs of deterioration or localised areas of damage. For PCB capacitors this would include evidence of seals deteriorating.</p> <p>Poor: the material is in poor condition and remedial action is required (e.g. deteriorated friable asbestos materials, capacitors are leaking, etc).</p> <p>Unknown: the area was inaccessible.</p>
Accessibility	<p>Regular: in the occupied space of the building and accessible to all personnel using/entering the building.</p> <p>Occasional: buildings or rooms that are used infrequently.</p> <p>Maintenance Only: accessible to maintenance personnel only.</p> <p>Inaccessible: the area was not able to be accessed during the inspection.</p>
Risk Rating	<p>The allocated priority rating for this entry (refer to Section 4).</p> <p>If the location was not accessible the risk rating is not able to be determined and shall be listed as inaccessible.</p>
Recommendations	Recommended actions for demolition works or damaged material.
Photograph	Photograph of location where sample was taken.

Hazardous Materials Register 13-19 Canberra Avenue, St Leonards NSW									
Location	Material Type	Friability	Sample	Analysis Result:	Quantity	Condition and Accessibility	Priority	Recommendations/ Comments	Photograph of material
19 Canberra Avenue									
Inaccessible									
Internal, ceiling, floor and/or wall cavities	Possible hazardous materials	Unknown	Inaccessible	NA	Not determined	Unknown (Inaccessible)	NA	<u>No access available at time of inspection.</u> <u>When areas are accessible, confirm status of hazardous materials.</u>	No Photograph Taken
Asbestos									
Main house, External, Rear eaves & wall panels	FCS	Non-friable	Visual Inspection (due to height restriction)	Assumed positive for asbestos	20m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Main house, Internal, Front sun room, Ceiling & upper wall	FCS	Non-friable	Visual Inspection (due to height restriction)	Assumed positive for asbestos	25m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	

Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW

Main house, Internal, Hall, adjacent to kitchen, Walls	FCS	Non- friable	Visual Inspection (due to height restriction)	Assumed positive for asbestos	30m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Main house, Internal, Laundry, Ceiling	FCS	Non- friable	Visual Inspection (due to height restriction)	Assumed positive for asbestos	>10m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Main house, Internal, Kitchen, Ceiling	FCS	Non- friable	Visual Inspection (due to height restriction)	Assumed positive for asbestos	>10m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	


Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW

Garage, External, Eaves and gable	FCS	Not friable	Visual inspection (due to height restriction)	Assumed positive for asbestos	<10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Outhouse, External, Gable	FCS	NA	Visual inspection (due to height restriction)	Assumed positive for asbestos	<10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
SMF									
Main house, Internal, ceiling and floor cavity, ducting	SMF Insulation	Not friable	Visual inspection (due to height restriction)	Assumed positive for SMFs	Unknown	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove during demolition works	

Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW

Garage, Internal, ceiling Foiled back lining	SMF	Not friable	Visual inspection (due to height restriction)	Assumed positive for SMFS	10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove during demolition works	
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Lead Based Paint (LBP)

Main house, Internal, External Wall, window, door frame	White Paint	Non- friable	Pb-1	Positive for LBPs (0.65%w/w)	>100m ²	Good to Fair (Maintenance only)	Priority 4: Negligible Risk Level	Avoid abrasive disturbances and dust generation during demolition.	
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PCBs

Garage, Internal, Ceiling joist	Single tube florescent light	Not friable	Visual inspection (due to height restriction)	Assumed positive for PCBs	1 unit	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works. Avoid damaging capacitors.	
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Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW


Outhouse, External, ceiling joist	Single tube florescent light	Not friable	Visual inspection (due to height restriction)	Assumed positive for PCBs	<10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works. Avoid damaging capacitors.	
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17 Canberra Avenue

Inaccessible

Internal, ceiling, floor and/or wall cavities	Possible hazardous materials	Unknown	Inaccessible	NA	Not determined	Unknown (Inaccessible)	NA	No access available at time of inspection. When areas are accessible, confirm status of hazardous materials.	No Photograph Taken
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Asbestos

Carport, External, Gable and eaves	FCS	Non- friable	Visual inspection (due to height restriction)	Assumed positive for asbestos	<10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
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Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW

Main house, External, Porch ceiling	FCS	Non- friable	Visual inspection (due to height restriction)	Assumed positive for asbestos	<10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Main house, Internal, Sun room, Ceiling	FCS	Non- friable	Visual inspection (due to height restriction)	Assumed positive for asbestos	<10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
LBP									
Main house, Internal, External Wall, window, door frame	White Paint	NA	Pb-2	Negative for LBPs (0.002%w/w)	>100 m ²	Good (Maintenance only)	NA	NA	

Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW

SMF

Carport, Internal, Ceiling	Foiled back SMF Lining	Non- friable	Visual inspection (due to height restriction)	Assumed positive for SMFs	10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove during demolition works	
Main building, Internal, Ceiling cavity	SMF Ducting	Non- friable	Visual inspection (due to height restriction)	Assumed positive for SMFs	Unknown	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove during demolition works	

PCBs

No PCBs
were visually
identified




15 Canberra Avenue

Inaccessible

Internal, ceiling, floor and/or wall cavities	Possible hazardous materials	Unknown	Inaccessible	NA	Not determined	Unknown (Inaccessible)	NA	<u>No access available at time of inspection.</u> <u>When areas are accessible,</u> <u>confirm status of hazardous materials.</u>	No Photograph Taken
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Asbestos

Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW

Main house, External, Porch ceiling	FCS	Not friable	Visual inspection (due to height restriction)	Assumed positive for asbestos	15 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Main house, External, First floor balcony ceiling, eaves amd gable	FCS	Not friable	Visual inspection (due to height restriction)	Assumed positive for asbestos	<10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Main house, External, Eaves & Carport, External, Gable	FCS	Not friable	Visual inspection (due to height restriction)	Assumed positive for asbestos	<10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	

LBP

Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW

Main house, Internal, Walls	White Paint	NA	Pb-3	Negative for LBPs (0.009%w/w)	>100 m ²	Good (Maintenance only)	NA	NA
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Main house, Internal, External Wall, window, door frame	White Paint	NA	Pb-4	Negative for LBPs (0.001%w/w)	30 m ²	Fair (Regularly)	NA	NA
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Outhouse, External, Door frame	Blue Paint	NA	Pb-5	Negative for LBPs (0.033%w/w)	<10 m ²	Good (Maintenance only)	NA	NA
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Hazardous Materials Register									
13-19 Canberra Avenue, St Leonards NSW									
Location	Material Type	Friability	Sample	Analysis Result:	Quantity	Condition and Accessibility	Priority	Recommendations/ Comments	Photograph of material
SMF									
Main house, Internal, Wall and ceiling cavity	Ventilation ducting fitting	NA	Visual inspection (due to height restriction and confined space)	Assumed positive for SMFs	Unknown	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove during demolition works	
PCBs									
No PCBs were visually identified									
13 Canberra Avenue									
Asbestos									

Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW


Main house, External, Gable and side eaves	FCS	Non- friable	Visual inspection (due to height restriction)	Assumed positive for asbestos	20 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Main house, Internal, Ceiling and extension walls on brick walls	FCS	Non- friable	Visual inspection (due to height restriction)	Assumed positive for asbestos	20 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	
Main house, Internal, Laundry, Ceiling	FCS	Non- friable	Visual inspection (due to height restriction)	Assumed positive for asbestos	<10 m ²	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works	

LBP

Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW

Main house, Internal, Walls and Ceiling	White Paint	NA	Pb-6	Negative for LBPs ($<0.001\%w/w$)	$>100\text{ m}^2$	Good (Maintenance only)	NA	NA	
Garage, External, Walls, fence walls, residence deck, frame work	Blue Paint	NA	Pb-7	Negative for LBPs ($0.004\%w/w$)	$>100\text{ m}^2$	Good (Maintenance only)	NA	NA	
Main house, External, Rear timber walls	Cream Paint	NA	Pb-9	Negative for LBPs ($0.001\%w/w$)	40 m^2	Good to fair (Maintenance only)	NA	NA	

Hazardous Materials Register
13-19 Canberra Avenue, St Leonards NSW

Main house, Internal, Walls, window and door frames	White Paint	NA	Pb-8	Negative for LBPs (<0.001%w/w)	>100 m ²	Good (Maintenance only)	NA	NA	
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SMF

Main house, Internal, Ceiling cavity	Ventilation ducting fitting	Non- friable	Visual inspection (due to height restriction and confined space)	Assumed positive for SMFs	Unknown	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove during demolition works	
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PCBs

Garage, Internal	Double tube fluorescent light	NA	Visual inspection (due to height restriction)	Assumed positive for PCBs	2 unit	Good (Maintenance only)	Priority 4: Negligible Risk Level	Remove prior to demolition works. Avoid damaging capacitors.	
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Appendix B - Laboratory CoC and Analytical Results

CLIENT DETAILS

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Project **E25217 13-19 Canberra Ave, St Leonards**
Order Number **E25217**
Samples 9

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SGS Reference **SE221192 R0**
Date Received 29/6/2021
Date Reported 5/7/2021

COMMENTS

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

SIGNATORIES



Bennet LO
 Senior Organic Chemist/Metals Chemist



ANALYTICAL RESULTS

SE221192 R0

Metals in Paint by ICPOES [AN065/AN320] Tested: 1/7/2021

			Pb-1	Pb-2	Pb-3	Pb-4	Pb-5
			PAINT	PAINT	PAINT	PAINT	PAINT
			-	-	-	-	-
			29/6/2021	29/6/2021	29/6/2021	29/6/2021	29/6/2021
PARAMETER	UOM	LOR	SE221192.001	SE221192.002	SE221192.003	SE221192.004	SE221192.005
Lead, Pb	%w/w	0.001	0.65	0.002	0.009	0.001	0.033

			Pb-6	Pb-7	Pb-8	Pb-9
			PAINT	PAINT	PAINT	PAINT
			-	-	-	-
			29/6/2021	29/6/2021	29/6/2021	29/6/2021
PARAMETER	UOM	LOR	SE221192.006	SE221192.007	SE221192.008	SE221192.009
Lead, Pb	%w/w	0.001	<0.001	0.004	<0.001	0.001

METHOD

METHODOLOGY SUMMARY

AN065/AN320

A portion of paint chips sample is digested with nitric acid to solubilise the metals into solution. Digest then analysed by ICP OES with result calculated back to the as received paint sample basis.

FOOTNOTES

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

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

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

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

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

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

Note that in terms of units of radioactivity:

- 1 Bq is equivalent to 27 pCi
- 37 MBq is equivalent to 1 mCi

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

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

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STATEMENT OF QA/QC PERFORMANCE

SE221192 R0

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Project **E25217 13-19 Canberra Ave, St Leonards**
Order Number **E25217**
Samples 9

LABORATORY DETAILS

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SGS Reference **SE221192 R0**
Date Received 29 Jun 2021
Date Reported 05 Jul 2021

COMMENTS

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

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

The Statement and the Analytical Report must not be reproduced except in full.

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

SAMPLE SUMMARY

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

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

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Metals in Paint by ICPOES

Method: ME-(AU)-[ENV]AN065/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Pb-1	SE221192.001	LB227977	29 Jun 2021	29 Jun 2021	26 Dec 2021	01 Jul 2021	26 Dec 2021	02 Jul 2021
Pb-2	SE221192.002	LB227977	29 Jun 2021	29 Jun 2021	26 Dec 2021	01 Jul 2021	26 Dec 2021	02 Jul 2021
Pb-3	SE221192.003	LB227977	29 Jun 2021	29 Jun 2021	26 Dec 2021	01 Jul 2021	26 Dec 2021	02 Jul 2021
Pb-4	SE221192.004	LB227977	29 Jun 2021	29 Jun 2021	26 Dec 2021	01 Jul 2021	26 Dec 2021	02 Jul 2021
Pb-5	SE221192.005	LB227977	29 Jun 2021	29 Jun 2021	26 Dec 2021	01 Jul 2021	26 Dec 2021	02 Jul 2021
Pb-6	SE221192.006	LB227977	29 Jun 2021	29 Jun 2021	26 Dec 2021	01 Jul 2021	26 Dec 2021	02 Jul 2021
Pb-7	SE221192.007	LB227977	29 Jun 2021	29 Jun 2021	26 Dec 2021	01 Jul 2021	26 Dec 2021	02 Jul 2021
Pb-8	SE221192.008	LB227977	29 Jun 2021	29 Jun 2021	26 Dec 2021	01 Jul 2021	26 Dec 2021	02 Jul 2021
Pb-9	SE221192.009	LB227977	29 Jun 2021	29 Jun 2021	26 Dec 2021	01 Jul 2021	26 Dec 2021	02 Jul 2021

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

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

No surrogates were required for this job.

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

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

Metals in Paint by ICPOES

Method: ME-(AU)-[ENV]AN065/AN320

Sample Number	Parameter	Units	LOR	Result
LB227977.001	Lead, Pb	%w/w	0.001	<0.001

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

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

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

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

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

No duplicates were required for this job.



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

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

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB227977.002	Lead, Pb	%w/w	0.001	0.011	0.01035	70 - 130	102

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

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

No matrix spikes were required for this job.

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

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

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

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

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

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

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

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SAMPLE RECEIPT ADVICE

SE221192

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PYRMONT NSW 2009**

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Facsimile **(Not specified)**
Email **nikolce.aleksieski@eiaustralia.com.au**

Project **E25217 13-19 Canberra Ave, St Leonards**
Order Number **E25217**
Samples **9**

LABORATORY DETAILS

Manager **Huong Crawford**
Laboratory **SGS Alexandria Environmental**
Address **Unit 16, 33 Maddox St
Alexandria NSW 2015**

Telephone **+61 2 8594 0400**
Facsimile **+61 2 8594 0499**
Email **au.environmental.sydney@sgs.com**

Samples Received **Tue 29/6/2021**
Report Due **Tue 6/7/2021**
SGS Reference **SE221192**

SUBMISSION DETAILS

This is to confirm that 9 samples were received on Tuesday 29/6/2021. Results are expected to be ready by COB Tuesday 6/7/2021. Please quote SGS reference SE221192 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	Client	Sample cooling method	None
Samples received in correct containers	Yes	Sample counts by matrix	9 Paint
Date documentation received	29/6/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	N/A
Sample temperature upon receipt	19°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

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

COMMENTS

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



SAMPLE RECEIPT ADVICE

SE221192

CLIENT DETAILS

Client **EI AUSTRALIA**

Project **E25217 13-19 Canberra Ave, St Leonards**

SUMMARY OF ANALYSIS

No.	Sample ID	Metals in Paint by ICPOES
001	Pb-1	1
002	Pb-2	1
003	Pb-3	1
004	Pb-4	1
005	Pb-5	1
006	Pb-6	1
007	Pb-7	1
008	Pb-8	1
009	Pb-9	1

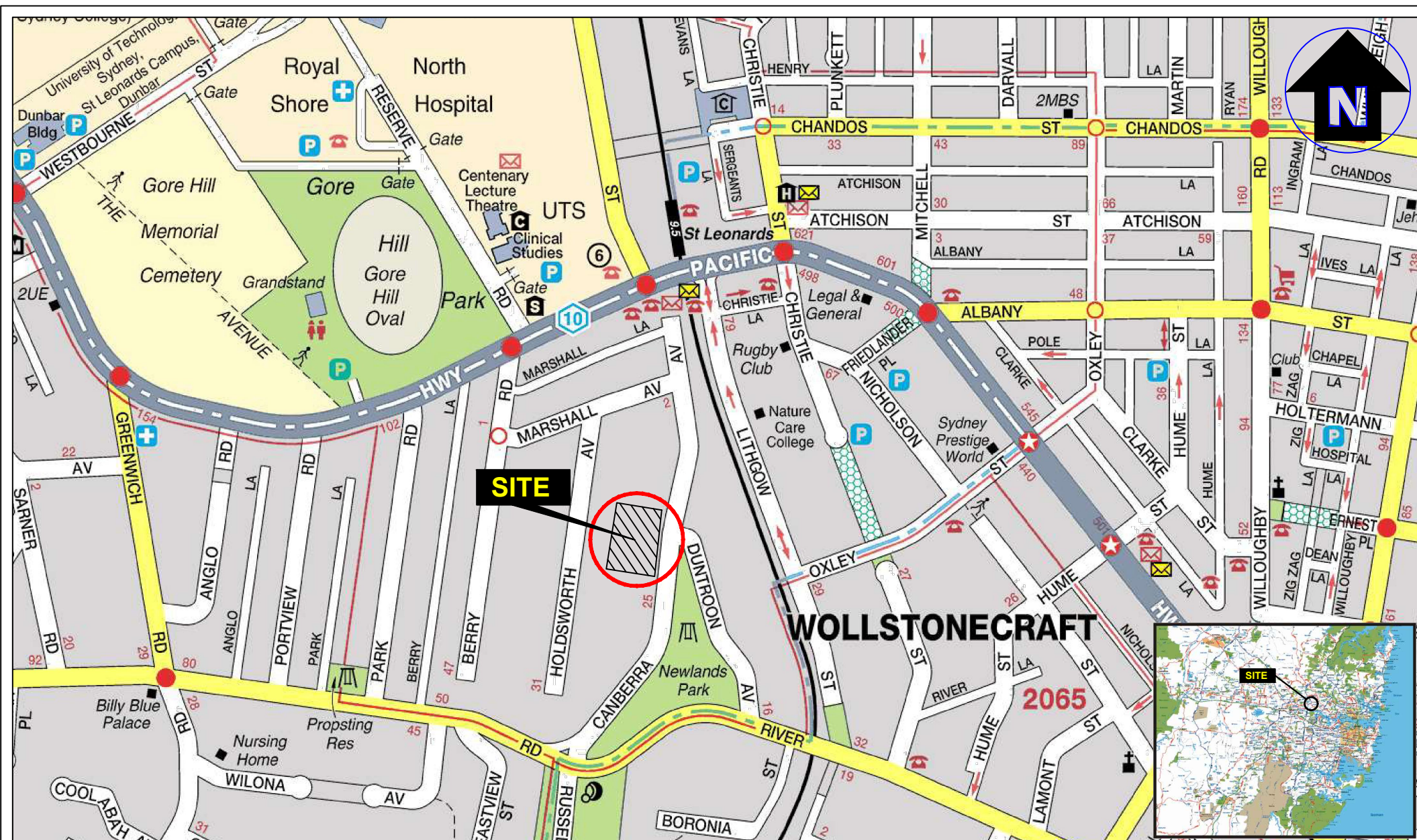
The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

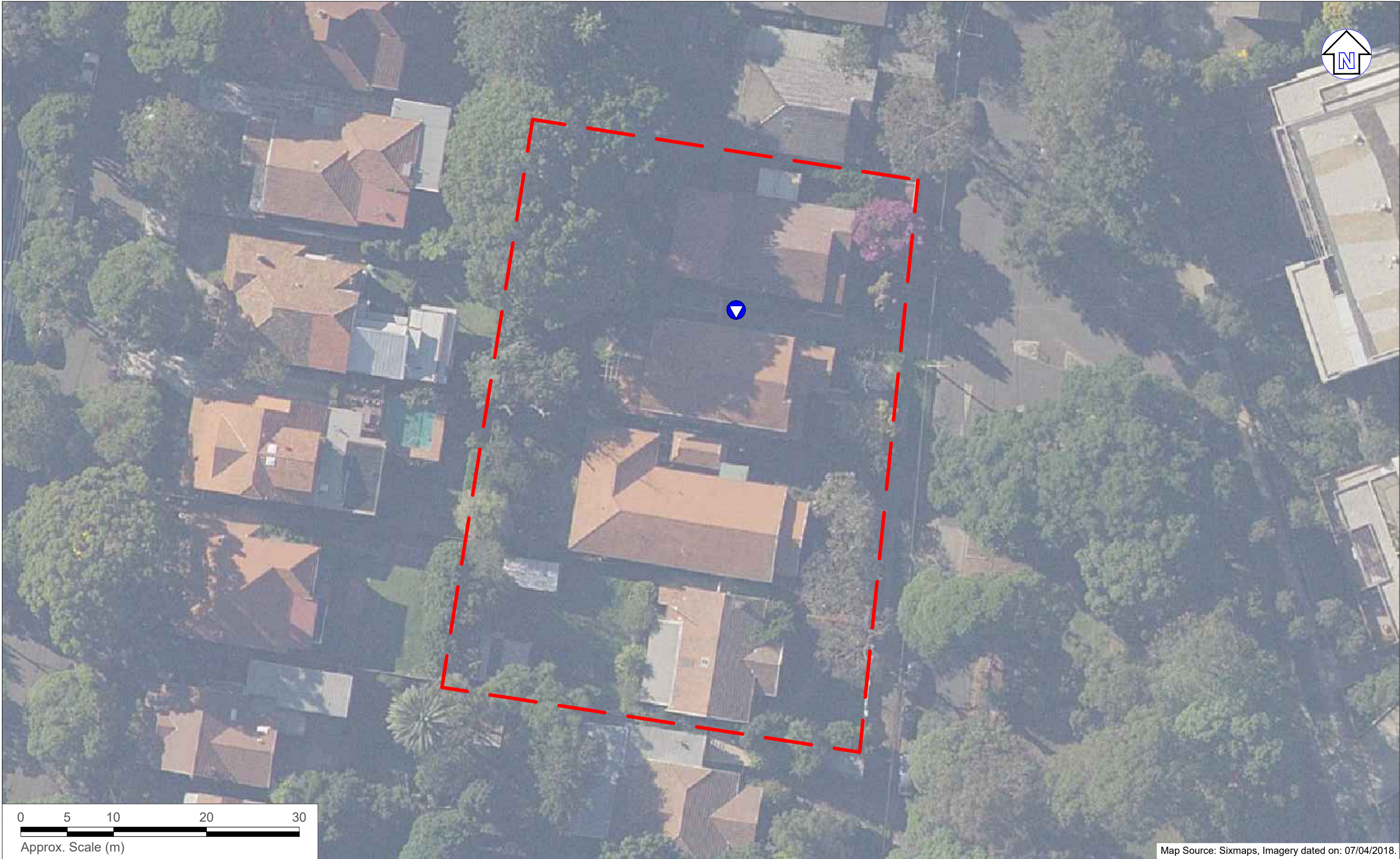
The numbers shown in the table indicate the number of results requested in each package.

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

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

Appendix C - Figures





LEGEND

- Approximate site boundary
- ▼ BH01, Groundwater monitoring well



Drawn:	E.S.
Approved:	-
Date:	29-07-21

HPG General Pty Ltd
Hazardous Materials Survey
13-19 Canberra Avenue, St Leonards, NSW
Location Plan

Figure:
2
Project: E25217.E10