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TOGA WICKS PARK DEVELOPMENTS PTY LTD

Hazardous Materials Survey

182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW

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Executive Summary

TOGA Wicks Park Developments Pty Ltd engaged EI Australia (EI) to conduct a Hazardous Materials Survey for the property located at 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW (herein referred to as 'the site').

The purpose of this Hazardous Materials Survey (HMS) is to present the findings of a qualitative risk assessment of the hazardous building materials located on the site. The site inspection was undertaken on 18 December 2018.

This HMS has been developed to assist TOGA Wicks Park Developments Pty Ltd with the preparation for redevelopment of the site. EI understand that the proposed redevelopment shall involve demolition of all existing structures, followed by the construction of a multi-storey, mixed use commercial and residential building, overlying a basement cark parking facility.

Key Findings

There were five principal buildings on the site, identified as follows:

- Smash Repairs Workshop;
- Residential brick cottage;
- Spray Painting Workshop;
- Stone Cutting Workshop; and
- Offices.

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

Site Name	ACM (friable)	ACM (Non-friable)	SMF	LBP	PCBs
182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW	No	Yes	No	Yes	Possible

All identified hazardous building materials were ranked ***Priority 3*** (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 TOGA Wicks Park Developments Pty Ltd to conduct a Hazardous Materials Survey (HMS) for the site located at 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW.

This HMS has been developed to assist TOGA Wicks Park Developments Pty Ltd with the preparation for redevelopment of the site. EI understand that the proposed redevelopment shall involve demolition of all existing structures, followed by the construction of a multi-storey, mixed use commercial and residential building, overlying a basement cark parking facility. As such, a HMS is required as part of the corresponding Development Application (DA) to Inner West Council prior to commencement of the demolition works.

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

1.2 Objectives and Scope of Works

The objectives of the HMS were to:

- Ascertain whether the buildings on site contained hazardous material(s), including asbestos-containing materials (ACMs), lead-based paints (LBPs), synthetic mineral fibre (SMF) insulation and polychlorinated biphenyls (PCBs); and
- Provide recommendations for the management of hazardous materials during demolition works.

The scope of work for the HMS included:

- Inspection of all on-site structures;
- Physical examination and representative sampling of suspected hazardous materials (including potential ACM, painted surfaces, etc.);
- Laboratory analysis of selected samples for the relevant hazardous substance; and
- Data interpretation and reporting.

2. Site Description

2.1 Property Identification and Location

The site identification details and associated information are presented in **Table 2-1**. Refer to **Appendix B** for a site survey plan and aerial photograph, which illustrate the site layout.

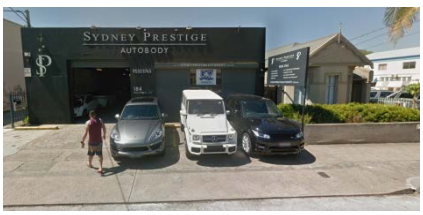
Table 2-1 Site Identification and Location

Attribute	Description
Street Address	182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW
Location Description	Approximately 6km southwest of the Sydney CBD. The block (7262m^2) is bound by Victoria Road to the west. Commercial, residential and recreational properties comprise the surroundings.
Site Coordinates	Northwest corner of site (datum: GDA94-MGA56): Easting: 330193.476 Northing: 6246461.5 (Source: http://maps.six.nsw.gov.au)
Site Area	7,262m^2
Site Description	Five principal buildings on the site, identified as follows: ▪ Smash Repairs Workshop (northwest portion); ▪ Residential brick cottage (northwest portion adjacent to smash repairs); ▪ Spray Painting Workshop (northeast portion); ▪ Stone Cutting Workshop (southeast portion); and ▪ Offices (southwest portion). Non-building areas were concrete paved, with a gravel driveway adjacent to the north (western) boundary.

2.2 Building Descriptions

A brief description of each building/structure inspected is located in **Table 2-2**. Refer to **Appendix B** for the site survey plan and (aerial) photographs.

Table 2-2 Building Descriptions

Description
Smash Repairs Workshop One storey, brick and metal commercial building, identified as *Naecourt Auto Body / Prestige Smash Repairs* (184-186 Victoria Road). Comprised of automobile repair areas, store rooms, offices and amenities. Adjacent to the southern side was a brick and terracotta tile cottage (188 Victoria Road), which was used for residential purposes. The Smash Repair building had metal and tile roofing and brick external walls with concrete flooring. The cottage had brick and plasterboard internal walls and ceiling with wood and tile flooring. 

Description

Spray Painting Workshop

Two storey, brick and metal commercial building (182 Victoria Road). A single storey, metal commercial building was attached to the southern side and attached to the northern side was a metal and fibrous cement sheeting awning. Comprised of spray painting areas (including spray booth), store rooms, offices and amenities.

The buildings had metal roofing, brick and metal external walls, brick, metal and plasterboard internal walls and asbestos cement sheeting awning ceiling with concrete floors.

Stone Cutting Workshop

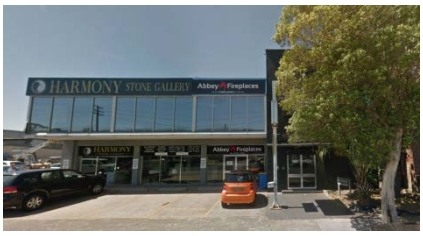
One storey, concrete block and metal commercial building, occupied by *Rosa Stone* (part of 190-198 Victoria Road). Comprised of stone cutting areas, store rooms, offices and amenities.

The building had metal roofing, concrete block external and internal walls, plasterboard internal wall panels and concrete floors.

Offices

Two storey, brick and metal commercial building (part of 190-198 Victoria Road). Comprised of offices and showrooms, storage areas and amenities.

The building had metal roofing, brick external walls, brick and plasterboard internal walls and ceiling and concrete floors.



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

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

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

3.1 Asbestos

This component of the survey was carried out in accordance with the guidelines documented in the SafeWork NSW (2016) *How to Manage and Control Asbestos in the Workplace* and SafeWork NSW (2016) *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. exterior gloss paints, window and door architraves, skirting boards, etc.).

Australian Standard AS 4361.2-2017 *Guide to Lead Paint Management, Part 2: Lead Paint in Residential, Public and Commercial Buildings* defines LBP as a paint film or component coat of a paint system in which the lead content (calculated as lead metal) is in excess of 0.1% by weight of the dry film, as determined by laboratory testing. The NSW WHS 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 SafeWork 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*. Due to the inherent hazard in accessing electrical components, or other reasons such as height restrictions, immovable equipment and furniture, some light fittings could not be safely accessed. In these instances, comment was made on the likelihood of PCB-containing materials, based upon age and appearance.

4. Areas Not Accessible / Not Inspected

The details of areas that were not accessible during the site inspection are provided in the Hazardous Materials Register, presented in **Appendix A**. In summary, the following areas were not accessed or inspected:

- Detailed inspection within wall cavities and set ceilings;
- Within those areas accessible only by dismantling equipment;
- Voids and cavities created and intimately concealed within the building structure, only accessible during major demolition works;
- 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, including confined spaces with dusts and potential solvent vapours; and
- Height restricted areas, including building roof areas.

Should demolition operations entail disturbance in these locations, further investigation and sampling should be conducted as part of a hazardous materials management and abatement program, as per AS 2601-2001 *The Demolition of Structures*, prior to any works proceeding. Note that the presence of any residual asbestos insulation and applications on steel members, concrete surfaces, pipe work, equipment and adjacent areas from prior abatement or refurbishment works cannot be ascertained without extensive removal and damage to existing insulation, fittings and finishes.

5. Risk Assessment

The buildings designated for demolition at 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW were 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 elements were considered:

5.1 Asbestos and SMF

- Condition of the material (poor, average, good);
- Friability of the material (ability to crumble);
- Likelihood of disturbance;
- Exposed surface area; and
- Accessibility requirements for building and/or maintenance.

5.2 Lead-based Paint

- Concentration of lead in paint;
- Condition of the paint (poor, average, good);
- Ease of disturbance and removal;
- Exposed surface area; and
- Accessibility requirements for building and/or maintenance.

5.3 Polychlorinated Biphenyls

- Manufacture age and location of capacitor;
- Condition of capacitor (presence of leaks);
- PCB exposure resulting from contact with capacitor; and
- Accessibility requirements for building and/or maintenance.

5.4 Priority Ratings

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

Priority 1: Immediate Elevated Risk Level

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

Priority 2: Potential Elevated Risk Level

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

Priority 3: Negligible Risk under Present Conditions

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

Inaccessible

The location was not accessed during the survey and hence a priority rating could not be applied. Once such a location is accessed, the priority rating should be nominated (before any works are undertaken).

6. Conclusion

Based on the inspection and sample analyses of the structural materials making up the buildings designated for demolition, the identified hazardous materials are listed in **Table 6-1**. Handling recommendations and material specific work plans for the relevant hazardous materials are outlined in **Section 7**. Refer to **Appendix A** for the formal Hazardous Materials Register. Photographs of the identified materials are presented in **Appendix B**.

Table 6-1 Summary of Hazardous Materials

Building	Location	Material Description
Smash Repairs Workshop and Cottage	Cottage, Internal, Ceiling Cavity	Possible hazardous materials
	Electrical fuse / switch box (north wall)	Electrical backing board
	Workshop, internal, ceiling support beam	Purple possible LBP
	Cottage, internal; timber framework	White LBP
	Workshop, internal, in front of spray painting booth, ceiling	2 tube fluorescent light fitting possible PCB capacitor
Spray Painting Workshop	Internal ceiling cavity	Possible hazardous materials
	Eaves	Asbestos cement sheeting
	Ground floor, external eastern wall sprinkler room, ceiling	Asbestos cement sheeting
	External, metal awning, ceiling	Asbestos cement sheeting
	Ground floor, external eastern wall sprinkler room, gasket to flanges	Gasket
	External, second floor window frames	White possible LBP
	External, western gable end	White possible LBP
Stone Cutting Workshop	Eastern wall, southern windows, infill panels	Cement sheeting (may contain asbestos)
	Roof, eastern partition wall	Cement sheeting (may contain asbestos)
	Internal walls	White LBP
Offices	Internal, Ceiling Cavity	Possible hazardous materials
	Electrical fuse / switch box on ground floor in rear room	Electrical backing board
	Painted concrete walls on ground floor in kitchenette and rear room	White LBP

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

7. Recommendations & Proposed Work Plan

7.1 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 (2016) *How to Manage and Control Asbestos in the Workplace*; and
- SafeWork NSW (2016) *How to Safely Remove Asbestos* (approved code under Section 274 of the *NSW Work Health and Safety Act 2011*).

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.

7.1.1 Asbestos Fibre Air Monitoring

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

7.1.2 Asbestos Clearance Inspection

Under Clause 473 of the *NSW Work Health and Safety Regulation 2017*, clearance inspections are required following the removal of ACM and before any other works are undertaken. A clearance certificate is to be issued before the area can be re-occupied or demolition works are

continued. The company undertaking the clearance inspection should be independent of the demolition and/or asbestos removal company.

7.2 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.

7.3 Synthetic Mineral Fibres

Although not expected, should any SMF insulation materials be encountered during the proposed demolition works, they must be handled and removed in accordance with the *NSW Work Health and Safety Regulation 2017* and the WorkSafe 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)*.

7.4 Polychlorinated Biphenyl Capacitors

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

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

- Small quantities of PCBs are usually found in sealed containers known as capacitors. PCB-containing capacitors are unlikely to pose a health risk unless they become damaged and leak. Care must be taken when handling a damaged capacitor to ensure that spillage does not occur.
- The person handling any (damaged) capacitor should use disposable gloves. Wear gloves that are made of materials that are resistant to PCBs, such as Viton, polyethylene, polyvinyl

alcohol (PVA), polytetrafluoroethylene (PTFE), butyl rubber, nitrile rubber or neoprene. Mid-arm length gauntlets may be required. Do not use gloves made of polyvinyl chloride (PVC) or natural rubber (latex).

- Wear disposable overalls made of Tyvek or materials with similar chemical resistant properties.
- When working with overhead equipment (e.g. fluorescent light fixtures), wear a full face shield and appropriate hair protection.
- Wash any non-disposable contaminated equipment with kerosene and collect the kerosene for disposal as a PCB-contaminated waste.
- PCB-containing equipment (capacitors, ballasts, etc.) is to be placed in a polyethylene bag, which then is to be placed in a sealable metal container. This container must be clearly marked with the details of the contents and must be maintained in good order (that is, no visible signs of damage or corrosion). If some of these materials are leaking, the container should be partially filled with an absorbent material, such as a commercial absorbent, kitty litter or a diatomaceous earth. The plastic wrapped leaking components can then be placed in the container.
- If PCB vapours are suspected (e.g. PCB leaks onto a hot surface in a confined space), wear a suitable respirator. Use a cartridge respirator suitable for chlorinated vapours. It is always prudent to ensure adequate ventilation. NOTE: PCBs do not vaporise readily at room temperature.
- Do not smoke while handling PCB capacitors.
- After handling PCBs, even if gloves were worn, wash hands well in warm, soapy water before eating, drinking, smoking, handling food or drink, or using toilet facilities.

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

7.5 General Site Procedures

The following measures are relevant to the future demolition work and clean-up program (*Ref*. Standards Australia (2001)). Should any hazardous materials be identified during the demolition process, removal of these materials should be completed prior to removal of the floor slab and external areas of concrete hard-standing, in order to reduce the potential for impacts to underlying fill / soil. The following measures constitute a work plan for the management of hazardous building materials.

- Each building is to be maintained in a stable and safe condition during any demolition work. Appropriate precautions must be taken to maintain building stability/safety in the event of severe weather conditions (e.g. localized high winds and storms).
- Where appropriate, building power and/or water supplies should be disconnected prior to commencement of, and then throughout, any demolition.
- During the demolition phase, site boundaries are to be prominently labelled. All signage is to conform to Australian Standard AS1319 *Safety Signs in the Occupational Environment*. It is recommended that notices displaying the words WARNING DEMOLITION IN PROGRESS, or similar, be fixed at appropriate places on the outer walls, or suitable perimeter, to warn the public.

- Appropriate overhead protection should be implemented during the course of any program.
- The site shall be secured at all times against the unauthorized entry of persons or vehicles. Provision shall be made for ready access to the site by emergency services, in the event of fire or accident.
- Personal protective equipment shall be made available for the works, including disposable high-visibility coveralls, minimum P2 respirators, goggles, gloves, steel-capped boots and ear muffs.
- All work procedures involving hazardous materials must minimise the release of dusts and/or fibres. The two main techniques for the control of dusts are hosing down (wetting) and vacuuming (Standards Australia, 2001).
- Use wet methods to dampen down material (e.g. mist sprays and wet wipes), or use suitable vacuum attachments fitted with HEPA filters, to collect and/or reduce the release of dust. Caution: do not use household vacuum cleaners which are not fitted with HEPA filters.
- Work shall be performed in well-ventilated areas where possible. Confined spaces may contain asbestos and/or lead dusts. In accordance with Australian Standard AS2601 *The Demolition of Structures* (Standards Australia, 2001), "requirements and procedures should be in place to prevent occupational illness, injuries and fatalities to persons entering and working in confined space".
- Non-powered hand tools are to be used where possible, as these generate much less dust and noise.
- Undue noise, especially during extended working hours, is to be avoided.
- Use drop sheets to collect debris. Precautions should be taken to prevent slip and trip hazards. Upon completion, drop cloths will be rolled inward and placed in disposal bags with other wastes (EPA / Planning NSW, 2003).
- All asbestos and lead materials should be handled in accordance with the relevant NOHSC, SafeWork NSW and EPA guidelines. It will be of major importance to ensure that the works do not cause the release of dusts. The SafeWork NSW (2016) *How to Safely Remove Asbestos* provides detailed relevant information, while further information can be obtained from SafeWork Australia (2018) *Code of Practice for the Managing Risks of Hazardous Chemicals in the Workplace* and the EIACC (2002) *Guidelines to Working on Electrical Meter Panels Identified as Containing Asbestos*.
- At the completion of all asbestos removal works, a clearance inspection is to be conducted and a clearance certificate issued. The clearance must be undertaken prior to any demolition works commencing.
- Waste materials are to be placed in disposal bags or a suitable, sealed container (e.g. a covered skip or bins). All asbestos materials should be wetted and double wrapped in 200µm thickness, builder's plastic, or placed in clear, plastic (200µm thickness) *Asbestos Waste* bags.
- All waste building materials must be disposed to EPA-licensed, landfill / waste recycling facilities under the EPA (2014) *Waste Classification Guidelines*.
- Upon completion of the demolition phase, an inspection of each work area should be performed, to check the presence of fibrous cement sheeting (FCS) fragments. If such fragments are found, a hand-pick exercise should be undertaken to remediate the area.
- Facilities and equipment for administering first aid must be provided.
- In addition to the health of site personnel and members of the public, the work is ensuring protection of the immediate environment. In accordance with Australian Standard AS2601 *The Demolition of Structures* (Standards Australia, 2001), this is defined as "the properties,

including public thoroughfares and spaces, having common boundaries with the demolition site, and where the property is a public thoroughfare, including the properties directly opposite the demolition site". One measure that can assist the protection of both human health and the immediate environment is ambient air monitoring of dust emissions.

- All works are to be executed by competent persons/contractors, with due regard at all times for safe working practices and in accordance with the work plan, a copy of which shall be kept on site. It will be of particular importance that the handling and disposal of hazardous materials is performed by appropriately qualified personnel.
- Any modifications to this work plan, which may be necessary as the work progresses, shall be made by a competent person, in accordance with Clause 2.1 of Australian Standard AS2601 *The Demolition of Structures* (Standards Australia, 2001). Appendix C of Australian Standard AS2601 *The Demolition of Structures* sets out recommendations regarding the competence of site personnel (Standards Australia, 2001).
- This plan should be cross-referenced with the site-specific work plan(s) prepared by the appointed contractor(s), prior to work commencement.

8. Statement of Limitations

This survey evaluated the presence of hazardous materials in/on the buildings of the identified site. The findings presented in this report are the result of a site walkover inspection, sampling and laboratory analysis. To the best of our 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 survey.

This report has been prepared by EI Australia (EI) for the sole use of TOGA Wicks Park Developments 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 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.

In the interests of future OHS and in the absence of a comprehensive testing program, EI recommends that where there is doubt over the composition of some material, it should be assumed to contain a hazardous substance until verified otherwise by appropriate analysis.

No warranties are made as to the information provided in this report. All conclusions and recommendations made in this report are of the professional opinions of EI personnel involved with the project and while normal checking of the accuracy of data has been conducted, any circumstances outside the scope of this report or which are not made known to EI personnel and which may impact on those opinions are not the responsibility of EI.

Appendix A - Hazardous Materials Register

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

Column Heading	Description
Location	A detailed description of the location of the hazardous building material relevant to this entry.
Material Type	The specific hazardous building material type, e.g. Asbestos: asbestos cement sheet corrugated asbestos cement sheet, vinyl asbestos tiles, etc. SMF: foil backed SMF, compressed SMF ceiling tiles, SMF insulation to upper surface of ceiling, etc. Paint: Beige coloured lead-based paint system. PCB: Metal case capacitor 'Plessey 6.5 µF Type APF 265CR'. ***If inaccessible areas are noted, any of the above material types may be present.***
Sample / Photograph Reference	Sample Reference number allocated to the sample collected from this asbestos containing material Photograph Reference number, refer **Appendix B**.
Results	Laboratory analytical results. Refer to **Appendix C** 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	**Good**: good and stable condition. **Fair**: early signs of deterioration or localised areas of damage. For PCB capacitors this would include evidence of seals deteriorating. **Poor**: the material is in poor condition and remedial action is required, e.g. deteriorated friable asbestos materials, capacitors are leaking, etc. **Unknown**: the area was inaccessible
Accessibility	**Regular**: in the 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. **Inaccessible**: the area was not able to be accessed during the inspection
Risk Rating	The allocated priority rating for this entry, refer Section 5.4. If the location was not accessible the risk rating is not able to be determined and shall be listed as inaccessible.
Recommendations	Recommended actions for demolition works or damaged material.

Hazardous Materials Register
182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW

Location	Material Type	Sample / Photograph Reference	Results	Approximate Quantity	Condition	Accessibility	Risk Priority Rating	Recommendations
Smash Repairs Workshop and Cottage								
Inaccessible Areas								
Cottage, Internal, Ceiling Cavity	**Possible hazardous materials**	**Inaccessible Photograph 1**	**NA**	**ND**	**Unknown**	**Inaccessible**	**Inaccessible**	**No access to area at time of inspection.** **When areas are accessible, confirm status of hazardous materials.**
Asbestos								
Workshop, internal, electrical fuse / switch box (north wall)	Electrical backing board	Not sampled (electrical hazard) Photograph 2	**Assumed positive**	<1m^2	Good	Maintenance only	Priority 3 - Negligible risk under present conditions	Remove prior to undertaking any demolition works in area.
Workshop, external, bathroom eastern elevation, southern wall	Fibre cement sheeting	ASB-10	No asbestos detected Organic fibre detected.	NA	NA	NA	NA	NA
Workshop, internal,, bathroom, walls (painted blue)	Fibre cement sheeting	Similar to ASB-10	Assumed Negative	NA	NA	NA	NA	NA
SMF								
Internal, throughout	No SMF containing materials were identified	Visual inspection	NA	NA	NA	NA	NA	NA

Hazardous Materials Register
182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW

Lead Based Paints								
Workshop, internal, ceiling support beam	Purple possible LBP	Not sampled (height restriction) Photograph 3	**Assumed positive**	<20m²	Fair	Maintenance only	Priority 3 - Negligible risk under present conditions	Remove during initial phase of demolition works.
Cottage, internal; timber framework	White LBP	LEAD-08	**0.25% w/w**	<150m^2	Fair	Regular	Priority 3 - Negligible risk under present conditions	Remove during initial phase of demolition works.
Workshop, external, kitchen, eastern wall	Blue paint system	LEAD-05	<0.01% w/w	NA	NA	NA	NA	NA
Workshop, internal, floor	Blue paint system	LEAD-06	<0.01% w/w	NA	NA	NA	NA	NA
Cottage, internal; walls	Green paint system	LEAD-07	<0.01% w/w	NA	NA	NA	NA	NA
Cottage, internal; skirting boards	White paint system	LEAD-09	0.03% w/w	NA	NA	NA	NA	NA
Cottage, internal; walls	Cream paint system	LEAD-10	<0.01% w/w	NA	NA	NA	NA	NA
Cottage, internal; laundry ceiling	White paint system	LEAD-11	<0.01% w/w	NA	NA	NA	NA	NA
Cottage, internal; eastern (back) room, door	White paint system	LEAD-12	<0.01% w/w	NA	NA	NA	NA	NA
PCBs								
Internal, throughout	No possible PCBs were identified	Visual inspection	Assumed negative	NA	NA	NA	NA	NA

Hazardous Materials Register
182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW

Location	Material Type	Sample / Photograph Reference	Results	Approximate Quantity	Condition	Accessibility	Risk Priority Rating	Recommendations
Spray Painting Workshop								
Internal ceiling cavity	**Possible hazardous materials**	**Inaccessible Photograph 4**	**NA**	**ND**	**Unknown**	**Inaccessible**	**Inaccessible**	**When areas are accessible, confirm status of hazardous materials.**
Asbestos								
Eaves	Asbestos cement sheeting	Not sampled (height restriction) Photograph 4	**Assumed positive**	>100m^2	Good	Maintenance only	Priority 3 - Negligible risk under present conditions	Remove during initial phase of demolition works.
Ground floor, external eastern wall sprinkler room, ceiling	Asbestos cement sheeting	ASB-12 Photographs 4 and 5	**Chrysotile and amosite asbestos**	<50m^2	Good	Maintenance only	Priority 3 - Negligible risk under present conditions	Remove during initial phase of demolition works.
External, metal awning, ceiling	Asbestos cement sheeting	ASB-11 Photograph 6	**Chrysotile, amosite and crocidolite asbestos**	<50m^2	Good	Maintenance only	Priority 3 - Negligible risk under present conditions	Remove during initial phase of demolition works.
Ground floor, western bathroom, walls	Fibre cement sheeting	ASB-13	No asbestos detected Organic fibre detected.	NA	NA	NA	NA	NA
SMF								
Internal, throughout	No SMF containing materials were identified	Visual inspection	Assumed negative	NA	NA	NA	No SMF materials detected	NA

Hazardous Materials Register
182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW

Lead Based Paints								
External, second floor window frames	White possible LBP	Not sampled (height restriction)	**Assumed positive**	<1m²	Fair	Maintenance only	Priority 3 - Negligible risk under present conditions	Remove during initial phase of demolition works.
External, western gable end	White possible LBP	Not sampled (height restriction)	**Assumed positive**	<1m²	Fair	Maintenance only	Priority 3 - Negligible risk under present conditions	Remove during initial phase of demolition works.
PCBs								
Internal, in front of spray painting booth, ceiling	2 tube fluorescent light fitting Possible PCB capacitor	Not inspected (electrical hazard)	**Assumed positive**	2	Unknown	Inaccessible	Inaccessible	When accessible, confirm status of hazardous materials.

Hazardous Materials Register
182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW

Location	Material Type	Sample / Photograph Reference	Results	Approximate Quantity	Condition	Accessibility	Risk Priority Rating	Recommendations
Stone Cutting Workshop								
Asbestos								
Eastern wall, southern windows, infill panels	Cement sheeting (may contain asbestos)	Not sampled (height restriction) Photograph 7	**Assumed Positive**	<5m^2	Good	Maintenance only	Priority 3 - Negligible risk under present conditions	Remove during initial phase of demolition works.
Roof, eastern partition wall	Cement sheeting (may contain asbestos)	Not sampled (height restriction) Photograph 8	**Assumed Positive**	<5m^2	Good	Maintenance only	Priority 3 - Negligible risk under present conditions	Remove during initial phase of demolition works.
Warehouse, north eastern hallway before bathrooms	Fibre cement sheeting	ASB-06	No asbestos detected Organic fibre detected.	NA	NA	NA	NA	NA
Bathroom, north east corner (pink board facing south)	Fibre cement sheeting	ASB-07	No asbestos detected Organic fibre detected.	NA	NA	NA	NA	NA
Bathroom, north east corner (green board facing west)	Fibre cement sheeting	ASB-08	No asbestos detected Organic fibre detected.	NA	NA	NA	NA	NA
Northern office on western side of warehouse,	Fibre cement sheeting	ASB-09	No asbestos detected Organic fibre detected.	NA	NA	NA	NA	NA

Hazardous Materials Register
182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW

Warehouse, southern partition	Fibre cement sheeting	ASB-05	No asbestos detected Organic fibre detected.	NA	NA	NA	NA	NA
SMF								
Internal, throughout	No SMF containing materials were identified	Visual inspection	Assumed negative	NA	NA	NA	No SMF materials detected	NA
Lead Based Paints								
Internal walls	White LBP	LEAD-04	**0.24% w/w**	>1000m^2	Fair	Regular	Priority 3 – Negligible risk under present conditions	Remove during initial phase of demolition works.
PCBs								
Internal, throughout	No possible PCBs were identified	Visual inspection	Assumed negative	NA	NA	NA	NA	NA

Hazardous Materials Register
182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW

Location	Material Type	Sample / Photograph Reference	Results	Approximate Quantity	Condition	Accessibility	Risk Priority Rating	Recommendations
Offices								
Internal, Ceiling Cavity	**Possible hazardous materials**	**Inaccessible Photograph 9**	**NA**	**ND**	**Unknown**	**Inaccessible**	**Inaccessible**	**No access to area at time of inspection.** **When areas are accessible, confirm status of hazardous materials.**
Asbestos								
Electrical fuse / switch box on ground floor in rear room	Electrical backing board	Not sampled (electrical hazard) Photograph 10	**Assumed positive**	<1m^2	Good	Maintenance only	Priority 3 - Negligible risk under present conditions	Remove material prior to undertaking any demolition works in area.
Tile showroom eastern wall (behind partition)	Fibre cement sheeting	ASB-01	No asbestos detected	NA	NA	NA	NA	NA
Northern wall of furthest east room painted partition box inside on floor	Fibre cement sheeting	Similar to ASB-01	Assumed negative	NA	NA	NA	NA	NA
Ground floor, back room / kitchenette behind tile showroom	Fibre cement sheeting	ASB-02	No asbestos detected	NA	NA	NA	NA	NA
Ground floor , front room blue northern wall	Fibre cement sheeting	Similar to ASB-02	Assumed negative	NA	NA	NA	NA	NA
Rear office of furthest east room internal wall facing west	Fibre cement sheeting	Similar to ASB-02	Assumed negative	NA	NA	NA	NA	NA

Hazardous Materials Register
182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW

Northern wall of furthest east room painted partition box	Fibre cement sheeting	Similar to ASB-02	Assumed negative	NA	NA	NA	NA	NA
furthest east room in stone showroom (ground floor bathroom) internal wall facing west	Fibre cement	ASB-03	No asbestos detected	NA	NA	NA	NA	NA
SMF								
Internal, throughout	No SMF containing materials were identified	Visual inspection	NA	NA	NA	NA	NA	NA
Lead Based Paints								
Painted concrete walls on ground floor in kitchenette and rear room	White LBP	LEAD-02	**0.12% w/w**	<250m^2	Fair	Accessible	Priority 3 - Negligible risk under present conditions	No action required. Minimise abrasive disturbances during demolition works.
Ground Floor, stone top showroom eastern wall (behind partition)	White Paint	LEAD-01	0.03% w/w	NA	NA	NA	NA	NA
Outdoor rear building wall of offices	White Paint	LEAD-03	<0.01% w/w	NA	NA	NA	NA	NA
PCBs								
Internal, throughout	Newer style 2 tube fluorescent light fitting	Visual inspection	NA	NA	NA	NA	NA	NA

Appendix B - Site Plans and Photographs

LEGEND

- Approximate site boundary
- Approximate paint workshop area
- Approximate stone cutting building area
- Approximate offices area
- Approximate smash reapair workshop area
- Approximate area of shipping container with unknown contents

eiaustralia
Contamination | Remediation | Geotechnical
Suite 6.01, 55 Miller Street, PYRMONT 2009
Ph (02) 9516 0722 Fax (02) 9518 5088

Drawn:	M.G.
Approved:	K.W.
Date:	29-01-19

TOGA Wicks Park Developments Pty Ltd
Hazardous Materials Survey
182 - 198 Victoria Road & 28-30 Faversham Street
Marrickville, NSW
Site Feature Plan

Figure: 1

Project: E24098.E10.Rev0

Photograph 1.

Location: 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW – Brick Cottage adjacent to Smash Repairs

The red arrow points to the entrance to the ceiling cavity that was inaccessible

Photograph 2.

Location: 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW – Smash Repairs

The red arrow points to asbestos containing material forming electrical fuse/switch box on north internal wall of smash repairs

Photograph 3.

Location: 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW – Smash Repairs

The red arrow points to an inaccessible ceiling support beam with possible lead based paint

Photograph 4.

Location: 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW – Spray Painting Workshop

The red arrow points to the assumed location of an internal ceiling cavity.

The blue arrows point to the sprinkler rooms containing asbestos cement sheet formwork within the ceilings

The green arrow points to the building eaves containing asbestos cement sheeting.

Photograph 5.

Location: 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW – Spray Painting Workshop

The red arrow points to asbestos cement sheet formwork of the ceiling of the sprinkler room in the Spray Painting Workshop

Photograph 6.

Location: 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW – Spray Painting Workshop

The red arrow points to asbestos cement sheeting forming the ceiling of the awning attached to the Spray Painting Workshop

Photograph 7.

Location: 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW – Stone Cutting Workshop
The red arrow points to the asbestos cement sheeting window infills on the southern windows of the eastern wall

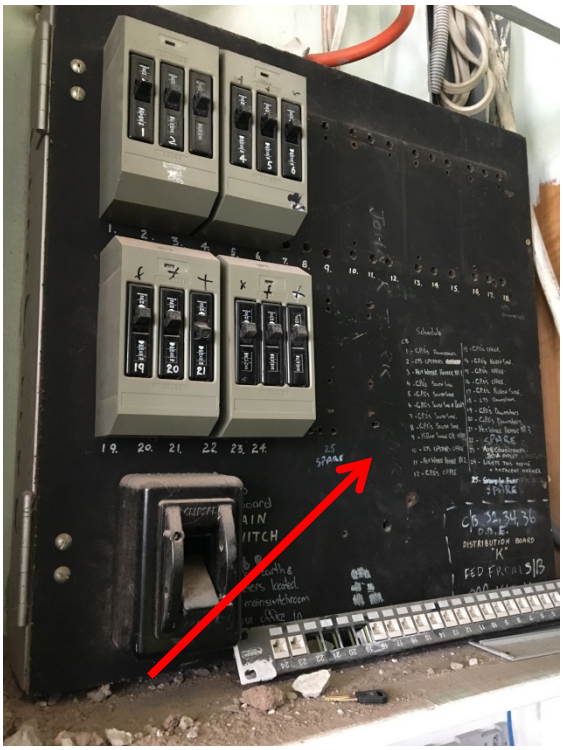
Photograph 8

Location: 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW – Stone Cutting Workshop
The red arrow points to the asbestos cement sheeting roof partition on the eastern wall

Photograph 9

Location: 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW – Offices
The red arrow points to the entrance to the ceiling cavity that was inaccessible

Photograph 10



Location: 182-198 Victoria Road & 28-30 Faversham Street, Marrickville, NSW - Offices

The red arrow points to asbestos containing material forming electrical fuse/switch box on western internal wall of the rear ground floor room of the office building

Appendix C - Laboratory CoC and Analytical Results

Sheet 1 of 2

Site: 182-198 Victoria Road, Marrickville, NSW

Project No: E24098

Laboratory: **Eurofins Environment Testing Aust. P/L**
6 / 16 Mars Road,
SYDNEY NSW 2066
P: 02 9900 8400

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS	lead			TCLP HM [B] / PAH
ASB-01		ZLB	18/12/18	PM			X						X										
lead-01		"	"	"			"													X			
ASB-02		"											X										
lead-02		"																		X			
ASB-03		"											X										
lead-03		"																		X			
ASB-05		"											X										
lead-04		"																		X			
ASB-06		"											X										
ASB-07		"					"						"										
ASB-08		"																					
ASB-09		↓	↓	↓			↓						↓										

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND

- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

Container Type:
J= solvent washed, acid rinsed,Teflon sealed, glass jar
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table ☐

Sampler's Name (EI): [redacted]

Date: 19-12-18

Received by (Eurofins): [redacted]

Date: 12:19 PM

Sampler's Comments:

eiaustralia
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

COC March 2018 FORM v.4 - SGS

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

Sheet 2 of 2

Site: 182-198 Victoria Road, Marrickville NSW

Project No: E24098

Laboratory: **Envirolab Services**
12 Ashley Street,
CHATSWOOD NSW 2067
P: 02 9910 6200

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro, Paint, etc.)	Analysis: HM [A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM [A] /TRH/BTEX/PAHs	HM [A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS	leach			TCLP HM [B] / PAH
Asb-10		ZLB	18/12/18	PM			X						X									
leach-05																				X		
leach-06																				X		
Asb-11													X									
Asb-12													X									
Asb-13													X									

Comments

HM [A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM [B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

Container Type:
J= solvent washed, acid rinsed,Teflon sealed, glass jar
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table ☐

Sampler's Name (EI):	Received by (Envirolab)
Print [redacted]	Print
Date 19-12-18	Date

Sampler's Comments:

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

eiaustralia
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

Sheet 1 of 1

Site: 182 -198 [redacted]
Marrickville NSW

Project No: E24098

Laboratory: Eurofins Environment Testing Aust. P/L
6 / 16 Mars Road,
Lane Cove NSW 2066
P: 02 9900 8400

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: WATER	SOIL	OTHERS (i.e. Fibro (Paint) etc.)	HM[A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM[A] /TRH/BTEX/PAHs	HM[A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Dewatering Suite	sPOCAS	PFAS	lead			TCLP HM[B] / PAH
lead-07		ZLB	11-01-19	AM/PM			X													X			
lead-08		↓	↓	↓			↓													X			
lead-09																				X			
lead-10																				X			
lead-11																				X			
lead-12																				X			

Comments

HM[A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM[B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND

- [X] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other_____

Container Type:
J= solvent washed, acid rinsed,Teflon sealed, glass jar
S= solvent washed, acid rinsed glass bottle
P= natural HDPE plastic bottle
VC= glass vial, Teflon Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table ☐

Sampler's Name (EI): [redacted]
Date 11-04-2019

Received by (Eurofins): [redacted]
Date 11-01-2019 3:21 PM

Sampler's Comments:

635454

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

eiaustralia
Contamination | Remediation | Geotechnical

Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

EI Australia
Suite 6.01, 55 Miller Street
Pyrmont
NSW 2009

Attention:	Micaela Green
Report	634155-AID
Project Name	182-198 VICTORIA ROAD MARRICKVILLE NSW
Project ID	E24098
Received Date	Dec 19, 2018
Date Reported	Jan 07, 2019

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name 182-198 VICTORIA ROAD MARRICKVILLE NSW
Project ID E24098
Date Sampled Dec 18, 2018
Report 634155-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
ASB-01	18-De28054	Dec 18, 2018	Approximate Sample 2g / 30x20x3mm Sample consisted of: Grey fibre plaster cement fragments	No asbestos detected. Organic fibre detected. No respirable fibres detected.
ASB-02	18-De28056	Dec 18, 2018	Approximate Sample 3g / 30x25x4mm Sample consisted of: Grey fibre plaster cement fragments	No asbestos detected. Organic fibre detected. No respirable fibres detected.
ASB-03	18-De28058	Dec 18, 2018	Approximate Sample 4g / 40x25x4mm Sample consisted of: Grey fibre plaster cement fragments	No asbestos detected. Organic fibre detected. No respirable fibres detected.
ASB-05	18-De28060	Dec 18, 2018	Approximate Sample 3g / 50x15x4mm Sample consisted of: Grey fibre plaster cement fragments	No asbestos detected. Organic fibre detected. No respirable fibres detected.
ASB-06	18-De28062	Dec 18, 2018	Approximate Sample 2g / 35x20x4mm Sample consisted of: Grey fibre plaster cement fragments	No asbestos detected. Organic fibre detected. No respirable fibres detected.
ASB-07	18-De28063	Dec 18, 2018	Approximate Sample 2g / 40x15x4mm Sample consisted of: Grey fibre plaster cement fragments	No asbestos detected. Organic fibre detected. No respirable fibres detected.
ASB-08	18-De28064	Dec 18, 2018	Approximate Sample 2g / 35x10x5mm Sample consisted of: Grey fibre plaster cement fragments	No asbestos detected. Organic fibre detected. No respirable fibres detected.

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
ASB-09	18-De28065	Dec 18, 2018	Approximate Sample 2g / 30x10x4mm Sample consisted of: Grey fibre plaster cement fragments	No asbestos detected. Organic fibre detected. No respirable fibres detected.
ASB-10	18-De28066	Dec 18, 2018	Approximate Sample 2g / 20x10x3mm Sample consisted of: Grey fibre plaster cement fragments	No asbestos detected. Organic fibre detected. No respirable fibres detected.
ASB-11	18-De28069	Dec 18, 2018	Approximate Sample 22g / 70x40x5mm Sample consisted of: Grey fibre cement material	Chrysotile, amosite and crocidolite asbestos detected.
ASB-12	18-De28070	Dec 18, 2018	Approximate Sample 61g / 90x60x7mm Sample consisted of: Grey fibre cement material	Chrysotile and amosite asbestos detected.
ASB-13	18-De28071	Dec 18, 2018	Approximate Sample 1g / 10x10x3mm Sample consisted of: Grey fibre plaster cement fragments	No asbestos detected. Organic fibre detected. No respirable fibres detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Dec 21, 2018	Indefinite

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NATA # 1261
Site # 1254 & 14271

Sydney
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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
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Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: EI Australia
Address: Suite 6.01, 55 Miller Street
Pyrmont
NSW 2009

Project Name: 182-198 VICTORIA ROAD MARRICKVILLE NSW
Project ID: E24098

Order No.:
Report #: 634155
Phone: 02 9516 0722
Fax:

Received: Dec 19, 2018 12:19 PM
Due: Jan 7, 2019
Priority: 10 Day
Contact Name: Micaela Green

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos Absence /Presence	HOLD	Lead (% w/w)
Melbourne Laboratory - NATA Site # 1254 & 14271								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	ASB-01	Dec 18, 2018		Paint	S18-De28054	X		
2	LEAD-01	Dec 18, 2018		Paint	S18-De28055			X
3	ASB-02	Dec 18, 2018		Paint	S18-De28056	X		
4	LEAD-02	Dec 18, 2018		Paint	S18-De28057			X
5	ASB-03	Dec 18, 2018		Paint	S18-De28058	X		
6	LEAD-03	Dec 18, 2018		Paint	S18-De28059			X
7	ASB-05	Dec 18, 2018		Paint	S18-De28060	X		
8	LEAD-04	Dec 18, 2018		Paint	S18-De28061			X
9	ASB-06	Dec 18, 2018		Paint	S18-De28062	X		

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Order No.:
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Received: Dec 19, 2018 12:19 PM
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Contact Name: Micaela Green

Project Name: 182-198 VICTORIA ROAD MARRICKVILLE NSW
Project ID: E24098

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos Absence /Presence	HOLD	Lead (% w/w)
Melbourne Laboratory - NATA Site # 1254 & 14271								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
10	ASB-07	Dec 18, 2018		Paint	S18-De28063	X		
11	ASB-08	Dec 18, 2018		Paint	S18-De28064	X		
12	ASB-09	Dec 18, 2018		Paint	S18-De28065	X		
13	ASB-10	Dec 18, 2018		Paint	S18-De28066	X		
14	LEAD-05	Dec 18, 2018		Paint	S18-De28067			X
15	LEAD-06	Dec 18, 2018		Paint	S18-De28068			X
16	ASB-11	Dec 18, 2018		Paint	S18-De28069	X		
17	ASB-12	Dec 18, 2018		Paint	S18-De28070	X		
18	ASB-13	Dec 18, 2018		Paint	S18-De28071	X		
19	ASB-04	Dec 18, 2018		Paint	S18-De28136		X	
Test Counts						12	1	6

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Eurofins | mgt accreditation number 1261, corporate site 1254 and 14271 is currently in progress of a controlled transition to a new custom built location at 6 Monterey Road, Dandenong South, Victoria 3175. All results on this report denoted as being performed by Eurofins | mgt 2-5 Kingston Town Close, Oakleigh Victoria 3166 corporate site 1254, will have been performed on either Oakleigh or new Dandenong South site.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

Chamath JHM Annakkage	Senior Analyst-Asbestos (NSW)

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

EI Australia
Suite 6.01, 55 Miller Street
Pyrmont
NSW 2009

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Micaela Green**

Report **634155-S**
Project name 182-198 VICTORIA ROAD MARRICKVILLE NSW
Project ID E24098
Received Date Dec 19, 2018

Client Sample ID			**LEAD-01**	**LEAD-02**	**LEAD-03**	**LEAD-04**
Sample Matrix			**Paint**	**Paint**	**Paint**	**Paint**
Eurofins | mgt Sample No.			**S18-De28055**	**S18-De28057**	**S18-De28059**	**S18-De28061**
Date Sampled			**Dec 18, 2018**	**Dec 18, 2018**	**Dec 18, 2018**	**Dec 18, 2018**
Test/Reference	LOR	Unit				
Lead (% w/w)	0.01	%	0.03	0.12	< 0.01	0.24

Client Sample ID			**LEAD-05**	**LEAD-06**
Sample Matrix			**Paint**	**Paint**
Eurofins | mgt Sample No.			**S18-De28067**	**S18-De28068**
Date Sampled			**Dec 18, 2018**	**Dec 18, 2018**
Test/Reference	LOR	Unit		
Lead (% w/w)	0.01	%	< 0.01	< 0.01

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Lead (% w/w)	Sydney	Dec 27, 2018	6 Month

- Method: E022.5 - ACID EXTRACTABLE METALS IN PAINT IN LIQUID AND POWDERED FORM BY ICP-MS ANALYSIS

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NATA # 1261
Site # 23736

Company Name: EI Australia
Address: Suite 6.01, 55 Miller Street
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Project Name: 182-198 VICTORIA ROAD MARRICKVILLE NSW
Project ID: E24098

Order No.:
Report #: 634155
Phone: 02 9516 0722
Fax:

Received: Dec 19, 2018 12:19 PM
Due: Jan 7, 2019
Priority: 10 Day
Contact Name: Micaela Green

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos Absence /Presence	HOLD	Lead (% w/w)
Melbourne Laboratory - NATA Site # 1254 & 14271								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	ASB-01	Dec 18, 2018		Paint	S18-De28054	X		
2	LEAD-01	Dec 18, 2018		Paint	S18-De28055			X
3	ASB-02	Dec 18, 2018		Paint	S18-De28056	X		
4	LEAD-02	Dec 18, 2018		Paint	S18-De28057			X
5	ASB-03	Dec 18, 2018		Paint	S18-De28058	X		
6	LEAD-03	Dec 18, 2018		Paint	S18-De28059			X
7	ASB-05	Dec 18, 2018		Paint	S18-De28060	X		
8	LEAD-04	Dec 18, 2018		Paint	S18-De28061			X
9	ASB-06	Dec 18, 2018		Paint	S18-De28062	X		

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Site # 23736

Company Name: EI Australia
Address: Suite 6.01, 55 Miller Street
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Project Name: 182-198 VICTORIA ROAD MARRICKVILLE NSW
Project ID: E24098

Order No.:
Report #: 634155
Phone: 02 9516 0722
Fax:

Received: Dec 19, 2018 12:19 PM
Due: Jan 7, 2019
Priority: 10 Day
Contact Name: Micaela Green

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos Absence /Presence	HOLD	Lead (% w/w)
Melbourne Laboratory - NATA Site # 1254 & 14271								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
10	ASB-07	Dec 18, 2018		Paint	S18-De28063	X		
11	ASB-08	Dec 18, 2018		Paint	S18-De28064	X		
12	ASB-09	Dec 18, 2018		Paint	S18-De28065	X		
13	ASB-10	Dec 18, 2018		Paint	S18-De28066	X		
14	LEAD-05	Dec 18, 2018		Paint	S18-De28067			X
15	LEAD-06	Dec 18, 2018		Paint	S18-De28068			X
16	ASB-11	Dec 18, 2018		Paint	S18-De28069	X		
17	ASB-12	Dec 18, 2018		Paint	S18-De28070	X		
18	ASB-13	Dec 18, 2018		Paint	S18-De28071	X		
19	ASB-04	Dec 18, 2018		Paint	S18-De28136		X	
Test Counts						12	1	6

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Comments

Eurofins | mgt accreditation number 1261, corporate site 1254 and 14271 is currently in progress of a controlled transition to a new custom built location at 6 Monterey Road, Dandenong South, Victoria 3175. All results on this report denoted as being performed by Eurofins | mgt 2-5 Kingston Town Close, Oakleigh Victoria 3166 corporate site 1254, will have been performed on either Oakleigh or new Dandenong South site.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised By

Nibha Vaidya	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal (NSW)
Nibha Vaidya	Senior Analyst-Asbestos (NSW)

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

EI Australia
Suite 6.01, 55 Miller Street
Pyrmont
NSW 2009

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Micaela Green**

Report **635454-S**
Project name 182-198 MARRICKVILLE NSW
Project ID E24098
Received Date Jan 11, 2019

Client Sample ID			**LEAD-07**	**LEAD-08**	**LEAD-09**	**LEAD-10**
Sample Matrix			**Paint**	**Paint**	**Paint**	**Paint**
Eurofins | mgt Sample No.			**S19-Ja05498**	**S19-Ja05499**	**S19-Ja05500**	**S19-Ja05501**
Date Sampled			**Jan 11, 2019**	**Jan 11, 2019**	**Jan 11, 2019**	**Jan 11, 2019**
Test/Reference	LOR	Unit				
Lead (% w/w)	0.01	%	< 0.01	0.25	0.03	< 0.01

Client Sample ID			**LEAD-11**	**LEAD-12**
Sample Matrix			**Paint**	**Paint**
Eurofins | mgt Sample No.			**S19-Ja05502**	**S19-Ja05503**
Date Sampled			**Jan 11, 2019**	**Jan 11, 2019**
Test/Reference	LOR	Unit		
Lead (% w/w)	0.01	%	< 0.01	< 0.01

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Lead (% w/w)	Sydney	Jan 17, 2019	6 Month

- Method: E022.5 - ACID EXTRACTABLE METALS IN PAINT IN LIQUID AND POWDERED FORM BY ICP-MS ANALYSIS

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NATA # 1261 Site # 20794

Perth
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NATA # 1261
Site # 23736

Company Name: EI Australia
Address: Suite 6.01, 55 Miller Street
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Project Name: 182-198 MARRICKVILLE NSW
Project ID: E24098

Order No.:
Report #: 635454
Phone: 02 9516 0722
Fax:

Received: Jan 11, 2019 3:21 PM
Due: Jan 18, 2019
Priority: 5 Day
Contact Name: Micaela Green

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Lead (% w/w)
Melbourne Laboratory - NATA Site # 1254 & 14271						
Sydney Laboratory - NATA Site # 18217						X
Brisbane Laboratory - NATA Site # 20794						
Perth Laboratory - NATA Site # 23736						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	LEAD-07	Jan 11, 2019		Paint	S19-Ja05498	X
2	LEAD-08	Jan 11, 2019		Paint	S19-Ja05499	X
3	LEAD-09	Jan 11, 2019		Paint	S19-Ja05500	X
4	LEAD-10	Jan 11, 2019		Paint	S19-Ja05501	X
5	LEAD-11	Jan 11, 2019		Paint	S19-Ja05502	X
6	LEAD-12	Jan 11, 2019		Paint	S19-Ja05503	X
Test Counts						6

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure, April 2011 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.2 2018
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.2 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Comments

Eurofins | mgt accreditation number 1261, corporate site 1254 and 14271 is currently in progress of a controlled transition to a new custom built location at 6 Monterey Road, Dandenong South, Victoria 3175. All results on this report denoted as being performed by Eurofins | mgt 2-5 Kingston Town Close, Oakleigh Victoria 3166 corporate site 1254, will have been performed on either Oakleigh or new Dandenong South site.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised By

Nibha Vaidya	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal (NSW)

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.