2-4 Hale Street, Botany NSW

Coombes Property Group Pty Ltd

Detailed Site Investigation

JBS&G 65803| 156685

18 September 2024

We acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.

We pay respect to Elders past and present and in the spirit of reconciliation, we commit to working together for our shared future.



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Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AEC	Area of Environmental Concern
AHD	Australian Height Datum
ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure
ASS	Acid Sulfate Soils
AST	Above Ground Storage Tank
bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
CS	Characteristic (Gas) Situation
CLM Act	Contaminated Land Management Act 1997
COPC	Contaminant of Potential Concern
CSM	Conceptual Site Model
DLWC	NSW Department of Land and Water Conservation
DP	Deposited Plan
DSI	Detailed Site Investigation
EPA	NSW Environment Protection Authority
GSV	Gas Screening Value
ha	Hectare
JBS&G	JBS&G Australia Pty Ltd
HSL	Health Screening Levels
LEP	Local Environmental Plan
LGA	Local Government Area
NEPC	National Environment Protection Council
OCPs	Organochlorine Pesticides
OEH	Office of Environment and Heritage
PAHs	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PDNSW	Property & Development New South Wales
POEO Act	Protection of the Environment Operations Act 1997
PSI	Preliminary Site Investigation
PFAS	Per- and Poly-fluoroalkyl Substances
PFOS	Perfluorooctanesulfonic acid
RAP	Remedial Action Plan
SAQP	Sampling Analysis and Quality Plan
TCE	Trichloroethene
TRH	Total Recoverable Hydrocarbons
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by Coombes Property Group Pty Ltd (the client) to undertake a Detailed Site Investigation (DSI) for the property located at 2-4 Hale Street, Botany, NSW (the site). The site is legally identified as Lot 1 deposited plan (DP) 562374 and occupies a total area of approximately 7,450 m^2. The site location and site layout are presented on **Figure 1** and **Figure 2**, respectively.

The site is currently occupied by existing warehouse buildings and associated carpark areas. It is currently leased by multiple tenants: Frontline Fabrications, Ripe Providores, Powder Coaters, Mechanic, Meat Storage, Smash Repairs, timber workshop and storage units. It is understood that the client intends to demolish the existing structures to develop a construction and demolition (C&D) waste management facility. The facility proposes to accept up to 300,000 tonnes per annum (tpa) of C&D waste. It would operate as a waste transfer station undertaking receipt and basic sorting with aggregation of material for bulk transport to advanced resource recovery facilities. The development plans are provided in **Appendix B**. The development requires the preparation of an Environmental Impact Statement (EIS) and this DSI is required to satisfy the Secretary's Environmental Assessment Requirements (SEARs) as related to contamination for the EIS as well as relevant aspects of State Environment Planning Policy (SEPP) (Resilience and Hazards) 2021.

Based on the findings of this investigation and subject to the limitations presented in **Section 13**, JBS&G concludes the following:

- The site has been used for industrial / commercial purposes since at least 1955, when warehouses first appear in the available aerial images. Additional buildings were added until 1982 and no further structures have appeared on the site since. From 1952 to 1972 the site was owned by Geigy Australasia Pty Ltd which manufactured moth proof woollen textiles. The northern portion of the site used to be a part of Bay Street and was acquired in 1961. The site is currently leased by multiple tenants including Frontline Fabrications, Ripe Providores, Powder Coaters, a mechanics, Meat Storage, Smash Repairs, a timber workshop and storage units.
- Two underground storage tanks (USTs) are present on the site, one located on the eastern boundary and one located in the central portion and are estimated to be 10,000 L tanks. It was unclear if the USTs have previously been decommissioned. A former bowser and vent was observed adjacent to the UST in the central portion of the site. The USTs will require decommissioning (as per the UPSS regulations) to ensure the site is considered suitable for the proposed use.
- Fill material comprised of brown / black / orange / yellow / red, gravelly sand / clayey gravelly sand / sandy clay / silty sand / sand / clayey sand with inclusions of gravels, sandstone, slag, brick. Natural material comprised of brown / grey / black sand / sandy clay / clayey sand. Photionisation detector (PID) readings ranged from 0.2 to 86.4 ppm. Slight to moderate sulfur odours were observed within MW03 3.0 to 4.0 m bgs. Staining was not observed in any of the sampling locations.
- Bonded ACM was observed in two samples with a maximum concentration of 0.0368% w/w during field asbestos quantification, with ACM concentrations less than the adopted health screening level (HSL)-D of 0.05% w/w. Several ACM fragment were observed on unsealed ground surface along the western boundary and central portion garden bed, which exceeds the 'no visible surface ACM' criterion.
- Eleven soil samples reported heavy metal (nickel, copper or zinc) concentrations exceeding ecological criteria. The heavy metal concentrations are considered to be likely attributable to background conditions in soil in an urban environment, however, further assessment will be

required to determine if the levels of heavy metals will pose an unacceptable risk to future vegetation to be established within landscaped zones around the perimeter of the site.

- Potential acid sulfate soils were identified in natural soils at site and will require management in instances where construction works result in the disturbance of these materials.
- Groundwater with slightly elevated levels of zinc were recorded in two monitoring wells (MW02 and MW03). The reported concentrations are considered to reflect urban background conditions given that there was no significant change of these constituents between up and down gradient monitoring wells and no significant source material identified within site soils. On this basis, the elevated levels of heavy metals in site groundwater are not considered to require management.
- Sub-slab vapour with an elevated trichloroethene concentration was reported at SV10 in the northwestern corner of the site. Currently there is limited data to confirm the extent of vapour impact. Based on available data, there is a potential unacceptable risk to future site receptors (via vapour intrusion to within enclosed spaces/buildings) and additional assessment and/or remediation may be required in this area.

Whilst no significant or gross contamination impacts associated with the site have been identified during the assessment activities, there are a number of issues that will require to be addressed such that the site can be considered suitable for the proposed land-use. Requirements to make the site suitable from a contamination perspective for the proposed use, should be outlined in a remedial action plan (RAP). The RAP should address the following remedial actions / management strategy issues:

- The requirements for further assessment to refine the extent of required remediation;
- Addressing potential unacceptable risks to vegetation to be established within landscaped zones around the perimeter of the site;
- TCE impacts in soil vapour posing a potentially unacceptable health risk (via vapour intrusion) to future occupants of the proposed building;
- Potential health and aesthetic issues from bonded ACM on the ground surface and potentially in fill materials; and
- Decommissioning and validation of UST infrastructure.

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1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by Coombes Property Group Pty Ltd (the client) to undertake a Detailed Site Investigation (DSI) for the property located at 2-4 Hale Street, Botany, NSW (the site). The site is legally identified as Lot 1 deposited plan (DP) 562374 and occupies a total area of approximately 7,450 m^2. The site location and site layout are presented on **Figure 1** and **Figure 2**, respectively.

The site is currently occupied by existing warehouse buildings and associated carpark areas. It is currently leased by multiple tenants: Frontline Fabrications, Ripe Providores, Powder Coaters, Mechanic, Meat Storage, Smash Repairs, timber workshop and storage units. It is understood that the client intends to demolish the existing structures to develop a construction and demolition (C&D) waste management facility. The facility proposes to accept up to 300,000 tonnes per annum (tpa) of C&D waste. It would operate as a waste transfer station undertaking receipt and basic sorting with aggregation of material for bulk transport to advanced resource recovery facilities. The development plans are provided in **Appendix B**. The development requires the preparation of an Environmental Impact Statement (EIS) and this DSI is required to satisfy the Secretary's Environmental Assessment Requirements (SEARs) as related to contamination for the EIS as well as relevant aspects of State Environment Planning Policy (SEPP) (Resilience and Hazards) 2021.

This assessment has been developed in general accordance with NEPC (2013[1]) and guidelines made or approved by the NSW Environment Protection Authority (EPA) and relevant Australian Standards.

1.2 Objectives

The objectives of the investigation are to characterise potential contamination at the site and assess the suitability of the site for the proposed use, or to make recommendations to enable such assessments to be made in the future.

1.3 Scope of Work

The following scope of works was undertaken to meet the assessment objectives:

- A desktop review of site history, environmental setting and background information, to identify potential areas of environmental concern (AECs) and associated contaminants of potential concern (COPCs) including review of:
    - Published regional topographic, geological, hydrological, and hydrogeological information, including review of licensed groundwater bores present within a 0.5 km radius of the site;
    - Current and historical aerial imagery for the site and nearby surrounds obtained from the NSW Spatial Services;
    - Readily available government and Bayside Council (Council) records, including Section 10.7 (2) and (5) planning certificates;
    - Review of current and historical certificate of title ownership records to gain an understanding of potential land use prior to historical aerial photographic records;
    - NSW database records of environmental protection licenses and contaminated land records held by the NSW Environment Protection Authority (EPA) for the site and surrounds as relevant to identify nearby potential sources of off-site contaminant migration; and
    - Searchable heritage database records held by the Department of Planning and Environment and Council for the site and surrounds.

[1] *National Environmental Protection (Assessment of Site Contamination) Measure 2013*. National Environment Protection Council, 2013 (NEPC 2013).

- An inspection within accessible areas of the site to confirm the desktop findings and identify the presence of additional AECs;
- Development and documentation of a conceptual site model (CSM) based on the available information;
- A soil investigation comprising a total of 11 sampling locations including five boreholes (SB01 to SB05), three hand augers (SB06 to SB08) and three monitoring wells (MW01 to MW03) to characterise site soils within accessible areas for the COPCs;
- The installation and sampling of three groundwater monitoring wells (MW01 to MW03) (converted from soil bores);
- The installation and subsequent sampling of 11 sub-slab soil vapour pins (SV01 to SV11);
- Laboratory analysis program for representative samples of each media for COPCs, with subsequent data evaluation against NSW EPA endorsed guideline values; and
- Preparation of this report documenting the methods and results of the investigation.

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2. Site Condition and Surrounding Environment

2.1 Site Identification

The site location and layout are shown on **Figure 1** and **Figure 2**, respectively. The site details are summarised in **Table 2.1** below and described in detail within the following sections.

Table 2.1 – Summary Site Details

Lot / DP	Lot 1 DP 562374
Address	2 - 4 Hale Street, Botany, NSW
Local Government Authority	Bayside Council
Approximate MGA Coordinates (MGA 56)	**Easting**: 332772 **Northing**: 6242386
Previous Use	Various industrial and commercial uses
Current Use	Commercial / Industrial
Proposed Use	Commercial / Industrial
Site Area	Approximately 7,450 m^2

2.2 Site Description

A site inspection to evaluate current site conditions and identify any potentially contaminating conditions and/or activities was undertaken by experienced JBS&G personnel on 10 March 2022. The key site features observed during the inspection have been shown on **Figure 2**. Most of the site (approximately 95 %) is sealed with concrete pavement, while the remaining 5 % comprises garden beds and landscaping, mainly in the central portion and along the western and eastern boundaries of the site (**Photographs 5**, **6**, **14**, **15** and **20** see **Appendix J**). Access to the site is gained via Hale Street, which runs parallel to the southern boundary of the site.

The site is currently comprised of industrial / commercial premises spread across several buildings. The current infrastructure at the site includes three large warehouse buildings with multiple units, a canopy in the southeast (**Photograph 4**), carparking in the central portion (**Photograph 2**), and a transmission box on the eastern boundary (**Photograph 28**). Industrial sized refrigeration and meat storage units, associated with Ripe Providores, were identified in unit 12 (**Photographs 21** and **22**). Spray painting booths were located within the buildings leased by Botany Powder Coaters (**Photograph 12**) and Smash Repairs (**Photograph 24**).

Two underground Storage Tanks (USTs) were identified at the site, one located on the eastern boundary (**Photograph 26**) and one located in the central area (**Photograph 8**). During underground service location, a ground penetrating radar (GPR) was used to confirm the area and size of the USTs. It was unclear if the USTs have previously been decommissioned. A former bowser and vent were observed adjacent to the UST in the central portion of the site (**Photograph 9**). Multiple intermediate bulk containers (IBCs) and storage drums were found in the northern portion of the site (**Photographs 11, 15** and **17**). Fragments of asbestos were also encountered across the site (**Photographs 7**, **16**, and **19**) and it was reported that asbestos products are present on the site, including wall sheeting, tiles, and eaves. Dangerous goods including gas bottles, paints, lubricants, lacquers, and oils were stored in various locations across the site (**Photographs 4, 13, 17, 18, 23** and **31**).

2.3 Surrounding Land-use

Surrounding land-uses at the time of the site inspection are described following:

- **North** – to the north the site is bound by a stormwater canal, beyond which is a dam, Mill Pond, and Mill Stream. Further afield lays the M1 motorway and Sydney Airport;
- **East** – to the east the site is bound by a sewage culvert, beyond which is further industrial / commercial buildings and warehouses. Residential structures are located further to the east;

- **South** – to the south the site is bound by Hale Street, beyond which lays industrial / commercial buildings and warehouses; and
- **West** – to the west the site is directly bound by a sewage culvert beyond which is forested parkland, the northern extent of Sir Joseph Banks Park. Further afield is Foreshore Road, then Mill Stream, and Sydney Airport.

2.4 Topography and Geology

A search of the Land and Property Information (LPI [2]) Spatial Map Viewer indicates that the site is situated at 4 m Australian Height Datum (AHD). The broader landscape falls gently to the north and west of the site towards Mill Stream and Mill Pond.

The regional landscape is described in soil landscape mapping as characterised by disturbed terrain that had been levelled to slopes of <3%. Local relief is usually <2m, in terraced cut and fill areas short rises may be steeper than 30%.

A review of the ESPADE 2.1 tool (OEH 2021[3]) indicates that the site exists on disturbed terrain of the previous swamps, wetlands and estuaries of Port Jackson. Relevant details of the soil landscapes are provided following:

- **Disturbed Terrain**
  - **Soils:** turfed fill areas commonly capped with up to 40 cm of sandy loam or up to 60 cm of compacted clay over fill or waste materials.
  - **Limitations:** dependent on nature of fill material. Mass movement hazard, unconsolidated low wet strength materials, impermeable soil, poor drainage, localised very low fertility and toxic materials.
  - **Geology:** artificial fill. Dredged estuarine sand and mud, demolition rubble, industrial and household waste. Also includes rocks and local soil materials.

2.5 Hydrology

The nearest surface water body to the site is Mill Pond, a dammed section of Mill Stream located approximately 90 m to the north. Mill Pond receives inflowing water from Mill Stream to the north, which is connected to the Botany Wetlands and Botany Dams, approximately 1.30 km and 2.81 km northeast of the site, respectively. Outflowing water from Mill Pond empties into Mill Stream 95 m northwest of the site. Mill stream flows into Botany Bay, situated approximately 1.2 km to the south which empties into the Pacific Ocean 8.82 km from the site.

Within the sealed extent of the site, overland flow is anticipated to follow into constructed drainage infrastructure (stormwater pits). In grassed and landscaped areas of the site, surface water would infiltrate the ground surface.

2.6 Hydrogeology

A search for registered groundwater bore information was undertaken on Water NSW website[4]. There were 16 registered groundwater well within 0.5 km of the site. A printout of the groundwater bore map is provided in **Appendix E**, in addition to construction details of the identified proximal boreholes. It is noted that the site

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[2] LP1 (2021) *ePlanning Spatial Viewer*, NSW State Government, accessed 9 March 2022 https://www.planningportal.nsw.gov.au/spatialviewer

[3] OEH (2021) *ESPADE 2.1*. NSW Office of Environment and Heritage, accessed 9 March 2022 https://www.environment.nsw.gov.au/eSpade2Webapp

[4] Water NSW website, https://realtimedata.waternsw.com.au/, accessed 9 March 2022 (Water NSW 2022)

is located within Prohibition Area 2 of the Botany Sands Groundwater Aquifer, where abstraction of groundwater for the purposes of domestic, recreation or irrigation uses is banned.

Based on the environmental setting, groundwater at the site is expected to comprise of a shallow unconfined system and flow to the north/north-west towards Mill Pond.

2.7 Acid Sulfate Soils

Review of the 1:25 000 Botany Bay Acid Sulfate Soil (ASS) Risk Map (DLWC 1997[5]) and the ESPADE Spatial Viewer ASS risk mapping indicates the site is within disturbed terrain and with the possibility for ASS onsite. Disturbed terrain may include filled areas, which often occur during reclamation of low lying swamps for urban development. Other disturbed terrain includes areas which have been mined or dredged, or have undergone heavy ground disturbance through general urban development or construction of dams or levees. Soil investigations are required to assess these areas for acid sulfate potential.

2.8 Meteorology

A review of average climatic data for the nearest Bureau of Meteorology monitoring location (Sydney Airport AMO 066037 – 3.4 km AWS[6]) indicates the site is located approximately within the following meteorological setting:

- Mean minimum temperatures vary from 7.4°C in July to 19.2°C in February;
- Mean maximum temperatures vary from 17.2°C in July to 26.7°C in January;
- The mean annual rainfall is approximately 1092 mm, with rainfall greater than 1 mm occurring on an average of 96 days per year; and
- Monthly average rainfall varies from 59.8 mm in September to 123.7 mm in March with the wettest periods occurring on average in February through to June.

[5] *Botany Bay Acid Sulfate Soil Risk Map (Edition 2),* Department of Land and Water Conservation 1997, (DLWC 1997)

[6] http://www.bom.gov.au/climate/averages/tables/cw_059006.shtml, Bureau of Meteorology, prepared and accessed 1 August 2022.

3. Assessment of Background Records and Site History

3.1 Historical Aerial Review

Table 3.1 presents a summary of the review of historical aerial photographs relating to the site. Copies of the aerial photographs are presented in **Appendix K** with the approximate site boundaries shown for reference.

Table 3.1: Review of Historical Aerial Photographs

Date	On-site	Off-site
1943	The site appeared to be vacant and covered with grass or bare earth. Some areas of potential water pooling were observed.	The site was bound to the east by a sewer culvert and south by a road, beyond which were residential properties and smaller number of warehouses. To the north was a large body of water, occupying the same location as the present-day Mill Pond. A wall or levee bound the western perimeter of the site, beyond which were sand dunes, beach, and Botany Bay.
1955	Several buildings were present on the site, including two large warehouses. A driveway was also constructed joining the buildings on the site with Hale Street.	To the north, a dam was installed redirecting Mill stream, which now flowed in a similar course to the present-day waterway, west of the site and then south to meet Botany Bay. New warehouses were erected to the east and opposite the site on Hale Street.
1961	A new section was added to the warehouse in the centre of the site while new structures were constructed on the site facing Hale Street.	In the surrounding area, new warehouses were constructed to the east of the site.
1971	Three new industrial buildings were erected on the northern portion of the site. A small structure also appeared in the east of the site.	The surrounding area appears generally the same. Several large commercial/industrial buildings were constructed in the areas east and south of the site.
1982	A large warehouse / industrial building was constructed in the southwest corner of the site. The other areas of the site appear unchanged from the previous aerial photograph.	In the surroundings, residential areas to the south and east were demolished and replaced with a number of industrial / commercial buildings. To the west, Mill Stream was redirected, and an area of land reclaimed. A roadway (Foreshore Road) was built on the reclaimed section of land.
1991	There are no visible changes onsite from the 1982 aerial photograph.	A new warehouse was constructed opposite of the site, fronting Hale Street. To the east, older industrial / commercial buildings were demolished and replaced with new warehouses. To the west, the land between the site and the roadway was converted into parkland.
2004	The site appears generally the same as the 1991 aerial photograph. However, the roofs have been replaced and are now green.	The surrounding area appears generally the same as the previous aerial photograph. A building to the east of the site has been constructed.
2013	The site appears generally the same as the 2004 aerial photograph.	In the surrounding areas, Hale Street was extended west and now connects to Foreshore Road.
2021	The site appears generally the same as the previous aerial photograph. Solar panels were installed on the warehouse near the centre of the site.	The surrounding area appears generally the same. A large warehouse was constructed south of the site.

3.2 NSW EPA Records

A search of the EPA database was undertaken for the site and immediate surrounding properties. EPA records are provided in **Appendix E** for reference purposes. A search was undertaken of the following public registers:

- NSW EPA *Protection of the Environment Operations Act 1997* (POEO Act) public register of licence, applications and notices (maintained under Section 308 of the POEO Act). No licences, applications or notices were identified in relation to the site. Several licences were identified for premises in the surrounding area including:
    - A POEO license was held by Junction Plating Holdings Pty Ltd at 19 – 21 Hale Street, Botany, NSW (approx. 250 m east of the site) for the generation and storage of hazardous, industrial, and Group A waste;

  - A POEO license was held until 2000 by Pascol Paints Aust Pty Ltd at 9 – 17 Byrnes Street, Botany, NSW (approx. 290 m east of the site) for paint production and the generation and storage of hazardous, industrial, and Group A waste;
  - A POEO license was held until 2000 by Junction Plating Holdings Pty Ltd at 17 Underwood Avenue, Botany, NSW (approx. 500 m east of the site) for the generation and storage of hazardous, industrial, and Group A waste;
  - A penalty notice was issued on 21 Sept 2020 to a property at 1212 Botany Road, Botany, NSW (approx. 680 m southeast of the site); and
  - A POEO license was held until 2002 by James Hunter & Sons Pty Ltd at 1 Ivy Street, Botany, NSW (approx. 810 m northeast of the site) for soap and detergent production.

- NSW EPA contaminated land public register of record of notices (under Section 58 of the Contaminated Land Management Act 1997 (CLM Act)). The site and surrounds are not on the NSW EPA contaminated land record.
- The site or immediate surrounding are not on the list of NSW contaminated sites notified to the EPA (under Section 60 of the CLM Act). Nearby, the property at 14a Underwood Avenue, Botany, NSW (approximately 440 m east of the site) is on the list of NSW contaminated sites notified to the EPA and is currently managed via the planning process (EP&A Act). Further afield, the property at 5 – 9 Lord Street, Botany, NSW (approx. 830 m northeast of the site) is also on the list of NSW contaminated sites notified to the EPA. Additionally, a former industrial site at 28 Folkstone Parade (880 m southeast of the site) is on the list of NSW contaminated sites notified to the EPA and is currently managed via the planning process (EP&A Act). The location of a former tannery at 2 Daniel Street, Botany, NSW (approx. 960 m northeast of the site) is also on the list of NSW contaminated sites notified to the EPA.
- NSW EPA Government Per- and polyfluoroalkyl substances (PFAS) Investigation Program. The site is not listed by EPA on the NSW Government PFAS Investigation program. Botany Industrial Park located 1.8 km southeast of the site and Alexandria Fire and Rescue located 4.6 km north of the site are on the list.

3.3 State and National Heritage Registers

A search of the Australian Heritage register found that no items of heritage significance were located on the site. A search of the NSW State Heritage Inventory database did not identify any heritage listed items at the site. In the surrounding areas of Botany, several nearby heritage items were listed on the database, including a Sewer Pumping Station (60 m northeast), several historic houses, and protected trees lining Bay Street (80 m north of the site).

Both Australian Heritage Trust and NSW Heritage information are included in **Appendix E.**

3.4 Section 10.7 Planning Certificate Search

Section 10.7 (2) and (5) Planning certificates were requested for the site from Bayside Council for Lot 1 DP 562374 and are presented in **Appendix D**.

The certificates included the following information as held by Bayside Council regarding the site as relevant to this investigation:

- All property is subject to the following plans:
  - Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment; and
  - State Environmental Planning Policy (Resilience and Hazards) 2021
- The site is zoned Zone IN1 General Industrial.
- The land is not in a conservation area.

- The site is affected by the former City of Botany Bay Council's Policy on Acid Sulfate Soils.
- The land is in the 30 and 35 Australian Noise Exposure Forecast (ANEF) contour.
- This land is currently subject to coastal / tidal inundation based upon the Sydney Coastal Councils Group Sea Level Rise Inundation existing map relative to the 1990 Sea Level.
- The land is not bush fire prone land as defined under the *Environmental Planning and Assessment.*
- The land is not within a flood planning area and subject to flood related development controls.
- The land is not biodiversity certified land as defined under Part 8 of the *Biodiversity Conservation Act 2016.*
- The land is not proclaimed to be a mine subsidence district within the meaning of the *Coal Mine Compensation Act 2017*.
- The land is not affected by a road widening or road realignment.
- Council has not been notified of a residential dwelling erected on this land containing loose fill asbestos ceiling insulation.
- To the knowledge of Council, the site is:
    - not significantly contaminated land (as per the meaning defined in the CLM Act);
    - not subject to a management order (as per the meaning defined in the CLM Act);
    - not the subject of an approved voluntary management proposal (as per the meaning defined in the CLM Act);
    - not the subject of an ongoing maintenance order (as per the meaning defined in the CLM Act); and
    - not the subject of site audit statement (as per the meaning defined in the CLM Act).

3.5 Historical Title Review

A copy of the historical title's documentation obtained for the site is provided in **Appendix I**. The historical title details are summarised in **Table 3.2**.

Table 3.1: Summary of Historical Site Titles

Location	Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
Part Numbered 1 in **Appendix I**	24.07.1912	Minister for Public Works (Constructing Authority)	Vol 2274 Fol 248 Now Vol 2938 Fol 188
	24.07.1912 (1912 to 1952)	Metropolitan Water Sewerage and Drainage Board	Vol 2938 Fol 188 Now Vol 5978 Fol 136
Part Numbered 2 in **Appendix I**	29.03.1911	Minister for Public Works (Constructing Authority) (Resumed for the purpose of the disposal of sewage)	Vol 1652 Fol's 146 to 148
	9.03.1911 (1911 to 1952)	Metropolitan Water Sewerage and Drainage Board	Vol 1652 Fol's 146 to 148 Now Vol 5978 Fol 136
Part Numbered 3 in **Appendix I**	29.03.1911	Minister for Public Works (Constructing Authority) (Resumed for the purpose of the disposal of sewage)	Book 948 No. 681 (Gazette)
	29.03.1911	Metropolitan Water Sewerage and Drainage Board	Now

Location	Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
	(1911 to 1952)		Vol 5978 Fol 136
Part Numbered 4 in **Appendix I**	-	Formerly part of Bay Street, subsequently closed.	-
	08.09.1961 (1961 to 1972)	Geigy Australasia (Pty) Limited	Vol 8301 Fol 131
Parts Numbered 1, 2, and 3 in **Appendix I**	10.03.1952 (1952 to 1972)	Geigy Australasia (Pty) Limited	Vol 5978 Fol 136 Now Vol 9146 Fol's 27 & 28
Whole of the Subject Land in **Appendix I**	15.09.1972 (1972 to 1988)	195 Crown Street Pty Limited	Vol 9146 Fol's 27 & 28 & Vol 8301 Fol 131 Then Vol 12159 Fol 90 Now 1/562374
	30.08.1988 (1988 to date (5 July 2020))	# Peter Szorenyi # Eva Szorenyi	1/562374

Easements:

- 07.07.1961 Easement for Transmission Line 200 feet wide

Leases:

- 03.04.1962 to Sydney County Council, of part, together with easements and rights
- 19.12.1983 to Sydney County Council of part (Lot 1 D.P. 205080), together with a right of way and easement for electricity purposes – expires 31.03.2001.
- Various leases were found from 20.04.1990 that have since expired or have been surrendered – not investigated.

3.6 Site History Summary

From review of the historical uses of the site presented in **Section 3** the following information has been summarised:

- The site has been used for industrial / commercial purposes since at least 1955, when warehouses first appear in the reviewed aerial images. Additional buildings were added until 1982 and no further structures have appeared on the site since;
- From 1952 to 1972 the site was owned by Geigy Australasia Pty Ltd which manufactured moth proof woollen textiles;
- The northern portion of the site was formerly part of Bay Street and was acquired in 1961;
- The site is currently leased by multiple tenants including Frontline Fabrications, Ripe Providores, Powder Coaters, a mechanics, Meat Storage, Smash Repairs, a timber workshop and storage units;
- Two disused USTs were identified at the site. It is unknown if the USTs were decommissioned in situ; and
- Fragments of asbestos containing materials were observed across the site surface.

3.7 Asbestos Material Report and Register (QBM 2017)

Quality Building Management Pty Ltd (QBM[7]) prepared an asbestos report and register for the site in 2017. Asbestos was recorded, within building materials across the site, associated with corrugated wall sheeting, gutters, cooler room door, lunch room vinyl tiles, bathroom walls, downpipes, shed walls, ceiling sheeting and main electrical switchboard. Further details are provided in QBM, 2017.

3.8 SafeWork NSW Dangerous Goods Search

A search of Dangerous Goods records as held by SafeWork NSW was conducted for the site and the results are provided in **Appendix L**. The records are summarised following:

- A 21,000L underground storage tank (UST) used to store petrol was present in the central portion (consistent with the location presented on Figure 2) from 1980. It was reportedly abandoned and not used from 1991, in which the previous owner stated that it was filled with an unspecified product. It was reportedly installed to a depth of approximately 2.1 m bgs.
- The operation within the warehouse in the north-western portion held a licence from 1995-2001 to store 800 L of adhesive containing flammable liquids and adhesive cleaner liquids.

[7] *Asbestos Materials Report and Register, 2-4 Hale Street, Botany, NSW, 2019,* Quality Building Management Pty Ltd, 26 October 2017 (QBM 2017).

4. Preliminary Conceptual Site Model

4.1 Overview

ASC NEPM (2013) identifies a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The development of a CSM is an essential part of all site assessment and remediation reports.

ASC NEPM (2013) identified the essential elements of a CSM to include:

- Known and potential sources of contamination and contaminants of concern including the mechanism(s) of contamination;
- Potentially affected media (soil, groundwater, vapours etc.);
- Human and ecological receptors;
- Potential and complete exposure pathways; and
- Any potential preferential pathways for vapour migration (if potential for vapours identified).

4.2 Potential Areas of Environmental Concern

Based on the site history review and observations of site conditions during the site inspection, Areas of Environmental Concern (AECs) and associated Contaminants of Potential Concern (COPCs) have been identified and are presented in **Table 4.1**.

Table 4.1: Areas of Environmental Concern and Contaminants of Potential Concern

Area of Environmental Concern (AEC)	Contaminants of Potential Concern (COPC)
Fill materials of unknown origin	Common COPCs such as heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylenes (BTEX), and asbestos.
On site storage of motor oils, fuels, car fluids, paints, and lacquers	Heavy metals, volatile organic compounds (VOCs), PAHs, and TRHs.
Former building structures	Asbestos, lead and PCBs.
Historical and current commercial / industrial activities (stored chemicals)	Heavy metals, per- and polyfluoroalkyl substances (PFAS)TRH, BTEX, PAHs, PCBs, phenols, OCPs and VOCs.
Offsite sources (e.g. current and former industry surrounding the site)	VOC, TRH, heavy metals, PFAS, BTEX, PAHs, PCBs and phenols.
Underlying natural soil	Potential acid sulfate soils (ASS).

4.3 Potentially Contaminated Media

Each of the AECs and corresponding COPCs identified in **Table 4.1** have the potential to impact soil, groundwater and/or soil gas (where volatile constituents are identified) underlying the site.

The site has been used for commercial / industrial purposes from at least 1955 and is located within industrial area with several EPA notified sites in the general vicinity. Therefore, the fill/soils, soil vapour, and groundwater on the site may be contaminated from both activity on site and in the surrounding areas.

Where fill materials are present to depth, or soils have been disturbed, there is a likelihood that environmental impact may be present at depth, consistent with the depth of the disturbance. Anthropogenic materials are commonly present in impacted fill materials and can be used as an indication of the depth of disturbance. Where fill materials impacted with chemical based contaminants are identified, there is the pot ential the impact may have migrated laterally and vertically below the fill material.

Impact to soil and groundwater may have occurred due to operation of the USTs, with potential accumulation of vapours below pavements.

With the exception of asbestos, each of the COPCs identified in **Table 4.1** for the site have the potential to migrate from shallow soils into groundwater.

4.4 Potential for Migration from Site

Contaminants generally migrate away from a site via a combination of windblown dusts, rainwater infiltration, groundwater migration and surface water runoff. The potential for contaminants to migrate is a combination of:

- The nature of the contaminants (solid/liquid and mobility characteristics);
- The extent of the contaminants (isolated or widespread);
- The location of the contaminants (surface soils or at depth); and
- The site topography, geology, hydrology and hydrogeology.

The COPCs identified as part of the site history review and site inspection are generally in solid (e.g. asbestos, PAHs and metals), liquid (e.g. TRH, BTEX, VOCs, PFAS, OCPs and PCBs) or gaseous (e.g. VOCs, BTEX, Volatile TRH and semi-volatile PAHs) form.

The ground surfaces overlying the site are primarily comprised of sealed pavements and building footprints with limited unsealed or vegetated ground thereby limiting the total extent of surface water infiltration into the subsurface. The migration of in-situ impacted soil via windblown dust is considered to be unlikely provided the hardstands are maintained across the site.

The potential solubility of chemical contaminants in soil, in addition to rate of surface water intrusion, perched water seepage and groundwater movement across the site will influence the potential for migration of soil and groundwater contamination within and from the site. Should impacted groundwaters be identified in proximity to the inferred downgradient boundary of the site, then potential off-site migration of contaminants in groundwater will require consideration. It is noted that site groundwater is anticipated to flow to north / northwest towards Mill Stream.

The potential for off-site migration of vapours will only be relevant where these constituents are identified at significant levels. These constituents can migrate laterally from the site through diffusive/advective processes as well as through preferential pathways (refer to **Section 4.7**). Should elevated levels of vapours be identified, then the potential off-site migration of these constituents will require further consideration.

4.5 Potential Exposure Pathways

Based on the COPC identified in various media as discussed above, the exposure pathways for the site include:

- Potential dermal contact with and ingestion of impacted soils / groundwater as present at shallow depths and/or accessible by future excavations; and/or
- Potential inhalation exposure to COPC vapours migrating upward and laterally from fill material, impacted natural soils and/or groundwater underlying the site; and/or
- Potential inhalation of dust / fibres associated with impacted soils.

4.6 Potential Receptors

Potential receptors of environmental impact within the site which will need to be addressed with respect to the suitability of the site for the proposed use include:

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- Current and future site occupants and landowners who may potentially be exposed to COPC through direct contact with impacted soils / groundwater and/or inhalation of dusts / fibres associated with impacted soils;
- Excavation / construction / maintenance workers conducting activities at the site, who may potentially be exposed to COPC through direct contact with impacted soils/groundwater present within excavations and/or inhalation of dusts / fibres associated with impacted soils; and
- Existing and/or future users/occupants of adjoining residential / commercial properties should contamination be identified to be migrating from the current site.

Currently the site is primarily covered by hardstand pavements and building footprints which will be maintained as part of site development. On this basis, the only future on-site ecological receptors will comprise the vegetation to be established around the perimeter of the site. Possible off-site ecological receptors are limited to potential impacts associated with groundwater and surface runoff water migrating from the site into Mill Stream. Off-site ecological receptors are therefore limited to the organisms living within these waterbodies and can be identified from the relevant water quality objectives (WQO).

4.7 Preferential Pathways

For the purpose of this assessment, preferential pathways have been identified as natural and/or man-made pathways that result in the preferential migration of COPC as either liquids or gases.

Man-made preferential pathways are present throughout the site, generally associated with fill materials present beneath existing ground surface and in the vicinity of existing foundations and infrastructure. Fill materials are anticipated to have a higher permeability than the underlying natural soil and/or bedrock. In addition, sub-surface services are known and/or anticipated to occur in the vicinity of the site. Generally higher permeability backfill, or the reduced compaction requirements overlying these services result in the services trenches becoming preferential pathways for contaminant migration.

Where environmental impact (particularly in liquid or gaseous form) is observed within proximity to these identified preferential pathways further consideration to the potential migration of these impacts will be required.

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5. Sampling and Analytical Plan

5.1 Data Quality Objectives

Data Quality Objectives (DQOs) were established for the assessment, as discussed in the following sections.

5.1.1 State the Problem

Based on the site history review, a preliminary CSM (**Section 4**) was prepared for the site that identified a number of AECs that require assessment in order to assess the suitability of the site for the proposed land-use.

5.1.2 Identify the Decision

The decisions required to be made for the investigation are:

- Are there any unacceptable risks to likely future onsite receptors from soils?
- Are there any issues relating to local area background soil concentrations that exceed the appropriate soil criteria?
- Are there any unacceptable human health and ecological risks present in groundwater underlying the site?
- Are there any potential vapours present within the sub-surface that could present an unacceptable risk to future site receptors?
- Are there any impacts of chemical mixtures?
- Are there any aesthetic issues at the site?
- Is there any evidence of, or potential for, migration of contaminants from the site?
- Is a site management strategy required?

5.1.3 Identify Inputs to the Decision

The following inputs are required in order to make the stated decisions:

- A review of available historical information from the site;
- A detailed site inspection;
- Soil sampling from soil bores to assess for the presence of potential chemical COPCs and asbestos;
- Installation, sampling and analysis of groundwater monitoring wells within the site;
- Field parameters as measured utilising calibrated equipment during the intrusive investigation including assessment of soil sample headspace, physicochemical parameters of groundwater and soil vapour parameters;
- Installation, sampling and analysis of sub-slab vapour probes within the site;
- Laboratory analysis data for COPCs;
- Site assessment criteria for potentially impacted media for COPCs as appropriate to potential future land uses; and
- Confirmation that data generated by sampling and analysis are of an acceptable quality to allow reliable comparison by assessment of quality assurance / quality control as per the data quality indicators established in **Section 5.1.6**.

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Specifically, sufficient data needs to be collected from each of the identified potentially impacted media in the identified AEC for the associated COPC (**Table 4.1**).

5.1.4 Define the Study Boundaries

The study boundaries have been defined laterally as the extent of Lot 1 in DP 562374 and shown on **Figure 2**. The vertical extent of the assessment was to a maximum depth of 6 m bgs as the final depth of the deepest borehole completed for the investigation.

Due to the project objectives, seasonality was not assessed as part of this investigation. Data are therefore representative of the timing and duration of the current investigation.

5.1.5 Develop a Decision Rule

The decision rules adopted to answer the decisions identified in **Section 5.1.2** are summarised in **Table 5.1**.

Table 5.1 – Summary of Decision Rules

Decision Required to be Made	Decision Rule
1. Are there any unacceptable risks to likely future onsite receptors from soils assessed as part of the investigation?	Soil analytical data was compared against EPA endorsed criteria. Statistical analyses of the data in accordance with relevant guidance documents was undertaken where appropriate, to facilitate the decisions. The following statistical criteria were adopted with respect to soils: Either: the reported concentrations were all below the site criteria; Or: the 95% upper confidence limit (UCL) of the average concentration for each analyte was below the adopted site criterion; no single analyte concentration exceeded 250% of the adopted site criterion; and the standard deviation of the results was less than 50% of the site criterion. If the statistical criteria stated above were satisfied, the answer to the decision was No. If the statistical criteria were not satisfied, the answer to the decision was Yes.
2. Are there any issues relating to local area background soil concentrations that exceed the appropriate soil criteria?	If the 95% UCL of natural soils exceeded published background concentrations (NEPC 2013), the answer to the decision was Yes. Otherwise the answer to the decision was No.
3. Are there any unacceptable human health and ecological risks present in groundwater underlying the site?	Groundwater analytical data were compared against EPA endorsed criteria and reported background concentrations. If the criteria stated above are satisfied, the decision was No. If the criteria are not satisfied, the decision was Yes.
4. Are there any potential vapours present within the sub-surface that could present an unacceptable risk to future site receptors?	Are site-related contaminants present in soil vapour at concentrations exceeding levels found to pose a potential health risk? If the answer is Yes, then further assessment of contaminant levels in indoor air will be required to properly assess whether an unacceptable health risk is present – should contaminant levels within indoor air exceed levels found to pose a risk the decision was Yes. Otherwise, the answer to the decision was No.
5. Are there any impacts of chemical mixtures?	Are there more than one group of contaminants present which increase the risk of harm? If there is, the answer to the decision was Yes. Otherwise, the answer to the decision was No.
6. Are there any aesthetic issues at the site?	If there are any asbestos containing material (ACM) fragments on the ground surface, any unacceptable odours or soil discolouration, the answer to the decision was Yes. Otherwise, the answer to the decision was No.
7. Is there any evidence of, or potential for, migration of contaminants from the site?	Is impacted groundwater potentially migrating from site? If yes, the decision was Yes. Otherwise, the decision was No.

8. Is a site management strategy required?	Is the answer to any of the above decisions (1-7) Yes? If yes, further assessment and/or a site management strategy will be required to address unacceptable contamination concerns at the site, to make the site suitable for future proposed uses. If no, further assessment and/or a site management strategy is not required and the site is considered suitable, from a contamination view point for the proposed uses.

5.1.6 Specific Limits on Decision Errors

This step is to establish the decision maker's tolerable limits on decision errors, which are used to establish performance goals for limiting uncertainty in the data. Data generated during this assessment must be appropriate to allow decisions to be made with confidence.

There are two types of decision error identified in Australia Standards (AS) 4482.1-2005 'Guide to the investigation and sampling of sites with potentially contaminated soil Part 1: Non-volatile and semi-volatile compounds.' This includes:

a) Deciding that the site is acceptable when it actually is not; and

b) Deciding that the site unacceptable when it is.

Limits are required to be set on each type of error presented here. AS4482.1-2005 nominates that a 5% probability of (a) and 20% probability of (b). It is noted that the application of this relationship assumes a uniform distribution of impact over the site area.

Specific limits for this project have been adopted in accordance with the appropriate guidance from the NSW EPA and NEPC 2013, appropriate indicators of data quality (DQIs used to assess quality assurance / quality control) and standard JBS&G procedures for field sampling and handling.

To assess the usability of the data prior to making decisions, the data was assessed against pre-determined Data Quality Indicators (DQIs) established for the project as discussed below in relation to precision, accuracy, representativeness, comparability and completeness (PARCC parameters). The acceptable limit on decision error is 95% compliance with DQIs.

The DQIs and data assessment criteria are summarised as presented in **Table 5.2**.

- **Precision** – measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD) of duplicate samples.
- **Accuracy** – measures the bias in a measurement system. The accuracy of the laboratory data that are generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- **Representativeness** – expresses the degree which sample data accurately and precisely represent a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.
- **Comparability** – expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.
- **Completeness** – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.

- **Sensitivity** – expresses the appropriateness of the chosen field and laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted site assessment criteria.

Table 5.2 – Summary of Quality Assurance / Quality Control Program

Data Quality Objectives	Frequency	Data Quality Indicator
Precision		
Split duplicates (intra laboratory)	1 / 20 samples	<50% RPD[1]
Blind duplicates (inter laboratory)	1 / 20 samples	<50% RPD[1]
Laboratory Duplicates	1 / 20 samples	<50% RPD[1]
Accuracy		
Surrogate spikes	All organic samples	70-130% recovery
Laboratory control samples	1 per lab batch	70-130% recovery
Matrix spikes	1 per lab batch	70-130% recovery
Representativeness		
Sampling appropriate for media and analytes	All samples	-[2]
Samples extracted and analysed within holding times.	-	Organics (14 days), inorganics (6 months)
Laboratory Blanks	1 per lab batch	<LOR
Trip blanks	1 per lab batch	<LOR
Trip spike	1 per lab batch	70-130% recovery
Storage blank	1 per lab batch	<LOR
Rinsate sample	1 per sampling event/media	<LOR
Comparability		
Standard operating procedures for sample collection & handling	All Samples	All Samples
Standard analytical methods used for all analyses	All Samples	NATA accreditation
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples[2]
Limits of reporting appropriate and consistent	All Samples	All samples[2]
Completeness		
Sample description and Chain of Custody (COCs) completed and appropriate	All Samples	All samples[2]
Appropriate documentation	All Samples	All samples[2]
Satisfactory frequency and result for QC samples		95% compliance
Data from critical samples is considered valid	-	Critical samples valid
Sensitivity		
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All samples	LOR<= site assessment criteria

[1] If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment was made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.

[2] A qualitative assessment of compliance with standard procedures and appropriate sample collection methods was completed during the DQI compliance assessment.

5.2 Optimise the Design of Obtaining Data

The purpose of this step is to identify a resource-effective field investigation sampling design that generates data that are expected to satisfy the criteria specified in the preceding steps of the DQO process. This step

provides a general description of the activities necessary to generate and select data collection designs that satisfy decision performance criteria.

Based on the objectives of the assessment, the following investigation approach was adopted:

- A combination of a systematic and targeted fill and soil sampling program was undertaken that included sampling soil from shallow soil bores and bores advanced to install groundwater monitoring wells. The soil sampling program was designed to characterise the identified COPCs (both chemical and asbestos) within accessible outdoor areas of the site. **Figure 3** presents the sampling locations.

  For sites that are approximately 0.75 ha, Contaminated Land Guidelines: Sampling design part 1 – application (EPA 2022) require a minimum sampling density of 19 systematic sampling locations that equates to a sampling grid size of 23.9 m. Noting that access to the site for intrusive investigations was limited to areas outside the warehouses, sampling was conducted on the basis of 25 m grid (11 locations in total) within accessible areas. The locations were placed on a generally systematic (grid) basis, in which some were skewed towards AECs, identified in **Section 4.1**. It is noted soils underlying building footprints could not be characterised and represent a data gap with respect to the outcomes of this assessment.

- A combination of a targeted and systematic groundwater investigation was designed to provide adequate site coverage and target AECs (based on the desktop review) – including downgradient of the USTs, chemical storage area, warehouse building and the downgradient boundary of the site. The primary objective of the groundwater assessment was to assess site related contaminants in groundwater and the risks to current on-site receptors as well as the potential for impacted groundwater migrating onto the site or away from the site (if any) and presenting an un-acceptable risk to on-site or off-site receptors.

- A targeted sub-slab vapour assessment was undertaken within the building footprint of the site in order to evaluate the potential risks to future occupants of buildings from potential volatile COPC sources within the subsurface, including potential sources within fill/soil and near site infrastructure such as petroleum storage tanks.

5.2.1 Sampling Methodology

Soil Sampling Methodology

Soil samples were collected via hand auger and hollow flight auger using a Geoprobe track mounted drilling rig at the nominated borehole locations across the site. Use of the hollow flight auger (200 mm diameter through fill allowed collection of sufficient sample volume (500 mL) for asbestos analysis (the methodology employed for asbestos quantification is discussed below).

Soil samples (for chemical constituents) were collected directly underneath the hardstand (concrete or bitumen) then generally at 0.5-1.0 m intervals to a maximum depth of 6 m (for monitoring wells) or at least 0.3 m into natural materials (or prior refusal), whichever was shallower. During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indicators of contamination were noted.

Soil samples were screened on site during works using a photo-ionisation detector (PID) to assess the presence of VOCs including petroleum hydrocarbons. Collected samples were immediately transferred to laboratory supplied sample jars (additional 500 mL plastic bags were used where asbestos analysis was required). The sample jars/bags were then transferred to a chilled ice box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form was completed and forwarded with the samples to the testing laboratory.

Duplicate soil samples were collected at a rate of one per 20 primary samples. Duplicate samples were collected for QA/QC purposes by taking soil from the auger and placing directly into the sample jars. Samples were not mixed prior to placement into the jars to minimise the potential for loss of volatiles.

Similarly, where 500 mL samples were required for duplicate asbestos analysis, no mixing of material was undertaken prior to placement into plastic bags to prevent the loss of free fibres. It is noted that this methodology may result in the calculation of poor RPDs but this is considered acceptable given that the loss of volatiles/fibres that may occur if samples are mixed would result in the reporting of lower contaminant concentrations than actually present. Rinsate blanks (for non-dedicated equipment) were collected with each batch of samples, and best practice methods were employed to minimise cross-contamination and loss of volatiles.

All non-disposable sampling equipment, including augers, were cleaned with a water/ detergent spray, followed by rinsing with potable water. The equipment was then inspected to ensure that no soil, oil, debris or other contaminants were apparent on the equipment prior to the commencement of works. Sampling equipment was subsequently decontaminated using the above process between each location.

Not all soil samples collected were analysed. Soil samples were analysed in accordance with the sampling and analytical program (**Table 5.3**).

Asbestos Quantification

Soil sampling locations to facilitate asbestos quantification were completed in general accordance with the procedures included in NEPC (2013) as derived from DOH (2021[8]) in which it is noted that approximately 10 L samples was inspected for the presence of asbestos.

The asbestos quantification works were completed via the excavation of boreholes (150 to 200 mm diameter) as described previously. The boreholes were advanced in one metre increments until natural soils were identified at the sampling location (to the nominated maximum depth). Generally, each 1 m increment was treated as a discrete sample.

At each sampling location, material from each increment was collected on a separate plastic sheet that is distinctly different to the soil colour and spread out of inspection. Any obvious ACM fragments were placed in a dedicated laboratory supplied polyethylene ziplock sample bag labelled with the sampling location, depth increment, samplers name and sampling date. For coarse grained material (ie. Sand, gravels, etc), the 10 L of material was then passed through a 7 mm sieve in the field. The material captured on the sieve was then hand sorted and any further collected ACM fragments were placed in the sample bag.

A representative 500 mL volume sample of material that passes through the 7 mm sieve was then collected and placed in a separate dedicated laboratory supplied polyethylene ziplock sample bag, labelled as a soil sample.

Groundwater Monitoring Well Installation

Soil bores were advanced to the nominated depth using hollow flight augers. Boreholes were advanced to the target depth based on conditions encountered (lithology/geology conditions encountered) during drilling where the depth of monitoring wells were approximately 4-6 m bgs. The wells were constructed in accordance with relevant NSW EPA endorsed guidance such as National Uniform Drillers Licensing Committee, 2012, *Minimum Construction Requirements for Water Bores in Australia*, and Victoria EPA, 2022, *Publication 669 Groundwater Sampling Guidelines*.

Monitoring wells were constructed using Class 18 uPVC (50mm) screen and casing. A 3-6 or 1-4 m screened interval was used in the construction of each monitoring well. A gravel filter pack was placed slightly above the screened interval with a 0.5 m bentonite seal above. The remaining bore annulus was backfilled with clean soil cuttings to the ground surface. The wells were finished with a lockable cap and flush-mounted gatic cover.

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[8] *Guidelines for the Assessment Remediation and Management of Asbestos Contaminated Sites in Western Australia*. 2021, Western Australia Depart of Health (WA DOH) (DOH 2021)

Well Development

Subsequent to well construction, each newly installed monitoring well with sufficient recharge was thoroughly developed to remove fines, settle the filter pack and ensure representative groundwater samples could be collected. Well development was undertaken manually using high density polyethylene (HDPE) tubing with a fixed footvalve, the bores were rapidly purged and then allowed to recharge. This process was repeated three to four times during the development of the wells.

Groundwater Sampling

Monitoring wells were sampled 24 hours following well development.

The depth to standing water was gauged and an assessment of the presence of light non-aqueous phase liquids/dense non-aqueous phase liquids (LNAPL/DNAPL) was made using an interface probe.

Subsequent to groundwater gauging, the following methodology was adopted for the collection of samples:

- Before and between sampling each well, the interface probe and all other non-disposable equipment was decontaminated in line with project/PFAS specific wash-down procedures, Decon 90 was not used, the wash-down involved the use of PFAS free products such as Liquinox.
- The wells were purged and sampled using a low-flow methodology with HDPE tubing. Purging was undertaken to ensure the sample collected is representative of groundwater conditions. Field parameters of pH, electrical conductivity, redox potential, dissolved oxygen (DO) and temperature were measured with field electrodes in a flow cell and samples obtained once the parameters stabilised such that:
    - Consecutive EC readings are within 3 %;
    - Consecutive redox readings are within 10 mV;
    - Consecutive DO readings are within 10 %; and
    - Consecutive pH readings are within 0.05.

JBS&G utilised a low-flow peristaltic pump with dedicated HDPE tubing to purge and sample wells. A rinsate was undertaken on the HDPE tubing and silicon tubing. JBS&G considers that this method is appropriate and does not result in measurable loss of VOCs and provides a significantly lower risk of cross-contamination between locations.

Collected groundwater samples were immediately transferred to laboratory supplied sample bottles in the order of most-volatile to least volatile contaminants. Field filtering using a 0.45 µm filter was undertaken for metals/metalloid samples. The sample containers were then transferred to a chilled iced box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form was completed and forwarded with the samples. Samples were analysed at a NATA accredited laboratory in accordance with the schedule presented in **Table 5.3.**

A record of gauging data, sample observations (including colour, odour, turbidity and presence of LNAPL, DNAPL, sheens) and sampling method details were recorded.

Blind and split duplicate groundwater samples were collected, along with a rinsate blank and a field blank. Best practice field methods were undertaken to avoid cross-contamination or loss of volatiles from samples.

Sub-Slab Vapour Probe Installation

The following methodology was adopted for the installation of sub-slab vapour probes installed across the extent of the site in hardstand areas:

- A 16 mm diameter hole was drilled through the concrete slab at each of the locations; and
- Installation of a VaporPin metallic probe following the manufacturer's instructions, which briefly comprised hammering the probe with silicone sleeve (to ensure air-tight seal) into the drilled hole to a depth of the encountered slab thickness.

Sub-slab Sampling and Analysis

The following methodology was adopted to sample the installed sub-slab vapour probes:

- A GFM 435 gas detector was used to purge each probe for a period of approximately 30 seconds. Gas readings were monitored until oxygen and photo-ionisation detector (PID) readings had stabilised;
- Following this, a leak detection evaluation was completed via placement of an isopropyl alcohol soaked rag within an air tight box containing the sample train located on top of the probe. Elevated PID readings (in excess of previously established and stabile PID recordings) on the gas detector was assumed to indicate a leaking probe. Any leaking probes were required to be re-installed and re-checked prior to sampling using the same method;
- Following preliminary confirmation of the absence of any significant leaks, the sub-slab vapour samples were collected onto SKC-anasorb carbon tubes. An isopropyl alcohol saturated rag was maintained in an air tight box (sealed container containing sample train) throughout purging and sampling for laboratory confirmation of potential leaks. A shroud was used in the chamber to maintain an isopropyl alcohol rich atmosphere over the sampling location. At all sample locations, a 6 L volume was collected using a calibrated pump at a flow rate of 200 mL/min (30 min sample time) onto a carbon tube; and
- Following sample collection, the carbon tubes were removed and capped and stored in a cool dry and dark container that excludes light, prior to analysis in accordance with the laboratory schedule in **Table 5.3**.

5.2.2 Laboratory Analysis

JBS&G contracted Eurofins | MGT Australia (Eurofins) as the primary laboratory for the required analyses. Envirolab Services Pty Ltd (Envirolab) were contracted for analysis of triplicate samples. Eurofins and Envirolab are NATA registered for the required analyses. In addition, the laboratory was required to meet JBS&G internal QA/QC requirements. Laboratory analysis of samples was conducted as summarised in **Table 5.3**.

Table 5.3: Sampling and Analysis Program

Sample Type	No. Sample Locations	Analyses (excl. QA/QC)
Soil	11 borehole locations	Heavy metals – 16 samples TRH / PAHs – 20 samples VOCs – 17 samples BTEX – 10 samples Asbestos – 9 samples OCPs/PCBs – 11 samples PFAS – 6 samples SPOCAS – 4 samples
Groundwater	3 groundwater monitoring wells	Heavy metals – 3 samples PAHs (low level) – 3 samples VOCs – 3 samples TRH – 3 samples PFAS – 3 samples
Sub-slab/soil vapour	11 soil vapour sub-slab locations	VOC 8260 – 11 samples Isopropanol (tracer) – 11 samples Field monitoring of methane, LEL, PID, carbon dioxide and oxygen – 11 samples

6. Assessment Criteria

6.1 Soil Assessment Criteria

Soil data collected on site were compared to health-based criteria derived from:

- Health investigation levels for commercial / industrial land use (HIL-D) land-use as provided in *National Environment Protection (Assessment of Site Contamination) Measure, 1999 (as amended 2013)*;
- Soil health screening levels for vapour intrusion for TRH, BTEX and naphthalene for sand based soils, and commercial / industrial land use as provided in NEPC (2013);
- Generic ecological screening / investigation levels for commercial / industrial land-use as provided in NEPC (2013);
- Aesthetic impacts have been assessed by on-site observations of soil staining and/or ACM and/or other anthropogenic materials; and
- PFAS National Environmental Management Plan Version 2.0. The Heads of EPAs Australia and New Zealand, January 2020 (HEPA 2020).

The health-based soil assessment criteria are summarised in **Table 6.1** and **6.2** following.

Table 6.1: Chemical Contaminants in Soil Health Based Assessment Criteria (all units in mg/kg)

	Limit of Reporting (LOR)	Laboratory Method	Health Investigation/Screening Level Commercial / Industrial (HIL-D HSL-D)	Management Limits for hydrocarbons Commercial/Industrial
METALS				
Arsenic	2.0	ICP-AES (USEPA 200.7)	3000	-
Cadmium	0.4	ICP-AES (USEPA 200.7)	900	-
Total Chromium [1]	1.0	ICP-AES (USEPA 200.7)	3600[1]	-
Chromium (VI)	1.0	ICP-AES (USEPA 7189)	3600	-
Copper	1.0	ICP-AES (USEPA 200.7)	240,000	-
Nickel	1.0	ICP-AES (USEPA 200.7)	6000	-
Lead	1.0	ICP-AES (USEPA 200.7)	1500	-
Zinc	1.0	ICP-AES (USEPA 200.7)	400,000	-
Mercury (inorganic)	0.05	Cold Vapour ASS (USEPA 7471A)	730	-
TRH (sand, 0 to <1m depth)				
F1 C_6-C_{10}	20	Purge Trap-GCMS (USEPA8260)	260	-
F2 >C_{10}-C_{16}	50	Purge Trap-GCMS (USEPA8260)	NL	-
C_6-C_{10}	20	Purge Trap-GCMS (USEPA8260)	-	800
C_6-C_{10}	50	Purge Trap-GCMS (USEPA8260)	-	1000
C_6-C_{10}	100	Purge Trap-GCMS (USEPA8260)	-	5000
C_6-C_{10}	100	Purge Trap-GCMS (USEPA8260)	-	10,000
BTEX (sand, 0 to <1m depth)				
Benzene	0.1	Purge Trap-GCMS (USEPA8260)	3	-
Toluene	0.1	Purge Trap-GCMS (USEPA8260)	NL	-
Ethylbenzene	0.1	Purge Trap-GCMS (USEPA8260)	NL	-
Total Xylenes	0.3	Purge Trap-GCMS (USEPA8260)	230	-
Naphthalene	0.1	Purge Trap-GCMS (USEPA8260)	NL	-
OCPs				
DDT + DDD + DDE	0.3	GCECD (USEPA8140,8080)	3,600	-
Aldrin + Dieldrin	0.2	GCECD (USEPA8140,8080)	45	-
Chlordane	0.1	GCECD (USEPA8140,8080)	530	-
Endosulfan	0.3	GCECD (USEPA8140,8080)	2,000	-
Endrin	0.1	GCECD (USEPA8140,8080)	100	-

	Limit of Reporting (LOR)	Laboratory Method	Health Investigation/Screening Level Commercial / Industrial (HIL-D HSL-D)	Management Limits for hydrocarbons Commercial/Industrial
Heptachlor	0.1	GCECD (USEPA8140,8080)	50	-
Hexachlorobenzene	0.1	GCECD (USEPA8140,8080)	80	-
Methoxychlor	0.1	GCECD (USEPA8140,8080)	2,500	-
PAHs				
Carcinogenic PAHs (as B(a)P TEQ)	0.5	GCMS (USEPA8270)	40	-
Total PAHs	0.5	GCMS (USEPA8270)	4,000	-
PCBS				
PCBs (total)	0.5	GCECD (USEPA8140,8080)	7	-
PFAS				
PFOA	0.005	LC-MS	50	-
Sum of PFHxS and PFOS	0.005	LC-MS	20	-

1. Total chromium results used as an initial screening tool for chromium (VI). Where total chromium results exceeded screening criteria, confirmatory chromium (VI) analysis was completed for direct comparison to published criteria.
2. NL -denotes 'Not limiting'
3. For TRH fractions – health screening levels applicable to soils at a depth of 0 m to <1 m have been applied as screening criteria to this assessment.

Asbestos in soil thresholds adopted for the site assessment are nominated in **Table 6.2** below.

Table 6.2: Asbestos in Soil Health Based Assessment Criteria (all units in % w/w)

Form of Asbestos	Commercial / Industrial (D)
Bonded ACM	0.05 %
Fibrous asbestos or asbestos fines3	0.001 %
All forms of asbestos	No visible ACM for surface soil (0 – 0.1 m bgs).

The assessment of acid sulfate soil conditions was completed via use of laboratory sPOCAS analysis methods with the results compared to the site acid sulfate soil action criteria published in the *Acid Sulfate Soil Manual* (ASSMAC 1998[9]), as presented in **Table 6.3** below. Where results exceeded the site action criteria, material was considered to comprise Potential/Actual Acid Sulfate Soil.

Table 6.3: ASS Assessment Criteria

Soil Type		Action Criteria (1-1000 tonnes disturbed)		Action Criteria (>1000 tonnes disturbed)	
Texture	Clay Content (%)	Sulfur Trail (S_{pos}%) - S %	Acid Trail (TPA/TSA) mol H^+/tonne	Sulfur Trail (S_{pos}%) - S %	Acid Trail (TPA/TSA) mol H^+/tonne
Coarse	<5	0.03	18	0.03	18
Medium	5-40	0.06	36	0.03	18
Fine	>40	0.1	62	0.03	18

6.2 Groundwater Assessment Criteria

Groundwater data collected on-site has been compared to guidelines provided to ANZG (August 2018[10]) for marine ecosystems protective of 95% of species and the lowest of the criteria provided to NEPC (2013) for the protection of marine ecosystems, aquatic foods, recreational uses and visual amenity as consistent with the water quality objectives for Botany Bay. With respect to the assessment of recreational exposures down-gradient of the site, data has been compared to drinking water guidelines as summarised in NEPC (2013) and

[9] *Acid Sulfate Soil Manual*, New South Wales Acid Sulfate Management Advisory Committee, August 1998 (ASSMAC 1998)
[10] Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, August 2018)

adjusted by an order of magnitude consistent with a recreational exposure being the most likely sensitive potential exposure pathway. Noting that the site is situated on the boundary of the Botany Sands Aquifer Prohibition Area and that there are no records of registered bores used for consumption purposes in proximity of the site, the comparison of groundwater data to drinking water guidelines is considered not applicable to this investigation.

The adopted groundwater investigation criteria are listed in **Table 6.4** following.

Table 6.4: Groundwater Investigation Levels (all units are µg/L unless otherwise shown)

	Limit of Reporting	Laboratory Method	Recreational Criteria[1]	Aquatic Ecosystem Criteria[2]	HSL –Commercial / Indsutrial[3]
METALS					
Arsenic (As V)	1.0	ICP-AES (USEPA 200.8)	100	13	-
Cadmium	0.1	ICP-AES (USEPA 200.8)	20	0.7	-
Chromium (III)[4]	1.0	ICP-AES (USEPA 200.8)	-	27	-
Chromium (VI)[4]	1.0	ICP-AES (USEPA 200.8)	500	4.4	-
Copper	1.0	ICP-AES (USEPA 200.8)	20000	1.3	-
Lead	1.0	ICP-AES (USEPA 200.8)	100	4.4	-
Nickel	1.0	ICP-AES (USEPA 200.8)	200	7	-
Zinc	1.0	ICP-AES (USEPA 200.8)	-	15	-
Mercury	0.5	ICP-AES (USEPA 200.8)	10	0.1	-
TOTAL RECOVERABLE HYDROCARBONS					
F1 C_6-C_{10}	250	P&T GC/MS (USEPA 8020A, 8000)	-	-	6000
F2 >C_{10}-C_{16}	250	P&T GC/MS (USEPA 8020A, 8000)	-	-	NL
BTEX					
Benzene	1.0	P&T GC/MS (USEPA 8020A)	10	500	5000
Toluene	1.0	P&T GC/MS (USEPA 8020A)	8000	180	NL
Ethylbenzene	1.0	P&T GC/MS (USEPA 8020A)	3000	5	NL
m-Xylene	1.0	P&T GC/MS (USEPA 8020A)	6000 (total Xylene)	75	NL
p-Xylene	1.0	P&T GC/MS (USEPA 8020A)		200	NL
o-Xylene	1.0	P&T GC/MS (USEPA 8020A)		350	NL
POLYCYCLIC AROMATIC HYDROCARBONS					
Naphthalene	0.01	GCMS (USEPA8270)	-	50	NL
Fluoranthene	0.01	GCMS (USEPA8270)	-	1	-
Phenanthrene	0.01	GCMS (USEPA8270)	-	0.6	-
Benzo(a)pyrene	0.01	GCMS (USEPA8270)	0.1	0.1	-
VOLATILE ORGANIC COMPOUNDS					
PCE	1.0	P&T GC/MS (USEPA 8020B)	500	70	-
TCE	1.0	P&T GC/MS (USEPA 8020B)	-	330	-
Cis-1,2-DCE	1.0	P&T GC/MS (USEPA 8020B)	360	-	-
Trans-1,2 DCE	1.0	P&T GC/MS (USEPA 8020B)	3600	-	-
VC	1.0	P&T GC/MS (USEPA 8020B)	3	100	-
POLYCHLORINATED BIPHENYLS					
Total PCBs	0.01	GCMS (USEPA8270)	ND	ND	-
Individual Compounds Arochlor 1254	0.01	GCMS (USEPA8270)	-	0.01	-
Arochlor 1242	0.01	GCMS (USEPA8270)	-	0.3	-
PFAS COMPOUNDS					
PFOS	0.01	LC-MS	-	0.13[5]	-
PFOA	0.01	LC-MS	10[6]	220[5]	-
Sum of PFHxS and PFOS	0.01	LC-MS	2[6]	-	-

Notes:
1. 10 times drinking water NHMRC (2011)

2. Ecological Criteria ANZG (2018) 95% Marine Waters reliability, unless otherwise noted.
3. NEPC (2013) B1 – Table 1A(4) HSL health screening values for vapour intrusion – sand soils 2-4 m. NL: Non limiting
4. Total chromium analysis results used as an initial screening tool. Where total chromium results exceeded screening criteria, confirmatory chromium speciation was required for direct comparison to published criteria.
5. Aquatic Criteria from NEMP (2020) for marine waters with 95% protection level.
6. Recreational Criteria from NEMP (2020)

6.3 Vapour Assessment Criteria

Vapour concentrations in sub-slab vapour were compared against published levels as presented in **Table 6.5**, as sourced from Health based Investigation and Screening Levels (HILs and HSLs) for vapour intrusion under commercial / industrial land use – NEPC 2013, HIL-D, HSL-D (sand, depth 0m to <1m bgs).

Table 6.5: Vapour Sample Assessment Criteria (mg/m^3)

	Limit of Reporting	Laboratory Method	NEPC (2013) HSL-D (sand, 0m to <1m bgs)	NEPC (2013) HIL-D
BTEX				
Benzene	0.02	USEPA 8260	4	-
Toluene	0.02	USEPA 8260	4800	-
Ethylbenzene	0.02	USEPA 8260	1300	-
Total Xylenes	0.02	USEPA 8260	840	-
Naphthalene	0.02	USEPA 8260	3	-
VOCs				
PCE	0.02	USEPA 8260	-	8
TCE	0.02	USEPA 8260	-	0.08
Cis 1,2 DCE	0.02	USEPA 8260	-	0.3
1,1,1 TCA	0.02	USEPA 8260	-	230
VC	0.02	USEPA 8260	-	0.1

7. Quality Assurance / Quality Control

7.1 QA / QC Results

The results of the laboratory and JBS&G's quality assurance/quality control (QA/QC) program has been assessed and it is considered that the analytical data is of an acceptable quality for the purposes of this environmental assessment. Detailed QA/QC results are included in the laboratory reports in **Appendix G.**

Analysis of the Quality Analysis / Quality Control (QA/QC) has been undertaken for the analytical results as summarised in the following **Table 7.1** and discussed following.

Table 7.1 – Data Quality Indicator Assessment

Data Quality Indicator	Frequency	Results	DQI met?
Precision			
Blind duplicates (intra laboratory)	2/28 (Soil) 1/3 (Groundwater) 1/11 (Vapour)	0-82% RPD Soil 0-126% RPD Groundwater <LOR Vapour	Partial[1]
Split duplicates (inter laboratory)	2/28 (Soil) 1/3 (Groundwater) 0/11 (Vapour)	0-153% RPD Soil 0-120% RPD Groundwater NA	Partial[1]
Laboratory duplicates	12/28 (Soil) 3/3 (Groundwater) 0/11 (Vapour)	<LOR-160 % RPD Soil <LOR-26 % RPD Groundwater NA	Partial[1]
Accuracy			
Surrogate spikes	Surrogate spikes were completed for all organic samples	23-148 % Recovery Soils 50-177 % Recovery Groundwater 93-110 % Recovery Vapour	Partial[1]
Laboratory Control Samples	14/28 (Soil) 2/3 (Groundwater) 4/11 (Vapour)	72-129 % Recovery Soils 63-126 % Recovery Groundwater 75-112 % Vapour	Partial[1]
Matrix spikes	11/28 (Soil) 2/3 (Groundwater) 0/11 (Vapour)	69-126% Recovery Soils 82-116% Recovery Groundwater NA	Partial[1]
Representativeness			
Sampling appropriate for media and analytes	All media	All sampling conducted in accordance with standard JBS&G procedures	Yes
Laboratory blanks	10/28 (Soil) 4/3 (Groundwater) 4/11 (Vapour)	<LOR (Soil) <LOR (Groundwater) <LOR (Vapour)	Yes
Samples extracted and analysed within holding times.	All samples	All samples analysed within respective holding times applicable for the contaminant of concern and the relevant media.	Yes
Trip spikes	1 per lab batch	100-120 % Recovery	Yes
Trip blanks / Equipment Blank / Field Blank	1 per lab batch	<LOR	Yes
Rinsate	1 per sampling event/media	Trace levels	Partial[1]
Comparability			
Standard operating procedures used for sample collection & handling	All samples	One JBS&G field scientist used standard operating procedures throughout works.	Yes
Standard analytical methods used	All samples	Standard analytical methods.	Yes
Consistent field conditions, sampling staff and laboratory analysis	All samples	Sampling was conducted by one field staff member using standard operating procedures in the same conditions throughout the works.	Yes

Data Quality Indicator	Frequency	Results	DQI met?
		The laboratories remained consistent throughout the investigation.	
Limits of reporting appropriate and consistent	All samples	Limits of reporting were consistent and appropriate.	Yes
Completeness			
Soil, Groundwater and Vapour description & Chains of Custody completed	All samples	All borehole logs, purging forms and Chains of Custody were completed appropriately.	Yes
Appropriate documentation	All samples	All appropriate field documentation processes were undertaken.	Yes
Satisfactory frequency/result for QC samples	All samples	The QC results are considered adequate for the purposes of the investigation.	Yes
Data from critical samples is considered valid	-	Data from critical samples is considered valid.	Yes
Sensitivity			
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All samples	Appropriate laboratory analysis methods and detection limits were considered to have been achieved during the field and laboratory phases of this investigation.	Yes

1. *See discussion of DQI exceedances in* ***Section 7.2.***

7.2 Soil QA/QC Discussion

The results of QA/QC samples outside the acceptance criteria are discussed below.

7.2.1 Precision

Soil Duplicates

Soil blind and split duplicates were collected at a rate of greater than 1 per 20 primary samples. The resultant RPDs were all within the preferred range with the exception of a limited number of heavy metal, PAHs and OCPs. The slight variations between the primary and duplicate samples was likely due to the heterogeneity of the soil samples. Notwithstanding, the data was considered suitable for comparison against screening level criteria, and as a conservative measure, the highest reported concentrations will be considered when interpreting results. No soil duplicates were undertaken for asbestos analysis, however representative quantification samples were collected and no asbestos was reported in any of the samples analysed by the laboratory.

Groundwater Duplicates

Groundwater blind and split duplicates were collected at a rate of 1 per 20 primary samples. The resultant RPDS were all within the preferred range with the exception of one heavy metal recovery. The differences were likely due to the relatively low level concentrations reported within the primary and duplicate pair. Overall, the data was considered suitable for comparison against screening level criteria, and as a conservative measure, the highest reported concentrations will be considered when interpreting results.

Vapour Duplicates

Analysis of blind duplicate vapour sample met the required analysis frequency and all RPDs were zero. Results were all reported below the laboratory limit of reporting. A split duplicate vapour sample was not undertaken due to the different methods adopted by other laboratories.

7.2.2 Accuracy

Surrogate Spikes

Soil, groundwater and soil vapour surrogate spikes were conducted on all samples submitted for organic constituent analysis and most recoveries were reported within the preferred range (70-130 %). A small number of surrogates (in soil and water) were reported outside the preferred range, but largely within the laboratories acceptable limits (typically between 50 and 150 %) under their NATA accreditation. In addition, where an individual surrogate recovery was outside the preferred range – the alternate surrogate (for each class of compounds) within the primary sample was within the preferred range. Most surrogate recoveries outside the preferred range related to PFAS analysis, which have a greater acceptable surrogate recovery range.

Elevated surrogate recoveries indicate the reported concentrations may potentially be greater than the actual concentrations, while low surrogate recoveries indicate the reported concentrations may potentially be less than the actual concentrations. Taking this into account, it is considered that samples with slightly elevated or lower surrogate recoveries do not affect the reliability of the data for this investigation noting that the concentration of contaminants in the primary samples analysed were largely well below the adopted site assessment criteria.

Matrix Spikes

A sufficient frequency of matrix spike samples were analysed by the primary laboratory, and matrix spike recovers were each within the JBS&G acceptable limit of 70-130 % for soil and groundwater samples. A few matrix spike recoveries soil samples were slightly below criteria, however were within the laboratories acceptable limits.

Matrix spikes are not conducted for laboratory analysis of carbon tubes.

Laboratory Control Samples

A sufficient number of laboratory control samples were analysed for all media types. The reported laboratory control sample recoveries were largely within the JBS&G preferred range (70-130 %). A small number of laboratory control samples were reported outside the JBS&G acceptable range, but largely within the laboratory's acceptable limits (typically between 50 and 150 % recovery) under their NATA accreditation. On this basis, the limited number of laboratory control samples that were reported outside the preferred range are considered to not affect the outcomes of the assessment.

7.2.3 Representativeness

Sampling appropriate for media and analytes

All soil, groundwater and soil vapour sampling works completed during the investigation were conducted in accordance with JBS&G standard operating procedures. Soil sampling was conducted with the advancement of boreholes, considered appropriate for the potential site chemical contaminants. It is noted that boreholes are not the preferred method of investigation for asbestos, but, given the site was mostly paved with concrete/asphalt and operational, it was considered the only practical method for completing the assessment. Groundwater sampling was completed using a low flow bladder pump which are also considered appropriate for the potential site contaminants in groundwater. The sub-slab vapour sampling methods were considered appropriate for the media and the analytes targeted. Sub-slab vapour probes were correctly installed, sealed and leak detection was performed. The SKC Anasorb CSC tubes used were appropriate for the COPCs. Flow rate and total volume for each sample was recorded.

Laboratory Blanks

There were no reported concentrations of contaminant compounds above the laboratory LOR in the laboratory method blanks for soil, groundwater and soil vapour analysis.

Holding Times

The extraction and analysis all soil, groundwater, sub-slab vapour samples were completed within the recommended holding times for all analytes.

Trip Spike and Blank

Spike and blank samples were submitted for analysis with each lab batch and recorded within acceptable limits.

A field blank was submitted by purging 6 L of ambient air during soil vapour sampling, and each COPC reported non-detect concentrations. A field blank was included during the groundwater assessment for PFAS. Both field blanks were reported below LOR.

Rinsate

Rinsate samples were collected for all analytes and for each day of sampling during the investigation. Rinsate samples each reported non-detect COPC concentrations with trace levels of nickel and zinc which are not considered to affect the representativeness. Best practice field decontamination methods were adopted where reusable equipment was used.

Leak Detection

Leak detection was conducted on all sub-slab probes during soil vapour sampling activities by firstly purging each probe with the gas detector. Following this an isopropyl soaked alcohol rag was placed around the base of each probe. PID readings were monitored and recorded. No significant leaks were identified by the PID during sampling as further evidenced by the lowest possible detection limits being achieved and the absence in the laboratory analysis results of any significant levels of 2-propanol.

7.2.4 Comparability

Eurofins (primary laboratory) and Envirolab (secondary laboratory) were NATA accredited for comparable methods of analysis. Field works have been undertaken by a team of experienced samplers in accordance with the same standard operating procedure. All field documentation was appropriately completed.

7.2.5 Completeness

Documentation

All documentation is complete and correct.

Frequency for QC Samples

Frequency of analysis for the QC samples is considered sufficient to meet the objectives of the assessment.

7.3 QA/QC Assessment

The field sampling and handling procedures produced QA/QC results which indicate that the soil, groundwater and vapour data are of an acceptable quality and suitable for use in site characterisation.

The NATA certified laboratory results sheets indicate that the project laboratory was generally achieving levels of performance within its recommended control limits during the period when the samples from this program were analysed.

On the basis of the results of the field and laboratory QA/QC program, the soil, groundwater and vapour data are of an acceptable quality in order to achieve the objectives of the assessment.

8. Soil Investigation Results

The lithology encountered at the site during the field works is summarised below. Borehole logs are included in **Appendix C.**

8.1 Field Observations

The site was mostly surfaced in concrete (approximately 0.15 - 0.20 m thick), with four soil bores SB03, SB06, SB07 and SB08 within garden bed/unsealed surface. Fill material comprised of brown / black / orange / yellow / red, gravelly sand / clayey gravelly sand / sandy clay / silty sand / sand / clayey sand with inclusions of gravels, sandstone, slag, brick. Natural material comprised of brown / grey / black sand / sandy clay / clayey sand.

Asbestos fragments were observed across the unsealed ground surface along the western boundary and central portion garden bed. Asbestos fragments were observed within soil bores MW01 and MW02 within the top metre.

PID readings ranged from 0.2 to 86.4 ppm. Slight to moderate sulfur odours were observed within MW03 3.0 to 4.0 m bgs. Staining was not observed in any of the locations.

8.2 Field Asbestos Quantification

Bonded ACM was observed in two samples with a maximum concentration of 0.0368% w/w during field asbestos quantification, neither exceeded the adopted HSL-D of 0.05% w/w. Several ACM fragment were observed on unsealed ground surface along the western boundary and central portion garden bed, which exceeds the 'no visible surface ACM' criterion. Asbestos quantification details are summarised in **Table C**.

8.3 Analytical Results

Laboratory analysis results for soil samples completed for the investigation are summarised in **Table A**, with the results discussed below for the various analyte groups.

8.3.1 Heavy Metals

Heavy metal concentrations in all analysed samples were reported to be below the adopted site assessment criteria protective of human health. A number of samples reported concentrations of zinc (110 mg/kg), nickel (55 mg/kg) and copper (85 mg/kg) marginally above the generic criteria protective of ecological receptors as listed following:

- MW01_0.2-0.3 – zinc (250 mg/kg);
- MW01_0.5-0.6 – copper (240 mg/kg) and zinc (1,100 mg/kg);
- MW02_0.0-0.1 – copper (5,700 mg/kg), nickel (83 mg/kg) and zinc (470 mg/kg);
- SB01_0.4-0.5 – nickel (72 mg/kg) and zinc (190 mg/kg);
- SB01_0.9-1.0 – nickel (62 mg/kg) and zinc (130 mg/kg);
- SB03_0-0.1 – zinc (160 mg/kg);
- SB05_0.2-0.3 – zinc (170 mg/kg);
- SB05_0.9-1.0 – zinc (180 mg/kg);
- SB06_1.1-1.2 – zinc (190 mg/kg);
- SB07_0.0-0.1 – zinc (120 mg/kg); and
- SB08_0.0-0.1 – zinc (130 mg/kg).

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8.3.2 TRH, BTEX and VOCs

Low levels of semi-volatile to non-volatile TRH were reported in some soil samples, and were otherwise below the laboratory LOR. All BTEX and VOC results were below the LOR. There were no exceedances of human health or ecological criteria.

8.3.3 PAHs

All reported concentrations of PAHs and carcinogenic PAHs as B(a)P TEQ were below the laboratory LOR or less than the adopted site assessment criteria in all samples selected for analysis.

8.3.4 OCP/PCBs

The reported concentrations of OCPs and PCBs were below the laboratory LOR or less than the adopted site assessment criteria in all samples selected for analysis.

8.3.5 PFAS

The reported PFAS concentrations were below the laboratory LOR or less than the adopted site assessment criteria in all samples selected for analysis.

8.3.6 Asbestos

As discussed in **Section 8.2** asbestos in the form of fragments of ACM were visually observed on the unsealed ground surface along the western boundary and the central portion of the site, which exceeds the 'no visible surface ACM' criterion. Bonded ACM was observed in two samples with a maximum concentration of 0.0368% w/w during field asbestos quantification, with both concentrations below the adopted HSL-D of 0.05% w/w. Selected soil samples analysed from fill materials did not report any ACM from laboratory analysis.

8.3.7 SPOCAS

A total of four samples from natural sand material were selected from SPOCAS sampling during investigative works. Results are presented in **Table B**.

Titratable peroxide acidity (TPA) and Titratable sulfidic acidity (TSA) were reported in one sample (MW03_3.0-3.1) analysed. The values exceed the action criteria for acid trail (coarse and fine textured soils for both >1000 tonnes and <1000 tonnes of material disturbance). Sulfur trail peroxide oxidizable sulfur (S_{POS}%) was reported in two samples (MW01_2.0-2.1 and MW03_3.0-3.1) analysed. The values exceed action criteria for sulfur trail S_{POS}% (coarse and fine textured soils for both >1000 tonnes and <1000 tonnes of material disturbance). Based on the above, sample MW03_3.0-3.1 comprise ASS/potential acid sulfate soils (PASS) and sample MW01_2.0-2.1 is considered sulfidic but does not comprise ASS/PASS. Samples SB03_0.3-0.4 and SB05_1.4-1.5 do not comprise ASS/PASS.

9. Groundwater Investigations Results

The monitoring well sampling locations are shown on **Figure 3** and installation details for newly installed wells are provided in **Appendix C**. Detailed laboratory reports and chain of custody documentation are provided in **Appendix F.**

9.1 Field Observations and Field Measured Parameters

During monitoring well drilling, groundwater was encountered from around 2-4 m. A summary of conditions encountered during sampling is presented in **Table 9.1** and **Table 9.2** below, as well as **Table D**. Groundwater Field Data Sheets are provided in **Appendix H.**

Table 9.1: Groundwater and Surface Water Field Physiochemical Parameters

Well Reference	Sampling Method	Dissolved Oxygen (mg/L)	pH	TDS (mg/L)	Field Redox (mV)	Electrical Conductivity (EC) (µS/cm)	Temperature (°C)
MW01	Low Flow	0.01	6.53	572.0	254.6	873.0	24.7
MW02	Low Flow	0.10	6.48	187.2	66.2	268.0	21.2
MW03	Low Flow	0.01	6.42	341.3	-204.7	493.1	21.8

* Low flow parameters are reported following stabilisation of three consecutive readings.

Review of the field parameters as presented above indicates that the groundwater is mildly acidic, low in dissolved oxygen and fresh water. There were no visible sheens in groundwater purged from monitoring wells. A slight sulfur odour was recorded in groundwater collected MW03 and moderate sulfur odour was recorded in groundwater collected from MW01.

Well headspace gas readings were recorded immediately after removal of the well cap. Readings ranged from 0.0 to 1.0 ppm.

Table 9.2: Groundwater Observations

Well Reference	Odour	Sheen	Turbidity	Non-aqueous phase liquid (NAPL)	Standing Water Level (m bTOC)	Total Depth (m bTOC)
MW01	Moderate sulfur	None	Low	None detected	1.20	6.00
MW02	None	None	Low	None detected	0.97	6.00
MW03	Slight sulfur	None	Very Low	None detected	1.05	4.00

9.2 Groundwater Analytical Results

The water sampling locations are shown on **Figure 3** and laboratory results are summarised in **Table E**. Detailed laboratory reports and chain of custody documentation are provided in **Appendix F.** Analytical results are discussed in the following sections.

Heavy Metals

The reported heavy metal concentrations were below the adopted criteria with the exception of two zinc concentrations in MW02 (0.011 mg/L) and MW03 (0.013 mg/kg), exceeding the ANZG marine water 95% criterion (0.008 mg/L).

PAHs

The reported concentrations of PAHs were below the laboratory LOR and less than the adopted criteria in all samples.

VOC and TRH

VOCs and TRH concentrations were reported to be below the laboratory LOR in all samples.

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PFAS

All reported concentrations of PFAS compounds were below the adopted criteria protective downgradient receptors.

10. Sub-slab Vapour Investigation Results

10.1 Sub-slab Vapour Field Observations

Sub-slab vapour probes were installed across 11 sample locations on the site. No significant odours or indicators of contamination were observed during placement of the holes for the sample locations.

Stabilised PID, methane, oxygen, LEL and carbon dioxide readings were obtained at each sample location prior to collection of the vapour sample and are summarised in **Table F** and **Table 10.1**.

Table 10.1 – Summarised Field Parameters

Well ID	Date	Oxygen	CO2	PID	Methane	LEL
		%	%	ppm	%	%
SV01	16/03/2022	17.0	1.8	1.6	0.0	0.0
SV02	16/03/2022	15.7	3.6	1.9	0.0	0.0
SV03	16/03/2022	16.7	4.1	1.0	0.0	0.0
SV04	16/03/2022	18.3	0.7	3.5	0.0	0.0
SV05	16/03/2022	15.2	0.4	2.3	0.0	0.0
SV06	21/03/2022	0.2	11.7	5.7	0.0	0.0
SV07	16/03/2022	6.6	11.0	2.2	0.0	0.0
SV08	16/03/2022	13.9	2.9	41.5	0.0	0.0
SV09	16/09/2022	16.4	1.9	2.8	0.0	0.0
SV10	21/03/2022	17.6	4.4	1.9	0.0	0.0
SV11	21/03/2022	15.2	1.5	5.6	0.0	0.0

10.2 Summary of Sub-Slab Analytical Results

Sub-slab vapour probe samples were submitted to the laboratory for VOC 8260, TRH and isopropanol analysis. Summarised laboratory results are presented in **Table G**.

All reported sub-slab vapour results were below the laboratory LOR or the adopted guideline values for this assessment with the exception of SV10 reporting trichloroethene concentration of 0.75 mg/m^3 (approximately one order of magnitude above HIL D criteria).

Various petroleum hydrocarbon compounds (such as TRH, BTEX and 1,2,4-trimethylbenzene) were reported at low concentrations at four locations (SV04, SV05, SV08, SV09) across the investigation area.

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11. Site Characterisation

Based on the decision-making process for evaluating land-use suitability detailed in EPA (2017) and outlined in **Sections 5.1.2** and **5.1.5**, the decisions required to be made in order to satisfy the objectives of the assessment are discussed below.

11.1 Are there any unacceptable risks to likely future onsite receptors from soils?

Representative samples of fill material and natural soils within accessible areas of the site were analysed for a range of identified potential contaminants of concern including heavy metals, PAHs, TRH, BTEX, OCP/PCBs, PFAS, VOCs, SPOCAS and asbestos.

Several asbestos fragments were observed on unsealed surface along the western boundary and central portion garden bed, which exceeds the 'no visible surface ACM' criterion. Bonded ACM was observed in two samples with a maximum concentration of 0.0368% w/w during field asbestos quantification, neither exceeded the adopted HSL-D of 0.05% w/w. Selected soil samples analysed from fill materials did not report any ACM following laboratory analysis. However, it is noted that the soil sampling density did not meet the requirements of EPA (2022) or DOH (2021) – noting the observation of building and demolition wastes within site fill materials across the extent of the site, there is the potential for additional asbestos impacts in soils then reported herein.

Heavy metal concentrations in all analysed samples were reported to be below the adopted site assessment criteria protective of human health. Eleven soil samples reported heavy metal (nickel, copper or zinc) concentrations exceeding ecological criteria. The heavy metal concentrations are considered to be attributable to background conditions in soil in an urban environment. Additionally, the limited vegetation in proximity to these locations is in good condition. However, further assessment will be required to determine if the heavy metals within site fill will pose an unacceptable risk to vegetation to be established in landscape zones to be established around the perimeter of the site.

The reported concentrations of TRH, BTEX, OCP/PCBs, PFAS and VOCs were below the adopted criteria protective of human health and ecological criteria under the proposed land-use.

11.2 Are there any issues relating to local area background soil concentrations that exceed the appropriate soil criteria?

As discussed in **Section 11.1** heavy metal concentrations (nickel, copper and zinc) exceeding ecological criteria are considered to be attributable to background conditions in soil in an urban environment.

Soil contaminant results in natural soils indicate there are likely no issues relating to local area background conditions that require consideration with respect to the suitability of the site.

11.3 Are there any unacceptable human health and ecological risks present in groundwater underlying the site?

Similar to the soil assessment, representative samples of groundwater from three locations across the site were analysed for a range of identified potential contaminants of concern including heavy metals, PAHs, TRH/BTEX, VOCs and PFAS.

Groundwater with slightly elevated levels of zinc were recorded in two monitoring wells (MW02 and MW03). The reported concentrations are considered to reflect urban background conditions given that there was no significant change of these constituents between up and down gradient monitoring wells and no significant source material identified within site soils. On this basis, the elevated levels of heavy metals in site groundwater are not considered to require management.

11.4 Are there any potential vapours present within the sub-surface that could present an unacceptable risk to future site receptors?

Contaminant levels as measured in sub-slab vapour were below the laboratory detection limits or the adopted guideline values for the assessment, with the exception of SV10 reporting TCE at 0.75 mg/m^3, an order of magnitude above the adopted criteria. Location SV10 is located in the northwestern corner of the site. Currently there is limited data to confirm the extent of vapour impact. To this extent there is a potential unacceptable risk to future site receptors (via vapour intrusion to within enclosed spaces/buildings) and further assessment and/or remediation will be required as part of future development works.

11.5 Are there any impacts of chemical mixtures?

There were no potential chemical mixtures identified during the investigation that may pose a management issue at the site.

11.6 Are there any aesthetic issues at the site?

ACM fragments were observed within the sub-surface fill at several locations across the site, and in surface soils. The visible ACM could pose an aesthetic issue as well as a potential health risk (as noted above), the asbestos in fill soil are considered to pose a potentially unacceptable risk to future site receptors and requires management. QBM (2017) have previously prepared an asbestos report and register, identifying the asbestos is present with the buildings across the site and require management. During the site inspection it was identified that asbestos wall sheeting had been damaged and consequently asbestos fragments were observed on the ground surface. It is recommended regular inspections to ensure compliance with WHS Regulations are undertaken regularly (1-2 years) and following severe weather events.

Sulfur odour was identified in natural soils within location MW03 and additionally within the groundwater purged from MW01 and MW03. Laboratory results have confirmed the natural material at location MW03 contain ASS/PASS and requires management. These soils may present an aesthetic issue if excavated and relocated to accessible areas (i.e. landscaped areas) as part of site development.

11.7 Is there any evidence of, or potential for, migration of contaminants from the site?

The site is generally covered in hardstand and therefore there is a low risk that contaminants can migrate from the site through the generation of windblown dusts or surface water erosion. During future construction activities, standard dust/odour suppression practices and sediment/erosion controls will require to be implemented to minimise the risk of contaminants in soils migrating from the site when additional soils are exposed.

With respect to groundwater, the slightly elevated heavy metals and PFAS concentrations are considered to be indicative of Botany Aquifer concentrations. The site is located within Zone 2 of the Botany Sands Aquifer Embargo Area. DPE (2018) indicates that the Embargo Area "incorporates localities with known or suspected contamination from past industrial activity". Residents of properties situated within this zone are advised that groundwater use is now banned, especially for drinking water, watering gardens, washing windows and cars, bathing or to fill swimming pools.

Two USTs are present on the site, one located on the eastern boundary and one located in the central portion are estimated to be 10,000 L tanks. It was unclear if the USTs have previously been decommissioned. A former bowser and vent were observed adjacent to the UST in the central portion of the site. The USTs will require decommissioning (as per the UPSS regulations) to ensure the site is considered suitable for the proposed use.

11.8 Is a site management strategy required?

Based on the scope of works completed and the limitations presented in **Section 13**, whilst no significant or gross contamination impacts associated with the site have been identified during the assessment activities, there are a number of issues that will require to be addressed such that the site can be considered suitable for the proposed use.

While asbestos below ground surface can be managed in-situ, the presence of ACM fragments at ground surface should be cleared and validated to address potential health risks more immediately.

An Asbestos Management Plan (AMP) and updated asbestos register should be prepared to reflect the findings of the current investigation and to provide appropriate management controls for the site until such time as the asbestos is removed.

ASS/PASS have been identified in the vicinity of MW03. Sulfidic soils have been identified within natural material in the vicinity of MW01. If future redevelopment works involve the disturbance of the natural material an ASSMP is required.

Requirements to make the site suitable from a contamination perspective for the proposed use, should be outlined in a remedial action plan (RAP). The RAP should address the following remedial actions / management strategy issues:

- The requirements for further assessment to refine the extent of required remediation;
- Addressing potential unacceptable risks to vegetation to be established within landscaped zones around the perimeter of the site;
- TCE impacts in soil vapour posing a potentially unacceptable health risk (via vapour intrusion) to future occupants of the proposed warehouse building;
- Potential health and aesthetic issues from bonded ACM on the ground surface and potentially in fill materials; and
- Decommissioning and validation of UST infrastructure.

12. Conclusions and Recommendations

Based on the findings of this investigation and subject to the limitations presented in **Section 13**, JBS&G concludes the following:

- The site has been used for industrial / commercial purposes since at least 1955, when warehouses first appear in the available aerial images. Additional buildings were added until 1982 and no further structures have appeared on the site since. From 1952 to 1972 the site was owned by Geigy Australasia Pty Ltd which manufactured moth proof woollen textiles. The northern portion of the site used to be a part of Bay Street and was acquired in 1961. The site is currently leased by multiple tenants including Frontline Fabrications, Ripe Providores, Powder Coaters, a mechanics, Meat Storage, Smash Repairs, a timber workshop and storage units.
- Two USTs are present on the site, one located on the eastern boundary and one located in the central portion. It was unclear if the USTs have previously been decommissioned. A former bowser and vent was observed adjacent to the UST in the central portion of the site. The USTs will require decommissioning (as per the UPSS regulations) to ensure the site is considered suitable for the proposed use.
- Fill material comprised of brown / black / orange / yellow / red, gravelly sand / clayey gravelly sand / sandy clay / silty sand / sand / clayey sand with inclusions of gravels, sandstone, slag, brick. Natural material comprised of brown / grey / black sand / sandy clay / clayey sand. PID readings ranged from 0.2 to 86.4 ppm. Slight to moderate sulfur odours were observed within MW03 3.0 to 4.0 m bgs. Staining was not observed in any of the locations.
- Bonded ACM was observed in two samples with a maximum concentration of 0.0368% w/w during field asbestos quantification, with both concentrations below the adopted HSL-D of 0.05% w/w. Several ACM fragments were observed on unsealed ground surface along the western boundary and central portion garden bed, which exceeds the 'no visible surface ACM' criterion.
- Eleven soil samples reported heavy metal (nickel, copper or zinc) concentrations exceeding ecological criteria. The heavy metal concentrations are considered to be likely attributable to background conditions in soil in an urban environment, however, further assessment will be required to determine if the levels of heavy metals will pose an unacceptable risk to future vegetation to be established within landscaped zones around the perimeter of the site.
- Potential acid sulfate soils were identified in natural soils at site and will require management in instances where construction works result in the disturbance of these materials.
- Groundwater with slightly elevated levels of zinc were recorded in two monitoring wells (MW02 and MW03). The reported concentrations are considered to reflect urban background conditions given that there was no significant change of these constituents between up and down gradient monitoring wells and no significant source material identified within site soils. On this basis, the elevated levels of heavy metals in site groundwater are not considered to require management.
- Sub-slab vapour with an elevated trichloroethene concentration was reported at SV10 in the northwestern corner of the site. Currently there is limited data to confirm the extent of vapour impact. Based on the available data there is a potential unacceptable risk to future site receptors (via vapour intrusion to within enclosed spaces/buildings) and additional assessment and/or remediation may be required in this area.

Whilst no significant or gross contamination impacts associated with the site have been identified during the assessment activities, there are a number of issues that will require to be addressed such that the site can be considered suitable for the proposed land-use. Requirements to make the site suitable from a contamination

perspective for the proposed use, should be outlined in a remedial action plan (RAP). The RAP should address the following remedial actions / management strategy issues:

- The requirements for further assessment to refine the extent of required remediation;
- Addressing potential unacceptable risks to vegetation to be established within landscaped zones around the perimeter of the site;
- TCE impacts in soil vapour posing a potentially unacceptable health risk (via vapour intrusion) to future occupants of the warehouse building;
- Potential health and aesthetic issues from bonded ACM on the ground surface and potentially in fill materials; and
- Decommissioning and validation of UST infrastructure.

13. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties. The report has been prepared specifically for the client for the purposes of the commission, and no warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be amended in any way without prior approval by JBS&G, or reproduced other than in full including all attachments as originally provided to the client by JBS&G.

Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements or agreed scope of work.

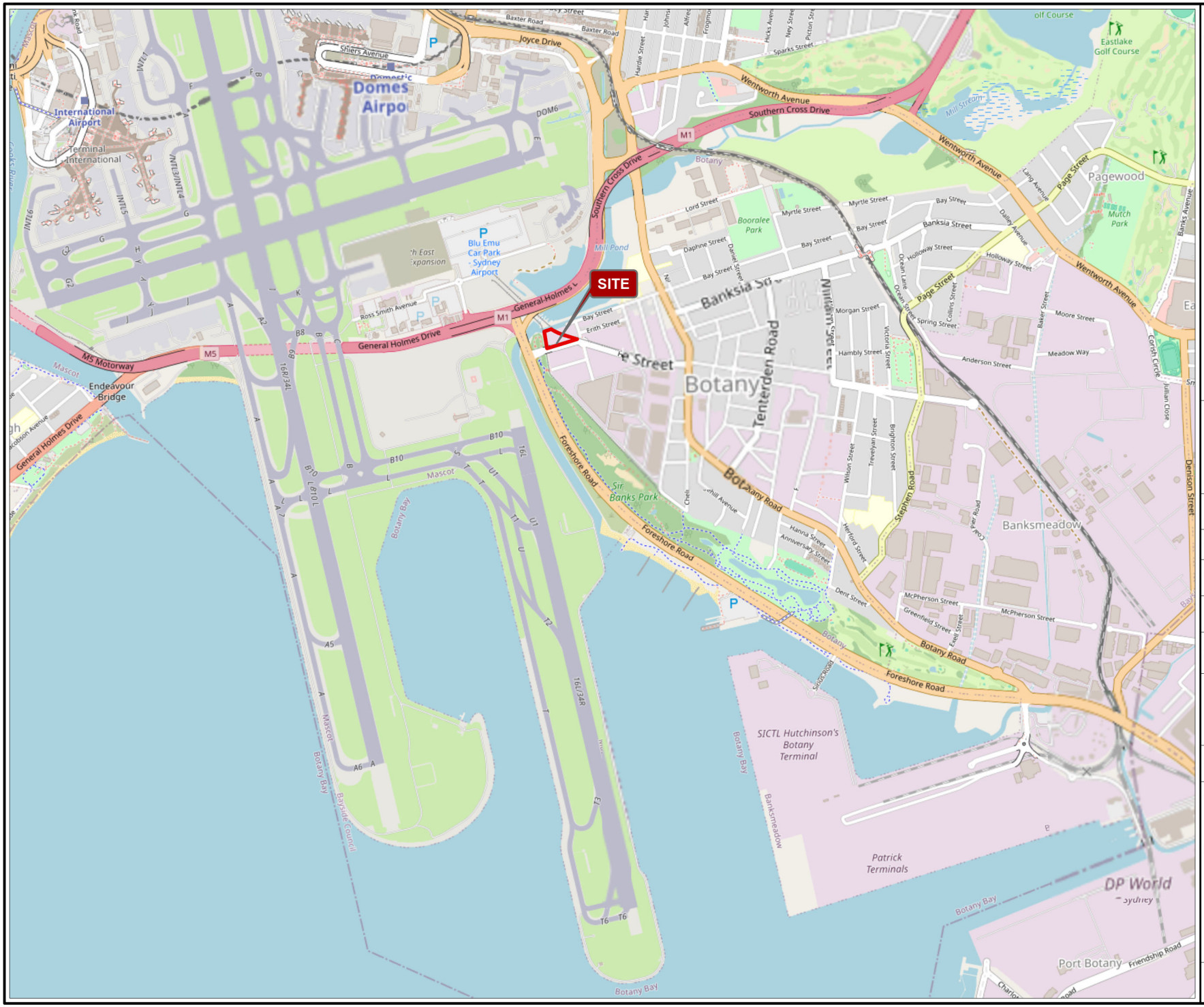
Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

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Figures



Legend

Approximate Site Boundary

JBS&G

Job No: 65803

Client: Coombes Property Group

Version: R01 Rev A	Date 17/01/2024
Drawn By: JL	Checked By: CB

Scale 1:25,000

0 250 500

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

SITE LOCATION

FIGURE 1

File Name: 65803_CoombesPropertyGroupBotanty_R01_RevA
Reference: © OpenStreetMap (and) contributors, CC-BY-SA



Legend

- Approximate Site Boundary
- NSW Cadastre
- Stream
- ACM on ground Surface

JBS&G

Job No: 65803	
Client: Coombes Property Group	
Version: R01 Rev A	Date 17/01/2024
Drawn By: JL	Checked By: CB

Scale 1:1,750

0 20 40

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

SITE LAYOUT

FIGURE 2

File Name: 65803_CoombesPropertyGroupBotanty_R01_RevA
Reference: Nearmap - www.nearmap.com (Capture Date: 03/01/2024)



Legend

- Approximate Site Boundary
- NSW Cadastre

Proposed Sample Location

- Soil Bores, JBS&G 2022
- Monitoring Well (JBS&G 2022)
- Soil Vapour (JBS&G 2022)

JBS&G

Job No: 65803	
Client: Coombes Property Group	
Version: R01 Rev A	Date 17/01/2024
Drawn By: JL	Checked By: CB

Scale 1:1,000

0 10 20

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

SAMPLE LOCATIONS

FIGURE 3

File Name: 65803_CoombesPropertyGroupBotanty_R01_RevA
Reference: Nearmap - www.nearmap.com (Capture Date: 03/01/2024)



Legend

- Approximate Site Boundary
- NSW Cadastre
- ACM on ground Surface

Proposed Sample Location

- Soil Bores, JBS&G 2022
- Soil Vapour (JBS&G 2022)
- Monitoring Well (JBS&G 2022)

0-1.0 Bonded Asbestos Detected

JBS&G

Job No: 65803	
Client: Coombes Property Group	
Version: R01 Rev A	Date 17/01/2024
Drawn By: JL	Checked By: CB
Scale 1:1,000	

0 10 20

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

ASBESTOS DETECTIONS IN SOIL

FIGURE 4

File Name: 65803_CoombesPropertyGroupBotanty_R01_RevA
Reference: Nearmap - www.nearmap.com (Capture Date: 03/01/2024)



Legend

- Approximate Site Boundary
- NSW Cadastre
- ACM on ground Surface

Proposed Sample Location

- Monitoring Well (JBS&G 2022)

Criteria Key

- ANZG (2018) Marine water 95% toxicant DGVs

JBS&G

Job No: 65803

Client: Coombes Property Group

Version: R01 Rev A	Date 17/01/2024
Drawn By: JL	Checked By: CB

Scale 1:1,000

0 10 20

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

GROUNDWATER EXCEEDANCES

FIGURE 5

File Name: 65803_CoombesPropertyGroupBotanty_R01_RevA
Reference: Nearmap - www.nearmap.com (Capture Date: 03/01/2024)



Legend

- Approximate Site Boundary
- NSW Cadastre
- ACM on ground Surface

Proposed Sample Location

- Soil Vapour (JBS&G 2022)

Criteria Key

- NEPM 2013 Table 1A(2) Comm/Ind D Soil Vap VOCC HILs

JBS&G

Job No: 65803	
Client: Coombes Property Group	
Version: R01 Rev A	Date 17/01/2024
Drawn By: JL	Checked By: CB
Scale 1:1,000	

0 10 20

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

SOIL VAPOUR EXCEEDANCES

FIGURE 6

File Name: 65803_CoombesPropertyGroupBotanty_R01_RevA
Reference: Nearmap - www.nearmap.com (Capture Date: 03/01/2024)

Appendix A Summary Analytical Tables

Table A: Soil Analytical Results
Project Number: 65803
Project Name: 2-4 Hale St Botany DSI

| | Metals & Metalloids | | | | | | | | TPHs (NEPC 1999) | | | | | TRHs (NEPC 2013) | | | | | | BTEXN | | | | | | PAH | | | | | | | | | | | | | | | | | | | | Organochlorine Pesticides | | | | | | | | | | | | | | | | | | |

Table A: Soil Analytical Results
Project Number: 65803
Project Name: 2-4 Hale St Botany DSI

| | | |

Table A: Soil Analytical Results
Project Number: 65803
Project Name: 2-4 Hale St Botany DSI

	PFAS																			MAH																		Miscellaneous Hydrocarbons							Chlorinated Benzenes								Trihalomethanes								Other
	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	Perfluoroheanesulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecanesulfonic acid (PFDS)	1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTSA)	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTSA)	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTSA)	1H,1H,2H,2H-perfluorododecanesulfonic acid (10:2 FTSA)	Sum of PFHxS and PFOS	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of PFAS (WA DER List)	Sum of PFAS	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylBenzene	Styrene	tert-butylbenzene	Total MAH	Bromobenzene	Isopropylbenzene	1,2-dibromomethane	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Carbon disulfide	Hexachlorobutadiene	Moisture Content (dried @ 103°C)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%
EQL	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.005	0.005	0.005	0.005	0.005	0.01	0.05	0.5	0.5	1	1	1	1	0.5	1	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.5	0.5	0.5	0.5	0.5	1	1
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																																						80						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-1m																																																												
NEPM 2013 Table 1B(1-5) Generic EIL - Comm/Ind																																																												
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Coarse Soil																																																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																																											
PFAS NEMP 2020 Table 2 Health Industrial/Commercial						20		20								20																																													
PFAS NEMP 2020 Table 3 Interim EDE All land uses								1																																																				
PFAS NEMP 2020 Table 3 Interim EIE All land uses								0.01																																																				
Field_ID	**Lab Report**	**Date**																																																										
MW01_0.2-0.3	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
MW01_0.5-0.6	872222	16/03/2022	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	-	15
MW01_5.0-5.1	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	24
MW02_0.0-0.1	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	15
MW02_1.0-1.1	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	26
MW03_0.2-0.3	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	14
QA20220321 (duplicate pair MW03_0.2-0.3)	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	13
QC20220321 (triplicate pair MW03_0.2-0.3)	291458	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1	<1	18
MW03_3.0-3.1	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	31
SB01_0.4-0.5	872222	16/03/2022	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	0.0053	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	0.0053	0.0053	0.0053	<0.01	<0.05	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	16
SB01_0.9-1.0	872222	16/03/2022	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.9
SB02_0.2-0.3	872222	16/03/2022	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	15
SB03_0.3-0.4	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
SB03_0-0.1	872222	16/03/2022	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	22
SB04_0.5-0.6	872222	16/03/2022	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.05	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	8.3
SB04_0.9-1.0	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	24
SB05_0.2-0.3	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
SB05_0.9-1.0	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	15
QA01-20220316 (duplicate pair SB05_0.9-1.0)	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	14
QA01_20220316 (triplicate pair SB05_0.9-1.0)	291137	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	<1	<1	-	13
SB05_1.4-1.5	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
SB06_1.1-1.2	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	8.1
SB07_0.0-0.1	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	13
SB07_1.1-1.2	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	27
SB08_0.0-0.1	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	13
SB08_0.7-0.8	872968	21/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	16
AQ01_0.2-0.6	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AQ02_0.15-0.4	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AQ03_0-0.2	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AQ04_0.1-0.6	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AQ05_0.15-0.6	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AQ06-0.15-0.3	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AQ06-0.3-0.8	872222	16/03/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B - Acid Sulfate Soil Sample Results
Project Number: 65803
Project: 2-4 Hale St Botany

Soil Sample ID Soil Bore No. / Depth (m)	pH_{KCl}	TAA (mol H+/tonne)	pH_{ox}	TPA (mol H^+/tonne)	TSA (mol H+/tonne)	S_{POS}%	a-ANC_E (mol H^+/tonne)	a-Net Acidity (mol H+/tonne)	Liming Rate	Material Description*	Interpretation^
SB05_1.4-1.5	8.8	<2	6.2	<2	<2	<0.02	-	-	<1	Sand	Non ASS/PASS
SB03_0.3-0.4	6.5	<2	7	<2	<2	0.02	87	-	<1	Sand	Non ASS/PASS
MW01_2.0-2.1	7.3	<2	3.3	<2	<2	0.08	-	-	1	Sand	Sulfidic, non ASS/PASS
MW03_3.0-3.1	6.8	<2	2.7	150	150	0.20	-	-	10	Sand	ASS/PASS

Notes:
Acid Sulfate Soil Manual (1998) New South Wales Acid Sulfate Soil Management Advisory Committee - summary of field interpretation based on soil indicators:
(1) Action Criteria for Coarse Textured Soils (Sands to loamy Sands with Clay<5%) and less than 1000 tonnes disturbed: Spos% - 0.03%, TSA/TPA 18mol H^+/tonne
(2) Action Criteria for Fine Textured Soils (Clays with >40% fines) and less than 1000 tonnes disturbed: Spos% - 0.1%, TSA/TPA 62mol H^+/tonne
(3) Action Critera for All Soil Types where greater than 1000 tonnes disturbed: Spos% - 0.03%, TSA/TPA 18mol H+/tonne

^ Based upon physical material description and laboratory results

italics Exceeds Action Criteria applicable for soil type (<1000 tonnes disturbed)

Table C: Summary Asbestos Quantification Results
Project Number: 65803
Project Name: 2-4 Hale St Botany

Assessment Criteria - Asbestos Concentration in Soils	
Category	**Exceedance**
Visible Surface Asbestos	**No visible ACM**
Bonded ACM in soils - HSL D	**0.05 % w/w**
FA and AF in soils	**0.001 % w/w**
Respirable Fibres	**NIL fibres**

Sample Information				Field Asbestos Quantification					Laboratory Analysis											
Sample ID	Fill Description	Date	Lab Report Number	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Sample Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	AF Mass (g)	Mass Asbestos in AF (g)	Mass Asbestos in FA & AF (g)	[Asbestos from FA & AF in soil] (%w/w)	Trace Analysis	Comment
AQ01_0.2-0.6	Gravelly Sand	16/03/2022	872222	10.00	16300	0.00	0.00	0.0000	485	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Organic fibre detected, no trace asbestos detected	No asbestos detected at the reporting limit of 0.001 % w/w
AQ02_0.15-0.4	Sandy Clay	16/03/2022	872222	10.00	16300	0.00	0.00	0.0000	792	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Organic fibre detected, no trace asbestos detected	No asbestos detected at the reporting limit of 0.001 % w/w
AQ03_0-0.2	Silty Sand	16/03/2022	872222	10.00	16300	0.00	0.000	0.0000	490	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Organic fibre detected, no trace asbestos detected	No asbestos detected at the reporting limit of 0.001 % w/w
AQ04_0.1-0.6	Sand	16/03/2022	872222	10.00	16300	0.00	0.00	0.0000	664	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Organic fibre detected, no trace asbestos detected	No asbestos detected at the reporting limit of 0.001 % w/w
AQ05_0.15-0.6	Clayey Sand	16/03/2022	872222	10.00	16300	0.00	0.000	0.0000	526	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Organic fibre detected, no trace asbestos detected	No asbestos detected at the reporting limit of 0.001 % w/w
MW01_AQ_0-1.0	Gravelly Sand	21/03/2022	-	10.00	16300	40.00	6.000	**0.0368**	-	-	-	-	-	-	-	-	-	-	-	No laboratory analysis undertaken
MW02_AQ_0-1.0	Clayey Gravelly Sand	21/03/2022	-	10.00	16300	28.00	4.200	**0.0258**	-	-	-	-	-	-	-	-	-	-	-	No laboratory analysis undertaken
MW02_0-0.1	Clayey Gravelly Sand	21/03/2022	872968	-	-	-	-	-	658	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Organic fibre detected, no trace asbestos detected	No asbestos detected at the reporting limit of 0.001 % w/w
MW03_AQ_0-1.0	Clayey Gravelly Sand	21/03/2022	-	10.00	16300	0.00	0.00	0.0000	-	-	-	-	-	-	-	-	-	-	-	No laboratory analysis undertaken
MW03_0.2-0.3	Clayey Gravelly Sand	21/03/2022	872968	-	-	-	-	-	658	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Organic fibre detected, no trace asbestos detected	No asbestos detected at the reporting limit of 0.001 % w/w
MW03_AQ_1.0-2.0	Clayey Gravelly Sand	21/03/2022	-	10.00	16300	0.00	0.000	**0.0000**	-	-	-	-	-	-	-	-	-	-	-	No laboratory analysis undertaken
MW03_AQ_2.0-3.0	Sandy Clay	21/03/2022	-	10.00	16300	0.00	0.00	0.0000	-	-	-	-	-	-	-	-	-	-	-	No laboratory analysis undertaken
SB06_AQ_0-1.0	Clayey Sand	21/03/2022	-	10.00	16300	0.00	0.00	0.0000	-	-	-	-	-	-	-	-	-	-	-	No laboratory analysis undertaken
SB07_AQ_0-1.0	Clayey Sand	21/03/2022	-	10.00	16300	0.00	0.00	0.0000	-	-	-	-	-	-	-	-	-	-	-	No laboratory analysis undertaken
SB07_0.0-0.1	Silty Sand	21/03/2022	872968	-	-	-	-	-	658	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Organic fibre detected, no trace asbestos detected	No asbestos detected at the reporting limit of 0.001 % w/w
SB07_AQ_1.0-1.9	Clayey Sand	21/03/2022	-	10.00	16300	0.00	0.000	0.0000	-	-	-	-	-	-	-	-	-	-	-	No laboratory analysis undertaken
SB08_AQ_0-0.7	Gravelly Clayey Sand	21/03/2022	-	10.00	16300	0.00	0.00	0.0000	-	-	-	-	-	-	-	-	-	-	-	No laboratory analysis undertaken
SB08_0.0-0.1	Gravelly Clayey Sand	21/03/2022	872968	-	-	-	-	-	658	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Organic fibre detected, no trace asbestos detected	No asbestos detected at the reporting limit of 0.001 % w/w

Notes:
*Where an exceedence occurs for part of a 1 metre interval, the entire 1 metre interval has been considered to exceed.
*Field observations not exceeding the criteria are displayed in **bold text**.
*Detections above limit of reporting are displayed in **bold text**.

Table D: Groundwater Gauging Parameters
Project Number: 62740
Project Name: 2-4 Hale St Botany

Well ID	Samples Date	Total Well Depth	Depth to Water	Depth to LNAPL	LNAPL Thickness	Well Headspace PID	Electrical Conductivity	pH	Dissolved Oxygen	Temp	Redox	TDS	Comments
		m TOC	m TOC	m TOC	m	ppm	µs/cm	-	mgL/ppm	˚C	mV	mg/L	
MW01	21/03/2022	6.00	1.204	-	-	0.0	873.0	6.53	0.01	24.7	254.6	572.0	light yellow, low turbidity, no sheen, moderate sulfur odour
MW02	21/03/2022	6.00	0.971	-	-	0.0	268.0	6.48	0.10	21.2	66.2	187.2	yellow brown, low turbidity, no sheen, no odour
MW03	21/03/2022	4.00	1.049	-	-	1.0	493.1	6.42	0.01	21.8	-204.7	341.3	clear, very low turbidity, no sheen, slight sulfur odour

Table E: Groundwater Analytical Results
Project Number: 65803
Project Name: Botany DSI

	Metals & Metalloids								TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN									
	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Lead (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.0002	0.001	0.001	0.001	0.0001	0.001	0.005	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.001	0.001	0.001	0.001	0.002	0.003	0.00001	0.00001	0.00001	0.00001	0.00001
ANZG (2018) Marine water 95% toxicant DGVs		0.0055	0.0044	0.0013	0.0044	0.0004	0.07	0.008													0.7	0.18	0.08		0.075				0.0004		0.0002
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand 2-4m																			6	NL	5	NL	NL			NL					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand 4-8m																			6	NL	5	NL	NL			NL					
NEPM 2013 Table 1C GILs, Recreational	0.1	0.02	0.5	20	0.1	0.01	0.2														0.01	8	3			6					0.0001
PFAS NEMP 2020 Table 1 Health Recreational Water																															
PFAS NEMP 2020 Table 5 Interim marine 95%																															
Field_ID	**Date**	**Lab Report**																													
MW01	22/03/2022	873319	0.002	<0.0002	<0.001	<0.001	<0.001	0.0002	0.004	<0.005	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
MW02	22/03/2022	873319	0.007	<0.0002	<0.001	<0.001	<0.001	0.0001	<0.001	<0.005	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
QW1 (duplicate pair MW02)	22/03/2022	873319	0.007	<0.0002	<0.001	<0.001	<0.001	<0.0001	0.001	0.011	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
QW1a (triplicate pair MW02)	22/03/2022	291577	0.007	<0.0001	<0.001	<0.001	<0.001	<0.00005	<0.001	0.003	<0.01	<0.05	<0.1	<0.1	<0.05	<0.01	<0.05	<0.1	<0.1	<0.05	-	-	<0.001	<0.001	<0.001	<0.001	<0.002	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
MW03	22/03/2022	873319	0.006	<0.0002	0.002	<0.001	<0.001	<0.0001	<0.001	0.013	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001

Table E: Groundwater Analytical Results
Project Number: 65803
Project Name: Botany DSI

	PAH														Chlorinated Alkanes														
	Benzo(a)pyrene TEQ	Benzo(b+j)fluoranthene	Benzo(b+j+k)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.0005	0.00001	0.0002	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.005
ANZG (2018) Marine water 95% toxicant DGVs								0.0014			0.07	0.002				0.27	0.4	1.9				1.9	0.9	1.1			0.24		
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand 2-4m											NL																		
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand 4-8m											NL																		
NEPM 2013 Table 1C GILs, Recreational																						0.03					0.03		
PFAS NEMP 2020 Table 1 Health Recreational Water																													
PFAS NEMP 2020 Table 5 Interim marine 95%																													
Field_ID	**Date**	**Lab Report**																												
MW01	22/03/2022	873319	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.005	<0.005
MW02	22/03/2022	873319	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.005	<0.005
QW1 (duplicate pair MW02)	22/03/2022	873319	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.005	<0.005
QW1a (triplicate pair MW02)	22/03/2022	291577	<0.0005	-	<0.0002	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01
MW03	22/03/2022	873319	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.005	<0.005

Table E: Groundwater Analytical Results
Project Number: 65803
Project Name: Botany DSI

				Chlorinated Alkenes												Solvents	PFAS																							
	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Acetone	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.005	0.005	0.005	0.001	0.001	0.001	0.001	0.001	0.001	1	0.001	0.001	0.001	0.001	0.005	0.005	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.01	0.01	0.01	0.01
ANZG (2018) Marine water 95% toxicant DGVs		4		0.7							0.07			0.33	0.1																									
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand 2-4m																																							
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand 4-8m																																							
NEPM 2013 Table 1C GILs, Recreational		0.04		0.3							0.5				0.003																									
PFAS NEMP 2020 Table 1 Health Recreational Water																					10																			2
PFAS NEMP 2020 Table 5 Interim marine 95%																					220																			
Field_ID	**Date**	**Lab Report**																																						
MW01	22/03/2022	873319	<0.005	<0.005	<0.005	<0.001	-	-	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	0.03
MW02	22/03/2022	873319	<0.005	<0.005	<0.005	<0.001	-	-	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.05	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01
QW1 (duplicate pair MW02)	22/03/2022	873319	<0.005	<0.005	<0.005	<0.001	-	-	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.05	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01
QW1a (triplicate pair MW02)	22/03/2022	291577	<0.01	-	<0.01	<0.001	<0.001	<0.001	-	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.01	-	<0.02	<0.02	0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.1	<0.05	<0.1	<0.05	<0.5	<0.02	<0.02	-	<0.01	<0.01	<0.01
MW03	22/03/2022	873319	<0.005	<0.005	<0.005	<0.001	-	-	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.05	0.07	0.05	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	0.04

Table E: Groundwater Analytical Results
Project Number: 65803
Project Name: Botany DSI

																MAH											Miscellaneous Hydrocarbons							Chlorinated Benzenes						
	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecanesulfonic acid (PFDS)	1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	Sum of PFHxS and PFOS	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of PFAS (WA DER List)	Sum of PFAS	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Total MAH	Bromobenzene	Isopropylbenzene	1,2-dibromoethane	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.01	0.01	0.01	0.01	0.01	0.05	0.01	0.01	0.01	0.01	0.01	0.05	0.1	0.001	0.001	0.001	1	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.005	0.001	0.001	0.001	0.005	0.005	0.001	0.001	0.001	0.001	0.001	0.001
ANZG (2018) Marine water 95% toxicant DGVs																							0.03										0.08					0.055
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand 2-4m																																						
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand 4-8m																																						
NEPM 2013 Table 1C GILs, Recreational																					0.3				0.01							0.3	0.3	15		0.4	3
PFAS NEMP 2020 Table 1 Health Recreational Water		2							2																													
PFAS NEMP 2020 Table 5 Interim marine 95%		0.13																																				

Field_ID	Date	Lab Report																																					
MW01	22/03/2022	873319	<0.01	0.08	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	0.11	0.11	0.08	0.11	0.11	<0.001	<0.001	-	-	-	-	<0.001	-	<0.003	<0.001	<0.001	<0.001	<0.005	-	<0.001	<0.001	<0.005	<0.005	-	-	<0.001	<0.001	<0.001	<0.001
MW02	22/03/2022	873319	<0.01	0.08	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	0.08	0.08	0.08	0.1	0.1	<0.001	<0.001	-	-	-	-	<0.001	-	<0.003	<0.001	<0.001	<0.001	<0.005	-	<0.001	<0.001	<0.005	<0.005	-	-	<0.001	<0.001	<0.001	<0.001
QW1 (duplicate pair MW02)	22/03/2022	873319	<0.01	0.08	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	0.08	0.08	0.08	0.1	0.1	<0.001	<0.001	-	-	-	-	<0.001	-	<0.003	<0.001	<0.001	<0.001	<0.005	-	<0.001	<0.001	<0.005	<0.005	-	-	<0.001	<0.001	<0.001	<0.001
QW1a (triplicate pair MW02)	22/03/2022	291577	<0.01	0.07	-	<0.02	<0.01	<0.01	<0.02	<0.02	0.07	-	0.07	-	0.09	<0.001	<0.001	<0.001	<1	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW03	22/03/2022	873319	<0.01	0.06	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	0.1	0.12	0.08	0.25	0.25	<0.001	<0.001	-	-	-	-	<0.001	-	<0.003	<0.001	<0.001	<0.001	<0.005	-	<0.001	<0.001	<0.005	<0.005	-	-	<0.001	<0.001	<0.001	<0.001

Table E: Groundwater Analytical Results
Project Number: 65803
Project Name: Botany DSI

			Trihalomethanes					
			Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Carbon disulfide	Hexachlorobutadiene
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL			0.001	0.005	0.001	0.001	0.001	0.001
ANZG (2018) Marine water 95% toxicant DGVs				0.77				
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand	2-4m							
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand	4-8m							
NEPM 2013 Table 1C GILs, Recreational								0.007
PFAS NEMP 2020 Table 1 Health Recreational Water								
PFAS NEMP 2020 Table 5 Interim marine 95%								
Field_ID	**Date**	**Lab Report**						
MW01	22/03/2022	873319	<0.001	<0.005	<0.001	<0.001	0.001	-
MW02	22/03/2022	873319	<0.001	<0.005	<0.001	<0.001	<0.001	-
QW1 (duplicate pair MW02)	22/03/2022	873319	<0.001	<0.005	<0.001	<0.001	<0.001	-
QW1a (triplicate pair MW02)	22/03/2022	291577	<0.001	<0.001	<0.001	<0.001	-	<0.001
MW03	22/03/2022	873319	<0.001	<0.005	<0.001	<0.001	<0.001	-

TABLE F - Soil Vapour Field Measured Parameters
Project Number: 62740
Project Name: Hale St, Botany

Well ID	Date	Oxygen	CO2	PID	Methane	LEL
		%	%	ppm	%	%
SV01	16/03/2022	17.0	1.8	1.6	0.0	0.0
SV02	16/03/2022	15.7	3.6	1.9	0.0	0.0
SV03	16/03/2022	16.7	4.1	1.0	0.0	0.0
SV04	16/03/2022	18.3	0.7	3.5	0.0	0.0
SV05	16/03/2022	15.2	0.4	2.3	0.0	0.0
SV06	21/03/2022	0.2	11.7	5.7	0.0	0.0
SV07	16/03/2022	6.6	11.0	2.2	0.0	0.0
SV08	16/03/2022	13.9	2.9	41.5	0.0	0.0
SV09	16/09/2022	16.4	1.9	2.8	0.0	0.0
SV10	21/03/2022	17.6	4.4	1.9	0.0	0.0
SV11	21/03/2022	15.2	1.5	5.6	0.0	0.0

Table G: Soil Vapour Results
Project Number: 65803
Project Name: Botany DSI

	TRHs (NEPC 2013)				BTEXN				PAH	Chlorinated Alkanes									
	C6-C10	C10-C16	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene Total	Naphthalene	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane
	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
EQL	3.33334	3.33334	3.33334	3.33334	0.0833335	0.0833335	0.0833335	0.2500005	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335
Regional Screening Levels for Commerical Air US EPA 2020 [1]																			
NEPM 2013 Table 1A(2) Comm/Ind D Soil Vap VOCC HILs											230								
NEPM 2013 Table 1A(5) Comm/Ind D Soil Vapour HSL for Vapour Intrusion, Sand 0-1m			680	500	4	4800	1300	840	3										

Field_ID	Date	Lab Report																		
SV01	16/03/2022	872218	<3.33	<3.33	<3.33	<3.33	<0.0833	<0.0833	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV02	16/03/2022	872218	<3.33	<3.33	<3.33	<3.33	<0.0833	<0.0833	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV03	16/03/2022	872218	<3.33	<3.33	<3.33	<3.33	<0.0833	<0.0833	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV04	16/03/2022	872218	**4.67**	<3.33	**4.5**	<3.33	<0.0833	**0.117**	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV05	16/03/2022	872218	**3.67**	<3.33	**3.33**	<3.33	<0.0833	<0.0833	**0.283**	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV06	21/03/2022	872956	<3.33	<3.33	<3.33	<3.33	<0.0833	<0.0833	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
QV1 (duplicate pair SV06)	21/03/2022	872956	<3.33	<3.33	<3.33	<3.33	<0.0833	<0.0833	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV07	16/03/2022	872218	<3.33	<3.33	<3.33	<3.33	<0.0833	<0.0833	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV08	16/03/2022	872218	**5.33**	<3.33	**4.83**	<3.33	<0.0833	**0.267**	<0.0833	**0.317**	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV09	16/03/2022	872218	**4.67**	<3.33	**4.67**	<3.33	<0.0833	<0.0833	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV10	21/03/2022	872956	<3.33	<3.33	<3.33	<3.33	<0.0833	<0.0833	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV11	21/03/2022	872956	**4.83**	<3.33	**4.83**	<3.33	<0.0833	<0.0833	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV_FB (Field Blank)	16/03/2022	872218	<3.33	<3.33	<3.33	<3.33	<0.0833	<0.0833	<0.0833	<0.25	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833

Note:
1. US EPA (2020) indoor air based criteria have been adjusted by a factor of 0.005 to account for attenuation from the sub-surface to the indoor air and consistent with the factor adopted in the NEPM for derivation of soil vapour criteria for other petroleum hydrocarbon constituents
2. Adjustment for target risk of 1 in 100000 as per NEPM

Table G: Soil Vapour Results
Project Number: 65803
Project Name: Botany DSI

						Chlorinated Alkenes													
			2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene
			mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
EQL			0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335
Regional Screening Levels for Commerical Air US EPA 2020 [1]																	52 [1]			
NEPM 2013 Table 1A(2) Comm/Ind D Soil Vap VOCC HILs											0.3		8		0.08	0.1				
NEPM 2013 Table 1A(5) Comm/Ind D Soil Vapour HSL for Vapour Intrusion, Sand 0-1m																				
Field_ID	**Date**	**Lab Report**																		
SV01	16/03/2022	872218	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV02	16/03/2022	872218	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV03	16/03/2022	872218	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV04	16/03/2022	872218	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	**0.1**	<0.0833	<0.0833	<0.0833
SV05	16/03/2022	872218	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV06	21/03/2022	872956	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
QV1 (duplicate pair SV06)	21/03/2022	872956	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV07	16/03/2022	872218	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV08	16/03/2022	872218	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV09	16/03/2022	872218	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV10	21/03/2022	872956	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	**0.75**	<0.0833	**0.0833**	<0.0833	<0.0833	<0.0833
SV11	21/03/2022	872956	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833
SV_FB (Field Blank)	16/03/2022	872218	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833

Note:
1. US EPA (2020) indoor air based criteria have been adjusted by a factor of 0.005 to account for att
2. Adjustment for target risk of 1 in 100000 as per NEPM

Table G: Soil Vapour Results
Project Number: 65803
Project Name: Botany DSI

			MAH					Miscellaneous Hydrocarbo		Chlorinated Benzenes							Trihalomethanes					
			p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Isopropylbenzene	1,2-dibromoethane	Dibromomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	2-Propanol	Hexachlorobutadiene
			mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
EQL			0.0833335	0.0833335	0.833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	0.0833335	1.66667	0.0833335
Regional Screening Levels for Commerical Air US EPA 2020 [1]																						
NEPM 2013 Table 1A(2) Comm/Ind D Soil Vap VOCC HILs																						
NEPM 2013 Table 1A(5) Comm/Ind D Soil Vapour HSL for Vapour Intrusion, Sand 0-1m																						
Field_ID	**Date**	**Lab Report**																				
SV01	16/03/2022	872218	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV02	16/03/2022	872218	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV03	16/03/2022	872218	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV04	16/03/2022	872218	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV05	16/03/2022	872218	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV06	21/03/2022	872956	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
QV1 (duplicate pair SV06)	21/03/2022	872956	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV07	16/03/2022	872218	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV08	16/03/2022	872218	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV09	16/03/2022	872218	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV10	21/03/2022	872956	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV11	21/03/2022	872956	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833
SV_FB (Field Blank)	16/03/2022	872218	<0.0833	<0.0833	<0.833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<0.0833	<1.67	<0.0833

Note:
1. US EPA (2020) indoor air based criteria have been adjusted by a factor of 0.005 to account for att
2. Adjustment for target risk of 1 in 100000 as per NEPM

Appendix B Design Plans

WASTE MANAGEMENT FACILITY

2-4 HALE ST, BOTANY

DEVELOPMENT APPLICATION

ARCHITECTURAL DRAWING SCHEDULE

DRAWING NO.	DRAWING NAME	REVISION	ISSUE DATE
A000 - GENERAL NOTES / SITE CONTEXT			
A001	COVER SHEET / DRAWING LIST	J	22.03.2024
A002	EXISTING SITE CONDITION PLAN	E	22.03.2024
A003	DEMOLITION PLAN	H	22.03.2024
A004	PERSPECTIVE	F	15.03.2024
A005	SITE PLAN	J	22.03.2024
A006	SIGNAGE PLAN	G	22.03.2024
A100 - GENERAL ARRANGEMENT PLANS			
A101	WAREHOUSE PLAN	G	22.03.2024
A102	ROOF PLAN	H	22.03.2024
A200 - ELEVATIONS			
A201	WAREHOUSE ELEVATIONS	J	22.03.2024
A203	OFFICE ELEVATIONS	E	15.03.2024

CONTEXT PLAN



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Michael Morony NSWARB No. 8218, QLD Reg. No. 5852, ARBV No. VIC00002, APBSA No. s3931, WA00026

Issue	Description	Date	By	QA
A	Issue for Discussion	04.08.2023	RCI	LA
B	Issue for Information	05.01.2024	RCI	LA
C	Issue for Information	16.02.2024	RCI	SW
D	Development Application	23.02.2024	CL	MF
E	Development Application Updates	01.03.2024	CL	MF
F	Development Application Updates	07.03.2024	CL	MF
G	Development Application Updates	13.03.2024	CL	MF
H	Development Application	15.03.2024	CL	MF
J	Development Application	22.03.2024	CL	MF

REID CAMPBELL
STRATEGY | DESIGN | DELIVERY
ACN: 002 033 801 ABN: 28 317 605 875
Level 15, 124 Walker Street
North Sydney NSW 2060 Australia
Tel: 61 02 9954 5011
Fax: 61 02 9954 4946
Email: sydney@reidcampbell.com
Website: www.reidcampbell.com

DEVELOPMENT APPLICATION

CLIENT: COOMBES PROPERTY GROUP

PROJECT MANAGER:

PROJECT: WASTE MANAGEMENT FACILITY
2-4 HALE ST, BOTANY

Drawn: DT Checked: LA

PRINT DATE: 22/03/2024 3:54:10 PM

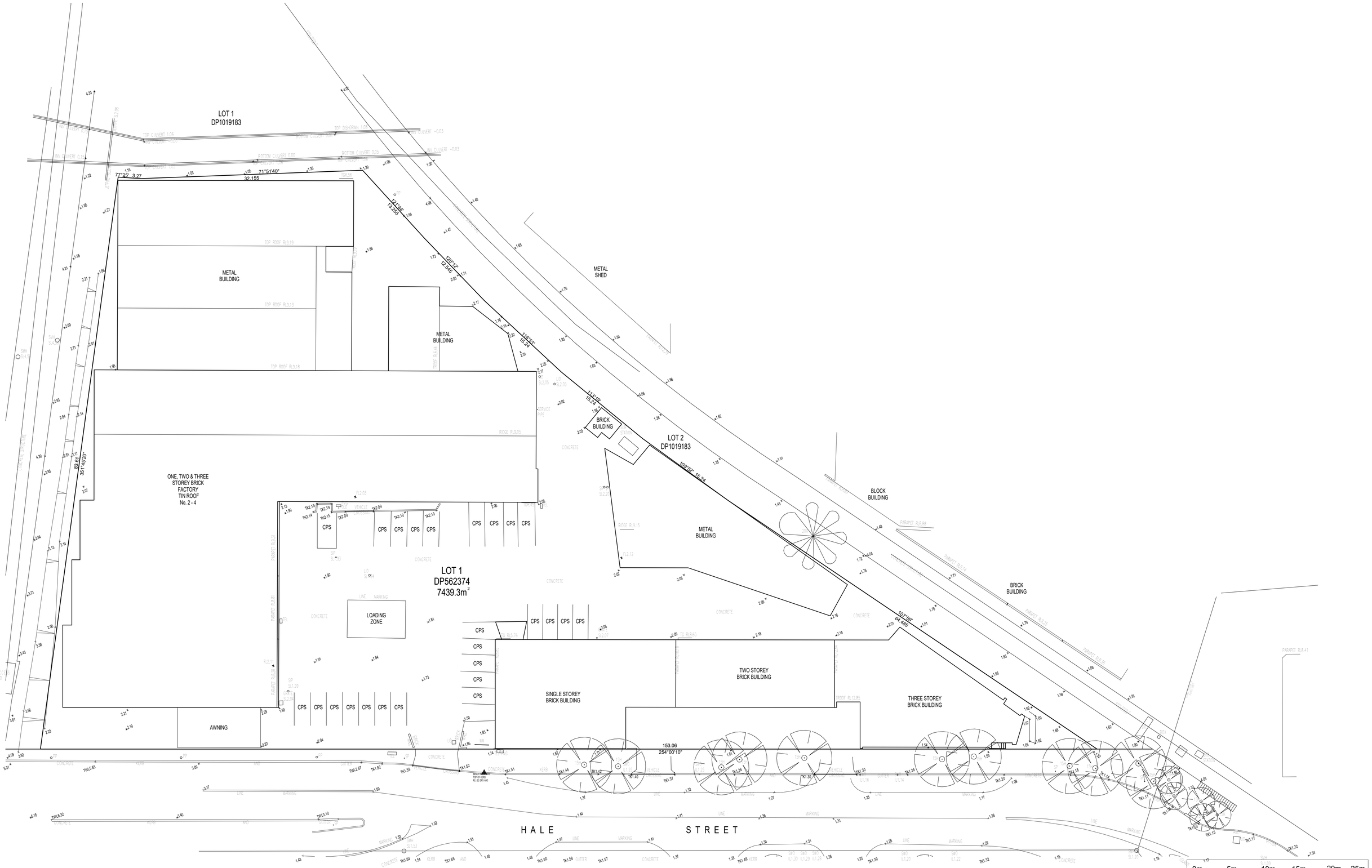
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Drawing Title: COVER SHEET / DRAWING LIST

SHEET NUMBER: 1220011_ A001

ISSUE: J

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0m 5m 10m 15m 20m 25m

SCALE BAR 1:250 @ A1 ; 1: 500 @ A3

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Issue	Description	Date	By	QA
A	Issue for Information	16.02.2024	RCI	SW
B	Development Application	23.02.2024	CL	MF
C	Development Application Updates	13.03.2024	CL	MF
D	Development Application	15.03.2024	CL	MF
E	Development Application	22.03.2024	CL	MF

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DEVELOPMENT APPLICATION

CLIENT: COOMBES PROPERTY GROUP

PROJECT MANAGER:

PROJECT: WASTE MANAGEMENT FACILITY
2-4 HALE ST, BOTANY

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NORTH POINT

Drawing Title: EXISTING SITE CONDITION PLAN

SHEET NUMBER 1220011_ A002

ISSUE E

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DEMOLITION LEGEND

- SITE BOUNDARY
- DEMOLISHED
- TREE RETAINED
- TREE REMOVED
- EXISTING BUILDING

DEMOLITION NOTES

-BUILDER TO CONFIRM ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PART OF THE WORKS.

-CONTRACTOR TO COORDINATE ALL DEMOLITION WORKS WITH RELEVANT CONSULTANTS DOCUMENTATION, INCLUDING BUT NOT LIMITED TO CIVIL, STRUCTURAL, HYDRAULIC ETC.

-CONTRACTOR TO ALLOW TO MAKE GOOD ALL RETAINED ELEMENTS ON SITE.

-REFER TO CIVIL ENGINEERS DOCUMENTATION FOR ALL EXTERNAL LEVELS, FALLS, STORM WATER DRAINAGE AND PAVEMENT DESIGN.

-CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL MATERIALS FROM SITE.

-ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH ACCEPTABLE SAFETY STANDARDS & APPROPRIATE SAFETY SIGNS SHALL BE INSTALLED AT ALL TIMES DURING THE PROGRESS OF THE JOB.

-REFER SERVICES ENGINEERS DOCUMENTATION FOR DETAILS OF SERVICES.

-REFER TO TRAFFIC ENGINEERS DOCUMENTATION FOR ALL INTERNAL SITE AND EXTERNAL ROAD WORKS AND TRAFFIC MANAGEMENT DETAILS.

-BUILDER IS TO LOCATE, REDIRECT, CAP AND SEAL ETC ANY IN GROUND SERVICES PRIOR TO COMMENCEMENT OF ANY PART OF THE WORKS.

-BUILDER IS TO SECURE AND/OR HOARD THE SITE TO THE SATISFACTION OF LOCAL AUTHORITY AND TO MAINTAIN PUBLIC SAFETY.

-ALLOW TO MAKE GOOD EXISTING PATH, NATURE STRIP, KERBS, ETC. OUTSIDE PROPERTY BOUNDARY AFFECTED BY CONSTRUCTION WORKS.

-CONTRACTORS RESPONSIBILITY TO ESTABLISH EXTENT OF DANGEROUS MATERIALS INCL. ASBESTOS, BEFORE DEMOLITION.

NOTES

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3. ALL INFORMATION SUBJECT TO DETAILED DESIGN AND ENGINEERING INPUT.
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5. ALL MEASUREMENTS OF EXISTING STRUCTURES ARE APPROXIMATE ONLY, AND TO BE CONFIRMED ON SITE.
6. TENANT FITOUT ITEMS SHOWN BLUE

0m 5m 10m 15m 20m 25m

SCALE BAR 1:250 @ A1 ; 1: 500 @ A3

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Issue	Description	Date	By	QA
A	Issue for Information	########		
B	Issue for Information	05.01.2024	RCI	LA
C	Issue for Information	16.02.2024	RCI	SW
D	Development Application	23.02.2024	CL	MF
E	Development Application Updates	07.03.2024	CL	MF
F	Development Application Updates	13.03.2024	CL	MF
G	Development Application	15.03.2024	CL	MF
H	Development Application	22.03.2024	CL	MF

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STRATEGY | DESIGN | DELIVERY
ACN: 002 033 801 ABN: 28 317 605 875
Level 15, 124 Walker Street
North Sydney NSW 2060 Australia
Tel: 61 02 9954 5011
Fax: 61 02 9954 4946
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Website: www.reidcampbell.com

DEVELOPMENT APPLICATION

CLIENT: COOMBES PROPERTY GROUP

PROJECT MANAGER:

PROJECT: WASTE MANAGEMENT FACILITY
2-4 HALE ST, BOTANY

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NORTH POINT

Drawing Title: DEMOLITION PLAN

SHEET NUMBER 1220011_ A003

ISSUE H

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Issue	Description	Date	By	QA
A	Issue for Information	05.01.2024	RCI	LA
B	Issue for Information	16.02.2024	RCI	SW
C	Development Application Updates	01.03.2024	CL	MF
D	Development Application Updates	07.03.2024	CL	MF
E	Development Application Updates	13.03.2024	CL	MF
F	Development Application	15.03.2024	CL	MF

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Level 15, 124 Walker Street
North Sydney NSW 2060 Australia

Tel: 61 02 9954 5011
Fax: 61 02 9954 4946
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Website: www.reidcampbell.com

DEVELOPMENT APPLICATION

CLIENT

COOMBES PROPERTY GROUP

PROJECT MANAGER

PROJECT
WASTE MANAGEMENT FACILITY
2-4 HALE ST, BOTANY

Drawn DT Checked LA

PRINT DATE
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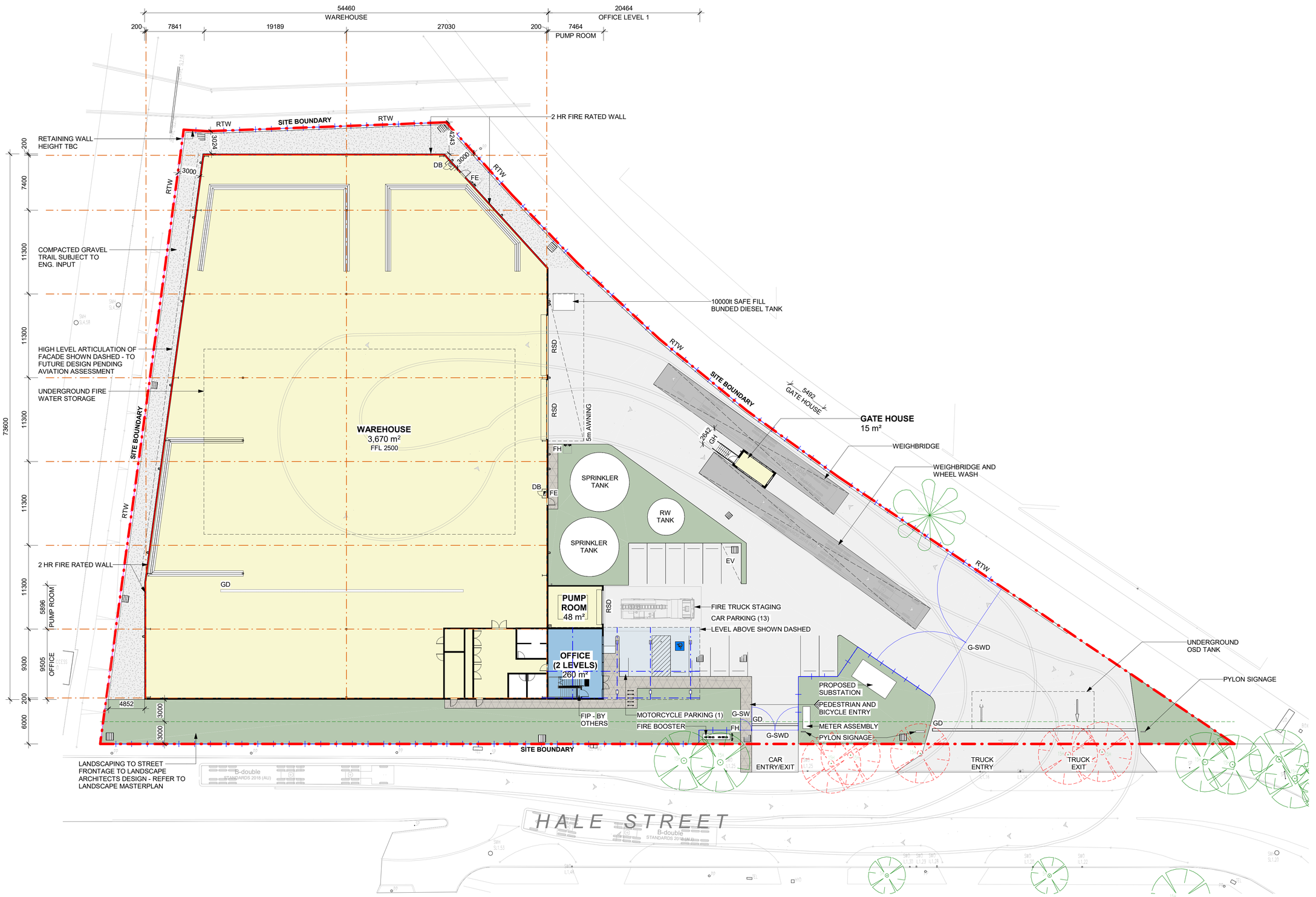
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Drawing Title
PERSPECTIVE

SHEET NUMBER
1220011_ A004

ISSUE
F

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DEVELOPMENT AREA SCHEDULE

SITE AREA	**7,439 m²**
WAREHOUSE	3,670 m²
OFFICE - GROUND FLOOR - FIRST FLOOR	260 m² (60 m²) (200 m²)
GATEHOUSE	15 m²
PUMP ROOM	48 m²
TOTAL BUILDING AREA	**4,193 m²**
TOTAL PARKING PROVIDED	13 SPACES

LEGEND

- SITE BOUNDARY
- LANDSCAPE SETBACK
- FNC-1: 2.1 M PALISADE FENCE
- FNC-2: 2.1 M CHAINLINK FENCE
- WAREHOUSE
- LOADING ZONE
- OFFICE
- HEAVY DUTY PAVEMENT
- LIGHT DUTY PAVEMENT
- COMPACTED GRAVEL TRAIL
- PEDESTRIAN PAVEMENT
- LANDSCAPING

ABBREVIATION

DB	DISTRIBUTION BOARD
EV	ELECTRIC VEHICLE PARKING
FE	FIRE EXIT DOOR
FH	FIRE HYDRANT
G-SW	GATE SINGLE (SWING)
G-SWD	GATE DOUBLE (SWING)
RSD	ROLLER SHUTTER DOOR
GD	GRATED DRAIN

NOTES

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0m 5m 10m 15m 20m 25m

SCALE BAR 1:250 @ A1 ; 1: 500 @ A3

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F	Development Application Updates	07.03.2024	CL	MF
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H	Development Application	15.03.2024	CL	MF
J	Development Application	22.03.2024	CL	MF

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Level 15, 124 Walker Street
North Sydney NSW 2060 Australia
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DEVELOPMENT APPLICATION

CLIENT: COOMBES PROPERTY GROUP

PROJECT MANAGER:

PROJECT: WASTE MANAGEMENT FACILITY
2-4 HALE ST, BOTANY

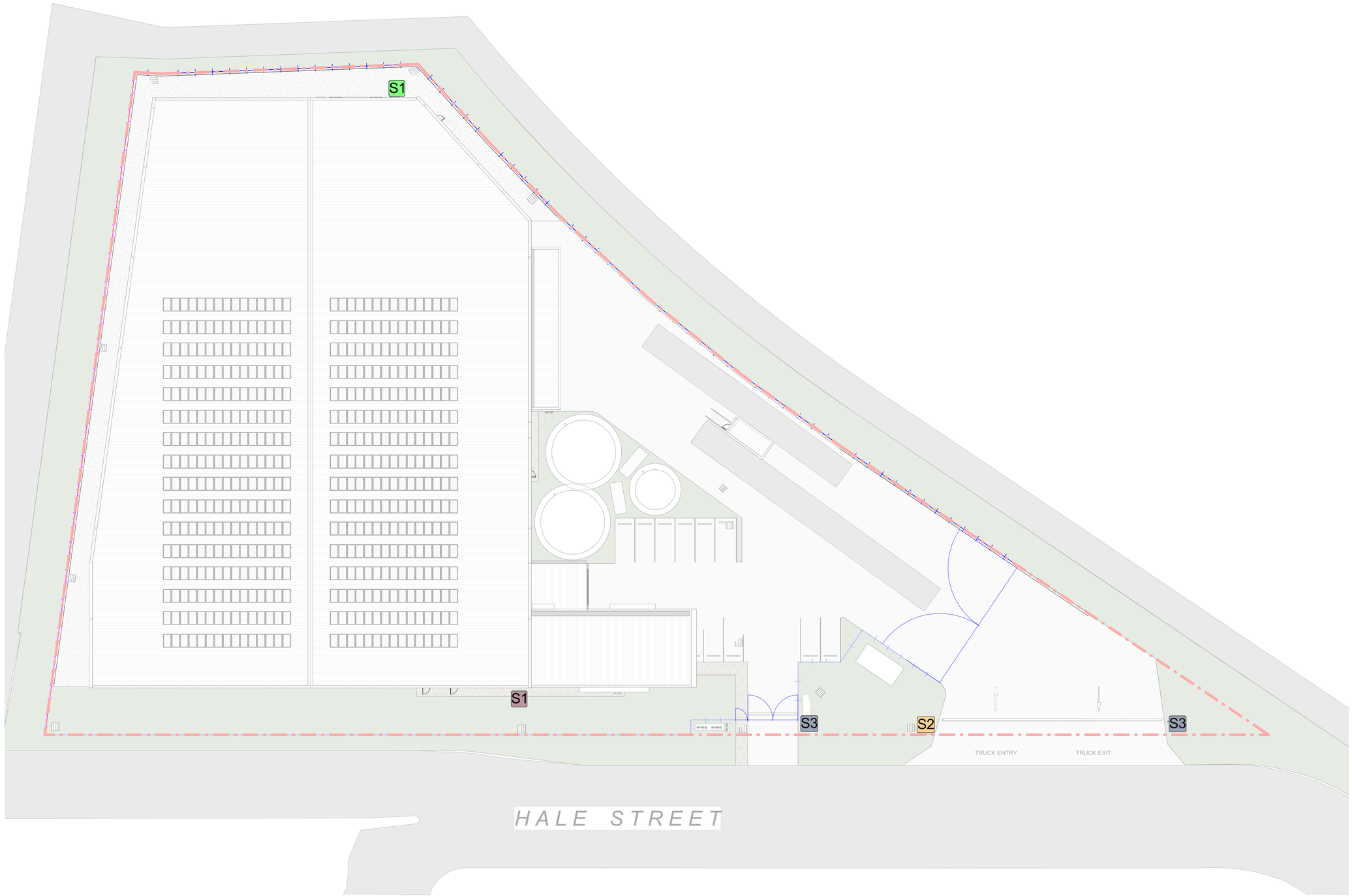
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Drawing Title: SITE PLAN

SHEET NUMBER: 1220011_ A005 ISSUE: J

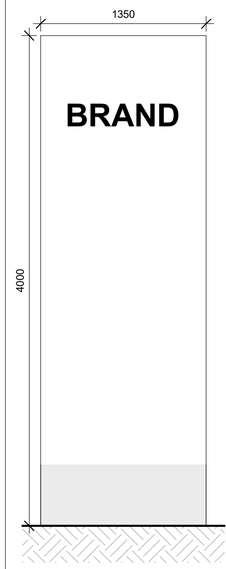
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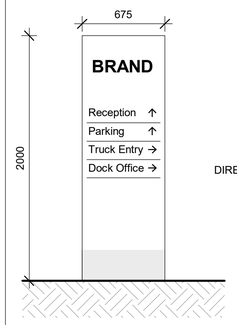
TYPICAL SIGNAGE

S1 — TENANT SIGNAGE

SEE BUILDING ELEVATIONS



S2 — PYLON SIGNAGE



S3 — DIRECTION SIGNAGE

NOTES

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0m 5m 10m 15m 20m 25m

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F	Development Application	15.03.2024	CL	MF
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DEVELOPMENT APPLICATION

CLIENT: COOMBES PROPERTY GROUP

PROJECT MANAGER

PROJECT: WASTE MANAGEMENT FACILITY
2-4 HALE ST, BOTANY

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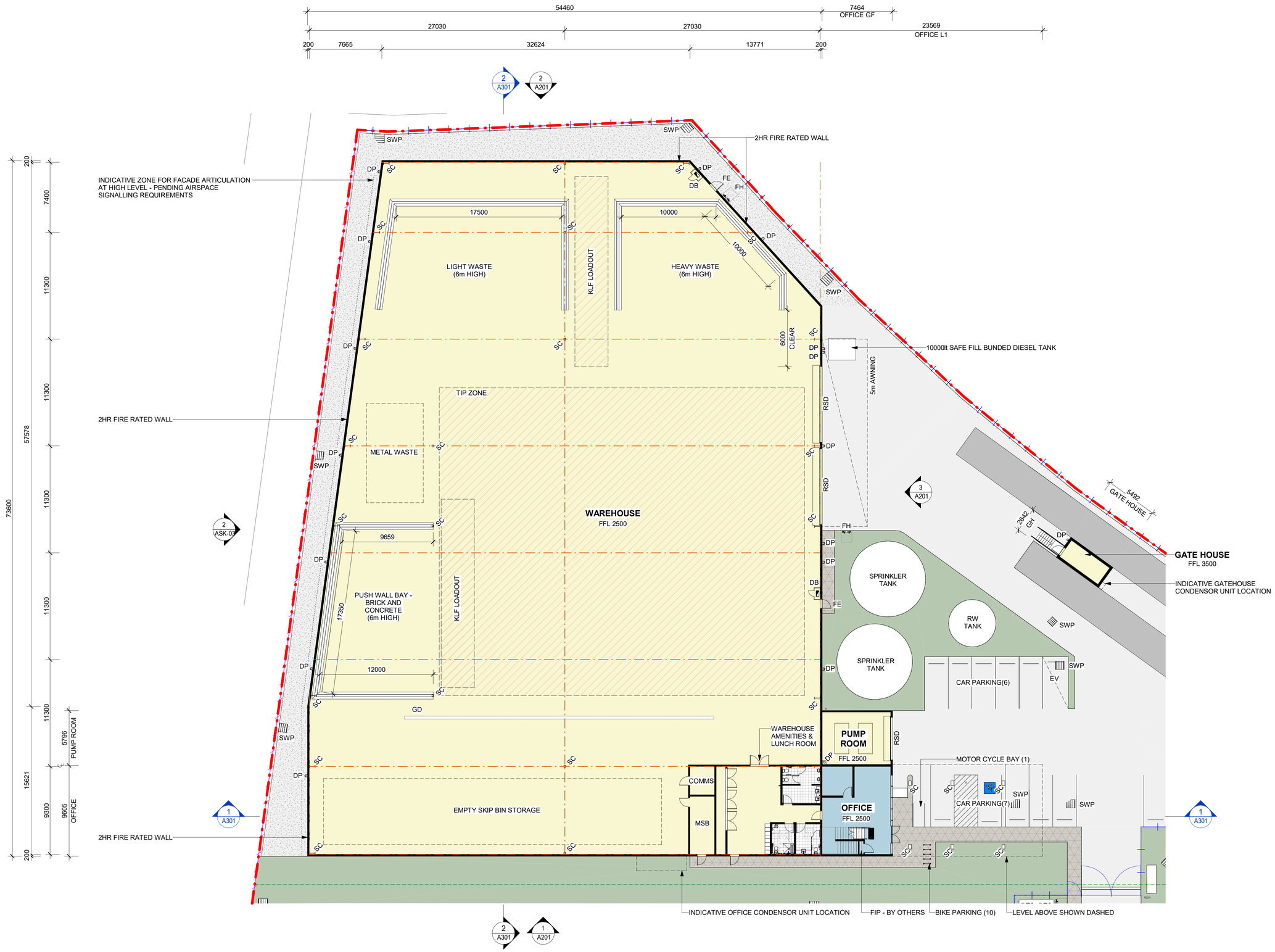
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Drawing Title: SIGNAGE PLAN

SHEET NUMBER: 1220011_ A006

ISSUE: G

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LEGEND

- SITE BOUNDARY
- LANDSCAPE SETBACK
- FNC-1: 2.1 M PALISADE FENCE
- FNC-2: 2.1 M CHAINLINK FENCE
- WAREHOUSE
- LOADING ZONE
- OFFICE
- HEAVY DUTY PAVEMENT
- LIGHT DUTY PAVEMENT
- COMPACTED GRAVEL TRAIL
- PEDESTRIAN PAVEMENT
- LANDSCAPING

ABBREVIATION

DB	DISTRIBUTION BOARD
DP	DOWN PIPE
EV	ELECTRIC VEHICLE PARKING
FE	FIRE EXIT DOOR
FH	FIRE HYDRANT
RSD	ROLLER SHUTTER DOOR
SC	STRUCTURAL COLUMN
SWP	STORM WATER PIT
GD	GRATED DRAIN

NOTES

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0m 4m 8m 12m 16m 20m

SCALE BAR 1:200 @ A1 ; 1: 400 @ A3

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C	Development Application	23.02.2024	CL	MF
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E	Development Application Updates	13.03.2024	CL	MF
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DEVELOPMENT APPLICATION

CLIENT: COOMBES PROPERTY GROUP

PROJECT MANAGER:

PROJECT: WASTE MANAGEMENT FACILITY
2-4 HALE ST, BOTANY

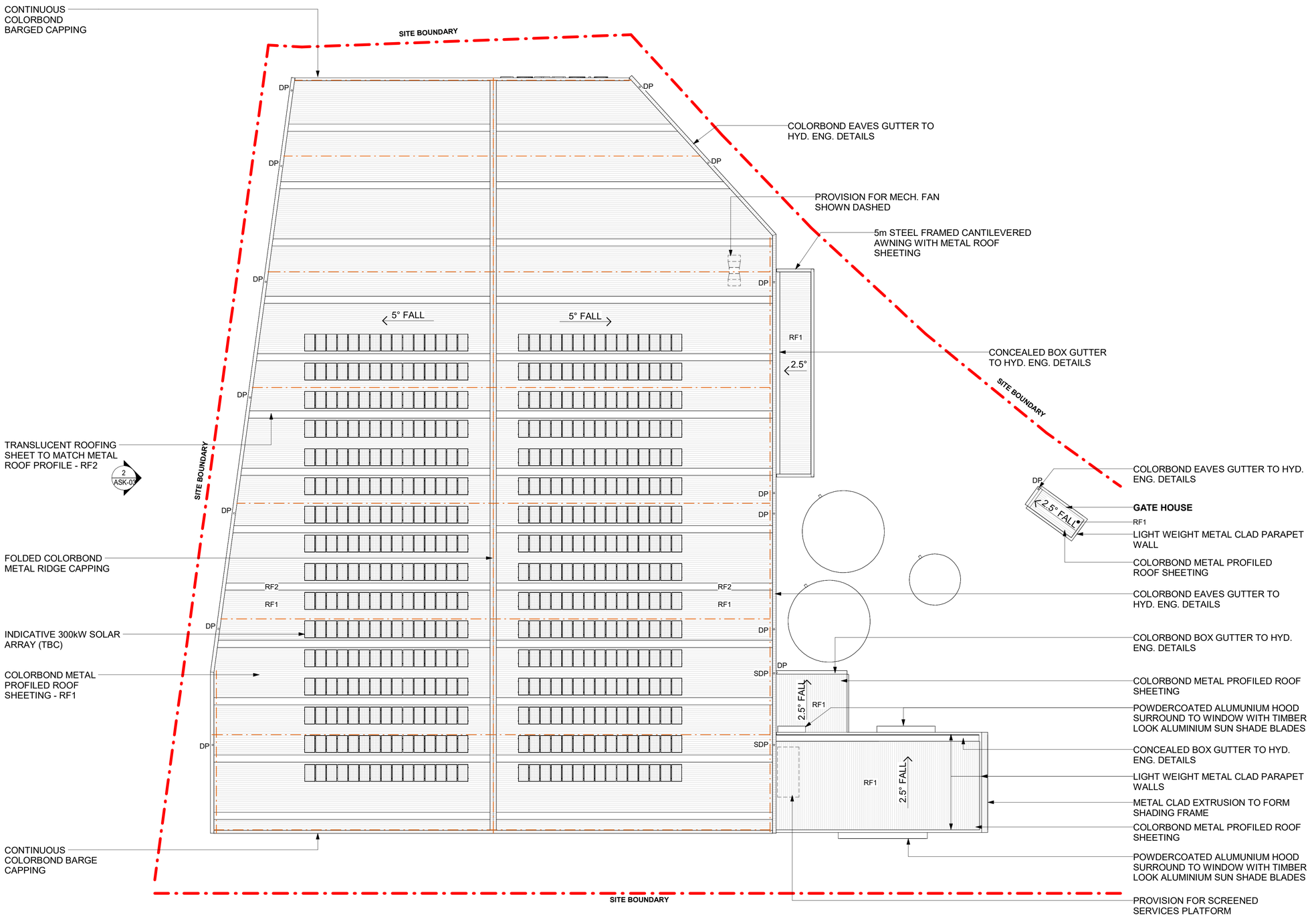
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NORTH POINT

Drawing Title: WAREHOUSE PLAN

SHEET NUMBER 1220011_ A101 ISSUE G

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ABBREVIATION

DP	DOWN PIPE
SDP	SIPHONIC DOWNPIPE
RF1	PROFILED METAL ROOF SHEETING
RF2	TRANSLUCENT ROOF SHEETING

NOTES

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0m 4m 8m 12m 16m 20m

SCALE BAR 1:200 @ A1 ; 1: 400 @ A3

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D	Development Application Updates	26.02.2024	CL	MF
E	Development Application Updates	07.03.2024	CL	MF
F	Development Application Updates	13.03.2024	CL	MF
G	Development Application	15.03.2024	CL	MF
H	Development Application	22.03.2024	CL	MF

REID CAMPBELL
STRATEGY | DESIGN | DELIVERY
ACN: 002 033 801 ABN: 28 317 605 875
Level 15, 124 Walker Street
North Sydney NSW 2060 Australia
Tel: 61 02 9954 5011
Fax: 61 02 9954 4946
Email: sydney@reidcampbell.com
Website: www.reidcampbell.com

DEVELOPMENT APPLICATION

CLIENT: COOMBES PROPERTY GROUP

PROJECT MANAGER:

PROJECT: WASTE MANAGEMENT FACILITY
2-4 HALE ST, BOTANY

Drawn: DT Checked: LA PRINT DATE: 22/03/2024 3:54:48 PM

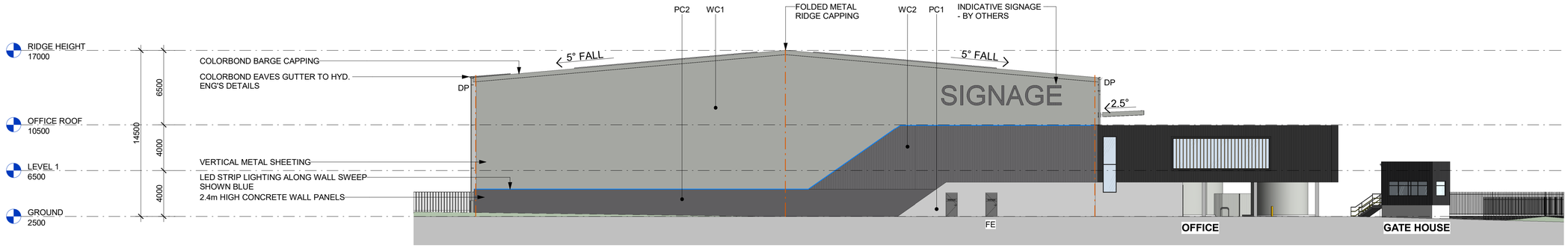
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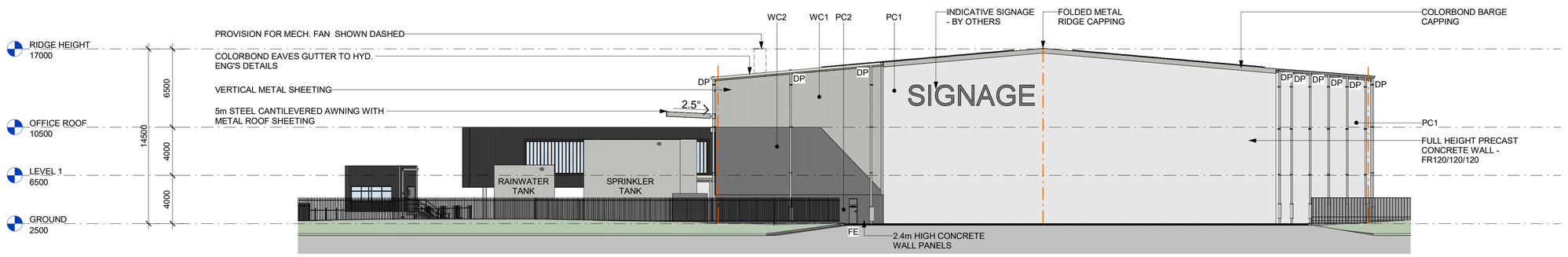
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ISSUE: H

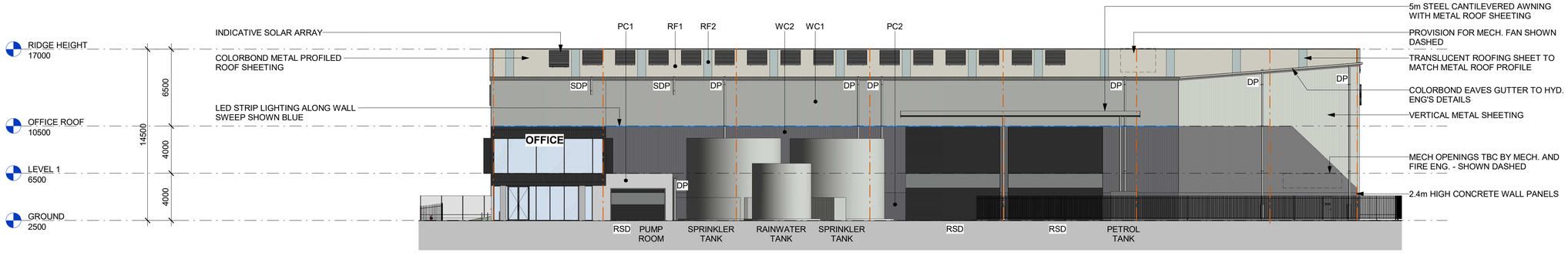
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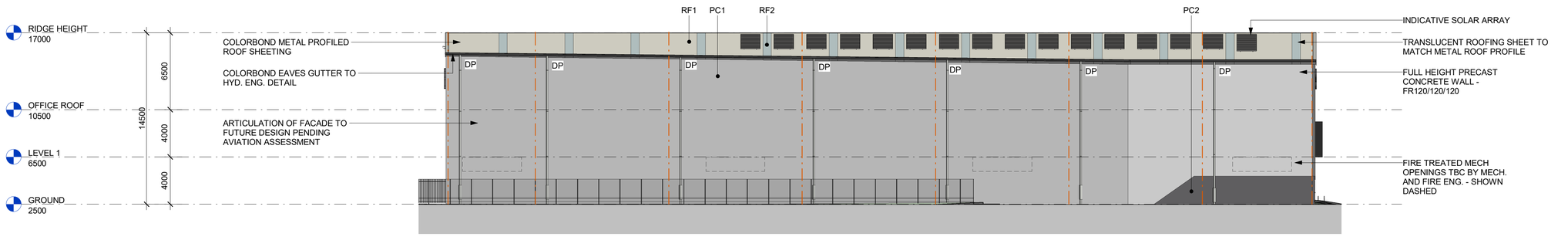
1 SOUTH ELEVATION
1 : 200



2 NORTH ELEVATION
1 : 200



3 EAST ELEVATION
1 : 200



4 WEST ELEVATION
1 : 200

CC
CORE COLOUR SCHEME

RF1
METAL PROFILED ROOF SHEETING "SURFMIST"

WC1
COLORBOND LONGLINE STANDING SEAM CLADDING 'SHALE GREY'

RF2
TRANSLUCENT PROFILED ROOF SHEETING

WC2
COLORBOND LONGLINE STANDING SEAM CLADDING 'BASALT'

RSD
METAL SHEETING 'MONUMENT'

WC3
COLORBOND LONGLINE STANDING SEAM CLADDING 'MONUMENT'

GL1
TINTED CLEAR VISION GLAZING (LOW REFL.)

PC1
PRECAST PANEL - NATURAL SEALED FINISH OR SIMILAR APPROVED

PC2
PAINTED PRECAST PANEL "BASALT"

CO1
CLASS 2C OFF FORM CONCRETE OR SIMILAR APPROVED

TB1
TIMBER LOOK ALUMINIUM BLADES

ABBREVIATION

DP	DOWN PIPE
SDP	SYPHONIC DOWN PIPE
FE	FIRE EXIT DOOR
RSD	ROLLER SHUTTER DOOR

NOTES

1. ALL LEVELS AND EXTENTS ARE INDICATIVE & SHOULD BE READ IN CONJUNCTION WITH CIVIL ENG. DWGS FOR FINAL LEVELS OF ALL EARTH WORKS AND EXCAVATION.
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3. ALL INFORMATION SUBJECT TO DETAILED DESIGN AND ENGINEERING INPUT.
4. HYD, MECH, ELECTRICAL, AND FIRE ELEMENTS ARE INDICATIVE ONLY.
5. ALL MEASUREMENTS OF EXISTING STRUCTURES ARE APPROXIMATE ONLY, AND TO BE CONFIRMED ON SITE.
6. TENANT FITOUT ITEMS SHOWN BLUE

0m 4m 8m 12m 16m 20m

SCALE BAR 1:200 @ A1 ; 1: 400 @ A3

Notes

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-Report all discrepancies to project manager prior to construction.
-Figured dimensions to be taken in preference to scaled drawings.
-All work is to conform to relevant Australian Standards and other Codes as applicable, together with other Authorities' requirements and regulations.

Michael Morony NSWARB No. 8218, QLD Reg. No. 5852, ARBV No. VIC00002, APBSA No. s3931, WA00026

Issue	Description	Date	By	QA
A	Issue for Information	05.01.2024	RCI	LA
B	Issue for Information	16.02.2024	RCI	SW
C	Development Application	23.02.2024	CL	MF
D	Development Application Updates	26.02.2024	CL	MF
E	Development Application Updates	01.03.2024	CL	MF
F	Development Application Updates	07.03.2024	CL	MF
G	Development Application Updates	13.03.2024	CL	MF
H	Development Application	15.03.2024	CL	MF
J	Development Application	22.03.2024	CL	MF

REID CAMPBELL
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ACN: 002 033 801 ABN: 28 317 605 875
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DEVELOPMENT APPLICATION

CLIENT: COOMBES PROPERTY GROUP

PROJECT MANAGER:

PROJECT: WASTE MANAGEMENT FACILITY
2-4 HALE ST, BOTANY

NORTH POINT: N/A

Drawn DT Checked LA

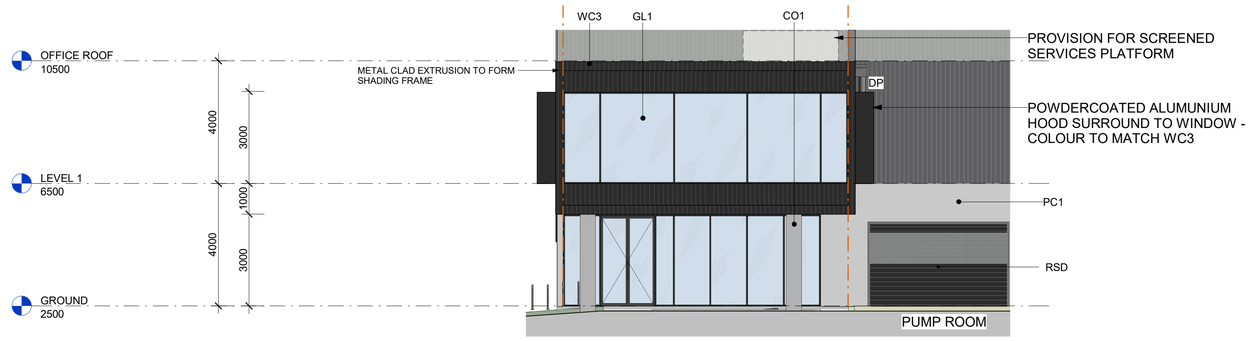
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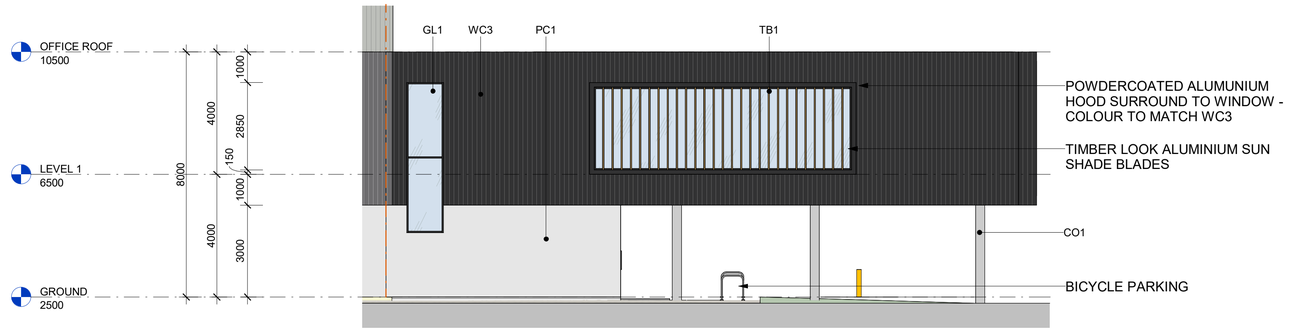
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ISSUE: J

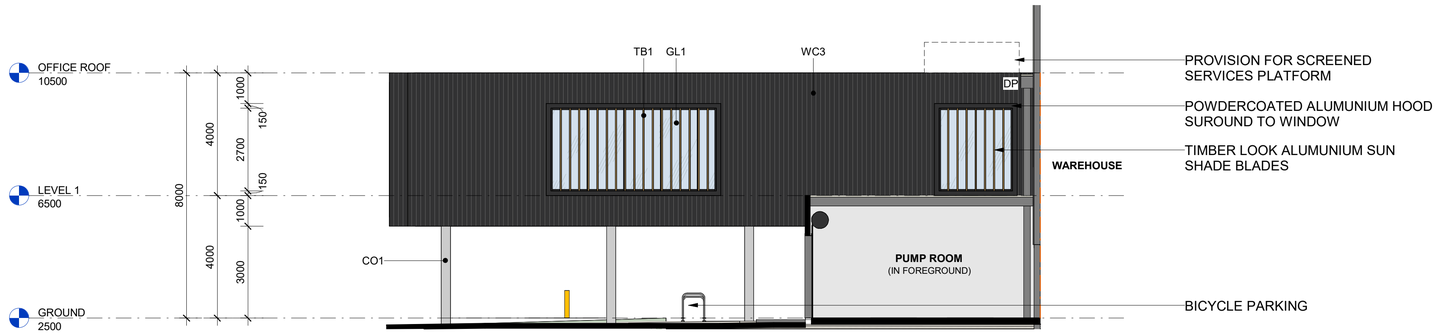
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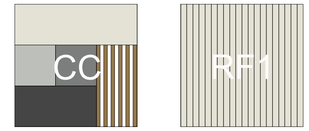
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1 : 100



2 x103 OFFICE SOUTH ELEVATION
1 : 100

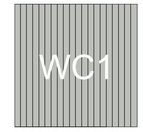


3 A002XX OFFICE NORTH LEVATION
1 : 100

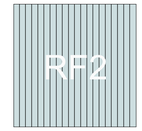


CORE COLOUR SCHEME

METAL PROFILED ROOF SHEETING "SURFMIST"



COLORBOND LONGLINE STANDING SEAM CLADDING 'SHALE GREY'



TRANSLUCENT PROFILED ROOF SHEETING



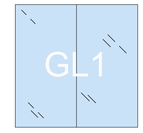
COLORBOND LONGLINE STANDING SEAM CLADDING 'BASALT'



METAL SHEETING 'MONUMENT'



COLORBOND LONGLINE STANDING SEAM CLADDING 'MONUMENT'



TINTED CLEAR VISION GLAZING (LOW REFL.)



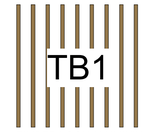
PRECAST PANEL - NATURAL SEALED FINISH OR SIMILAR APPROVED



PAINTED PRECAST PANEL "BASALT"



CLASS 2C OFF FORM CONCRETE OR SIMILAR APPROVED



TIMBER LOOK ALUMINIUM BLADES

ABBREVIATION

DP	DOWN PIPE
RSD	ROLLER SHUTTER DOOR

NOTES

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6. TENANT FITOUT ITEMS SHOWN BLUE

0m 2m 4m 6m 8m 10m

SCALE BAR 1:100 @ A1 ; 1: 200 @ A3

Notes

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Michael Morony NSWARB No. 8218, QLD Reg. No. 5852, ARBV No. VIC00002, APBSA No. s3931, WA00026

Issue	Description	Date	By	QA
A	Issue for Information	05.01.2024	RCI	LA
B	Issue for Information	16.02.2024	RCI	SW
C	Development Application	23.02.2024	CL	MF
D	Development Application Updates	13.03.2024	CL	MF
E	Development Application	15.03.2024	CL	MF

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Email: sydney@reidcampbell.com
Website: www.reidcampbell.com

DEVELOPMENT APPLICATION

CLIENT: COOMBES PROPERTY GROUP

PROJECT MANAGER:

PROJECT: WASTE MANAGEMENT FACILITY
2-4 HALE ST, BOTANY

Drawn: DT Checked: LA PRINT DATE: 15/03/2024 5:27:55 PM

NORTH POINT: N/A

Drawing Title: OFFICE ELEVATIONS

SHEET NUMBER: 1220011_ A203

ISSUE: E

Appendix C Borelogs

GROUNDWATER WELL MW01

PROJECT NUMBER 62740	**DRILLING COMPANY** Terratest	**EASTING** N/A
PROJECT NAME Botany DSI	**DRILLING DATE** 21-Mar-22	**NORTHING** N/A
CLIENT Coombes Property Development	**DRILL RIG** GeoProbe	**ELEVATION** N/A
PERMIT NO. N/A	**DRILLING METHOD** Hollow Flight Auger	**COORD SYS** GDA94_MGA_zone_54
ADDRESS 2-4 Hale St Botany	**TOTAL DEPTH** 6 m bgl	**COORD SOURCE**
	DIAMETER 200 mm	**LOGGED BY** RS
COMPLETION Roadbox	**CASING** Class 18 PVC - 50mm	**SCREEN INTERVAL** 3 - 6 m bgl

COMMENTS

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC					Concrete	Fill - CONCRETE				
HFA			0.5		Fill	Fill - gravelly SAND, dark brown, heterogeneous, damp, fine grained, sub-rounded, loose, with inclusions of gravels, sandstone, iron stone, slag	DP	MW01_0.40-0.50	8.8	No odour or staining. 10L AQ_0.0-1.0 2 ACM fragments 40g
			1		SW	Natural - SAND, brown, homogenous, moist, fine grained, dense	M			
			1.5							
			2					MW01_2.00-2.10	4.4	No odour, staining or ACM.
			2.5							
			3		SW	Natural - SAND, brown, homogenous, wet, fine grained, dense	W	MW01_3.00-3.10	23.9	No odour, staining or ACM.
	▽		3.5							
			4		SW	Natural - SAND, brown, homogenous, saturated, fine grained, dense	S	MW01_4.00-4.10	35.9	No odour, staining or ACM.
			4.5							
			5					MW01_5.00-5.10	86.4	No odour, staining or ACM.
			5.5							
			6					MW01_5.90-6.00	66.3	No odour, staining or ACM.
			6.5			Termination Depth at: 6.00 m.				End of hole at 6.0 m bgs - programmed depth.

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GROUNDWATER WELL MW02

PROJECT NUMBER 62740	**DRILLING COMPANY** Terratest	**EASTING** N/A
PROJECT NAME Botany DSI	**DRILLING DATE** 21-Mar-22	**NORTHING** N/A
CLIENT Coombes Property Development	**DRILL RIG** GeoProbe	**ELEVATION** N/A
PERMIT NO. N/A	**DRILLING METHOD** Hand Auger/Hollow Flight Au	**COORD SYS** GDA94_MGA_zone_54
ADDRESS 2-4 Hale St Botany	**TOTAL DEPTH** 6 m bgl	**COORD SOURCE**
	DIAMETER 200 mm	**LOGGED BY** ST

COMPLETION Roadbox **CASING** Class 18 PVC - 50mm **SCREEN INTERVAL** 3 - 6 m bgl

COMMENTS

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC					Concrete	Fill - CONCRETE				
HA			0.5		Fill	Fill - clayey gravelly SAND, black, heterogeneous, dry, fine grained, loose, with inclusions of slag, gravels	DR	MW02_0.00-0.10	3.4	No odour or staining. 10L AQ_0.0-1.0 2 1 ACM fragment 28g
HFA			1		SW	Natural - SAND, dark brown, homogenous, moist, fine grained, dense	M	MW02_1.00-1.10	1.2	No odour, staining or ACM.
			1.5							
			2		SW	Natural - SAND, dark brown, homogenous, wet, fine grained, dense	W	MW02_2.00-2.10	1.1	No odour, staining or ACM.
			2.5							
			3					MW02_3.00-3.10	1.4	No odour, staining or ACM.
	▽		3.5							
			4		SW	Natural - SAND, dark brown, homogenous, saturated, fine grained, dense	S	MW02_4.00-4.10	1.8	No odour, staining or ACM.
			4.5							
			5							
			5.5							
			6					MW02_5.90-6.00	2.2	No odour, staining or ACM.
						Termination Depth at: 6.00 m.				End of hole at 6.0m bgs - programmed depth

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GROUNDWATER WELL MW03

PROJECT NUMBER 62740	**DRILLING COMPANY** Terratest	**EASTING** N/A
PROJECT NAME Botany DSI	**DRILLING DATE** 21-Mar-22	**NORTHING** N/A
CLIENT Coombes Property Development	**DRILL RIG** GeoProbe	**ELEVATION** N/A
PERMIT NO. N/A	**DRILLING METHOD** Hollow Flight Auger	**COORD SYS** GDA94_MGA_zone_54
ADDRESS 2-4 Hale St Botany	**TOTAL DEPTH** 4 m bgl	**COORD SOURCE**
	DIAMETER 200 mm	**LOGGED BY** ST
COMPLETION Roadbox	**CASING** Class 18 PVC - 50mm	**SCREEN INTERVAL** 1 - 4 m bgl

COMMENTS

Drilling Method	Water (m bgl)	Well Details	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC			0		Concrete	Fill - CONCRETE				
HFA			0.2		Fill	Fill - clayey gravelly SAND, brown/orange, heterogeneous, wet, fine grained, sub-rounded, dense, with inclusions of gravels, brick, and sandstone	W	MW03_0.20-0.30	12.2	No odour, staining or ACM. QA/QC_20220321 taken from 0.2-0.3 mbgs. 10 L AQ_0-1.0
	▽		2		Fill	Fill - sandy CLAY, dark brown, heterogeneous, wet, medium plasticity, soft	W	MW03_2.00-2.10	26.3	No odour, staining or ACM. 10L AQ_2.0-3.0
			3		SW	Natural - SAND, brown saturated, fine grained, dense	S	MW03_3.00-3.10	22.6	Moderate sulfur odour. No staining or ACM.
			3.8		SW	Natural - SAND, brown saturated, fine grained, dense	S	MW03_3.90-4.00	27	Slight sulfur odour. No staining or ACM.
			4			Termination Depth at: 4.00 m.				End of hole at 4.0 m bgs - programmed depth.

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SOIL BOREHOLE SB01

PROJECT NUMBER 62740	**DRILLING COMPANY**	**EASTING** N/A
PROJECT NAME Botany DSI	**DRILLING DATE** 16-Mar-22	**NORTHING** N/A
CLIENT Coombes Property Development	**DRILL RIG** N/A	**COORD SYS** GDA94_MGA_zone_54
ADDRESS 2-4 Hale St Botany	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** RC

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC		0.1		Concrete	Fill - CONCRETE				
					Fill - gravelly SAND, dark brown, heterogeneous, dry, well graded, fine grained, sub-rounded, loose, with trace inclusions of sandstones, shale, clay and silt.				No odour, staining or ACM. Potential slag. 10L AQ01_0.2-0.6.
HA		0.2		Fill		DR	SB01_0.20-0.30	2.1	
		0.3		Fill	Fill - gravelly SAND, grey, heterogeneous, dry, well graded, fine grained, sub-rounded, loose, with inclusions of gravel and trace sandstones, shale, clay and silt.	DR			
		0.4					SB01_0.40-0.50	5.3	No odour, staining or ACM.
		0.5							
		0.6		Fill	Fill - sandy CLAY, dark grey/black, heterogeneous, dry, low plasticity, soft, with inclusions of white plastic sheets, paint fragments and sandstone gravels.	DR			
		0.7							
		0.8							
		0.9					SB01_0.90-1.00	5.6	No odour, staining or ACM.
		1		SC	Natural - clayey SAND, dark brown, homogeneous, dry, well graded, fine grained, loose	DR			
		1.1							
		1.2					SB01_1.20-1.30	3.1	No odour, staining or ACM.
		1.3							
		1.4							
		1.5			Termination Depth at: 1.40 m.				End of hole at 1.4m bgs - programmed depth.
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							
		2.2							
		2.3							
		2.4							

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SOIL BOREHOLE SB02

PROJECT NUMBER 62740
PROJECT NAME Botany DSI
CLIENT Coombes Property Development
ADDRESS 2-4 Hale St Botany

DRILLING COMPANY
DRILLING DATE 16-Mar-22
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY RC

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC		0.1		Concrete	Fill - CONCRETE				
HA		0.2		Fill	Fill - sandy CLAY, orange/grey/tan, heterogeneous, dry, low plasticity, soft, with inclusions of sandstone and small roadbase gravel	DR	SB02_0.20-0.30	1.3	No odour, staining or ACM. 10 L AQ02_0.15-0.4.
		0.3							
		0.4		CL-SC	Natural - sandy CLAY, grey, homogeneous, dry, low plasticity, firm	DR	SB02_0.40-0.50	2.1	No odour, staining or ACM.
		0.5							
		0.6							
		0.7			Termination Depth at: 0.70 m.				End of hole at 0.7m bgs - programmed depth
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							
		2.2							
		2.3							
		2.4							

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SOIL BOREHOLE SB03

PROJECT NUMBER 62740	**DRILLING COMPANY**	**EASTING** N/A
PROJECT NAME Botany DSI	**DRILLING DATE** 16-Mar-22	**NORTHING** N/A
CLIENT Coombes Property Development	**DRILL RIG** N/A	**COORD SYS** GDA94_MGA_zone_54
ADDRESS 2-4 Hale St Botany	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** RC

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - silty SAND, dark brown, heterogeneous, damp, fine grained, loose, with some inclusions of clay, rootlets and grass.	DP	SB03_0.00-0.10	1.3	No odour, staining or ACM. 10 L AQ03_0.0-0.2.
		0.2		SW	Natural - SAND, grey/dark grey, homogeneous, wet, coarse grained, loose	W			
		0.3					SB03_0.30-0.40	1.7	No odour, staining or ACM.
		0.4							
		0.5			Termination Depth at: 0.50 m.				End of hole at 0.5m bgs - programmed depth
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							
		2.2							
		2.3							
		2.4							

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produced by ESlog.ESdat.net on 29 Mar 2022

SOIL BOREHOLE SB04

PROJECT NUMBER 62740
PROJECT NAME Botany DSI
CLIENT Coombes Property Development
ADDRESS 2-4 Hale St Botany

DRILLING COMPANY
DRILLING DATE 16-Mar-22
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY RC

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC		0.1		Concrete	Fill - CONCRETE				
HA		0.2		Fill	Fill - SAND, brown, heterogeneous, dry, coarse grained, loose, with some inclusions of clay, gravels and large sandstone gravels.	DR	SB04_0.20-0.30	3.2	No odour, staining or ACM. 10 L AQ04_0.0-0.6.
		0.3							
		0.4							
		0.5					SB04_0.50-0.60	4.8	No odour, staining or ACM.
		0.6		SC	Natural - clayey SAND, dark grey/black, homogeneous, damp, fine grained, dense	DP			
		0.7							
		0.8							
		0.9					SB04_0.90-1.00	2.6	No odour, staining or ACM.
		1		SC	Natural - clayey SAND, dark grey/black, homogeneous, saturated, fine grained, dense	S			
		1.1							
		1.2					SB04_1.20-1.30	3.1	No odour, staining or ACM.
		1.3							
		1.4							
		1.5							
		1.6			Termination Depth at: 1.50 m.				End of hole at 1.5m bgs - programmed depth.
		1.7							
		1.8							
		1.9							
		2							
		2.1							
		2.2							
		2.3							
		2.4							

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SOIL BOREHOLE SB05

PROJECT NUMBER 62740
PROJECT NAME Botany DSI
CLIENT Coombes Property Development
ADDRESS 2-4 Hale St Botany

DRILLING COMPANY
DRILLING DATE 16-Mar-22
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY RC

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC		0.1		Concrete	Fill - CONCRETE				
HA		0.2		Fill	Fill - clayey SAND, dark brown, heterogeneous, dry, well graded, fine grained, sub-rounded, medium dense, with inclusions of sandstones and gravel.	DR	SB05_0.20-0.30	4	No odour, staining or ACM. 10L AQ05_0.0-0.6.
		0.3		Fill	Fill - clayey SAND, dark brown, heterogeneous, dry, well graded, fine grained, medium dense, with inclusions sandstone and little gravel inclusions	DR			
		0.4							
		0.5					SB05_0.50-0.60	3.3	No odour, staining or ACM.
		0.6		SW	Natural - SAND, dark grey, homogenous, dry, well graded, coarse grained, loose	DR			
		0.7							
		0.8							No odour, staining or ACM. QA01/QC01_2022031 taken from 0.9-1.0 mbgs.
		0.9					SB05_0.90-1.00	2.1	
		1		SW	Natural - SAND, dark grey, homogenous, saturated, well graded, coarse grained, loose	S			
		1.1							
		1.2							
		1.3							
		1.4					SB05_1.40-1.50	1.7	No odour, staining or ACM.
		1.5							
		1.6							
		1.7							
		1.8							
		1.9			Termination Depth at: 1.80 m.				End of hole at 1.8 m bgs - programmed depth.
		2							
		2.1							
		2.2							
		2.3							
		2.4							

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SOIL BOREHOLE SB06

PROJECT NUMBER 62740
PROJECT NAME Botany DSI
CLIENT Coombes Property Development
ADDRESS 2-4 Hale St Botany

DRILLING COMPANY
DRILLING DATE 21-Mar-22
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY RC

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - silty SAND, dark brown, heterogeneous, damp, fine grained, loose	DP	SB06_0.00-0.10	3	No odour, staining or ACM.
		0.2		Fill	Fill - clayey SAND, brown, heterogeneous, damp, well graded, medium grained, sub-rounded, loose, with inclusions of gravels, sandstone, iron stone, slag	DP			
		0.3							
		0.4							
		0.5					SB06_0.50-0.60	3.5	No odour, staining or ACM.10L AQ_0-0.1
		0.6							
		0.7							
		0.8		Fill	Fill - clayey SAND, brown/grey/yellow/red, heterogeneous, damp, well graded, medium grained, sub-rounded, loose, with inclusions of gravels, sandstone, iron stone, slag	DP			
		0.9							
		1							
		1.1					SB06_1.10-1.20	5.8	No odour, staining or ACM.
		1.2							
		1.3							
		1.4			Termination Depth at: 1.30 m.				End of hole at 1.3 m bgs - refusal on large rock inclusions.
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							
		2.2							
		2.3							
		2.4							

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SOIL BOREHOLE SB07

PROJECT NUMBER 62740	**DRILLING COMPANY**	**EASTING** N/A
PROJECT NAME Botany DSI	**DRILLING DATE** 21-Mar-22	**NORTHING** N/A
CLIENT Coombes Property Development	**DRILL RIG** N/A	**COORD SYS** GDA94_MGA_zone_54
ADDRESS 2-4 Hale St Botany	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** ST

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - silty SAND, dark brown, heterogeneous, damp, fine grained, sub-rounded, loose, with inclusions of gravels	DP	SB07_0.00-0.10	4	No odour, staining or ACM. 10L AQ_0-0.1
		0.2		Fill	Fill - clayey SAND, brown, heterogeneous, damp, fine grained, sub-rounded, loose, with inclusions of gravels and sandstone gravels	DP			
		0.3							
		0.4							
		0.5		Fill	Fill - clayey SAND, light brown, heterogeneous, damp, fine grained, sub-rounded, loose, with inclusions of gravels and sandstone gravels	DP	SB07_0.50-0.60	6.5	No odour, staining or ACM.
		0.6							
		0.7							
		0.8							
		0.9							
		1		Fill	Fill - clayey SAND, dark brown, heterogeneous, saturated, fine grained, sub-rounded, loose, with inclusions of gravels and sandstone gravels	S			
		1.1					SB07_1.10-1.20	11.8	No odour, staining or ACM. 10L AQ_1.0-1.9
		1.2							
		1.3							
		1.4							
		1.5					SB07_1.50-1.60	1.1	No odour, staining, or ACM.
		1.6							
		1.7							
		1.8							
		1.9							
		2		SW	Natural - SAND, grey/brown, homogenous, saturated, fine grained, dense	S	SB07_1.90-2.00	0.2	No odour, staining or ACM.
		2.1			Termination Depth at: 2.00 m.				End of hole at 2.0m bgs - programmed depth.
		2.2							
		2.3							
		2.4							

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SOIL BOREHOLE SB08

PROJECT NUMBER 62740
PROJECT NAME Botany DSI
CLIENT Coombes Property Development
ADDRESS 2-4 Hale St Botany

DRILLING COMPANY
DRILLING DATE 21-Mar-22
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY ST

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.1		Fill	Fill - gravelly clayey SAND, brown, heterogeneous, damp, fine grained, loose, with inclusions of iron stone, sandstone, gravels, glass	DP	SB08_0.00-0.10	3.4	No odour, staining or ACM. 10L AQ_0-0.7
		0.2							
		0.3							
		0.4							
		0.5		Fill	Fill - clayey SAND, light brown, heterogeneous, damp, fine grained, dense, with inclusions of gravels	DP	SB08_0.50-0.60	1.3	No odour, staining or ACM.
		0.6							
		0.7		SW	Natural - clayey SAND, light grey with red/pink mottles, heterogeneous, damp, fine grained, dense, with inclusions of sandstone gravels	DP	SB08_0.70-0.80	12	No odour, staining or ACM.
		0.8							
		0.9							
		1			Termination Depth at: 1.00 m.				End of hole at 1.0m bgs - programmed depth.
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							
		2							
		2.1							
		2.2							
		2.3							
		2.4							

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Appendix D Council Planning Certificates

Bayside Council
Serving Our Community

8 March 2022

Our Ref: Certificate No. 66378
Contact: Customer Service 1300 581 299

JBS&G Australia
Level 1 50 Margaret St
SYDNEY NSW 2000

Dear Sir/Madam

Following is your planning certificate issued under section 10.7 (2) and (5) of the Environmental Planning and Assessment Act 1979.

This Section 10.7 Certificate has been issued by Bayside Council. Information contained within this Certificate is based on data from Council's records as they existed at the date of this Certificate.

Should you have any enquiries, please contact the Council's Customer Service Centre on 1300 581 299.

SECTION 10.7 PLANNING CERTIFICATE

(under section 10.7 of the Environmental Planning and Assessment Act 1979)

ISSUED TO:

JBS&G Australia
Level 1 50 Margaret St
SYDNEY NSW 2000

		Fee:	216.00
Council:	Bayside	Receipt No:	4972423
County:	Cumberland	Receipt Date:	8 March 2022
Parish:	St George	Your Ref:	62740:59789

PROPERTY: 2 HALE STREET, BOTANY NSW 2019

Lot 1 DP 562374

FI Assessment No: 58109

Date: 8 March 2022

For
Meredith Wallace
General Manager

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Notes: (1) Where this certificate refers to a specific allotment (or allotments) within a strata plan the certificate is issued for the whole of the land within the strata plan, not just the specific allotment or allotments referred to, and any information contained in the certificate may relate to the whole or any part of the strata plan.

1 Names of relevant planning instruments and development control plans

(1) The name of each environmental planning instrument and development control plan that applies to the carrying out of development on the land.

State Environmental Planning Policy No 65	Design Quality of Residential Apartment Development
State Environmental Planning Policy	(Building Sustainability Index: BASIX) 2004
State Environmental Planning Policy	(Exempt and Complying Development Codes) 2008
State Environmental Planning Policy	(Housing) 2021
State Environmental Planning Policy	(Biodiversity and Conservation) 2021
State Environmental Planning Policy	(Resilience and Hazards) 2021
State Environmental Planning Policy	(Transport and Infrastructure) 2021
State Environmental Planning Policy	(Industry and Employment) 2021
State Environmental Planning Policy	(Resources and Energy) 2021
State Environmental Planning Policy	(Precincts – Eastern Harbour City) 2021
State Environmental Planning Policy	(Planning Systems) 2021

Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment
(only applies to land within the Georges River Catchment, referred to in Clause 2 of the Plan, being, in the Bayside Council area, certain land within the suburbs of Dolls Point, Ramsgate, Sandringham and Sans Souci).

State Environmental Planning Policy (Transport and Infrastructure) 2021

There are **no development control plans** that apply to the carrying out of development on the land.

(2) The name of each proposed environmental planning instrument and draft development control plan, which is or has been subject to community consultation or public exhibition under the Act, that will apply to the carrying out of development on the land.

No Planning Proposal applies to the land.

No draft Development Control Plan applies to the land.

Draft State Environmental Planning Policy – Design and Place

For more information or to determine whether these policies apply to your property, visit the Department of Planning and Environment website at www.planning.nsw.gov.au.

(3) Subsection (2) does not apply in relation to a proposed environmental planning instrument or draft development control plan if—

a) it has been more than 3 years since the end of the public exhibition period for the proposed instrument or draft plan, or

b) for a proposed environmental planning instrument—the Planning Secretary has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved.

(4) In this section—
proposed environmental planning instrument **means a draft environmental planning instrument and includes a planning proposal for a local environmental plan.**

2 Zoning and land use under relevant planning instruments

The following matters for each environmental planning instrument or draft environmental planning instrument that includes the land in a zone, however described—

2(a) the identity of the zone, whether by reference to—
(i) a name, such as "Residential Zone" or "Heritage Area", or
(ii) a number, such as "Zone No 2 (a)",

2(b) the purposes for which development in the zone—
(i) may be carried out without development consent, and
(ii) may not be carried out except with development consent, and
(iii) is prohibited,

The following zone or zones apply under the environmental planning instrument or draft environmental planning instrument referred to in section 2:

Zone IN1 General Industrial

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To facilitate and encourage port related industries that will contribute to the growth and diversification of trade through the port.
- To enable development for the purposes of business premises or office premises associated with, and ancillary to, port facilities or industries.
- To encourage ecologically sustainable development.

2 Permitted without consent

Environmental protection works

3 Permitted with consent

Boat building and repair facilities; Business premises; Depots; Food and drink premises; Freight transport facilities; General industries; Jetties; Light industries (other than artisan food and drink industries); Neighbourhood shops; Office premises; Roads; Signage; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres; Waste or resource management facilities

4 Prohibited

Any development not specified in item 2 or 3

2(c) whether any additional permitted uses apply to the land,

No additional permitted uses apply to the land.

2(d) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling house on the land and, if so, the fixed minimum land dimensions,

Not applicable. Please refer to note below.

Note: The above information does not imply that the erection of a dwelling-house is necessarily permissible on the land to which this certificate applies. Refer to the relevant local environmental plan, deemed environmental planning instrument or draft local environmental plan applying to the land to confirm this.

2(e) whether the land is in an area of outstanding biodiversity value under the *Biodiversity Conservation Act 2016*,

The land **is not** an area of outstanding biodiversity value.

2(g) whether the land is in a conservation area, however described,

Not applicable. Please refer to note below.

2(h) whether an item of environmental heritage, however described, is situated on the land.

There is **no such item** situated on the land.

Note: The *Bayside Local Environmental Plan 2021* **does not** apply to the subject land. You are referred to the *State Environmental Planning Policy (Transport and Infrastructure) 2021.*

A copy of the Policy is available on the State Government's legislation website: www.legislation.nsw.gov.au

3 Contributions plans

(1) The name of each contributions plan under the Act, Division 7.1 applying to the land, including draft contributions plan

City of Botany Section 7.11 Development Contributions Plan 2016
City of Botany Bay Section 94A Development Contributions Plan 2016

Note: For a copy of the plans please access Bayside Council's website at www.bayside.nsw.gov.au.

Note: If land is within the former Rockdale City local government area, the *Rockdale Section 94 Contributions Plan (Amendment No 4)* and *Rockdale Section 94 Contributions Plan 1998* will continue to apply to all development applications and applications for complying development certificates made prior to 1 June 2004.

(2) If the land is in a special contributions area under the Act, Division 7.1, the name of the area.

A Special Infrastructure Contributions Plan does not apply to the land.

4 Complying development

(1) If the land is land on which complying development may be carried out under each of the complying development codes under *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*, because of that Policy, clause 1.17A(1)(c)–(e), (2), (3) or (4), 1.18(1)(c3) or 1.19.

(2) If complying development may not be carried out on the land because of 1 of those clauses, the reasons why it may not be carried out under the clause

(3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that—

- **(a) a restriction applies to the land, but it may not apply to all of the land, and**
- **(b) the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.**

(4) If the complying development codes are varied, under that Policy, clause 1.12, in relation to the land.

Housing Code
Complying development **may not** be carried out on the land in accordance with the above code for the following reason/s:

All of the land is located in the 25 ANEF (Australian Noise Exposure Forecast) contour or a higher ANEF contour. However, this restriction does not apply to the erection of ancillary development, the alteration of or an addition to ancillary development or the alteration of a dwelling.

Inland Code
Complying development **may not** be carried out on the land in accordance with the above code for the following reason/s:

All of the land is located in the 25 ANEF (Australian Noise Exposure Forecast) contour or a higher ANEF contour. However, this restriction does not apply to the erection of ancillary development, the alteration of or an addition to ancillary development or the alteration of a dwelling.

Low Rise Housing Diversity Code
Complying development **may not** be carried out on the land in accordance with the above code for the following reason/s:

All of the land is located in the 25 ANEF (Australian Noise Exposure Forecast) contour or a higher ANEF contour. However, this restriction does not apply to the erection of ancillary development, the alteration of or an addition to ancillary development or the alteration of a dwelling.

Rural Housing Code
Complying development **may not be** carried out on the land in accordance with the above code for the following reason/s:

All of the land is located in the 25 ANEF (Australian Noise Exposure Forecast) contour or a higher ANEF contour. However, this restriction does not apply to the erection of ancillary development, the alteration of or an addition to ancillary development or the alteration of a dwelling.

Greenfield Housing Code
Complying development **may not be** carried out on the land in accordance with the above code for the following reason/s:

All of the land is located in the 25 ANEF (Australian Noise Exposure Forecast) contour or a higher ANEF contour. However, this restriction does not apply to the erection of ancillary development, the alteration of or an addition to ancillary development or the alteration of a dwelling.

Commercial and Industrial (New Buildings and Additions) Code
Complying development **may be** carried out on the land under the above code.

Housing Alterations Code
Complying development **may be** carried out on the land under the above code.

General Development Code
Complying development **may be** carried out on the land under the above code.

Commercial and Industrial Alterations Code
Complying development **may be** carried out on the land under the above code.

Container Recycling Facilities Code
Complying development **may be** carried out on the land under the above code.

Subdivisions Code
Complying development **may be** carried out on the land under the above code.

Demolition Code
Complying development **may be** carried out on the land under the above code.

Fire Safety Code
Complying development **may be** carried out on the land under the above code.

Notes:
(1) If a reference is made to "part of the land", Complying Development **may be** carried out on the portion of the land not subject to such a restriction.
(2) This certificate only addresses matters raised in Clause 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1)(c3) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*. It is your responsibility to ensure that you comply with any other general requirements of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

5 Exempt development

(1) If the land is land on which exempt development may be carried out under each of the exempt development codes under *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*, because of that Policy,

clause 1.16(1)(b1)–(d) or 1.16A.

(2) If exempt development may not be carried out on the land because of 1 of those clauses, the reasons why it may not be carried out under the clause.

(3) If the council does not have sufficient information to ascertain the extent to which exempt development may or may not be carried out on the land, a statement that—

(a) a restriction applies to the land, but it may not apply to all of the land, and

(b) the council does not have sufficient information to ascertain the extent to which exempt development may or may not be carried out on the land.

(4) If the exempt development codes are varied, under that Policy, clause 1.12, in relation to the land.

General Exempt Development Code
Exempt development **may not be** carried out on the land in accordance with the above code for the following reason/s:

The land is identified on a map specified in Schedule 4 of the Policy as land affected by a ground water exclusion zone.

Advertising and Signage Exempt Development Code
Exempt development **may not be** carried out on the land in accordance with the above code for the following reason/s:

The land is identified on a map specified in Schedule 4 of the Policy as land affected by a ground water exclusion zone.

Temporary Uses and Structures Exempt Development Code
Exempt development **may not be** carried out on the land in accordance with the above code for the following reason/s:

The land is identified on a map specified in Schedule 4 of the Policy as land affected by a ground water exclusion zone.

6 Affected building notices and building product rectification orders

(1) Whether the council is aware that—

a) an affected building notice is in force in relation to the land, or

b) a building product rectification order is in force in relation to the land that has not been fully complied with, or

c) a notice of intention to make a building product rectification order given in relation to the land is outstanding.

(2) In this section—
***affected building notice* has the same meaning as in the *Building Products (Safety) Act 2017*, Part 4.**
***building product rectification order* has the same meaning as in the *Building Products (Safety) Act 2017*.**

Council **is not aware of an issue** of a notice of intention or order pertaining to building product rectification works (Building Products Safety Act 2017).

7 Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in section 1 makes provision in relation to the acquisition of the land by an authority of the State, as referred to in section 3.15.

The land **is not affected** by any provision in an environmental planning instrument, deemed environmental planning instrument or draft environmental planning instrument that provides for the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

8 Road widening and road realignment

Whether or not the land is affected by any road widening or road realignment under:

(a) The *Roads Act 1993*, Part 3, Division 2, or

The land **is not affected by** any road widening or road realignment under Division 2 of Part 3 of the *Roads Act 1993.*

(b) Any environmental planning instrument, or

The land **is not affected by** any road widening or road realignment under any environmental planning instrument.

(c) Any resolution of the council

The land **is not affected by** any road widening or road realignment under any resolution of the Council.

9 Flood related development controls

(1) If the land or part of the land is within the flood planning area and subject to flood related development controls.

The land or part of the land **is not** within the flood planning area and subject to flood related development controls.

(2) If the land or part of the land is between the flood planning area and the probable maximum flood and subject to flood related development controls.

The land or part of the land **is not** between the flood planning area and the probable maximum flood and subject to flood related development controls.

Note: (1) Further information relating to flooding is provided in the "Advice under Section 10.7 (5)" attached.

Note:
(1) The answers above do not imply that the development referred to is necessarily permissible on the land to which this certificate applies. Refer to the relevant local environmental plan, deemed environmental planning instrument or draft local environmental plan applying to the land to confirm this.
(2) Council is not in a position to identify whether the information provided under section 9 relates to a current or future hazard as defined in Planning Circular PS 14-003.

(3) In this section—
***flood planning area* has the same meaning as in the Floodplain Development Manual.**
***Floodplain Development Manual* means the Floodplain Development Manual (ISBN 0 7347 5476 0) published by the NSW Government in April 2005.**
***probable maximum flood* has the same meaning as in the Floodplain Development Manual.**

10 Council and other public authority policies on hazard risk restrictions

(1) Whether any of the land is affected by an adopted policy that restricts the development of the land because of the likelihood of land slip, bush fire, tidal inundation, subsidence, acid sulfate soils, contamination, aircraft noise, salinity, coastal hazards, sea level rise or another risk, other than flooding.

(2) In this section—

***adopted policy* means a policy adopted—**
- **(a) by the council, or**
- **(b) by another public authority, if the public authority has notified the council that the policy will be included in a planning certificate issued by the council.**

This land has been identified by the former City of Botany Bay Council's Sea Level Rise Policy (Policy) and Botany Bay Development Control Plan 2013 (DCP) as having a future exposure to coastal inundation and/or tidal inundation. The Policy and DCP adopt the following bench marks: 0.4 metres above the Australian Height Datum (AHD) by 2050 and 0.9 metres above AHD by 2100. The Policy and DCP controls rely on inundation mapping prepared by the Sydney Coastal Council's Group and adopted by the former City of Botany Bay Council on 20 October 2015, at the same time of Council adopting the Policy. The inundation mapping reflects information available at the time.

As well as there being existing controls under the DCP applying to this land as a result of its future exposure to coastal inundation and or tidal inundation, under the Policy, amongst other things, Bayside Council is also obliged to consider the effect of climate change when determining development applications and in the preparation of planning instruments policies and flood studies. Additional requirements over and above existing DCP controls may therefore apply to proposed developments on this land. Contact Council for more information.

Note: In relation to current coastal tidal inundation Council will provide further information upon application to it for a certificate under Section 10.7(5).

Prior to the commencement of *State Environmental Planning Policy (Transport and Infrastructure) 2021* (formally known as the *State Environmental Planning Policy (Three Ports) 2013*), the following former City of Botany Bay Council policies applied to the land:

- Transport risk along Denison Street and Stephen Road, and risk from industrial operations as outlined in Section 2.7 of Development Control Plan No. 33 – Industrial Development;
- Aircraft Noise DCP; and
- DCP No. 34 Contaminated Land.

Upon the coming into effect of the Policy, those plans ceased to apply, but the hazards they addressed remain. Pending the adoption of a new comprehensive DCP for the area covered by

the Policy, Council (as the consent authority) will continue to have regard to those former policies in considering development applications.

Please note that the former City of Botany Bay Council at its meeting held on 11 December 2013 resolved to prepare a draft Development Control Plan (DCP) for the land covered by *State Environmental Planning Policy (Transport and Infrastructure) 2021* in accordance with the Instrument of Delegation dated 20 November 2013 from the then Department of Planning & Infrastructure. The DCP is currently under preparation by Council.

The site is affected by the former City of Botany Bay Council's Policy on Acid Sulfate Soils. Please refer to the former City of Botany Bay Council's Fact Sheet - Advice on Acid Sulfate Soils.

11 Bush fire prone land

(1) If any of the land is bush fire prone land, designated by the Commissioner of the NSW Rural Fire Service under the Act, section 10.3, a statement that all or some of the land is bush fire prone land.

(2) If none of the land is bush fire prone land, a statement to that effect.

The land **is not** bush fire prone land.

12 Loose-fill asbestos insulation

If the land includes residential premises, within the meaning of the *Home Building Act 1989*, Part 8, Division 1A, that are listed on the Register kept under that Division, a statement to that effect.

The land **is not** so listed.

13 Mine subsidence

Whether or not the land is proclaimed to be a mine subsidence district within the meaning *Coal Mine Subsidence Compensation Act 2017*.

The land **is not** so proclaimed.

14 Paper subdivision information

(1) The name of a development plan adopted by a relevant authority that or that –
- **(a) applies to the land, or**
- **(b) is proposed to be subject to a ballot.**

(2) The date of a subdivision order that applies to the land.

(3) Words and expressions used in this section have the same meaning as in this Regulation, Part 10 and the Act, Schedule 7.

The land **is not** so affected.

15 Property vegetation plans

If the land is land in relation to which a property vegetation plan is approved and in force under the *Native Vegetation Act 2003*, Part 4, a statement to that effect, but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act.

The land **is not** land to which a property vegetation plan applies.

16 Biodiversity stewardship sites

If the land is a biodiversity stewardship site under a biodiversity stewardship agreement under the Biodiversity Conservation Act 2016, Part 5, a statement to that effect, but only if the council has been notified of the existence of the agreement by the Biodiversity Conservation Trust.

Note— *Biodiversity stewardship agreements include biobanking agreements under the Threatened Species Conservation Act 1995, Part 7A that are taken to be biodiversity stewardship agreements under the Biodiversity Conservation Act 2016, Part 5.*

The land **is not** subject to any such agreement.

17 Biodiversity certified land

If the land is biodiversity certified land under the Biodiversity Conservation Act 2016, Part 8, a statement to that effect.

Note— *Biodiversity certified land includes land certified under the Threatened Species Conservation Act 1995, Part 7AA that is taken to be certified under the Biodiversity Conservation Act 2016, Part 8..*

The land **is not** biodiversity certified land.

18 Orders under *Trees (Disputes Between Neighbours) Act 2006*

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land, but only if the council has been notified of the order.

The land **is not** subject to such an order.

19 Annual charges under *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works

(1) **If the *Coastal Management Act 2016* applies to the council, whether the owner, or a previous owner, of the land has given written consent to the land being subject to annual charges under the Local Government Act 1993, section 496B, for coastal protection services that relate to existing coastal protection works.**

(2) **In this section—**
***existing coastal protection works* has the same meaning as in the *Local Government Act 1993*, section 553B.**
Note— Existing coastal protection works are works to reduce the impact of coastal hazards on land, such as seawalls, revetments, groynes and beach nourishment, that existed before 1 January 2011.

The land **is not** subject to annual charges.

20 State Environmental Planning Policy (Western Sydney Aerotropolis) 2020

Whether under *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020* the land is—

(a) in an ANEF or ANEC contour of 20 or greater, as referred to in that Policy, clause 19, or
(b) shown on the Lighting Intensity and Wind Shear Map, or
(c) shown on the Obstacle Limitation Surface Map, or
(d) in the "public safety area" on the Public Safety Area Map, or
(e) in the "3 kilometre wildlife buffer zone" or the "13 kilometre wildlife buffer zone" on the Wildlife Buffer Zone Map.

The land **is not** subject to the *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020*.

21 Development consent conditions for seniors housing

If *State Environmental Planning Policy (Housing) 2021*, Chapter 3, Part 5 applies to the land, any conditions of a development consent granted after 11 October 2007 in relation to the land that are of the kind set out in that Policy, clause 88(2).

The land **is not subject to** any such statement.

22 Site compatibility certificates and development consent conditions for affordable rental housing

(1) Whether there is a current site compatibility certificate under *State Environmental Planning Policy (Housing) 2021*, or a former site compatibility certificate, of which the council is aware, in relation to proposed development on the land and, if there is a certificate—
(a) the period for which the certificate is current, and
(b) that a copy may be obtained from the Department.

The land **is not subject to** any such certificate.

(2) If *State Environmental Planning Policy (Housing) 2021*, Chapter 2, Part 2, Division 1 or 5 applies to the land, any conditions of a development consent in relation to the land that are of a kind referred to in that Policy, clause 21(1) or 40(1).

The land **is not** subject to any such statement.

(3) Any conditions of a development consent in relation to land that are of a kind referred to in *State Environmental Planning Policy (Affordable Rental Housing) 2009*, clause 17(1) or 38(1).

The land **is not** subject to any such statement.

(4) In this section—
former site compatibility certificate* means a site compatibility certificate issued under *State Environmental Planning Policy (Affordable Rental Housing) 2009.

Section 59(2) Contaminated Land Management Act 1997

Note: The following matters are prescribed by section 59 (2) of *the Contaminated Land Management Act 1997* as additional matters to be specified in a planning certificate:

(a) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act—if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued;

Not applicable

(b) that the land to which the certificate relates is subject to a management order within the meaning of that Act—if it is subject to such an order at the date when the certificate is issued;

Not applicable

(c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act—if it is the subject of such an approved proposal at the date when the certificate is issued;

Not applicable

(d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act—if it is subject to such an order at the date when the certificate is issued; and

Not applicable

(e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act—if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

Not applicable

[End of information under section 10.7 (2)]

ADVICE UNDER SECTION 10.7 (5)

Note: The Council is under no obligation to furnish any of the information supplied below. Equally, it may be that not every relevant matter relating to the land is provided below. The Council draws your attention to section 10.7 (6) which states that a council shall not incur any liability in respect of any advice provided in good faith under section 10.7 (5).

Further to your application for information under section 10.7 (5), the Council has resolved to supply answers to the following questions:

A Whether or not the Council has information that would indicate that the land is subject to the risk of flooding or tidal inundation for a 1% annual exceedance probability (AEP) (1 in 100 Year) event

The Council **is aware** of various information that suggests the land may be affected by the 1% AEP flood. The Council is unaware of the accuracy of this information, although further enquiries may be made with the Council's City Services Department in relation to this.

Note: Refer to Question 7A of the preceding certificate under section 10.7 (2) to ascertain whether or not development on the land may be subject to flood related development controls.

B Whether or not the Council has information that would indicate that the land is subject to slip or subsidence

The Council **is not aware** of any investigations that have been carried out.

C Whether or not the land is in the vicinity of a heritage item or heritage conservation area identified in an environmental planning instrument or a proposed heritage item or proposed heritage conservation area identified in a draft local environmental plan

The land **is not in the vicinity of** a heritage item or heritage conservation area identified in an environmental planning instrument or a proposed heritage item or proposed heritage conservation area identified in a draft local environmental plan.

D Whether or not a planning agreement entered into under Subdivision 2 of Division 7.1 of Part 7 of the Environmental Planning and Assessment Act 1979 currently applies to the land (but only if, where the Council is not a party to the agreement, information about the agreement has been provided to the Council)

No planning agreement currently applies to the land.

E Details of the Annual Noise Exposure Forecast (ANEF) applying to the land

The property is between the **30 and 35 ANEF** (2039) contours.

Note: The ANEF level may restrict the development of the land due to the risk of exposure to aircraft noise.

F Information that indicates whether or not any additional hazards exist for which no policy of council exists to restrict development

This land is currently subject to coastal/tidal inundation based upon the Sydney Coastal Councils Group Sea Level Rise Inundation existing map relative to the 1990 Sea Level prepared by CSIRO for the Sydney Coastal Councils Group. Please contact Council for additional information.

G Restrictions of the use of groundwater contained within the Botany Sands Aquifer

The NSW Department of Planning & Environment has published a map showing areas where the use of groundwater is restricted to various degrees, including total prohibition of use in certain areas. For further information, please visit www.industry.nsw.gov.au/water/science/groundwater.

H The following policies may be applicable to the land:

Not applicable

[End of advice under Section 10.7 (5)]

ALTERATIONS AND ADDITIONS TO BUILDINGS

Purchasers are reminded that it is necessary to obtain development consent from the Council prior to carrying out any building alterations or additions, including brick reskinning, replacing windows or internal alterations, or for the demolition of any building, unless the proposed work is specifically exempted by *Bayside Local Environmental Plan 2021* or *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*. All other building work does require the Council's approval.

Should you require any information or advice for any building work that you propose to undertake please contact the Council's Customer Service Centre on 1300 581 299.

Appendix E Background Searches

Public registers

+ POEO Public Register
– Contaminated land record of notices
  About the record of notices
  List of notified sites
  Tips for searching
  Disclaimer
Dangerous goods licences
Pesticide licences
Radiation licences

Home Public registers Contaminated land record of notices

Search results

Your search for: LGA: BAYSIDE COUNCIL

Matched 122 notices relating to 22 sites.

Search Again Refine Search

Suburb	Address	Site Name	Notices related to this site
BANKSMEADOW	1801 Botany ROAD	Discovery Cove, Former Ampol Rail Terminal	1 current
BANKSMEADOW	Coal Pier ROAD	Former Mobil Banksmeadow Terminal	1 former
BANKSMEADOW	Denison STREET	Orica Botany (Pre-2003 Regulation)	12 former
BANKSMEADOW	16-20 Beauchamp ROAD	Orica Botany Groundwater Project	6 current and 27 former
BANKSMEADOW	McPherson Street and Nant STREET	Section of ICI Southlands	4 former
BOTANY	49-61 Stephen ROAD	Allnex	4 current and 2 former
BRIGHTON-LE-SANDS	General Holmes DRIVE	Cook Park	6 former
BRIGHTON-LE-SANDS	2 General Holmes DRIVE	Shell Service Station Brighton Le Sands & adjacent land	4 former
EASTLAKES	102 Maloney STREET	Budget Petroleum Eastlakes	5 former
EASTLAKES	Evans AVENUE	Eastlakes Reserve	4 former
EASTLAKES	275-279 Gardeners ROAD	Former Shell Rosebery service station and adjacent land	2 former
KOGARAH	734 Princes HIGHWAY	Former 7-Eleven Kogarah	1 current
MASCOT	336-348 King STREET	Former Mascot Galvanising	5 current and 2 former
MASCOT	746 Botany ROAD	Former Shell Service Station Mascot	9 former
MASCOT	25-29 Ricketty STREET	Mascot Pioneer Plating	1 current
PAGEWOOD	Corner of Page Street and Holloway STREET	Former Email Site	1 current and 10 former
ROSEBERY	321 Gardeners (Cnr Macquarie St) ROAD	Caltex Rosebery Service Station	4 former
ROSEBERY	395 Gardeners ROAD	Rosebery Service Station	6 former
SANS SOUCI	520 Rocky Point ROAD	BP Sans Souci	2 current
SANS SOUCI	368 Rocky Point ROAD	Former 7-Eleven Ramsgate	2 former

1 2

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7 March 2022

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
BOOLAROO	Cardiff West Estate - Pasminco Cockle Creek	Adjacent to PCC Smelter at 13A Main ROAD	Metal Industry	Regulation under CLM Act not required	-32.93950137	151.6349183
BOOLAROO	Cockle Creek and Cockle Bay Sediments	Off Creek Reserve ROAD	Metal Industry	Contamination currently regulated under CLM Act	-32.96079541	151.6141327
BOOLAROO	Pasminco Cockle Creek Smelter	Lake ROAD	Metal Industry	Ongoing maintenance required to manage residual contamination (CLM Act)	-32.94434593	151.6307345
BOOLAROO	Incitec Pivot	13 Main STREET	Other Industry	Contamination formerly regulated under the CLM Act	-32.94803538	151.6302187
BOOLAROO	Bunnings Site - Pasminco Cockle Creek	13a Main ROAD	Metal Industry	Contamination formerly regulated under the CLM Act	-32.94364503	151.6252316
BOOLAROO	Part Lot 2 DP1127713 (proposed Lot G) - Pasminco Cockle Creek Smelter site	13a Main ROAD	Metal Industry	Contamination formerly regulated under the CLM Act	-32.94404392	151.6267695
BOOLAROO	Lot 600 DP1228699 (formerly Part Lot 2 DP1127713 & proposed 'Lot D') - Pasminco Cockle Creek Smelter site	Main ROAD	Metal Industry	Contamination formerly regulated under the CLM Act	-32.94440875	151.6264143
BOOROWA	Former Mobil Depot	14-16 Brial STREET	Other Petroleum	Regulation under CLM Act not required	-34.43673234	148.7300821
BOOROWA	Mobil Service Station	63-69 Marsden STREET	Service Station	Contamination formerly regulated under the CLM Act	-34.44157331	148.7162391
BOOROWA	Boorowa Service Station	84 Marsden STREET	Service Station	Under assessment	-34.443029	148.715109
BOTANY	Former Aerosols of Australia	1617 Botany ROAD	Chemical Industry	Regulation under CLM Act not required	-33.9529386	151.2037468
BOTANY	Allnex	49-61 Stephen ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.9524442	151.2106446
BOTANY	Former Tannery	2 Daniel STREET	Other Industry	Regulation under CLM Act not required	-33.94126194	151.1991087
BOTANY	Botany, Underwood	14a Underwood AVENUE	Unclassified	Contamination being managed via the planning process (EP&A Act)	-33.94508532	151.1947626
BOTANY	Roads and Maritime Service	5 - 9 Lord STREET	Other Industry	Regulation under CLM Act not required	-33.94100279	151.1968763

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
BOTANY	Former Industrial Site	28 Folkestone PARADE	Unclassified	Contamination being managed via the planning process (EP&A Act)	-33.95187539	151.1960537
BOURKE	Caltex Service Station	82-86 Anson STREET	Service Station	Regulation under CLM Act not required	-30.09500388	145.9414388
BOURKE	Former Shell Bourke Depot	94-106 Anson STREET	Service Station	Regulation under CLM Act not required	-30.09548497	145.9436745
BOWENFELS	Bowenfels Field Support Centre	9-13 Cooerwull ROAD	Other Petroleum	Regulation under CLM Act not required	-33.47514572	150.1323899
BOWRAL	Shell Coles Express Bowral Service Station	430 Bong Bong STREET	Service Station	Regulation under CLM Act not required	-34.48269596	150.417389
BOWRAL	Former Gasworks	Merrigang STREET	Gasworks	Contamination currently regulated under CLM Act	-34.4783957	150.4255053
BOX HILL	Former Waste Management Facility	25 Terry ROAD	Landfill	Regulation under CLM Act not required	-33.65559259	150.8977986
BOX HILL	Former Poultry Farm	27-33 Boundary ROAD	Other Industry	Regulation under CLM Act not required	-33.64866563	150.8815467
BOX HILL	Former Poultry Farm	19-25 Boundary ROAD	Other Industry	Regulation under CLM Act not required	-33.65038071	150.8813725
BRANXTON	Former Service Station Branxton	Part of 70 Maitland STREET	Service Station	Contamination currently regulated under CLM Act	-32.65631582	151.3516243
BRANXTON	Branxton Wastewater Treatment Works	2151 New England HIGHWAY	Other Industry	Regulation under CLM Act not required	-32.66069944	151.3625572
BREWARRINA	Dowell's Fuel	39 Doyle STREET	Service Station	Regulation under CLM Act not required	-29.96152786	146.8612561
BRIGHTON-LE-SANDS	Shell Service Station Brighton Le Sands & adjacent land	2 General Holmes DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-33.95791132	151.1576486
BRIGHTON-LE-SANDS	Cook Park	General Holmes DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-33.9581072	151.1579572
BROADMEADOW	Former Industrial Site	16 Broadmeadow ROAD	Service Station	Regulation under CLM Act not required	-32.91444096	151.7300112

Number	Name	Location	Type	Status	Issued date
12310	ABBOTT AUSTRALASIA PTY LTD	32-34 Lord Street, BOTANY, NSW 2019	POEO licence	No longer in force	15-Oct-07
993	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	POEO licence	Issued	11-Aug-00
1018731	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	10-Jul-02
1028864	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	31-Jul-03
1077663	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	19-Sep-07
1104799	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	24-May-10
1126931	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	17-Jun-11
3085765349	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	Penalty Notice	Issued	3-Sep-12
1504497	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	27-Mar-13
1530981	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	16-Jun-15
1531492	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	17-Jul-15
1536419	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	11-Dec-15
1541012	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	3-Jun-16
1541383	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	22-Jul-16
1556899	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	26-Feb-18
1609907	ALLNEX RESINS AUSTRALIA PTY LTD	49-61 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	26-Jul-21
13112	AUSGRID	Botany Bay, La Perouse Headland, BOTANY, NSW 2019	POEO licence	Surrendered	30-Jun-09

13074	AUSGRID	Botany Bay Shipping Channel, BOTANY, NSW 2019	POEO licence	Surrendered	1-Jul-09
1103715	AUSGRID	Botany Bay Shipping Channel, BOTANY, NSW 2019	s.58 Licence Variation	Issued	2-Jul-09
1103950	AUSGRID	Botany Bay Shipping Channel, BOTANY, NSW 2019	s.58 Licence Variation	Issued	9-Jul-09
1104769	AUSGRID	Botany Bay Shipping Channel, BOTANY, NSW 2019	s.58 Licence Variation	Issued	7-Aug-09
1509118	AUSGRID	Botany Bay Shipping Channel, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	16-Nov-12
1524275	AUSGRID	Botany Bay, La Perouse Headland, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	3-Oct-14
1180	BORAL RESOURCES (NSW) PTY LTD	CORNER BAKER AND ANDERSON STREETS, BOTANY, NSW 2019	POEO licence	No longer in force	22-Aug-00
1007724	BORAL RESOURCES (NSW) PTY LTD	CORNER BAKER AND ANDERSON STREETS, BOTANY, NSW 2019	s.58 Licence Variation	Issued	5-Jul-01
3466	ECOLAB WATER CARE SERVICES PTY LIMITED	19-21 HALE STREET, BOTANY, NSW 2019	POEO licence	No longer in force	7-Feb-00
1024453	ECOLAB WATER CARE SERVICES PTY LIMITED	19-21 HALE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	31-Jan-03
1048395	ECOLAB WATER CARE SERVICES PTY LIMITED	19-21 HALE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	1-Jun-05
11790	GEON AUSTRALIA PTY LTD	16-20 BAKER STREET, BOTANY, NSW 2019	POEO licence	No longer in force	20-Nov-02
1026096	GEON AUSTRALIA PTY LTD	16-20 BAKER STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	26-Mar-03
1045062	GEON AUSTRALIA PTY LTD	16-20 BAKER STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	8-Mar-05
1048340	GEON AUSTRALIA PTY LTD	16-20 BAKER STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	31-May-05
3173529444	HTP GROUP PTY LTD	1212 BOTANY ROAD, BOTANY, NSW 2019	Penalty Notice	Issued	21-Sep-20
1007599	HY-TEC INDUSTRIES PTY LTD	71 STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	13-Aug-01
1194	JAMES HUNTER & SONS PTY LTD	1 IVY STREET, BOTANY, NSW 2019	POEO licence	Surrendered	6-Jul-00

1015224	JAMES HUNTER & SONS PTY LTD	1 IVY STREET, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	20-Feb-02
12923	JAN DE NUL NV	Penrhyn Road, BOTANY, NSW 2019	POEO licence	Surrendered	7-Aug-08
1093649	JAN DE NUL NV	Penrhyn Road, BOTANY, NSW 2019	s.58 Licence Variation	Issued	12-Nov-08
1095819	JAN DE NUL NV	Penrhyn Road, BOTANY, NSW 2019	s.58 Licence Variation	Issued	10-Dec-08
1097579	JAN DE NUL NV	Penrhyn Road, BOTANY, NSW 2019	s.58 Licence Variation	Issued	27-Feb-09
1101394	JAN DE NUL NV	Penrhyn Road, BOTANY, NSW 2019	s.58 Licence Variation	Issued	4-Jun-09
1117261	JAN DE NUL NV	Penrhyn Road, BOTANY, NSW 2019	s.58 Licence Variation	Issued	26-Jul-10
1119813	JAN DE NUL NV	Penrhyn Road, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	27-Sep-10
7085	JUNCTION PLATING (HOLDINGS) PTY LTD	17 UNDERWOOD AVE, BOTANY, NSW 2019	POEO licence	Surrendered	26-Jun-00
1016913	JUNCTION PLATING (HOLDINGS) PTY LTD	17 UNDERWOOD AVE, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	2-May-02
823	KELLOGG (AUST.) PTY. LTD.	SWINBOURNE STREET, BOTANY, NSW 2019	POEO licence	Issued	26-Jun-00
1010684	KELLOGG (AUST.) PTY. LTD.	SWINBOURNE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	20-Mar-02
1019785	KELLOGG (AUST.) PTY. LTD.	SWINBOURNE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	14-Aug-02
1026127	KELLOGG (AUST.) PTY. LTD.	SWINBOURNE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	29-May-03
1056807	KELLOGG (AUST.) PTY. LTD.	SWINBOURNE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	7-Mar-06
1072209	KELLOGG (AUST.) PTY. LTD.	SWINBOURNE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	21-Sep-07
1103979	KELLOGG (AUST.) PTY. LTD.	SWINBOURNE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	12-Oct-09
1511562	KELLOGG (AUST.) PTY. LTD.	SWINBOURNE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	30-May-13
1606804	KELLOGG (AUST.) PTY. LTD.	SWINBOURNE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	9-Apr-21
6457	MOBIL OIL AUSTRALIA PTY LTD	STEPHEN ROAD, BOTANY, NSW 2019	POEO licence	Surrendered	14-Nov-00
1008677	MOBIL OIL AUSTRALIA PTY LTD	STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	17-Jun-02
1056320	MOBIL OIL AUSTRALIA PTY LTD	STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	13-Apr-06
1072518	MOBIL OIL AUSTRALIA PTY LTD	STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	20-Jul-07

1084948	MOBIL OIL AUSTRALIA PTY LTD	STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	14-Jul-09
1119624	MOBIL OIL AUSTRALIA PTY LTD	STEPHEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	22-Sep-10
1544155	MOBIL OIL AUSTRALIA PTY LTD	STEPHEN ROAD, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	10-Apr-17
7621	PASCOL PAINTS AUST PTY LTD	9-17 BYRNES STREET, BOTANY, NSW 2019	POEO licence	Surrendered	20-Sep-00
1015924	PASCOL PAINTS AUST PTY LTD	9-17 BYRNES STREET, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	25-Mar-02
6766	PLATYPUS LEATHER INDUSTRIES PTY LTD	11 TENTERDEN ROAD, BOTANY, NSW 2019	POEO licence	Surrendered	28-Dec-00
1044539	PLATYPUS LEATHER INDUSTRIES PTY LTD	11 TENTERDEN ROAD, BOTANY, NSW 2019	s.58 Licence Variation	Issued	22-Feb-05
1048556	PLATYPUS LEATHER INDUSTRIES PTY LTD	11 TENTERDEN ROAD, BOTANY, NSW 2019	s.91 Clean Up Notice	Issued	27-Oct-05
1054308	PLATYPUS LEATHER INDUSTRIES PTY LTD	11 TENTERDEN ROAD, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	20-Dec-05
6712	PYLON COATINGS PTY LIMITED	6 MARGATE STREET, BOTANY, NSW 2019	POEO licence	No longer in force	27-Jun-00
1043613	PYLON COATINGS PTY LIMITED	6 MARGATE STREET, BOTANY, NSW 2019	s.58 Licence Variation	Issued	7-Jan-05
20322	Sydney International Container Terminals Pty Ltd	Port Botany Gate, B150-153, Sirius Road, off Foreshore Road, BOTANY, NSW 2019	POEO licence	Issued	14-Oct-13
1522168	Sydney International Container Terminals Pty Ltd	Port Botany Gate, B150-153, Sirius Road, off Foreshore Road, BOTANY, NSW 2019	s.58 Licence Variation	Issued	17-Jun-14
1543811	Sydney International Container Terminals Pty Ltd	Port Botany Gate, B150-153, Sirius Road, off Foreshore Road, BOTANY, NSW 2019	s.58 Licence Variation	Issued	1-Sep-16
3300	TALLOW PRODUCTS PTY LTD	55 PEMBERTON STREET, BOTANY, NSW 2019	POEO licence	Surrendered	15-Feb-00
1011770	TALLOW PRODUCTS PTY LTD	55 PEMBERTON STREET, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	3-Oct-01
1791	THE COUNCIL OF THE CITY OF BOTANY BAY	CNR JASMINE AND MYRTLE STREETS, BOTANY, NSW 2019	POEO licence	Surrendered	25-Sep-00
1008451	THE COUNCIL OF THE CITY OF BOTANY BAY	CNR JASMINE AND MYRTLE STREETS, BOTANY, NSW 2019	s.58 Licence Variation	Issued	6-Aug-01
1039173	THE COUNCIL OF THE CITY OF BOTANY BAY	CNR JASMINE AND MYRTLE STREETS, BOTANY, NSW 2019	s.58 Licence Variation	Issued	25-Aug-04

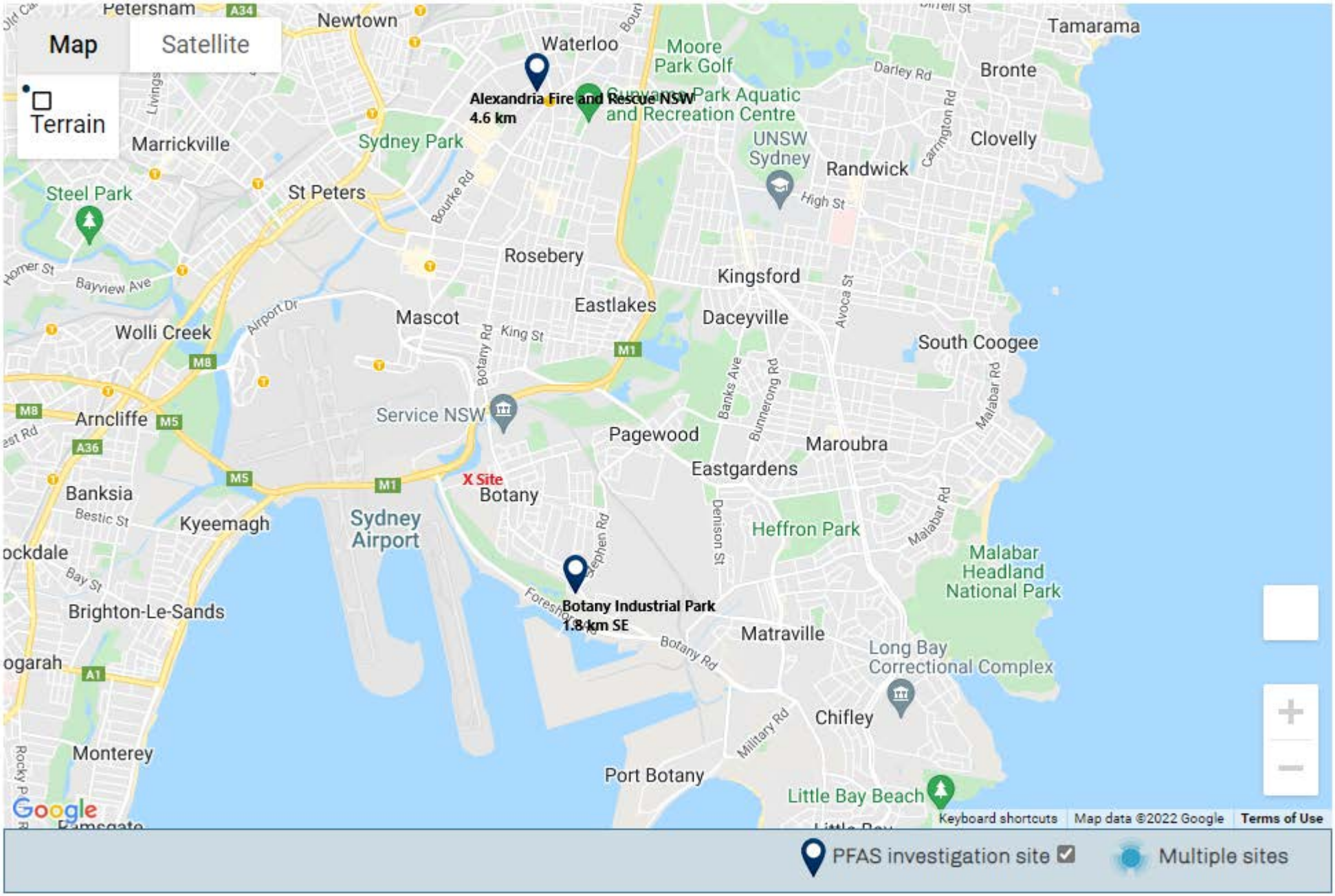
1043527	THE COUNCIL OF THE CITY OF BOTANY BAY	CNR JASMINE AND MYRTLE STREETS, BOTANY, NSW 2019	s.58 Licence Variation	Issued	15-Mar-05
1066076	THE COUNCIL OF THE CITY OF BOTANY BAY	CNR JASMINE AND MYRTLE STREETS, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	12-Oct-06
1103717	VISCAS CORPORATION	Botany Bay, La Perouse Headland, BOTANY, NSW 2019	s.58 Licence Variation	Issued	2-Jul-09
1108653	VISCAS CORPORATION	Botany Bay, La Perouse Headland, BOTANY, NSW 2019	s.58 Licence Variation	Issued	13-Jan-10
1117369	VISCAS CORPORATION	Botany Bay, La Perouse Headland, BOTANY, NSW 2019	s.58 Licence Variation	Issued	15-Jul-10
3984	VISY PAPER PTY. LTD.	CORNER MOORE & BAKER STREETS, BOTANY, NSW 2019	POEO licence	Surrendered	18-Jun-01
1037722	VISY PAPER PTY. LTD.	CORNER MOORE & BAKER STREETS, BOTANY, NSW 2019	s.58 Licence Variation	Issued	24-Dec-04
1095629	VISY PAPER PTY. LTD.	CORNER MOORE & BAKER STREETS, BOTANY, NSW 2019	s.58 Licence Variation	Issued	19-Dec-08
1508927	VISY PAPER PTY. LTD.	CORNER MOORE & BAKER STREETS, BOTANY, NSW 2019	s.80 Surrender of a Licence	Issued	21-Nov-12
2549	WESCO READY MIXED CONCRETE (NSW) PTY LTD	71 STEPHEN ROAD, BOTANY, NSW 2019	POEO licence	No longer in force	2-Mar-00

Map view | List view

Filter by | No filter set

Showing 2 of 49 sites

Reset map





Search Results

new search edit search

10 results found.

Botany Bay Foreshore Rd	Botany, NSW, Australia	(Nomination now ineligible for PPAL) National Heritage List
Botany Fire Station 3 Banksia St	Botany, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Botany Post Office 2 Banksia St	Botany, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Botany Post Office 2 Banksia St	Botany, NSW, Australia	(Listed place) Commonwealth Heritage List
Botany Swamps Southern Cross Dr	Mascot, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Sir Joseph Banks Hotel (former) 23 Anniversary Rd	Botany, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Southern & Western Suburbs Ocean Outfall Sewers Perimeter Rd	Sydney Airport, NSW, Australia	(Interim List) Register of the National Estate (Non-statutory archive)
St Matthews Anglican Church Botany Rd	Botany, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Sydney (Kingsford Smith) Airport Group Airport Dr	Sydney Airport, NSW, Australia	(Interim List) Register of the National Estate (Non-statutory archive)
Sydney (Kingsford Smith) Airport Group Airport Dr	Sydney Airport, NSW, Australia	(Indicative Place) Commonwealth Heritage List

Report Produced: Mon Mar 7 14:35:04 2022

Section 1: Aboriginal Places listed under the National Parks and Wildlife Act

Contains Aboriginal Places declared by the Minister for the Environment under the National Parks and Wildlife Act. This information is provided by the Heritage NSW.

0 items

Section 2: Items listed under the NSW Heritage Act

Contains heritage items listed by the Heritage Council of NSW under the NSW Heritage Act. This includes listing on the State Heritage Register, an Interim Heritage Order or protected under section 136 of the NSW Heritage Act. This information is provided by the Heritage NSW.

2 items

Records Retrieved: 2

Item Name ▲	Location	Local Government Area	Type	SHR ID
Botany Water Reserves	1024 Botany Road MASCOT NSW 2020	Bayside	Landscape	01317
Sir Joseph Banks Hotel (former)	23 Anniversary Street BOTANY NSW 2019	Bayside	Complex / Group	00076

1

Page 1 of 1 10 Items per page

Section 3: Items listed by Local Government and State Agencies

Contains items listed by local councils on Local Environmental Plans under the Environmental Planning and Assessment Act, 1979 and State government agencies under s.170 of the Heritage Act. This information is provided by local councils and State government agencies.

82 items

Item Name ▲	Location	Local Government Area	Type	Record owner
Alignment Pin, Botany	Botany Road, SW cnr Fremlin Street BOTANY NSW 2019	Bayside	Built	SGOV
Banksmeadow Public School	Brighton Street BOTANY NSW 2019	Bayside	Built	LGOV
Banksmeadow Public School - Building B00A, B00B and B00S	60 Brighton Street BOTANY NSW 2019	Bayside	Built	SGOV
Banksmeadow Public School - Building B00A, B00B and B00S	60 Brighton Street BOTANY NSW 2019	Bayside	Built	SGOV
Boarding House (front buildings)	1443 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
Booralee Park	Bounded by Sydenham Railway Line and Daniel, Bay, Lord, Myrtle and Jasmine Streets BOTANY NSW 2019	Bayside	Landscape	LGOV
Botany Fire Station	1-3 Banksia Street BOTANY NSW 2019	Bayside	Built	LGOV
Botany Fire Station	3 Banksia Street BOTANY NSW 2019	Bayside	Built	SGOV
Botany Public School	1076 Botany Road BOTANY NSW 2019	Bayside	Complex / Group	SGOV
Botany Public School	1076 Botany Road BOTANY NSW 2019	Bayside	Complex / Group	SGOV
Botany Public School - Buildings B00A, B00B and B00C	1076 Botany Road BOTANY NSW 2019	Bayside	Built	SGOV
Botany Public School - Buildings B00A, B00B and B00C	1076 Botany Road BOTANY NSW 2019	Bayside	Built	SGOV
Botany Public School (c.1869)	Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
Botany Town Hall and Council Chambers	1423 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
Botany Township	BOTANY NSW 2019	Bayside	Complex / Group	LGOV

Botany Township Heritage Conservation Area	Botany Township Botany Road BOTANY NSW 2019	Bayside	Conservation Area	LGOV
Botany Uniting Church	1355 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
Canary Island Date Palms (Phoenix canariensis)	23 Byrnes Street BOTANY NSW 2019	Bayside	Landscape	LGOV
Captain Cook Hotel	1114 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
Commercial / Residential Building	1226 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
Corner Store - Alto	50 - 52 Bay Street BOTANY NSW 2019	Bayside	Built	LGOV
Electricity Substation No. 153	14 Byrnes Street BOTANY NSW 2019	Bayside	Built	SGOV
Electricity Substation No. 153	14 Byrnes Street BOTANY NSW 2019	Bayside	Built	LGOV
Electricity Substation No. 340	3 William Street BOTANY NSW 2019	Bayside	Built	SGOV
Electricity Substation No. 340	3 William Street BOTANY NSW 2019	Bayside	Complex / Group	LGOV
Finnies Buildings	1094-1098 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
Former Headmasters Residence (Banksmeadow Public School)	60 Brighton Street BOTANY NSW 2019	Bayside	Built	LGOV
Hippo's Friends Child Care Centre	1082 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
House	135 Bay Street BOTANY NSW 2019	Bayside	Built	LGOV
House	145 Bay Street BOTANY NSW 2019	Bayside	Built	LGOV
House	147 Bay Street BOTANY NSW 2019	Bayside	Built	LGOV
House	6 Banksia Street BOTANY NSW 2019	Bayside	Built	LGOV
House	7 Banksia Street BOTANY NSW 2019	Bayside	Built	LGOV

House	8 Banksia Street BOTANY NSW 2019	Bayside	Built	LGOV
House	47 Banksia Street BOTANY NSW 2019	Bayside	Built	LGOV
House	16 Bay Street BOTANY NSW 2019	Bayside	Built	LGOV
House	19 Bay Street BOTANY NSW 2019	Bayside	Built	LGOV
House	1447 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
House	1365 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
House	31 Cranbrook Street BOTANY NSW 2019	Bayside	Built	LGOV
House	35 Cranbrook Street BOTANY NSW 2019	Bayside	Built	LGOV
House	37 Cranbrook Street BOTANY NSW 2019	Bayside	Built	LGOV
House	16 Tenterden Road BOTANY NSW 2019	Bayside	Built	LGOV
House	50 Tenterden Road BOTANY NSW 2019	Bayside	Built	LGOV
House	54 Tenterden Road BOTANY NSW 2019	Bayside	Built	LGOV
House	2 Woodstock Street BOTANY NSW 2019	Bayside	Built	LGOV
House	84 Tenterden Road BOTANY NSW 2019	Bayside	Built	LGOV
House - Helena	1424 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
House (The White House)	151 Bay Street BOTANY NSW 2019	Bayside	Built	LGOV
House Group	165-179 Bay Street BOTANY NSW 2019	Bayside	Built	LGOV

House Group	10-14 Bay Street BOTANY NSW 2019	Bayside	Built	LGOV
House Group	45-57 Bay Street BOTANY NSW 2019	Bayside	Built	LGOV
House Group	1268-1270 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
House Group	1158-1168 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
House Group	63-65 Tenterden Road BOTANY NSW 2019	Bayside	Complex / Group	LGOV
House Group	21-23 Salisbury Street BOTANY NSW 2019	Bayside	Complex / Group	LGOV
John Brotchie Kindergarten	1361 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
John Brotchie Nursery School	1361 Botany Road BOTANY NSW 2019	Bayside	Complex / Group	SGOV
John Brotchie Nursery School	1361 Botany Road BOTANY NSW 2019	Bayside	Complex / Group	SGOV
John Brotchie Nursery School - Building B00A	1361 Botany Road BOTANY NSW 2019	Bayside	Built	SGOV
John Brotchie Nursery School - Building B00A	1361 Botany Road BOTANY NSW 2019	Bayside	Built	SGOV
Memorial Park	814 Botany Road BOTANY NSW 2019	Bayside	Complex / Group	LGOV
New Market Hotel	889 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
Police Station (circa 1871)	1441 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
Post Office (c.1923)	2 Banksia Street BOTANY NSW 2019	Bayside	Built	LGOV
Presbyterian Church of Australia and Manse	1561-1563 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV

Residential Building	16 The Esplanade BOTANY NSW 2019	Bayside	Built	LGOV
Sandstone Kerb, Botany	Botany Road, NW & NE cnr Wilson Street BOTANY NSW 2019	Bayside	Built	SGOV
Sewage Pumping Station No 60 (SP0060)	McFall Street BOTANY NSW 2019	Bayside	Built	SGOV
Sewer Vent	Tenderden Road BOTANY NSW 2019	Bayside	Built	SGOV
Sir Joseph Banks Hotel (c.1840), Former	23 Anniversary Street BANKSMEADOW NSW 2019	Bayside	Built	LGOV
Sir Joseph Banks Hotel (c.1920)	1354 Botany Road BOTANY NSW 2019	Bayside	Built	LGOV
Sir Joseph Banks Park	Fremlin BOTANY NSW 2019	Bayside	Complex / Group	LGOV
St. Matthews Anglican Church (1862)	1331 Botany Road ROSEBERY NSW 2018	Bayside	Built	LGOV
Streetscape - Verge plantings of Canary Island Date Palm	Northern side of Bay Street BOTANY NSW 2019	Bayside	Landscape	LGOV
Streetscape - Verge plantings of Canary Island Date Palm	Brighton Street BOTANY NSW 2019	Bayside	Landscape	LGOV
Streetscape - Verge plantings of Canary Island Date Palm, Brown Avenue, Botany	Brown Street BOTANY NSW 2019	Bayside	Landscape	LGOV
Streetscape - verge plantings of Canary Island Date Palms (and Hoop Pines)	Swinbourne Street (between William and Queen Streets) BOTANY NSW 2019	Bayside	Landscape	LGOV
Sydney Water Corporation - Sewer Vent	Tenterden Road BOTANY NSW 2019	Bayside	Built	LGOV
Sydney Water Corporation Sewage Pumping Station SP0060	McFall Street BOTANY NSW 2019	Bayside	Complex / Group	LGOV
Terrace Group	42-54 Daphne Street BOTANY NSW 2019	Bayside	Complex / Group	LGOV
Weatherboard House Group	18-20 Erith Street BOTANY NSW 2019	Bayside	Complex / Group	LGOV

Appendix F Laboratory Reports and Chain of Custody Documentation

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: **Julia Nicholson**

Report **872968-S**
Project name BOTANY
Project ID 62740
Received Date Mar 21, 2022

Client Sample ID			MW01_2.0-2.1	MW01_5.0-5.1	G01 MW02_0.0-0.1	MW02_1.0-1.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42003	S22-Ma42004	S22-Ma42005	S22-Ma42006
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	7.3	-	-	-
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	< 2	-	-	-
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	< 0.003	-	-	-
Potential Acidity - Titratable Peroxide						
pH-OX	0.1	pH Units	3.3	-	-	-
Titratable Peroxide Acidity (s-TPA)	0.02	% pyrite S	< 0.02	-	-	-
Titratable Peroxide Acidity (a-TPA)	2	mol H+/t	< 2	-	-	-
Titratable Sulfidic Acidity (a-TSA)	2	mol H+/t	< 2	-	-	-
Titratable Sulfidic Acidity (s-TSA)	0.02	% pyrite S	< 0.02	-	-	-
Extractable Sulfur						
Sulfur - KCl Extractable	0.005	% S	< 0.005	-	-	-
Peroxide Extractable Sulfur	0.005	% S	0.080	-	-	-
HCl Extractable Sulfur	0.005	% S	N/A	-	-	-
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.02	% S	0.08	-	-	-
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	10	mol H+/t	47	-	-	-
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1 S02	0.02	% S	N/A	-	-	-
Net Acid soluble sulfur (a-SNAS) NLM-4.1	10	mol H+/t	N/A	-	-	-
HCl Extractable Sulfur Correction Factor	1	factor	2.0	-	-	-
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	0.090	-	-	-
Calcium - Peroxide	0.005	% Ca	0.11	-	-	-
Calcium - Acid Reacted	0.005	% Ca	0.021	-	-	-
Calcium - Acid Reacted (s-aCa)	0.005	% S	0.017	-	-	-
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	11	-	-	-
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	< 0.005	-	-	-
Magnesium - Peroxide	0.005	% Mg	< 0.005	-	-	-
Magnesium - Acid Reacted	0.005	% Mg	< 0.005	-	-	-
Magnesium - Acid Reacted (s-aCa)	0.005	% S	< 0.005	-	-	-
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	< 0.005	-	-	-

Client Sample ID			MW01_2.0-2.1	MW01_5.0-5.1	[G01]MW02_0.0-0.1	MW02_1.0-1.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42003	S22-Ma42004	S22-Ma42005	S22-Ma42006
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Acid Neutralising Capacity (ANCE)						
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	N/A	-	-	-
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	N/A	-	-	-
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	n/a	-	-	-
Acid Neutralising Capacity (ANCbt)						
ANC Fineness Factor		factor	1.5	-	-	-
Net Acidity (Including ANC)						
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	10	mol H+/t	16	-	-	-
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	0.02	% S	0.03	-	-	-
SPOCAS - Liming rate - ASSMAC	1	kg CaCO3/t	1.0	-	-	-
Extraneous Material						
<2mm Fraction	0.005	g	190	-	-	-
>2mm Fraction	0.005	g	2.7	-	-	-
Analysed Material	0.1	%	99	-	-	-
Extraneous Material	0.1	%	1.4	-	-	-
% Moisture	1	%	20	24	15	26
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	88
TRH C15-C28	50	mg/kg	-	< 50	90	150
TRH C29-C36	50	mg/kg	-	< 50	70	< 50
TRH C10-C36 (Total)	50	mg/kg	-	< 50	160	238
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	140
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	140
TRH >C16-C34	100	mg/kg	-	< 100	140	110
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	140	250
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	88	107	99
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5

Client Sample ID			MW01_2.0-2.1	MW01_5.0-5.1	G01 MW02_0.0-0.1	MW02_1.0-1.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42003	S22-Ma42004	S22-Ma42005	S22-Ma42006
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	-	88	107	99
Toluene-d8 (surr.)	1	%	-	66	86	83

Client Sample ID			MW01_2.0-2.1	MW01_5.0-5.1	G01 MW02_0.0-0.1	MW02_1.0-1.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42003	S22-Ma42004	S22-Ma42005	S22-Ma42006
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	1.1	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	1.3	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.6	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	0.7	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	0.9	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	0.8	< 0.5
Benzo(b&j)fluoranthene N07	0.5	mg/kg	-	< 0.5	0.6	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	0.7	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	0.8	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	1.0	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	2.7	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	0.6	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	3.3	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	2.3	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	14.9	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	65	98	100
p-Terphenyl-d14 (surr.)	1	%	-	71	92	112
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 1	-
4.4'-DDD	0.05	mg/kg	-	-	< 0.5	-
4.4'-DDE	0.05	mg/kg	-	-	< 0.5	-
4.4'-DDT	0.05	mg/kg	-	-	< 0.5	-
a-HCH	0.05	mg/kg	-	-	< 0.5	-
Aldrin	0.05	mg/kg	-	-	< 0.5	-
b-HCH	0.05	mg/kg	-	-	< 0.5	-
d-HCH	0.05	mg/kg	-	-	< 0.5	-
Dieldrin	0.05	mg/kg	-	-	1.3	-
Endosulfan I	0.05	mg/kg	-	-	< 0.5	-
Endosulfan II	0.05	mg/kg	-	-	< 0.5	-
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.5	-
Endrin	0.05	mg/kg	-	-	< 0.5	-
Endrin aldehyde	0.05	mg/kg	-	-	< 0.5	-
Endrin ketone	0.05	mg/kg	-	-	< 0.5	-
g-HCH (Lindane)	0.05	mg/kg	-	-	< 0.5	-
Heptachlor	0.05	mg/kg	-	-	< 0.5	-
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.5	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.5	-
Methoxychlor	0.05	mg/kg	-	-	< 0.5	-
Toxaphene	0.5	mg/kg	-	-	< 10	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	1.3	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	1.3	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 1	-
Dibutylchlorendate (surr.)	1	%	-	-	51	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	86	-

Client Sample ID			MW01_2.0-2.1	MW01_5.0-5.1	[G01]MW02_0.0-0.1	MW02_1.0-1.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42003	S22-Ma42004	S22-Ma42005	S22-Ma42006
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	< 1	-
Aroclor-1221	0.1	mg/kg	-	-	< 1	-
Aroclor-1232	0.1	mg/kg	-	-	< 1	-
Aroclor-1242	0.1	mg/kg	-	-	< 1	-
Aroclor-1248	0.1	mg/kg	-	-	< 1	-
Aroclor-1254	0.1	mg/kg	-	-	< 1	-
Aroclor-1260	0.1	mg/kg	-	-	< 1	-
Total PCB*	0.1	mg/kg	-	-	< 1	-
Dibutylchlorendate (surr.)	1	%	-	-	51	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	86	-
Heavy Metals						
Arsenic	2	mg/kg	-	-	12	-
Cadmium	0.4	mg/kg	-	-	1.1	-
Chromium	5	mg/kg	-	-	78	-
Copper	5	mg/kg	-	-	5700	-
Lead	5	mg/kg	-	-	560	-
Mercury	0.1	mg/kg	-	-	7.9	-
Nickel	5	mg/kg	-	-	100	-
Zinc	5	mg/kg	-	-	470	-

Client Sample ID			MW03_0.2-0.3	MW03_3.0-3.1	QA20220321	[G01]SB06_1.1-1.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42007	S22-Ma42008	S22-Ma42009	S22-Ma42010
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	-	6.8	-	-
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	-	< 2	-	-
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	-	< 0.003	-	-
Potential Acidity - Titratable Peroxide						
pH-OX	0.1	pH Units	-	2.7	-	-
Titratable Peroxide Acidity (s-TPA)	0.02	% pyrite S	-	0.23	-	-
Titratable Peroxide Acidity (a-TPA)	2	mol H+/t	-	150	-	-
Titratable Sulfidic Acidity (a-TSA)	2	mol H+/t	-	150	-	-
Titratable Sulfidic Acidity (s-TSA)	0.02	% pyrite S	-	0.23	-	-
Extractable Sulfur						
Sulfur - KCl Extractable	0.005	% S	-	< 0.005	-	-
Peroxide Extractable Sulfur	0.005	% S	-	0.20	-	-
HCl Extractable Sulfur	0.005	% S	-	N/A	-	-
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.02	% S	-	0.20	-	-
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	10	mol H+/t	-	130	-	-
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.02	% S	-	N/A	-	-
Net Acid soluble sulfur (a-SNAS) NLM-4.1	10	mol H+/t	-	N/A	-	-
HCl Extractable Sulfur Correction Factor	1	factor	-	2.0	-	-

Client Sample ID			MW03_0.2-0.3	MW03_3.0-3.1	QA20220321	[G01]SB06_1.1-1.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42007	S22-Ma42008	S22-Ma42009	S22-Ma42010
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	-	0.12	-	-
Calcium - Peroxide	0.005	% Ca	-	0.19	-	-
Calcium - Acid Reacted	0.005	% Ca	-	0.061	-	-
Calcium - Acid Reacted (s-aCa)	0.005	% S	-	0.049	-	-
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	31	-	-
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	-	< 0.005	-	-
Magnesium - Peroxide	0.005	% Mg	-	< 0.005	-	-
Magnesium - Acid Reacted	0.005	% Mg	-	< 0.005	-	-
Magnesium - Acid Reacted (s-aCa)	0.005	% S	-	< 0.005	-	-
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	< 0.005	-	-
Acid Neutralising Capacity (ANCE)						
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	-	N/A	-	-
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	-	N/A	-	-
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	-	n/a	-	-
Acid Neutralising Capacity (ANCbt)						
ANC Fineness Factor		factor	-	1.5	-	-
Net Acidity (Including ANC)						
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	10	mol H+/t	-	140	-	-
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	0.02	% S	-	0.22	-	-
SPOCAS - Liming rate - ASSMAC	1	kg CaCO3/t	-	10	-	-
Extraneous Material						
<2mm Fraction	0.005	g	-	190	-	-
>2mm Fraction	0.005	g	-	16	-	-
Analysed Material	0.1	%	-	92	-	-
Extraneous Material	0.1	%	-	7.8	-	-
% Moisture	1	%	14	31	13	8.1
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	53
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	53
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			MW03_0.2-0.3	MW03_3.0-3.1	QA20220321	[G01]SB06_1.1-1.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42007	S22-Ma42008	S22-Ma42009	S22-Ma42010
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
BTEX						
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	111	87	105	107
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			MW03_0.2-0.3	MW03_3.0-3.1	QA20220321	[G01]SB06_1.1-1.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42007	S22-Ma42008	S22-Ma42009	S22-Ma42010
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	111	87	105	107
Toluene-d8 (surr.)	1	%	92	66	88	85
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	1	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	112	53	84	100
p-Terphenyl-d14 (surr.)	1	%	94	56	92	90
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	< 1
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
4.4'-DDE	0.05	mg/kg	0.06	-	< 0.05	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	0.59
a-HCH	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
b-HCH	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
d-HCH	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Dieldrin	0.05	mg/kg	0.28	-	0.40	2.4
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5

Client Sample ID			MW03_0.2-0.3	MW03_3.0-3.1	QA20220321	[G01]SB06_1.1-1.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42007	S22-Ma42008	S22-Ma42009	S22-Ma42010
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Methoxychlor	0.05	mg/kg	< 0.05	-	< 0.05	< 0.5
Toxaphene	0.5	mg/kg	< 0.5	-	< 0.5	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	0.28	-	0.4	2.4
DDT + DDE + DDD (Total)*	0.05	mg/kg	0.06	-	< 0.05	0.59
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	0.34	-	0.4	2.99
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	75	-	60	52
Tetrachloro-m-xylene (surr.)	1	%	109	-	98	94
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	-	< 0.1	< 1
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	< 1
Aroclor-1232	0.1	mg/kg	< 0.1	-	< 0.1	< 1
Aroclor-1242	0.1	mg/kg	< 0.1	-	< 0.1	< 1
Aroclor-1248	0.1	mg/kg	< 0.1	-	< 0.1	< 1
Aroclor-1254	0.1	mg/kg	< 0.1	-	< 0.1	< 1
Aroclor-1260	0.1	mg/kg	< 0.1	-	< 0.1	< 1
Total PCB*	0.1	mg/kg	< 0.1	-	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	75	-	60	52
Tetrachloro-m-xylene (surr.)	1	%	109	-	98	94
Heavy Metals						
Arsenic	2	mg/kg	6.6	-	6.1	4.6
Cadmium	0.4	mg/kg	2.6	-	2.5	< 0.4
Chromium	5	mg/kg	110	-	120	26
Copper	5	mg/kg	31	-	31	45
Lead	5	mg/kg	55	-	110	85
Mercury	0.1	mg/kg	1.4	-	1.2	7.4
Nickel	5	mg/kg	7.2	-	< 5	26
Zinc	5	mg/kg	93	-	87	190

Client Sample ID			[G01]SB07_0.0-0.1	SB07_1.1-1.2	[G01]SB08_0.0-0.1	SB08_0.7-0.8
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42011	S22-Ma42012	S22-Ma42013	S22-Ma42014
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
% Moisture	1	%	13	27	13	16
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	56	< 50	< 50	< 50

Client Sample ID			[G01]SB07_0.0-0.1	SB07_1.1-1.2	[G01]SB08_0.0-0.1	SB08_0.7-0.8
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42011	S22-Ma42012	S22-Ma42013	S22-Ma42014
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C10-C36 (Total)	50	mg/kg	56	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	110	102	114	101
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			[G01]SB07_0.0-0.1	SB07_1.1-1.2	[G01]SB08_0.0-0.1	SB08_0.7-0.8
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42011	S22-Ma42012	S22-Ma42013	S22-Ma42014
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	110	102	114	101
Toluene-d8 (surr.)	1	%	88	82	92	75
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	74	96	92	97
p-Terphenyl-d14 (surr.)	1	%	87	96	78	105

Client Sample ID			[G01]SB07_0.0-0.1	SB07_1.1-1.2	[G01]SB08_0.0-0.1	SB08_0.7-0.8
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma42011	S22-Ma42012	S22-Ma42013	S22-Ma42014
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	-	< 1	-
4.4'-DDD	0.05	mg/kg	< 0.5	-	< 0.5	-
4.4'-DDE	0.05	mg/kg	< 0.5	-	< 0.5	-
4.4'-DDT	0.05	mg/kg	< 0.5	-	< 0.5	-
a-HCH	0.05	mg/kg	< 0.5	-	< 0.5	-
Aldrin	0.05	mg/kg	< 0.5	-	< 0.5	-
b-HCH	0.05	mg/kg	< 0.5	-	< 0.5	-
d-HCH	0.05	mg/kg	< 0.5	-	< 0.5	-
Dieldrin	0.05	mg/kg	< 0.5	-	< 0.5	-
Endosulfan I	0.05	mg/kg	< 0.5	-	< 0.5	-
Endosulfan II	0.05	mg/kg	< 0.5	-	< 0.5	-
Endosulfan sulphate	0.05	mg/kg	< 0.5	-	< 0.5	-
Endrin	0.05	mg/kg	< 0.5	-	< 0.5	-
Endrin aldehyde	0.05	mg/kg	< 0.5	-	< 0.5	-
Endrin ketone	0.05	mg/kg	< 0.5	-	< 0.5	-
g-HCH (Lindane)	0.05	mg/kg	< 0.5	-	< 0.5	-
Heptachlor	0.05	mg/kg	< 0.5	-	< 0.5	-
Heptachlor epoxide	0.05	mg/kg	< 0.5	-	< 0.5	-
Hexachlorobenzene	0.05	mg/kg	< 0.5	-	< 0.5	-
Methoxychlor	0.05	mg/kg	< 0.5	-	< 0.5	-
Toxaphene	0.5	mg/kg	< 10	-	< 10	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	-	< 0.5	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	-	< 0.5	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	-	< 1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	-	< 1	-
Dibutylchlorendate (surr.)	1	%	51	-	[Q09]INT	-
Tetrachloro-m-xylene (surr.)	1	%	87	-	82	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	-	< 1	-
Aroclor-1221	0.1	mg/kg	< 1	-	< 1	-
Aroclor-1232	0.1	mg/kg	< 1	-	< 1	-
Aroclor-1242	0.1	mg/kg	< 1	-	< 1	-
Aroclor-1248	0.1	mg/kg	< 1	-	< 1	-
Aroclor-1254	0.1	mg/kg	< 1	-	< 1	-
Aroclor-1260	0.1	mg/kg	< 1	-	< 1	-
Total PCB*	0.1	mg/kg	< 1	-	< 1	-
Dibutylchlorendate (surr.)	1	%	51	-	[Q09]INT	-
Tetrachloro-m-xylene (surr.)	1	%	87	-	82	-
Heavy Metals						
Arsenic	2	mg/kg	2.5	-	4.1	-
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	-
Chromium	5	mg/kg	17	-	13	-
Copper	5	mg/kg	25	-	25	-
Lead	5	mg/kg	46	-	77	-
Mercury	0.1	mg/kg	0.2	-	0.6	-
Nickel	5	mg/kg	12	-	6.9	-
Zinc	5	mg/kg	120	-	130	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
SPOCAS Suite			
SPOCAS Suite	Brisbane	Mar 24, 2022	6 Week
- Method: LTM-GEN-7050			
Extraneous Material	Brisbane	Mar 24, 2022	6 Week
- Method: LTM-GEN-7050/7070			
% Moisture	Sydney	Mar 21, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			
Eurofins Suite B4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Mar 22, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Mar 22, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Mar 22, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Mar 22, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Mar 22, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Volatile Organics	Sydney	Mar 22, 2022	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Organochlorine Pesticides	Sydney	Mar 22, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Mar 22, 2022	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Mar 22, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins | Environment Testing

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BOTANY
Project ID: 62740

Order No.:
Report #: 872968
Phone: 02 8245 0300
Fax:

Received: Mar 21, 2022 5:00 PM
Due: Mar 24, 2022
Priority: 3 Day
Contact Name: Julia Nicholson

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - WA guidelines	CANCELLED	HOLD	Suite B13: OCP/PCB	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Eurofins Suite B7	Eurofins Suite B4
Melbourne Laboratory - NATA # 1261 Site # 1254															
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794											X	X	X		
Mayfield Laboratory - NATA # 1261 Site # 25079															
Perth Laboratory - NATA # 2377 Site # 2370															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	MW01_0.4-0.5	Mar 21, 2022		Soil	S22-Ma42002		X								
2	MW01_2.0-2.1	Mar 21, 2022		Soil	S22-Ma42003						X	X			
3	MW01_5.0-5.1	Mar 21, 2022		Soil	S22-Ma42004					X			X		X
4	MW02_0.0-0.1	Mar 21, 2022		Soil	S22-Ma42005	X			X	X			X	X	
5	MW02_1.0-1.1	Mar 21, 2022		Soil	S22-Ma42006					X			X		X
6	MW03_0.2-0.3	Mar 21, 2022		Soil	S22-Ma42007	X			X	X			X	X	
7	MW03_3.0-3.1	Mar 21, 2022		Soil	S22-Ma42008					X	X		X		X
8	QA20220321	Mar 21, 2022		Soil	S22-Ma42009				X	X			X	X	
9	SB06_1.1-1.2	Mar 21, 2022		Soil	S22-Ma42010				X	X			X	X	

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
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Melbourne Laboratory - NATA # 1261 Site # 1254															
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794											X	X	X		
Mayfield Laboratory - NATA # 1261 Site # 25079															
Perth Laboratory - NATA # 2377 Site # 2370															
External Laboratory															
10	SB07_0.0-0.1	Mar 21, 2022		Soil	S22-Ma42011	X			X	X			X	X	
11	SB07_1.1-1.2	Mar 21, 2022		Soil	S22-Ma42012					X			X		X
12	SB08_0.0-0.1	Mar 21, 2022		Soil	S22-Ma42013	X			X	X			X	X	
13	SB08_0.7-0.8	Mar 21, 2022		Soil	S22-Ma42014					X			X		X
14	MW01_3.0-3.1	Mar 21, 2022		Soil	S22-Ma42015			X							
15	MW01_4.0-4.1	Mar 21, 2022		Soil	S22-Ma42016			X							
16	MW01_5.9-6.0	Mar 21, 2022		Soil	S22-Ma42017			X							
17	MW02_2.0-2.1	Mar 21, 2022		Soil	S22-Ma42018			X							
18	MW02_3.0-3.1	Mar 21, 2022		Soil	S22-Ma42019			X							
19	MW02_4.0-4.1	Mar 21, 2022		Soil	S22-Ma42020			X							
20	MW02_5.9-6.0	Mar 21, 2022		Soil	S22-Ma42021			X							

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web: www.eurofins.com.au
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Melbourne
6 Monterey Road
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Melbourne Laboratory - NATA # 1261 Site # 1254															
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794											X	X	X		
Mayfield Laboratory - NATA # 1261 Site # 25079															
Perth Laboratory - NATA # 2377 Site # 2370															
External Laboratory															
21	MW03_2.0-2.1	Mar 21, 2022		Soil	S22-Ma42022			X							
22	MW03_3.9-4.0	Mar 21, 2022		Soil	S22-Ma42023			X							
23	RINSATE	Mar 21, 2022		Water	S22-Ma42024			X							
24	TS	Mar 21, 2022		Water	S22-Ma42025			X							
25	TB	Mar 21, 2022		Water	S22-Ma42026			X							
26	SB06_0.0-0.1	Mar 21, 2022		Soil	S22-Ma42027			X							
27	SB06_0.5-0.6	Mar 21, 2022		Soil	S22-Ma42028			X							
28	SB07_0.5-0.6	Mar 21, 2022		Soil	S22-Ma42029			X							
29	SB07_1.5-1.6	Mar 21, 2022		Soil	S22-Ma42030			X							
30	SB07_1.9-2.0	Mar 21, 2022		Soil	S22-Ma42031			X							
31	SB08_0.5-0.6	Mar 21, 2022		Soil	S22-Ma42032			X							

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Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X	X	X		
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
Test Counts	4	1	18	6	11	2	12	12	6	5

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 1999, as amended May 2013 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. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. 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.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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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. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	96			70-130	Pass	
TRH C10-C14	%	74			70-130	Pass	
Naphthalene	%	122			70-130	Pass	
TRH C6-C10	%	95			70-130	Pass	
TRH >C10-C16	%	74			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	101			70-130	Pass	
Toluene	%	100			70-130	Pass	
Ethylbenzene	%	107			70-130	Pass	
m&p-Xylenes	%	116			70-130	Pass	
o-Xylene	%	113			70-130	Pass	
Xylenes - Total*	%	115			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	95			70-130	Pass	
1.1.1-Trichloroethane	%	83			70-130	Pass	
1.2-Dichlorobenzene	%	100			70-130	Pass	
1.2-Dichloroethane	%	101			70-130	Pass	
Benzene	%	104			70-130	Pass	
Ethylbenzene	%	89			70-130	Pass	
m&p-Xylenes	%	93			70-130	Pass	
o-Xylene	%	88			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Toluene	%	93			70-130	Pass	
Trichloroethene	%	78			70-130	Pass	
Xylenes - Total*	%	91			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	98			70-130	Pass	
Acenaphthylene	%	86			70-130	Pass	
Anthracene	%	82			70-130	Pass	
Benz(a)anthracene	%	90			70-130	Pass	
Benzo(a)pyrene	%	92			70-130	Pass	
Benzo(b&j)fluoranthene	%	96			70-130	Pass	
Benzo(g.h.i)perylene	%	89			70-130	Pass	
Benzo(k)fluoranthene	%	84			70-130	Pass	
Chrysene	%	93			70-130	Pass	
Dibenz(a.h)anthracene	%	94			70-130	Pass	
Fluoranthene	%	83			70-130	Pass	
Fluorene	%	95			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	90			70-130	Pass	
Naphthalene	%	90			70-130	Pass	
Phenanthrene	%	87			70-130	Pass	
Pyrene	%	75			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	89			70-130	Pass	
4.4'-DDD	%	101			70-130	Pass	
4.4'-DDE	%	96			70-130	Pass	
4.4'-DDT	%	97			70-130	Pass	
a-HCH	%	85			70-130	Pass	
Aldrin	%	97			70-130	Pass	
b-HCH	%	102			70-130	Pass	
d-HCH	%	85			70-130	Pass	
Dieldrin	%	107			70-130	Pass	
Endosulfan I	%	86			70-130	Pass	
Endosulfan II	%	91			70-130	Pass	
Endosulfan sulphate	%	84			70-130	Pass	
Endrin	%	90			70-130	Pass	
Endrin ketone	%	85			70-130	Pass	
g-HCH (Lindane)	%	83			70-130	Pass	
Heptachlor	%	91			70-130	Pass	
Heptachlor epoxide	%	90			70-130	Pass	
Hexachlorobenzene	%	96			70-130	Pass	
Methoxychlor	%	93			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1221	%	81			70-130	Pass	
Aroclor-1254	%	85			70-130	Pass	
Aroclor-1260	%	79			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	98			80-120	Pass	
Cadmium	%	104			80-120	Pass	
Chromium	%	102			80-120	Pass	
Copper	%	115			80-120	Pass	
Lead	%	95			80-120	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mercury			%	98			80-120	Pass	
Nickel			%	82			80-120	Pass	
Zinc			%	101			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	W22-Ma30451	NCP	%	94			70-130	Pass	
TRH C10-C14	S22-Ma47792	NCP	%	82			70-130	Pass	
Naphthalene	S22-Ma38522	NCP	%	96			70-130	Pass	
TRH C6-C10	W22-Ma30451	NCP	%	91			70-130	Pass	
TRH >C10-C16	S22-Ma47792	NCP	%	80			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Ma38522	NCP	%	87			70-130	Pass	
Toluene	S22-Ma38522	NCP	%	84			70-130	Pass	
Ethylbenzene	S22-Ma38522	NCP	%	97			70-130	Pass	
m&p-Xylenes	S22-Ma38522	NCP	%	105			70-130	Pass	
o-Xylene	S22-Ma38522	NCP	%	107			70-130	Pass	
Xylenes - Total*	S22-Ma38522	NCP	%	106			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Ma45125	NCP	%	101			70-130	Pass	
Acenaphthylene	S22-Ma45125	NCP	%	85			70-130	Pass	
Anthracene	S22-Ma45125	NCP	%	89			70-130	Pass	
Benz(a)anthracene	S22-Ma45125	NCP	%	81			70-130	Pass	
Benzo(a)pyrene	S22-Ma45125	NCP	%	94			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Ma45125	NCP	%	91			70-130	Pass	
Benzo(g.h.i)perylene	S22-Ma45125	NCP	%	75			70-130	Pass	
Benzo(k)fluoranthene	S22-Ma45125	NCP	%	87			70-130	Pass	
Chrysene	S22-Ma45125	NCP	%	90			70-130	Pass	
Dibenz(a.h)anthracene	S22-Ma45125	NCP	%	95			70-130	Pass	
Fluoranthene	S22-Ma45125	NCP	%	80			70-130	Pass	
Fluorene	S22-Ma45125	NCP	%	110			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-Ma45125	NCP	%	88			70-130	Pass	
Naphthalene	S22-Ma45125	NCP	%	98			70-130	Pass	
Phenanthrene	S22-Ma45125	NCP	%	80			70-130	Pass	
Pyrene	S22-Ma45125	NCP	%	74			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S22-Ma45125	NCP	%	110			70-130	Pass	
4.4'-DDD	S22-Ma45125	NCP	%	104			70-130	Pass	
4.4'-DDE	S22-Ma45125	NCP	%	104			70-130	Pass	
4.4'-DDT	S22-Ma45125	NCP	%	84			70-130	Pass	
a-HCH	S22-Ma45125	NCP	%	93			70-130	Pass	
Aldrin	S22-Ma45125	NCP	%	102			70-130	Pass	
b-HCH	S22-Ma45125	NCP	%	98			70-130	Pass	
d-HCH	S22-Ma45125	NCP	%	98			70-130	Pass	
Dieldrin	S22-Ma45125	NCP	%	126			70-130	Pass	
Endosulfan I	S22-Ma45125	NCP	%	95			70-130	Pass	
Endosulfan II	S22-Ma45125	NCP	%	86			70-130	Pass	
Endosulfan sulphate	S22-Ma45125	NCP	%	80			70-130	Pass	
Endrin	S22-Ma45125	NCP	%	93			70-130	Pass	
Endrin aldehyde	S22-Ma45125	NCP	%	80			70-130	Pass	
Endrin ketone	S22-Ma45125	NCP	%	84			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
g-HCH (Lindane)	S22-Ma45125	NCP	%	90			70-130	Pass	
Heptachlor	S22-Ma45125	NCP	%	103			70-130	Pass	
Heptachlor epoxide	S22-Ma45125	NCP	%	115			70-130	Pass	
Hexachlorobenzene	S22-Ma45125	NCP	%	111			70-130	Pass	
Methoxychlor	S22-Ma45125	NCP	%	83			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1221	S22-Ma45125	NCP	%	93			70-130	Pass	
Aroclor-1254	S22-Ma45125	NCP	%	81			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Ma41920	NCP	%	107			75-125	Pass	
Cadmium	S22-Ma41920	NCP	%	103			75-125	Pass	
Chromium	S22-Ma41920	NCP	%	106			75-125	Pass	
Copper	S22-Ma48747	NCP	%	107			75-125	Pass	
Lead	S22-Ma41920	NCP	%	103			75-125	Pass	
Mercury	S22-Ma41920	NCP	%	98			75-125	Pass	
Nickel	S22-Ma48747	NCP	%	101			75-125	Pass	
Zinc	S22-Ma41920	NCP	%	96			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Ma42244	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S22-Ma36629	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Ma36629	NCP	mg/kg	< 50	62	26	30%	Pass	
TRH C29-C36	S22-Ma36629	NCP	mg/kg	110	140	18	30%	Pass	
Naphthalene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Ma42244	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S22-Ma36629	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Ma36629	NCP	mg/kg	120	150	20	30%	Pass	
TRH >C34-C40	S22-Ma36629	NCP	mg/kg	110	140	23	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Ma42244	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Ma42244	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Ma42244	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Ma42244	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Ma42244	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Ma42244	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.3-Dichloropropane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromobenzene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Iodomethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methylene Chloride	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Styrene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.2-Dichloroethene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	S22-Ma42244	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g.h.i)perylene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a.h)anthracene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Ma45124	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Ma45124	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Ma45124	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S22-Ma45124	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S22-Ma45124	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S22-Ma45124	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S22-Ma45124	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S22-Ma45124	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S22-Ma45124	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S22-Ma45124	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S22-Ma45124	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Ma41927	NCP	mg/kg	17	12	33	30%	Fail	Q15
Cadmium	S22-Ma41927	NCP	mg/kg	0.6	0.5	13	30%	Pass	
Chromium	S22-Ma41927	NCP	mg/kg	33	17	61	30%	Fail	Q15
Copper	S22-Ma48746	NCP	mg/kg	27	26	1.0	30%	Pass	
Lead	S22-Ma41927	NCP	mg/kg	330	480	38	30%	Fail	Q15
Mercury	S22-Ma41927	NCP	mg/kg	0.1	0.1	14	30%	Pass	
Nickel	S22-Ma41927	NCP	mg/kg	7.9	6.7	16	30%	Pass	
Zinc	S22-Ma41927	NCP	mg/kg	350	390	10	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Ma42009	CP	%	13	17	25	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
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

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.
S02	Retained Acidity is Reported when the pHKCl is less than pH 4.5

Authorised by:

Andrew Sullivan	Senior Analyst-Organic (NSW)
Gabriele Cordero	Senior Analyst-Metal (NSW)
Myles Clark	Senior Analyst-SPOCAS (QLD)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)

Glenn Jackson
General Manager

- 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.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

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Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Julia Nicholson
Report	872968-AID
Project Name	BOTANY
Project ID	62740
Received Date	Mar 21, 2022
Date Reported	Mar 29, 2022

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 BOTANY
Project ID 62740
Date Sampled Mar 21, 2022
Report 872968-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
MW02_0.0-0.1	22-Ma42005	Mar 21, 2022	Approximate Sample 658g Sample consisted of: Brown coarse-grained clayey-sandy soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
MW03_0.2-0.3	22-Ma42007	Mar 21, 2022	Approximate Sample 773g Sample consisted of: Brown coarse-grained sandy soil, sand stone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SB07_0.0-0.1	22-Ma42011	Mar 21, 2022	Approximate Sample 884g Sample consisted of: Brown coarse-grained sandy soil, sand stone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SB08_0.0-0.1	22-Ma42013	Mar 21, 2022	Approximate Sample 798g Sample consisted of: Brown coarse-grained sandy soil, sand stone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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	Mar 21, 2022	Indefinite

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BOTANY
Project ID: 62740

Order No.:
Report #: 872968
Phone: 02 8245 0300
Fax:

Received: Mar 21, 2022 5:00 PM
Due: Mar 24, 2022
Priority: 3 Day
Contact Name: Julia Nicholson

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - WA guidelines	HOLD	Suite B13: OCP/PCB	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Eurofins Suite B7	Eurofins Suite B4
Melbourne Laboratory - NATA # 1261 Site # 1254														
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794										X	X	X		
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
1	MW01_0.4-0.5	Mar 21, 2022		Soil	S22-Ma42002		X							
2	MW01_2.0-2.1	Mar 21, 2022		Soil	S22-Ma42003					X	X			
3	MW01_5.0-5.1	Mar 21, 2022		Soil	S22-Ma42004				X			X		X
4	MW02_0.0-0.1	Mar 21, 2022		Soil	S22-Ma42005	X		X	X			X	X	
5	MW02_1.0-1.1	Mar 21, 2022		Soil	S22-Ma42006				X			X		X
6	MW03_0.2-0.3	Mar 21, 2022		Soil	S22-Ma42007	X		X	X			X	X	
7	MW03_3.0-3.1	Mar 21, 2022		Soil	S22-Ma42008				X	X		X		X
8	QA20220321	Mar 21, 2022		Soil	S22-Ma42009			X	X			X	X	
9	SB06_1.1-1.2	Mar 21, 2022		Soil	S22-Ma42010			X	X			X	X	

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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1/21 Smallwood Place
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NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794										X	X	X		
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
10	SB07_0.0-0.1	Mar 21, 2022		Soil	S22-Ma42011	X		X	X			X	X	
11	SB07_1.1-1.2	Mar 21, 2022		Soil	S22-Ma42012				X			X		X
12	SB08_0.0-0.1	Mar 21, 2022		Soil	S22-Ma42013	X		X	X			X	X	
13	SB08_0.7-0.8	Mar 21, 2022		Soil	S22-Ma42014				X			X		X
14	MW01_3.0-3.1	Mar 21, 2022		Soil	S22-Ma42015		X							
15	MW01_4.0-4.1	Mar 21, 2022		Soil	S22-Ma42016		X							
16	MW01_5.9-6.0	Mar 21, 2022		Soil	S22-Ma42017		X							
17	MW02_2.0-2.1	Mar 21, 2022		Soil	S22-Ma42018		X							
18	MW02_3.0-3.1	Mar 21, 2022		Soil	S22-Ma42019		X							
19	MW02_4.0-4.1	Mar 21, 2022		Soil	S22-Ma42020		X							
20	MW02_5.9-6.0	Mar 21, 2022		Soil	S22-Ma42021		X							

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
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1/21 Smallwood Place
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4/52 Industrial Drive
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Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
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Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794										X	X	X		
Mayfield Laboratory - NATA # 1261 Site # 25079														
Perth Laboratory - NATA # 2377 Site # 2370														
External Laboratory														
21	MW03_2.0-2.1	Mar 21, 2022		Soil	S22-Ma42022		X							
22	MW03_3.9-4.0	Mar 21, 2022		Soil	S22-Ma42023		X							
23	RINSATE	Mar 21, 2022		Water	S22-Ma42024		X							
24	TS	Mar 21, 2022		Water	S22-Ma42025		X							
25	TB	Mar 21, 2022		Water	S22-Ma42026		X							
26	SB06_0.0-0.1	Mar 21, 2022		Soil	S22-Ma42027		X							
27	SB06_0.5-0.6	Mar 21, 2022		Soil	S22-Ma42028		X							
28	SB07_0.5-0.6	Mar 21, 2022		Soil	S22-Ma42029		X							
29	SB07_1.5-1.6	Mar 21, 2022		Soil	S22-Ma42030		X							
30	SB07_1.9-2.0	Mar 21, 2022		Soil	S22-Ma42031		X							
31	SB08_0.5-0.6	Mar 21, 2022		Soil	S22-Ma42032		X							

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
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Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X		X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794					X	X	X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
Test Counts	4	19	6	11	2	12	12	6	5

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. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. Information identified on this report with the colour **orange** indicates sections of the report not covered by the laboratory's scope of NATA accreditation.
6. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).
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:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w**).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
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.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021).
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
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* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
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

Asbestos Counter/Identifier:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Authorised by:

Laxman Dias	Senior Analyst-Asbestos (NSW)

Glenn Jackson
General Manager

- 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.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Julia Nicholson
Project name:	BOTANY
Project ID:	62740
Turnaround time:	3 Day
Date/Time received	Mar 21, 2022 5:00 PM
Eurofins reference	872968

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 7.7 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Julia Nicholson - jnicholson@jbsg.com.au.

Global Leader - Results you can trust

Chain of Custody

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JBS&G

PROJECT NO.: 62740
PROJECT NAME: Botany
DATE NEEDED BY: 3 day
LABORATORY BATCH NO.:
SAMPLERS: JN RS ST
QC LEVEL: NEPM (2013)
PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JNicholson@jbsg.com.au; (3) RStraas@jbsg.com.au STeam@jbsg.com.au
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	HM	TRH/BTEX	PAHs	VOC	OCP/PCB	Asbestos 500mL	PFAS	SPOCAS	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
MW01_0.4-0.5	Soil	21/3/22		J+B		X	X	X	X	X	X					
_2.0-2.1				J+ASS									X			
_3.0-3.1				J												
_4.0-4.1				J+ASS												
_5.0-5.1				J			X	X	X							
_5.9-6.0				J+ASS												
MW02_0-0.1				J+B		X	X	X	X	X	X					
_1.0-1.1				J			X	X	X							
_2.0-2.1				J												
_3.0-3.1				J+ASS												
_4.0-4.1				J												
_5.9-6.0				J+ASS												
MW03_0.2-0.3				J+B		X	X	X	X	X	X					
_2.0-2.1				J+B												
_3.0-3.1				J+ASS			X	X	X				X			
_3.9-4.0				J												
QA20220321				J		X	X	X	X	X						
rinsate	water			vials amber metal												
~~FS~~/TB				vials												

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: A. Sinharage	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 21/03/22 5:00 pm	COOLER TEMP ..... deg C 7.7°C
NAME: DATE:	CONSIGNMENT NOTE NO.	OF: Eurofins	#872968
OF:	TRANSPORT CO	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
		OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Chain of Custody

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JBS&G

PROJECT NO.: 62740
PROJECT NAME: Botany
DATE NEEDED BY: 3 day

LABORATORY BATCH NO.:
SAMPLERS: JN RS ST
QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JNichelsen@jbsg.com.au; (3) RStraas@jbsg.com.au STran@jbsg.

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	HM	TRH/BTEX	PAHs	VOCs	OCP/PCB	Asbestos	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
SB06_0-0.1	Soil	21/3/22		J+B										
_0.5-0.6				J+B										
_1.1-1.2				J+B		X	X	X	X	X				
SB07_0-0.1				J+B		X	X	X	X	X	X			
_0.5-0.6				↓										
_1.1-1.2				J		[redacted]	X	X	X					
_1.5-1.6				J										
_1.9-2.0				J+ASS										
SB08_0-0.1				J+B		X	X	X	X	X	X			
_0.5-0.6				J+B										
_0.7-0.8				J+ASS		[redacted]	X	X	X					

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: JN DATE: 21/3/22	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE:	
		OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Ruby Chapman**

Report **872218-A**
Project name HALE ST BOTANY
Project ID 62740
Received Date Mar 16, 2022

Client Sample ID			**SV01 FRONT**	**SV01 BACK**	**SV02 FRONT**	**SV02 BACK**
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins Sample No.			**S22-Ma35746**	**S22-Ma35747**	**S22-Ma35748**	**S22-Ma35749**
Date Sampled			**Mar 16, 2022**	**Mar 16, 2022**	**Mar 16, 2022**	**Mar 16, 2022**
Test/Reference	LOR	Unit				
Isopropanol	10	Total ug	< 10	< 10	< 10	< 10
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV01 FRONT	SV01 BACK	SV02 FRONT	SV02 BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S22-Ma35746	S22-Ma35747	S22-Ma35748	S22-Ma35749
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	94	95	93	96
4-Bromofluorobenzene (surr.)	1	%	103	104	103	105
Dibromofluoromethane (surr.)	1	%	101	96	101	97
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons						
TRH C6-C10	20	Total ug	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	Total ug	< 20	< 20	< 20	< 20
TRH >C10-C16	20	Total ug	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	20	Total ug	< 20	< 20	< 20	< 20

Client Sample ID			SV03 FRONT	SV03 BACK	SV04 FRONT	SV04 BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S22-Ma35750	S22-Ma35751	S22-Ma35752	S22-Ma35753
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Isopropanol	10	Total ug	< 10	< 10	< 10	< 10
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	0.6	< 0.5

Client Sample ID			SV03 FRONT	SV03 BACK	SV04 FRONT	SV04 BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S22-Ma35750	S22-Ma35751	S22-Ma35752	S22-Ma35753
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	0.7	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	95	95	95	95
4-Bromofluorobenzene (surr.)	1	%	103	104	104	105
Dibromofluoromethane (surr.)	1	%	101	99	95	101
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons						
TRH C6-C10	20	Total ug	< 20	< 20	28	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	Total ug	< 20	< 20	27	< 20
TRH >C10-C16	20	Total ug	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	20	Total ug	< 20	< 20	< 20	< 20

Client Sample ID			SV05 FRONT	SV05 BACK	SV07 FRONT	SV07 BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S22-Ma35754	S22-Ma35755	S22-Ma35758	S22-Ma35759
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Isopropanol	10	Total ug	< 10	< 10	< 10	< 10
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	1.7	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	95	94	93	94
4-Bromofluorobenzene (surr.)	1	%	103	105	103	104

Client Sample ID			SV05 FRONT	SV05 BACK	SV07 FRONT	SV07 BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S22-Ma35754	S22-Ma35755	S22-Ma35758	S22-Ma35759
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
Dibromofluoromethane (surr.)	1	%	97	101	100	100
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons						
TRH C6-C10	20	Total ug	22	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	Total ug	20	< 20	< 20	< 20
TRH >C10-C16	20	Total ug	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	20	Total ug	< 20	< 20	< 20	< 20

Client Sample ID			SV08 FRONT	SV08 BACK	SV09 FRONT	SV09 BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S22-Ma35760	S22-Ma35761	S22-Ma35762	S22-Ma35763
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Isopropanol	10	Total ug	< 10	< 10	< 10	< 10
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV08 FRONT	SV08 BACK	SV09 FRONT	SV09 BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S22-Ma35760	S22-Ma35761	S22-Ma35762	S22-Ma35763
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	1.6	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	1.9	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	96	94	94	93
4-Bromofluorobenzene (surr.)	1	%	105	104	104	104
Dibromofluoromethane (surr.)	1	%	101	100	101	98
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons						
TRH C6-C10	20	Total ug	32	< 20	28	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	Total ug	29	< 20	28	< 20
TRH >C10-C16	20	Total ug	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	20	Total ug	< 20	< 20	< 20	< 20

Client Sample ID			SV_FB FRONT	SV_FB BACK
Sample Matrix			Air	Air
Eurofins Sample No.			S22-Ma35764	S22-Ma35765
Date Sampled			Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit		
Isopropanol	10	Total ug	< 10	< 10
VOCs in Ambient Air by GC/MS				
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5

Client Sample ID			SV_FB FRONT	SV_FB BACK
Sample Matrix			Air	Air
Eurofins Sample No.			S22-Ma35764	S22-Ma35765
Date Sampled			Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit		
VOCs in Ambient Air by GC/MS				
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	93	95
4-Bromofluorobenzene (surr.)	1	%	104	106
Dibromofluoromethane (surr.)	1	%	97	101
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5

Client Sample ID			SV_FB FRONT	SV_FB BACK
Sample Matrix			**Air**	**Air**
Eurofins Sample No.			**S22-Ma35764**	**S22-Ma35765**
Date Sampled			**Mar 16, 2022**	**Mar 16, 2022**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C10	20	Total ug	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	Total ug	< 20	< 20
TRH >C10-C16	20	Total ug	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	20	Total ug	< 20	< 20

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
Isopropanol	Melbourne	Mar 18, 2022	14 Days
- Method: LTM-ORG-2030 VOCs in Ambient Air by GC/MS			
VOCs in Ambient Air by GC/MS	Melbourne	Mar 23, 2022	14 Days
- Method: LTM-ORG-2030 VOCs in Ambient Air by GC/MS			
VOC AIR-TRH (Total Recoverable Hydrocarbons)			
Total Recoverable Hydrocarbons	Melbourne	Mar 18, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: HALE ST BOTANY
Project ID: 62740

Order No.:
Report #: 872218
Phone: 02 8245 0300
Fax:

Received: Mar 16, 2022 12:00 PM
Due: Mar 24, 2022
Priority: 2 Day
Contact Name: Ruby Chapman

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Isopropanol	VOC AIR-TRH (Total Recoverable Hydrocarbons)	VOCs in Ambient Air by GC/MS
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217								
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	SV01 FRONT	Mar 16, 2022		Air	S22-Ma35746	X	X	X
2	SV01 BACK	Mar 16, 2022		Air	S22-Ma35747	X	X	X
3	SV02 FRONT	Mar 16, 2022		Air	S22-Ma35748	X	X	X
4	SV02 BACK	Mar 16, 2022		Air	S22-Ma35749	X	X	X
5	SV03 FRONT	Mar 16, 2022		Air	S22-Ma35750	X	X	X
6	SV03 BACK	Mar 16, 2022		Air	S22-Ma35751	X	X	X
7	SV04 FRONT	Mar 16, 2022		Air	S22-Ma35752	X	X	X
8	SV04 BACK	Mar 16, 2022		Air	S22-Ma35753	X	X	X
9	SV05 FRONT	Mar 16, 2022		Air	S22-Ma35754	X	X	X

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

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Contact Name: Ruby Chapman

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Isopropanol	VOC AIR-TRH (Total Recoverable Hydrocarbons)	VOCs in Ambient Air by GC/MS
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217								
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
10	SV05 BACK	Mar 16, 2022		Air	S22-Ma35755	X	X	X
11	SV07 FRONT	Mar 16, 2022		Air	S22-Ma35758	X	X	X
12	SV07 BACK	Mar 16, 2022		Air	S22-Ma35759	X	X	X
13	SV08 FRONT	Mar 16, 2022		Air	S22-Ma35760	X	X	X
14	SV08 BACK	Mar 16, 2022		Air	S22-Ma35761	X	X	X
15	SV09 FRONT	Mar 16, 2022		Air	S22-Ma35762	X	X	X
16	SV09 BACK	Mar 16, 2022		Air	S22-Ma35763	X	X	X
17	SV_FB FRONT	Mar 16, 2022		Air	S22-Ma35764	X	X	X
18	SV_FB BACK	Mar 16, 2022		Air	S22-Ma35765	X	X	X
Test Counts						18	18	18

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 1999, as amended May 2013 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. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. 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.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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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. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Isopropanol	Total ug	< 10			10	Pass	
Method Blank							
VOCs in Ambient Air by GC/MS							
1.1-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.1-Dichloroethene	Total ug	< 0.5			0.5	Pass	
1.1-Dichloropropene	Total ug	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromo-3-chloropropane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromoethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
1.3-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
2-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
2.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
4-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
Benzene	Total ug	< 0.5			0.5	Pass	
Bromochloromethane	Total ug	< 0.5			0.5	Pass	
Bromodichloromethane	Total ug	< 0.5			0.5	Pass	
Bromoform	Total ug	< 0.5			0.5	Pass	
Carbon Tetrachloride	Total ug	< 0.5			0.5	Pass	
Chlorobenzene	Total ug	< 0.5			0.5	Pass	
Chloroform	Total ug	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	Total ug	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Dibromochloromethane	Total ug	< 0.5			0.5	Pass	
Dibromomethane	Total ug	< 0.5			0.5	Pass	
Ethylbenzene	Total ug	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	Total ug	< 0.5			0.5	Pass	
n-Butylbenzene	Total ug	< 0.5			0.5	Pass	
n-Propylbenzene	Total ug	< 0.5			0.5	Pass	
Naphthalene	Total ug	< 0.5			0.5	Pass	
p-Isopropyltoluene	Total ug	< 0.5			0.5	Pass	
sec-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Styrene	Total ug	< 5			5	Pass	
tert-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Tetrachloroethene	Total ug	< 0.5			0.5	Pass	
Toluene	Total ug	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Trichloroethene	Total ug	< 0.5			0.5	Pass	
Trichlorofluoromethane	Total ug	< 0.5			0.5	Pass	
Vinyl chloride	Total ug	< 0.5			0.5	Pass	
Xylenes - Total*	Total ug	< 1.5			1.5	Pass	
1.2-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.3-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
Hexachlorobutadiene	Total ug	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C10	Total ug	< 20			20	Pass	
TRH >C10-C16	Total ug	< 20			20	Pass	
LCS - % Recovery							
Isopropanol	%	112			70-130	Pass	
LCS - % Recovery							
VOCs in Ambient Air by GC/MS							
1.1-Dichloroethene	%	89			70-130	Pass	
1.1-Dichloropropene	%	78			70-130	Pass	
1.1.1-Trichloroethane	%	80			70-130	Pass	
1.2-Dibromo-3-chloropropane	%	86			75-125	Pass	
1.2-Dichloroethane	%	79			70-130	Pass	
Benzene	%	75			70-130	Pass	
Ethylbenzene	%	91			70-130	Pass	
Naphthalene	%	87			70-130	Pass	
Toluene	%	88			70-130	Pass	
Trichloroethene	%	78			70-130	Pass	
Xylenes - Total*	%	92			70-130	Pass	
1.2-Dichlorobenzene	%	93			70-130	Pass	
1.2.3-Trichlorobenzene	%	84			70-130	Pass	
1.2.4-Trichlorobenzene	%	84			70-130	Pass	
1.4-Dichlorobenzene	%	87			70-130	Pass	

Comments

Eurofins | Environment Testing accreditation number 1261, site 18217 is currently in progress of a controlled transition to a new custom built location at 179 Magowar Road, Girraween, NSW 2145. All results on this report denoted as being performed by Eurofins | Environment Testing Unit F3, Building F, 16 Mars road, Lane Cove West, NSW 2066, corporate site 18217, will have been performed on either Lane Cove or new Girraween 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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Authorised by:

Ursula Long	Analytical Services Manager
Joseph Edouard	Senior Analyst-Organic (VIC)
Vivian Wang	Senior Analyst-Volatile (VIC)



Glenn Jackson
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.

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eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Ruby Chapman
Project name:	HALE ST BOTANY
Project ID:	62740
Turnaround time:	5 Day
Date/Time received	Mar 16, 2022 12:00 PM
Eurofins reference	872218

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
N/A	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✗	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Ruby Chapman - Rchapman@jbsg.com.au.

Global Leader - Results you can trust

Chain of Custody

JBS&G

PROJECT NO.: 62740	LABORATORY BATCH NO.:
PROJECT NAME: Hale St Botany	SAMPLERS: RC, JW, MD, ST
DATE NEEDED BY: standard	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) r.chapman@jbsg.com.au; (3) jnicholson@jbsg.com.au, stran, jwallis, mdinan@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	VOC*	TRH	Isopropanol	Number of asbestos containers/jars	Identification	Remarks	NOTES:
SV01	Gas	16/03		carbon tube		x	x	x				* 8260 method
SV02	↓	↓		↓		x	x	x				
SV03						x	x	x				
SV04						x	x	x				
SV05						x	x	x				
SV07						x	x	x				
SV08						x	x	x				
SV-FB						x	x	x				
SV09						x	x	x				

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Serena Tran DATE: 16/03/22	CONSIGNMENT NOTE NO.	NAME: E-T	COOLER SEAL – Yes ___ No ___ Intact ___ Broken ___
OF: JBS&G	TRANSPORT CO.	DATE: 16/03/22 OF:	COOLER TEMP ___ deg C 8.7 2.1.7
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes ___ No ___ Intact ___ Broken ___
OF:	TRANSPORT CO	OF:	COOLER TEMP ___ deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Ruby Chapman**

Report **872222-S-V2**
Project name HALE ST BOTANY
Project ID 62740
Received Date Mar 16, 2022

Client Sample ID			**MW01_0.2-0.3**	**MW01_0.5-0.6**	**SB05_0.2-0.3**	**SB05_0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Ma35800**	**S22-Ma35801**	**S22-Ma35802**	**S22-Ma35803**
Date Sampled			**Mar 16, 2022**	**Mar 16, 2022**	**Mar 16, 2022**	**Mar 16, 2022**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	4.9	8.8	7.8	< 2
Cadmium	0.4	mg/kg	< 0.4	0.5	< 0.4	< 0.4
Chromium	5	mg/kg	24	110	14	< 5
Copper	5	mg/kg	94	240	55	< 5
Lead	5	mg/kg	100	220	160	10
Mercury	0.1	mg/kg	2.4	3.9	0.6	0.3
Nickel	5	mg/kg	19	39	17	< 5
Zinc	5	mg/kg	270	1100	170	170
% Moisture	1	%	10	15	14	15
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	56	100	< 50
TRH C29-C36	50	mg/kg	-	< 50	88	< 50
TRH C10-C36 (Total)	50	mg/kg	-	56	188	< 50
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	< 100	170	< 100
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	170	< 100
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	87	120	124

Client Sample ID			MW01_0.2-0.3	MW01_0.5-0.6	SB05_0.2-0.3	SB05_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35800	S22-Ma35801	S22-Ma35802	S22-Ma35803
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5	-	< 0.5
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	-	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	-	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	-	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	-	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	-	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	-	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	-	< 0.5
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	-	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	-	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	-	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	-	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	-	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	-	< 0.5
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5	-	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	-	< 0.5	-	< 0.5
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	-	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5	-	< 0.5
Allyl chloride	0.5	mg/kg	-	< 0.5	-	< 0.5
Benzene	0.1	mg/kg	-	< 0.1	-	< 0.1
Bromobenzene	0.5	mg/kg	-	< 0.5	-	< 0.5
Bromochloromethane	0.5	mg/kg	-	< 0.5	-	< 0.5
Bromodichloromethane	0.5	mg/kg	-	< 0.5	-	< 0.5
Bromoform	0.5	mg/kg	-	< 0.5	-	< 0.5
Bromomethane	0.5	mg/kg	-	< 0.5	-	< 0.5
Carbon disulfide	0.5	mg/kg	-	< 0.5	-	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	-	< 0.5
Chlorobenzene	0.5	mg/kg	-	< 0.5	-	< 0.5
Chloroethane	0.5	mg/kg	-	< 0.5	-	< 0.5
Chloroform	0.5	mg/kg	-	< 0.5	-	< 0.5
Chloromethane	0.5	mg/kg	-	< 0.5	-	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	-	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibromochloromethane	0.5	mg/kg	-	< 0.5	-	< 0.5
Dibromomethane	0.5	mg/kg	-	< 0.5	-	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5	-	< 0.5
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	< 0.1
Iodomethane	0.5	mg/kg	-	< 0.5	-	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	-	< 0.5
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-	< 0.2
Methylene Chloride	0.5	mg/kg	-	< 0.5	-	< 0.5
o-Xylene	0.1	mg/kg	-	< 0.1	-	< 0.1
Styrene	0.5	mg/kg	-	< 0.5	-	< 0.5
Tetrachloroethene	0.5	mg/kg	-	< 0.5	-	< 0.5
Toluene	0.1	mg/kg	-	< 0.1	-	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	-	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	-	< 0.5

Client Sample ID			MW01_0.2-0.3	MW01_0.5-0.6	SB05_0.2-0.3	SB05_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35800	S22-Ma35801	S22-Ma35802	S22-Ma35803
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
Trichloroethene	0.5	mg/kg	-	< 0.5	-	< 0.5
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5	-	< 0.5
Vinyl chloride	0.5	mg/kg	-	< 0.5	-	< 0.5
Xylenes - Total*	0.3	mg/kg	-	< 0.3	-	< 0.3
Total MAH*	0.5	mg/kg	-	< 0.5	-	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	< 0.5	-	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	< 0.5	-	< 0.5
4-Bromofluorobenzene (surr.)	1	%	-	87	-	124
Toluene-d8 (surr.)	1	%	-	76	-	101
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	3.0	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	3.3	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	3.5	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	2.0	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	2.3	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	1.8	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	1.2	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	1.8	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	2.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	3.9	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	1.3	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	1.3	< 0.5
Pyrene	0.5	mg/kg	-	0.5	4.3	< 0.5
Total PAH*	0.5	mg/kg	-	0.5	22.4	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	105	113	110
p-Terphenyl-d14 (surr.)	1	%	-	99	87	116
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	< 0.05
a-HCH	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-HCH	0.05	mg/kg	-	< 0.05	-	< 0.05
d-HCH	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	0.88	-	0.06
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05

Client Sample ID			MW01_0.2-0.3	MW01_0.5-0.6	SB05_0.2-0.3	SB05_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35800	S22-Ma35801	S22-Ma35802	S22-Ma35803
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Toxaphene	0.5	mg/kg	-	< 0.5	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	0.88	-	0.06
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	0.88	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	88	-	96
Tetrachloro-m-xylene (surr.)	1	%	-	100	-	96
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1221	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1232	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1242	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1248	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1254	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1260	0.1	mg/kg	-	< 0.1	-	< 0.1
Total PCB*	0.1	mg/kg	-	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	88	-	96
Tetrachloro-m-xylene (surr.)	1	%	-	100	-	96
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	-	< 5	-	-
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	-	< 5	-	-
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	-	< 5	-	-
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	-	< 5	-	-
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	-	< 5	-	-
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	-	< 5	-	-
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	-	< 5	-	-
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	-	< 5	-	-
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	-	< 5	-	-
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	-	< 5	-	-
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	-	< 5	-	-
13C4-PFBA (surr.)	1	%	-	101	-	-
13C5-PFPeA (surr.)	1	%	-	108	-	-
13C5-PFHxA (surr.)	1	%	-	104	-	-
13C4-PFHpA (surr.)	1	%	-	98	-	-
13C8-PFOA (surr.)	1	%	-	104	-	-
13C5-PFNA (surr.)	1	%	-	119	-	-
13C6-PFDA (surr.)	1	%	-	148	-	-
13C2-PFUnDA (surr.)	1	%	-	104	-	-
13C2-PFDoDA (surr.)	1	%	-	95	-	-
13C2-PFTeDA (surr.)	1	%	-	96	-	-

Client Sample ID			MW01_0.2-0.3	MW01_0.5-0.6	SB05_0.2-0.3	SB05_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35800	S22-Ma35801	S22-Ma35802	S22-Ma35803
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	-	< 5	-	-
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	-	< 5	-	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	-	< 5	-	-
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	5	ug/kg	-	< 5	-	-
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	5	ug/kg	-	< 5	-	-
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	-	< 10	-	-
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	-	< 10	-	-
13C8-FOSA (surr.)	1	%	-	87	-	-
D3-N-MeFOSA (surr.)	1	%	-	93	-	-
D5-N-EtFOSA (surr.)	1	%	-	91	-	-
D7-N-MeFOSE (surr.)	1	%	-	105	-	-
D9-N-EtFOSE (surr.)	1	%	-	90	-	-
D5-N-EtFOSAA (surr.)	1	%	-	102	-	-
D3-N-MeFOSAA (surr.)	1	%	-	113	-	-
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	-	< 5	-	-
Perfluorononanesulfonic acid (PFNS)[N15]	5	ug/kg	-	< 5	-	-
Perfluoropropanesulfonic acid (PFPrS)[N15]	5	ug/kg	-	< 5	-	-
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	-	< 5	-	-
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	-	< 5	-	-
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	-	< 5	-	-
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	-	< 5	-	-
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	-	< 5	-	-
13C3-PFBS (surr.)	1	%	-	105	-	-
18O2-PFHxS (surr.)	1	%	-	102	-	-
13C8-PFOS (surr.)	1	%	-	111	-	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	-	< 5	-	-
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	10	ug/kg	-	< 10	-	-
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	-	< 5	-	-
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	-	< 5	-	-
13C2-4:2 FTSA (surr.)	1	%	-	87	-	-
13C2-6:2 FTSA (surr.)	1	%	-	74	-	-
13C2-8:2 FTSA (surr.)	1	%	-	132	-	-
13C2-10:2 FTSA (surr.)	1	%	-	105	-	-
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	-	< 5	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	-	< 5	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	-	< 5	-	-
Sum of WA DWER PFAS (n=10)*	10	ug/kg	-	< 10	-	-
Sum of PFASs (n=30)*	50	ug/kg	-	< 50	-	-

Client Sample ID			SB05_1.4-1.5	SB04_0.5-0.6	SB04_0.9-1.0	SB03_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35804	S22-Ma35805	S22-Ma35806	S22-Ma35807
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	-	< 2	3.0	4.7
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	-	7.9	14	43
Copper	5	mg/kg	-	11	20	50
Lead	5	mg/kg	-	27	55	99
Mercury	0.1	mg/kg	-	2.0	16	24
Nickel	5	mg/kg	-	< 5	< 5	9.0
Zinc	5	mg/kg	-	17	66	160
% Moisture	1	%	20	8.3	24	22
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	< 50	65	< 50
TRH C29-C36	50	mg/kg	-	< 50	69	< 50
TRH C10-C36 (Total)	50	mg/kg	-	< 50	134	< 50
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	< 100	110	< 100
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	110	< 100
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	83	107	75
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5

Client Sample ID			SB05_1.4-1.5	SB04_0.5-0.6	SB04_0.9-1.0	SB03_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35804	S22-Ma35805	S22-Ma35806	S22-Ma35807
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	-	83	107	75
Toluene-d8 (surr.)	1	%	-	70	94	63
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5

Client Sample ID			SB05_1.4-1.5	SB04_0.5-0.6	SB04_0.9-1.0	SB03_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35804	S22-Ma35805	S22-Ma35806	S22-Ma35807
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	0.6
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	0.6
2-Fluorobiphenyl (surr.)	1	%	-	107	124	115
p-Terphenyl-d14 (surr.)	1	%	-	112	107	87
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	0.15
a-HCH	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-HCH	0.05	mg/kg	-	< 0.05	-	< 0.05
d-HCH	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Toxaphene	0.5	mg/kg	-	< 0.5	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	0.15
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	-	0.15
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	112	-	79
Tetrachloro-m-xylene (surr.)	1	%	-	120	-	88
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1221	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1232	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1242	0.1	mg/kg	-	< 0.1	-	< 0.1

Client Sample ID			SB05_1.4-1.5	SB04_0.5-0.6	SB04_0.9-1.0	SB03_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35804	S22-Ma35805	S22-Ma35806	S22-Ma35807
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1248	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1254	0.1	mg/kg	-	< 0.1	-	< 0.1
Aroclor-1260	0.1	mg/kg	-	< 0.1	-	< 0.1
Total PCB*	0.1	mg/kg	-	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	112	-	79
Tetrachloro-m-xylene (surr.)	1	%	-	120	-	88
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	-	< 5	-	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	-	< 5	-	< 5
13C4-PFBA (surr.)	1	%	-	91	-	104
13C5-PFPeA (surr.)	1	%	-	86	-	109
13C5-PFHxA (surr.)	1	%	-	80	-	108
13C4-PFHpA (surr.)	1	%	-	66	-	101
13C8-PFOA (surr.)	1	%	-	75	-	107
13C5-PFNA (surr.)	1	%	-	90	-	130
13C6-PFDA (surr.)	1	%	-	105	-	141
13C2-PFUnDA (surr.)	1	%	-	91	-	99
13C2-PFDoDA (surr.)	1	%	-	81	-	97
13C2-PFTeDA (surr.)	1	%	-	83	-	108
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	-	< 5	-	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	-	< 5	-	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	-	< 5	-	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	5	ug/kg	-	< 5	-	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	5	ug/kg	-	< 5	-	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	-	< 10	-	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	-	< 10	-	< 10
13C8-FOSA (surr.)	1	%	-	99	-	92
D3-N-MeFOSA (surr.)	1	%	-	93	-	93
D5-N-EtFOSA (surr.)	1	%	-	97	-	93
D7-N-MeFOSE (surr.)	1	%	-	101	-	105
D9-N-EtFOSE (surr.)	1	%	-	98	-	91
D5-N-EtFOSAA (surr.)	1	%	-	76	-	113
D3-N-MeFOSAA (surr.)	1	%	-	69	-	116

Client Sample ID			SB05_1.4-1.5	SB04_0.5-0.6	SB04_0.9-1.0	SB03_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35804	S22-Ma35805	S22-Ma35806	S22-Ma35807
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluorononanesulfonic acid (PFNS)[N15]	5	ug/kg	-	< 5	-	< 5
Perfluoropropanesulfonic acid (PFPrS)[N15]	5	ug/kg	-	< 5	-	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	-	< 5	-	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	-	< 5	-	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	-	< 5	-	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	-	< 5	-	< 5
13C3-PFBS (surr.)	1	%	-	92	-	109
18O2-PFHxS (surr.)	1	%	-	102	-	112
13C8-PFOS (surr.)	1	%	-	109	-	109
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	-	< 5	-	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	10	ug/kg	-	< 10	-	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	-	< 5	-	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	-	< 5	-	< 5
13C2-4:2 FTSA (surr.)	1	%	-	36	-	82
13C2-6:2 FTSA (surr.)	1	%	-	24	-	78
13C2-8:2 FTSA (surr.)	1	%	-	23	-	144
13C2-10:2 FTSA (surr.)	1	%	-	64	-	109
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	-	< 5	-	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	-	< 5	-	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	-	< 5	-	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	-	< 10	-	< 10
Sum of PFASs (n=30)*	50	ug/kg	-	< 50	-	< 50
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	8.8	-	-	-
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	< 2	-	-	-
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	< 0.003	-	-	-
Potential Acidity - Titratable Peroxide						
pH-OX	0.1	pH Units	6.2	-	-	-
Titratable Peroxide Acidity (s-TPA)	0.02	% pyrite S	< 0.02	-	-	-
Titratable Peroxide Acidity (a-TPA)	2	mol H+/t	< 2	-	-	-
Titratable Sulfidic Acidity (a-TSA)	2	mol H+/t	< 2	-	-	-
Titratable Sulfidic Acidity (s-TSA)	0.02	% pyrite S	< 0.02	-	-	-
Extractable Sulfur						
Sulfur - KCl Extractable	0.005	% S	< 0.005	-	-	-
Peroxide Extractable Sulfur	0.005	% S	< 0.005	-	-	-
HCl Extractable Sulfur	0.005	% S	N/A	-	-	-
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.02	% S	< 0.02	-	-	-
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	10	mol H+/t	< 10	-	-	-
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.02	% S	N/A	-	-	-
Net Acid soluble sulfur (a-SNAS) NLM-4.1	10	mol H+/t	N/A	-	-	-
HCl Extractable Sulfur Correction Factor	1	factor	2.0	-	-	-

Client Sample ID			SB05_1.4-1.5	SB04_0.5-0.6	SB04_0.9-1.0	SB03_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35804	S22-Ma35805	S22-Ma35806	S22-Ma35807
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	0.13	-	-	-
Calcium - Peroxide	0.005	% Ca	0.15	-	-	-
Calcium - Acid Reacted	0.005	% Ca	0.022	-	-	-
Calcium - Acid Reacted (s-aCa)	0.005	% S	0.017	-	-	-
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	11	-	-	-
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	< 0.005	-	-	-
Magnesium - Peroxide	0.005	% Mg	< 0.005	-	-	-
Magnesium - Acid Reacted	0.005	% Mg	< 0.005	-	-	-
Magnesium - Acid Reacted (s-aCa)	0.005	% S	< 0.005	-	-	-
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	< 0.005	-	-	-
Acid Neutralising Capacity (ANCE)						
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	N/A	-	-	-
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	N/A	-	-	-
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	n/a	-	-	-
Acid Neutralising Capacity (ANCbt)						
ANC Fineness Factor		factor	1.5	-	-	-
Net Acidity (Including ANC)						
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	10	mol H+/t	< 10	-	-	-
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	0.02	% S	< 0.02	-	-	-
SPOCAS - Liming rate - ASSMAC	1	kg CaCO3/t	< 1	-	-	-
Extraneous Material						
<2mm Fraction	0.005	g	65	-	-	-
>2mm Fraction	0.005	g	0.34	-	-	-
Analysed Material	0.1	%	99	-	-	-
Extraneous Material	0.1	%	0.5	-	-	-

Client Sample ID			SB03_0.3-0.4	SB02_0.2-0.3	SB01_0.4-0.5	SB01_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35808	S22-Ma35809	S22-Ma35810	S22-Ma35811
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	3.0	3.0	2.5	2.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.5	0.6
Chromium	5	mg/kg	27	6.9	100	66
Copper	5	mg/kg	60	14	78	35
Lead	5	mg/kg	95	41	130	56
Mercury	0.1	mg/kg	19	0.6	0.2	0.2
Nickel	5	mg/kg	6.0	< 5	72	62
Zinc	5	mg/kg	92	41	190	130
% Moisture	1	%	20	15	16	8.9

Client Sample ID			SB03_0.3-0.4	SB02_0.2-0.3	SB01_0.4-0.5	SB01_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35808	S22-Ma35809	S22-Ma35810	S22-Ma35811
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	78	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	74	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	172	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	130	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	130	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	51	89	113	77
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5	< 0.5	-
2-Propanone (Acetone)	0.5	mg/kg	-	< 0.5	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5	< 0.5	-
Allyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	-
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Bromobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromodichloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromoform	0.5	mg/kg	-	< 0.5	< 0.5	-
Bromomethane	0.5	mg/kg	-	< 0.5	< 0.5	-

Client Sample ID			SB03_0.3-0.4	SB02_0.2-0.3	SB01_0.4-0.5	SB01_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35808	S22-Ma35809	S22-Ma35810	S22-Ma35811
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
Carbon disulfide	0.5	mg/kg	-	< 0.5	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	< 0.5	-
Chlorobenzene	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloroethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloroform	0.5	mg/kg	-	< 0.5	< 0.5	-
Chloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibromochloromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibromomethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Iodomethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	< 0.5	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	-
Methylene Chloride	0.5	mg/kg	-	< 0.5	< 0.5	-
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	-
Styrene	0.5	mg/kg	-	< 0.5	< 0.5	-
Tetrachloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 0.5	-
Trichloroethene	0.5	mg/kg	-	< 0.5	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5	< 0.5	-
Vinyl chloride	0.5	mg/kg	-	< 0.5	< 0.5	-
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	-
Total MAH*	0.5	mg/kg	-	< 0.5	< 0.5	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	< 0.5	< 0.5	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	< 0.5	< 0.5	-
4-Bromofluorobenzene (surr.)	1	%	-	89	113	-
Toluene-d8 (surr.)	1	%	-	86	98	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	0.6	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SB03_0.3-0.4	SB02_0.2-0.3	SB01_0.4-0.5	SB01_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35808	S22-Ma35809	S22-Ma35810	S22-Ma35811
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	0.8	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	1.4	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	125	93	91	87
p-Terphenyl-d14 (surr.)	1	%	97	121	112	107
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	0.11	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	0.55	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	2.7	< 0.05	-
a-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
d-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	-	< 0.05	0.08	-
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Toxaphene	0.5	mg/kg	-	< 0.5	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	0.08	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	3.36	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	3.36	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	111	107	-
Tetrachloro-m-xylene (surr.)	1	%	-	98	95	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1221	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1232	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1242	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1248	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1254	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1260	0.1	mg/kg	-	< 0.1	< 0.1	-
Total PCB*	0.1	mg/kg	-	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	111	107	-
Tetrachloro-m-xylene (surr.)	1	%	-	98	95	-
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	5	ug/kg	-	< 5	< 5	< 5
Perfluoropentanoic acid (PFPeA)[N11]	5	ug/kg	-	< 5	< 5	< 5
Perfluorohexanoic acid (PFHxA)[N11]	5	ug/kg	-	< 5	< 5	< 5
Perfluoroheptanoic acid (PFHpA)[N11]	5	ug/kg	-	< 5	< 5	< 5

Client Sample ID			SB03_0.3-0.4	SB02_0.2-0.3	SB01_0.4-0.5	SB01_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35808	S22-Ma35809	S22-Ma35810	S22-Ma35811
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorooctanoic acid (PFOA)[N11]	5	ug/kg	-	< 5	< 5	< 5
Perfluorononanoic acid (PFNA)[N11]	5	ug/kg	-	< 5	< 5	< 5
Perfluorodecanoic acid (PFDA)[N11]	5	ug/kg	-	< 5	< 5	< 5
Perfluoroundecanoic acid (PFUnDA)[N11]	5	ug/kg	-	< 5	< 5	< 5
Perfluorododecanoic acid (PFDoDA)[N11]	5	ug/kg	-	< 5	< 5	< 5
Perfluorotridecanoic acid (PFTrDA)[N15]	5	ug/kg	-	< 5	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA)[N11]	5	ug/kg	-	< 5	< 5	< 5
13C4-PFBA (surr.)	1	%	-	91	89	91
13C5-PFPeA (surr.)	1	%	-	95	91	95
13C5-PFHxA (surr.)	1	%	-	95	92	94
13C4-PFHpA (surr.)	1	%	-	84	82	88
13C8-PFOA (surr.)	1	%	-	88	94	92
13C5-PFNA (surr.)	1	%	-	103	113	116
13C6-PFDA (surr.)	1	%	-	140	143	141
13C2-PFUnDA (surr.)	1	%	-	100	95	101
13C2-PFDoDA (surr.)	1	%	-	97	96	97
13C2-PFTeDA (surr.)	1	%	-	89	112	105
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	5	ug/kg	-	< 5	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	5	ug/kg	-	< 5	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	5	ug/kg	-	< 5	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	5	ug/kg	-	< 5	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	5	ug/kg	-	< 5	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	10	ug/kg	-	< 10	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	-	< 10	< 10	< 10
13C8-FOSA (surr.)	1	%	-	86	89	88
D3-N-MeFOSA (surr.)	1	%	-	91	94	96
D5-N-EtFOSA (surr.)	1	%	-	97	96	92
D7-N-MeFOSE (surr.)	1	%	-	106	102	99
D9-N-EtFOSE (surr.)	1	%	-	93	95	86
D5-N-EtFOSAA (surr.)	1	%	-	93	98	108
D3-N-MeFOSAA (surr.)	1	%	-	95	108	101
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	5	ug/kg	-	< 5	< 5	< 5
Perfluorononanesulfonic acid (PFNS)[N15]	5	ug/kg	-	< 5	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS)[N15]	5	ug/kg	-	< 5	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS)[N15]	5	ug/kg	-	< 5	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS)[N11]	5	ug/kg	-	< 5	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS)[N15]	5	ug/kg	-	< 5	< 5	< 5
Perfluorooctanesulfonic acid (PFOS)[N11]	5	ug/kg	-	< 5	5.3	< 5
Perfluorodecanesulfonic acid (PFDS)[N15]	5	ug/kg	-	< 5	< 5	< 5
13C3-PFBS (surr.)	1	%	-	92	87	93
18O2-PFHxS (surr.)	1	%	-	93	96	102
13C8-PFOS (surr.)	1	%	-	111	113	115

Client Sample ID			SB03_0.3-0.4	SB02_0.2-0.3	SB01_0.4-0.5	SB01_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35808	S22-Ma35809	S22-Ma35810	S22-Ma35811
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	5	ug/kg	-	< 5	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	10	ug/kg	-	< 10	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	5	ug/kg	-	< 5	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	5	ug/kg	-	< 5	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	-	52	42	52
13C2-6:2 FTSA (surr.)	1	%	-	44	68	66
13C2-8:2 FTSA (surr.)	1	%	-	80	107	115
13C2-10:2 FTSA (surr.)	1	%	-	108	101	111
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	-	< 5	5.3	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	-	< 5	5.3	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	-	< 5	5.3	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	-	< 10	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	-	< 50	< 50	< 50
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	6.5	-	-	-
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	< 2	-	-	-
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	< 0.003	-	-	-
Potential Acidity - Titratable Peroxide						
pH-OX	0.1	pH Units	7.0	-	-	-
Titratable Peroxide Acidity (s-TPA)	0.02	% pyrite S	< 0.02	-	-	-
Titratable Peroxide Acidity (a-TPA)	2	mol H+/t	< 2	-	-	-
Titratable Sulfidic Acidity (a-TSA)	2	mol H+/t	< 2	-	-	-
Titratable Sulfidic Acidity (s-TSA)	0.02	% pyrite S	< 0.02	-	-	-
Extractable Sulfur						
Sulfur - KCl Extractable	0.005	% S	< 0.005	-	-	-
Peroxide Extractable Sulfur	0.005	% S	0.020	-	-	-
HCl Extractable Sulfur	0.005	% S	< 0.005	-	-	-
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.02	% S	0.02	-	-	-
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	10	mol H+/t	15	-	-	-
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.02	% S	N/A	-	-	-
Net Acid soluble sulfur (a-SNAS) NLM-4.1	10	mol H+/t	N/A	-	-	-
HCl Extractable Sulfur Correction Factor	1	factor	2.0	-	-	-
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	0.14	-	-	-
Calcium - Peroxide	0.005	% Ca	0.18	-	-	-
Calcium - Acid Reacted	0.005	% Ca	0.041	-	-	-
Calcium - Acid Reacted (s-aCa)	0.005	% S	0.033	-	-	-
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	21	-	-	-
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	< 0.005	-	-	-
Magnesium - Peroxide	0.005	% Mg	< 0.005	-	-	-
Magnesium - Acid Reacted	0.005	% Mg	< 0.005	-	-	-
Magnesium - Acid Reacted (s-aCa)	0.005	% S	< 0.005	-	-	-
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	< 0.005	-	-	-

Client Sample ID			SB03_0.3-0.4	SB02_0.2-0.3	SB01_0.4-0.5	SB01_0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Ma35808	S22-Ma35809	S22-Ma35810	S22-Ma35811
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Acid Neutralising Capacity (ANCE)						
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	0.44	-	-	-
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	0.14	-	-	-
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	87	-	-	-
Acid Neutralising Capacity (ANCbt)						
ANC Fineness Factor		factor	1.5	-	-	-
Net Acidity (Including ANC)						
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	10	mol H+/t	< 10	-	-	-
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	0.02	% S	< 0.02	-	-	-
SPOCAS - Liming rate - ASSMAC	1	kg CaCO3/t	< 1	-	-	-
Extraneous Material						
<2mm Fraction	0.005	g	110	-	-	-
>2mm Fraction	0.005	g	9.8	-	-	-
Analysed Material	0.1	%	91	-	-	-
Extraneous Material	0.1	%	8.6	-	-	-

Client Sample ID			QA01-20220316
Sample Matrix			Soil
Eurofins Sample No.			S22-Ma35812
Date Sampled			Mar 16, 2022
Test/Reference	LOR	Unit	
Heavy Metals			
Arsenic	2	mg/kg	< 2
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	< 5
Copper	5	mg/kg	5.6
Lead	5	mg/kg	13
Mercury	0.1	mg/kg	0.2
Nickel	5	mg/kg	< 5
Zinc	5	mg/kg	170
% Moisture	1	%	14
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100

Client Sample ID			QA01-20220316
Sample Matrix			**Soil**
Eurofins Sample No.			**S22-Ma35812**
Date Sampled			**Mar 16, 2022**
Test/Reference	LOR	Unit	
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	88
Volatile Organics			
1.1-Dichloroethane	0.5	mg/kg	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5
Benzene	0.1	mg/kg	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5
Bromoform	0.5	mg/kg	< 0.5
Bromomethane	0.5	mg/kg	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5
Chloroethane	0.5	mg/kg	< 0.5
Chloroform	0.5	mg/kg	< 0.5
Chloromethane	0.5	mg/kg	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1
Iodomethane	0.5	mg/kg	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5

Client Sample ID			QA01-20220316
Sample Matrix			**Soil**
Eurofins Sample No.			**S22-Ma35812**
Date Sampled			**Mar 16, 2022**
Test/Reference	LOR	Unit	
Volatile Organics			
m&p-Xylenes	0.2	mg/kg	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5
o-Xylene	0.1	mg/kg	< 0.1
Styrene	0.5	mg/kg	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5
Toluene	0.1	mg/kg	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3
Total MAH*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5
4-Bromofluorobenzene (surr.)	1	%	88
Toluene-d8 (surr.)	1	%	81
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	90
p-Terphenyl-d14 (surr.)	1	%	104
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-HCH	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-HCH	0.05	mg/kg	< 0.05
d-HCH	0.05	mg/kg	< 0.05

Client Sample ID			QA01-20220316
Sample Matrix			**Soil**
Eurofins Sample No.			**S22-Ma35812**
Date Sampled			**Mar 16, 2022**
Test/Reference	LOR	Unit	
Organochlorine Pesticides			
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.5	mg/kg	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	79
Tetrachloro-m-xylene (surr.)	1	%	91
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB*	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	79
Tetrachloro-m-xylene (surr.)	1	%	91

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
Metals M8	Sydney	Mar 18, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
BTEX	Sydney	Mar 18, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Volatile Organics	Sydney	Mar 18, 2022	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons	Sydney	Mar 18, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Mar 18, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Mar 18, 2022	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Moisture	Sydney	Mar 18, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Mar 18, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Mar 18, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Mar 18, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Brisbane	Mar 21, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Brisbane	Mar 21, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Brisbane	Mar 21, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Brisbane	Mar 21, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
SPOCAS Suite			
SPOCAS Suite	Brisbane	Mar 21, 2022	6 Week
- Method: LTM-GEN-7050			
Extraneous Material	Brisbane	Mar 21, 2022	6 Week
- Method: LTM-GEN-7050/7070			

eurofins | Environment Testing

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: HALE ST BOTANY
Project ID: 62740

Order No.:
Report #: 872222
Phone: 02 8245 0300
Fax:

Received: Mar 16, 2022 6:00 PM
Due: Mar 21, 2022
Priority: 3 Day
Contact Name: Ruby Chapman

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - WA guidelines	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Total Recoverable Hydrocarbons	Per- and Polyfluoroalkyl Substances (PFASs)	BTEX
Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**													
1	MW01_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35800						X				X			
2	MW01_0.5-0.6	Mar 16, 2022		Soil	S22-Ma35801			X	X	X	X	X	X		X	X	X	
3	SB05_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35802			X			X	X			X	X		
4	SB05_0.9-1.0	Mar 16, 2022		Soil	S22-Ma35803			X	X	X	X	X	X		X	X		
5	SB05_1.4-1.5	Mar 16, 2022		Soil	S22-Ma35804									X	X			
6	SB04_0.5-0.6	Mar 16, 2022		Soil	S22-Ma35805			X	X	X	X	X	X		X	X	X	
7	SB04_0.9-1.0	Mar 16, 2022		Soil	S22-Ma35806			X			X	X	X		X	X		
8	SB03_0-0.1	Mar 16, 2022		Soil	S22-Ma35807			X	X	X	X	X	X		X	X	X	
9	SB03_0.3-0.4	Mar 16, 2022		Soil	S22-Ma35808			X			X	X		X	X	X		

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
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46-48 Banksia Road
Welshpool WA 6106
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NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
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Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
10	SB02_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35809			X	X	X	X	X	X		X	X	X	
11	SB01_0.4-0.5	Mar 16, 2022		Soil	S22-Ma35810			X	X	X	X	X	X		X	X	X	
12	SB01_0.9-1.0	Mar 16, 2022		Soil	S22-Ma35811			X			X	X			X	X	X	
13	QA01-20220316	Mar 16, 2022		Soil	S22-Ma35812			X	X	X	X	X	X		X	X		
14	AQ01_0.2-0.6	Mar 16, 2022		Soil	S22-Ma35813	X												
15	AQ01_0.6-1.0	Mar 16, 2022		Soil	S22-Ma35814		X											
16	AQ02_0.15-0.4	Mar 16, 2022		Soil	S22-Ma35815	X												
17	AQ03_0-0.2	Mar 16, 2022		Soil	S22-Ma35816	X												
18	AQ04_0.1-0.6	Mar 16, 2022		Soil	S22-Ma35817	X												

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web: www.eurofins.com.au
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ABN: 50 005 085 521

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6 Monterey Road
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ABN: 91 05 0159 898

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Auckland
35 O'Rorke Road
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Sample Detail						Asbestos - WA guidelines	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Total Recoverable Hydrocarbons	Per- and Polyfluoroalkyl Substances (PFASs)	BTEX
Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
19	AQ05_0.15-0.6	Mar 16, 2022		Soil	S22-Ma35818	X												
20	RINSATE	Mar 16, 2022		Water	S22-Ma35821			X	X	X	X	X	X			X	X	
21	S_FB	Mar 16, 2022		Water	S22-Ma35822												X	
22	TRIP BLANK	Mar 16, 2022		Water	S22-Ma35823							X						
23	TRIP SPIKE	Mar 16, 2022		Water	S22-Ma35824													X
24	SB05_0.5-0.6	Mar 16, 2022		Soil	S22-Ma35825		X											
25	SB04_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35826		X											
26	SB04_1.2-1.3	Mar 16, 2022		Soil	S22-Ma35827		X											
27	SB02_0.4-0.5	Mar 16, 2022		Soil	S22-Ma35828		X											
28	SB01_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35829		X											

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

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Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
29	SB01_1.2-1.3	Mar 16, 2022		Soil	S22-Ma35830		X											
Test Counts						5	7	12	8	8	13	13	9	2	13	12	8	1

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 1999, as amended May 2013 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. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. 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.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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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. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/kg	< 5			5	Pass	
Perfluoropentanoic acid (PFPeA)	ug/kg	< 5			5	Pass	
Perfluorohexanoic acid (PFHxA)	ug/kg	< 5			5	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/kg	< 5			5	Pass	
Perfluorooctanoic acid (PFOA)	ug/kg	< 5			5	Pass	
Perfluorononanoic acid (PFNA)	ug/kg	< 5			5	Pass	
Perfluorodecanoic acid (PFDA)	ug/kg	< 5			5	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/kg	< 5			5	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/kg	< 5			5	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/kg	< 5			5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5			5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5			5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5			5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/kg	< 5			5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/kg	< 5			5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10			10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10			10	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/kg	< 5			5	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/kg	< 5			5	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/kg	< 5			5	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/kg	< 5			5	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/kg	< 5			5	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/kg	< 5			5	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/kg	< 5			5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorodecanesulfonic acid (PFDS)	ug/kg	< 5			5	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/kg	< 10			10	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/kg	< 5			5	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/kg	< 5			5	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	99			80-120	Pass	
Cadmium	%	104			80-120	Pass	
Chromium	%	98			80-120	Pass	
Copper	%	99			80-120	Pass	
Lead	%	100			80-120	Pass	
Mercury	%	100			80-120	Pass	
Nickel	%	97			80-120	Pass	
Zinc	%	99			80-120	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	89			70-130	Pass	
TRH C10-C14	%	114			70-130	Pass	
Naphthalene	%	97			70-130	Pass	
TRH C6-C10	%	87			70-130	Pass	
TRH >C10-C16	%	109			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	105			70-130	Pass	
Toluene	%	99			70-130	Pass	
Ethylbenzene	%	103			70-130	Pass	
m&p-Xylenes	%	108			70-130	Pass	
o-Xylene	%	107			70-130	Pass	
Xylenes - Total*	%	108			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	85			70-130	Pass	
1.1.1-Trichloroethane	%	77			70-130	Pass	
1.2-Dichlorobenzene	%	99			70-130	Pass	
1.2-Dichloroethane	%	95			70-130	Pass	
Trichloroethene	%	72			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	112			70-130	Pass	
Acenaphthylene	%	107			70-130	Pass	
Anthracene	%	97			70-130	Pass	
Benz(a)anthracene	%	87			70-130	Pass	
Benzo(a)pyrene	%	111			70-130	Pass	
Benzo(b&j)fluoranthene	%	116			70-130	Pass	
Benzo(g.h.i)perylene	%	96			70-130	Pass	
Benzo(k)fluoranthene	%	114			70-130	Pass	
Chrysene	%	103			70-130	Pass	
Dibenz(a.h)anthracene	%	106			70-130	Pass	
Fluoranthene	%	105			70-130	Pass	
Fluorene	%	97			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	108			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	%	113			70-130	Pass	
Phenanthrene	%	101			70-130	Pass	
Pyrene	%	101			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	113			70-130	Pass	
4.4'-DDD	%	104			70-130	Pass	
4.4'-DDE	%	96			70-130	Pass	
4.4'-DDT	%	117			70-130	Pass	
a-HCH	%	103			70-130	Pass	
Aldrin	%	97			70-130	Pass	
b-HCH	%	108			70-130	Pass	
d-HCH	%	108			70-130	Pass	
Dieldrin	%	107			70-130	Pass	
Endosulfan I	%	105			70-130	Pass	
Endosulfan II	%	78			70-130	Pass	
Endosulfan sulphate	%	92			70-130	Pass	
Endrin	%	101			70-130	Pass	
Endrin aldehyde	%	100			70-130	Pass	
Endrin ketone	%	120			70-130	Pass	
g-HCH (Lindane)	%	99			70-130	Pass	
Heptachlor	%	129			70-130	Pass	
Heptachlor epoxide	%	112			70-130	Pass	
Hexachlorobenzene	%	104			70-130	Pass	
Methoxychlor	%	98			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	73			70-130	Pass	
Aroclor-1221	%	110			70-130	Pass	
Aroclor-1254	%	97			70-130	Pass	
Aroclor-1260	%	74			70-130	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	96			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	94			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	90			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	90			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	93			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	95			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	97			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	102			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	92			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	88			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	94			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	102			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	101			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	94			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	94			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	73			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	94			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	86			50-150	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	97			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	102			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	96			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	84			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	101			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	105			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	96			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	99			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	98			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	101			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	96			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	98			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	W22-Ma30480	NCP	%	84			75-125	Pass	
Cadmium	W22-Ma30480	NCP	%	95			75-125	Pass	
Chromium	W22-Ma30480	NCP	%	89			75-125	Pass	
Copper	W22-Ma30480	NCP	%	96			75-125	Pass	
Lead	W22-Ma30480	NCP	%	87			75-125	Pass	
Mercury	W22-Ma30480	NCP	%	92			75-125	Pass	
Nickel	W22-Ma30480	NCP	%	85			75-125	Pass	
Zinc	W22-Ma30480	NCP	%	90			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	W22-Ma30441	NCP	%	75			70-130	Pass	
TRH >C10-C16	W22-Ma30441	NCP	%	72			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Ma36712	NCP	%	103			70-130	Pass	
Acenaphthylene	S22-Ma36712	NCP	%	97			70-130	Pass	
Anthracene	S22-Ma36712	NCP	%	84			70-130	Pass	
Benz(a)anthracene	S22-Ma36712	NCP	%	77			70-130	Pass	
Benzo(a)pyrene	S22-Ma36712	NCP	%	93			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Ma36712	NCP	%	88			70-130	Pass	
Benzo(g.h.i)perylene	S22-Ma36712	NCP	%	86			70-130	Pass	
Benzo(k)fluoranthene	S22-Ma36712	NCP	%	89			70-130	Pass	
Chrysene	S22-Ma36712	NCP	%	89			70-130	Pass	
Dibenz(a.h)anthracene	S22-Ma36712	NCP	%	81			70-130	Pass	
Fluoranthene	S22-Ma36712	NCP	%	97			70-130	Pass	
Fluorene	S22-Ma36712	NCP	%	90			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-Ma36712	NCP	%	85			70-130	Pass	
Naphthalene	S22-Ma36712	NCP	%	105			70-130	Pass	
Phenanthrene	S22-Ma36712	NCP	%	98			70-130	Pass	
Pyrene	S22-Ma36712	NCP	%	101			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S22-Ma36712	NCP	%	114			70-130	Pass	
4.4'-DDD	S22-Ma36712	NCP	%	118			70-130	Pass	
4.4'-DDE	S22-Ma36712	NCP	%	113			70-130	Pass	
4.4'-DDT	S22-Ma36712	NCP	%	103			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
a-HCH	S22-Ma36712	NCP	%	112			70-130	Pass	
Aldrin	S22-Ma36712	NCP	%	111			70-130	Pass	
b-HCH	S22-Ma36712	NCP	%	120			70-130	Pass	
d-HCH	S22-Ma36712	NCP	%	125			70-130	Pass	
Dieldrin	S22-Ma36712	NCP	%	113			70-130	Pass	
Endosulfan I	S22-Ma36712	NCP	%	122			70-130	Pass	
Endosulfan II	S22-Ma16468	NCP	%	89			70-130	Pass	
Endosulfan sulphate	S22-Ma36712	NCP	%	90			70-130	Pass	
Endrin	S22-Ma36712	NCP	%	125			70-130	Pass	
Endrin aldehyde	S22-Ma36712	NCP	%	78			70-130	Pass	
Endrin ketone	S22-Ma36712	NCP	%	121			70-130	Pass	
g-HCH (Lindane)	S22-Ma36712	NCP	%	105			70-130	Pass	
Heptachlor	S22-Ma16468	NCP	%	109			70-130	Pass	
Heptachlor epoxide	S22-Ma36712	NCP	%	115			70-130	Pass	
Hexachlorobenzene	S22-Ma36712	NCP	%	113			70-130	Pass	
Methoxychlor	S22-Ma16468	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1221	S22-Ma36712	NCP	%	114			70-130	Pass	
Aroclor-1254	S22-Ma36712	NCP	%	102			70-130	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	S22-Ma35801	CP	%	96			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S22-Ma35801	CP	%	94			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	S22-Ma35801	CP	%	93			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S22-Ma35801	CP	%	94			50-150	Pass	
Perfluorooctanoic acid (PFOA)	S22-Ma35801	CP	%	94			50-150	Pass	
Perfluorononanoic acid (PFNA)	S22-Ma35801	CP	%	97			50-150	Pass	
Perfluorodecanoic acid (PFDA)	S22-Ma35801	CP	%	100			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	S22-Ma35801	CP	%	100			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S22-Ma35801	CP	%	97			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	S22-Ma35801	CP	%	112			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S22-Ma35801	CP	%	100			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	S22-Ma35801	CP	%	106			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S22-Ma35801	CP	%	102			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S22-Ma35801	CP	%	96			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	S22-Ma35801	CP	%	99			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	S22-Ma35801	CP	%	69			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S22-Ma35801	CP	%	96			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S22-Ma35801	CP	%	84			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	S22-Ma35801	CP	%	97			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorononanesulfonic acid (PFNS)	S22-Ma35801	CP	%	107			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S22-Ma35801	CP	%	99			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S22-Ma35801	CP	%	87			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S22-Ma35801	CP	%	98			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S22-Ma35801	CP	%	103			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	S22-Ma35801	CP	%	107			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	S22-Ma35801	CP	%	108			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S22-Ma35801	CP	%	105			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	S22-Ma35801	CP	%	100			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S22-Ma35801	CP	%	98			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S22-Ma35801	CP	%	102			50-150	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Ma35802	CP	%	86			70-130	Pass	
Naphthalene	S22-Ma35802	CP	%	92			70-130	Pass	
TRH C6-C10	S22-Ma35802	CP	%	87			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Ma35802	CP	%	87			70-130	Pass	
Toluene	S22-Ma35802	CP	%	89			70-130	Pass	
Ethylbenzene	S22-Ma35802	CP	%	89			70-130	Pass	
m&p-Xylenes	S22-Ma35802	CP	%	89			70-130	Pass	
o-Xylene	S22-Ma35802	CP	%	91			70-130	Pass	
Xylenes - Total*	S22-Ma35802	CP	%	89			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Ma35800	CP	%	10	9.2	12	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Ma35801	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S22-Ma37297	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Ma37297	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Ma37297	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Ma35801	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S22-Ma37297	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Ma37297	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Ma37297	NCP	mg/kg	< 100	< 100	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Ma35801	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Ma35801	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Ma35801	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Ma35801	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Ma35801	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Ma35801	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S22-Ma35801	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Ma26109	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Ma26109	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Ma26109	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S22-Ma26109	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S22-Ma26109	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S22-Ma26109	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S22-Ma26109	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S22-Ma26109	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S22-Ma26109	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S22-Ma26109	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S22-Ma26109	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S22-Ma35805	CP	ug/kg	< 10	< 10	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S22-Ma35805	CP	ug/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	S22-Ma35805	CP	ug/kg	< 10	< 10	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S22-Ma35805	CP	ug/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S22-Ma35809	CP	ug/kg	< 10	< 10	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S22-Ma35809	CP	ug/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	S22-Ma35809	CP	ug/kg	< 10	< 10	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S22-Ma35809	CP	ug/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Ma35810	CP	%	16	16	2.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Ma35811	CP	mg/kg	2.2	21	160	30%	Fail	Q15
Cadmium	S22-Ma35811	CP	mg/kg	0.6	0.9	34	30%	Fail	Q15
Chromium	S22-Ma35811	CP	mg/kg	66	78	17	30%	Pass	
Copper	S22-Ma35811	CP	mg/kg	35	42	20	30%	Pass	
Lead	S22-Ma35811	CP	mg/kg	56	64	14	30%	Pass	
Mercury	S22-Ma35811	CP	mg/kg	0.2	0.3	50	30%	Fail	Q15
Nickel	S22-Ma35811	CP	mg/kg	62	65	4.0	30%	Pass	
Zinc	S22-Ma35811	CP	mg/kg	130	170	26	30%	Pass	

Comments

This report has been revised (V2) to exclude samples Ma35819 & Ma35820, reported on 874845.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	No
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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.
S02	Retained Acidity is Reported when the pHKCl is less than pH 4.5

Authorised by:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Gabriele Cordero	Senior Analyst-Metal (NSW)
Myles Clark	Senior Analyst-SPOCAS (QLD)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)
Sarah McCallion	Senior Analyst-PFAS (QLD)



Glenn Jackson
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.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Certificate of Analysis

Environment Testing

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Ruby Chapman
Report	872222-AID-V2
Project Name	HALE ST BOTANY
Project ID	62740
Received Date	Mar 16, 2022
Date Reported	Mar 28, 2022

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 HALE ST BOTANY
Project ID 62740
Date Sampled Mar 16, 2022
Report 872222-AID-V2

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
AQ01_0.2-0.6	22-Ma35813	Mar 16, 2022	Approximate Sample 485g Sample consisted of: Brown coarse-grained sandy soil, glass, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
AQ02_0.15-0.4	22-Ma35815	Mar 16, 2022	Approximate Sample 792g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
AQ03_0-0.2	22-Ma35816	Mar 16, 2022	Approximate Sample 490g Sample consisted of: Brown coarse-grained sandy soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
AQ04_0.1-0.6	22-Ma35817	Mar 16, 2022	Approximate Sample 664g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
AQ05_0.15-0.6	22-Ma35818	Mar 16, 2022	Approximate Sample 526g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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	Mar 21, 2022	Indefinite

eurofins | Environment Testing

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: HALE ST BOTANY
Project ID: 62740

Order No.:
Report #: 872222
Phone: 02 8245 0300
Fax:

Received: Mar 16, 2022 6:00 PM
Due: Mar 21, 2022
Priority: 3 Day
Contact Name: Ruby Chapman

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - WA guidelines	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Total Recoverable Hydrocarbons	Per- and Polyfluoroalkyl Substances (PFASs)	BTEX
Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**													
1	MW01_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35800						X				X			
2	MW01_0.5-0.6	Mar 16, 2022		Soil	S22-Ma35801			X	X	X	X	X	X		X	X	X	
3	SB05_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35802			X			X	X			X	X		
4	SB05_0.9-1.0	Mar 16, 2022		Soil	S22-Ma35803			X	X	X	X	X	X		X	X		
5	SB05_1.4-1.5	Mar 16, 2022		Soil	S22-Ma35804									X	X			
6	SB04_0.5-0.6	Mar 16, 2022		Soil	S22-Ma35805			X	X	X	X	X	X		X	X	X	
7	SB04_0.9-1.0	Mar 16, 2022		Soil	S22-Ma35806			X			X	X	X		X	X		
8	SB03_0-0.1	Mar 16, 2022		Soil	S22-Ma35807			X	X	X	X	X	X		X	X	X	
9	SB03_0.3-0.4	Mar 16, 2022		Soil	S22-Ma35808			X			X	X		X	X	X		

eurofins | Environment Testing

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
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Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

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Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
10	SB02_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35809			X	X	X	X	X	X		X	X	X	
11	SB01_0.4-0.5	Mar 16, 2022		Soil	S22-Ma35810			X	X	X	X	X	X		X	X	X	
12	SB01_0.9-1.0	Mar 16, 2022		Soil	S22-Ma35811			X			X	X			X	X	X	
13	QA01-20220316	Mar 16, 2022		Soil	S22-Ma35812			X	X	X	X	X	X		X	X		
14	AQ01_0.2-0.6	Mar 16, 2022		Soil	S22-Ma35813	X												
15	AQ01_0.6-1.0	Mar 16, 2022		Soil	S22-Ma35814		X											
16	AQ02_0.15-0.4	Mar 16, 2022		Soil	S22-Ma35815	X												
17	AQ03_0-0.2	Mar 16, 2022		Soil	S22-Ma35816	X												
18	AQ04_0.1-0.6	Mar 16, 2022		Soil	S22-Ma35817	X												

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web: www.eurofins.com.au
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Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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6 Monterey Road
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Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
19	AQ05_0.15-0.6	Mar 16, 2022		Soil	S22-Ma35818	X												
20	RINSATE	Mar 16, 2022		Water	S22-Ma35821			X	X	X	X	X	X			X	X	
21	S_FB	Mar 16, 2022		Water	S22-Ma35822												X	
22	TRIP BLANK	Mar 16, 2022		Water	S22-Ma35823							X						
23	TRIP SPIKE	Mar 16, 2022		Water	S22-Ma35824													X
24	SB05_0.5-0.6	Mar 16, 2022		Soil	S22-Ma35825		X											
25	SB04_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35826		X											
26	SB04_1.2-1.3	Mar 16, 2022		Soil	S22-Ma35827		X											
27	SB02_0.4-0.5	Mar 16, 2022		Soil	S22-Ma35828		X											
28	SB01_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35829		X											

eurofins | Environment Testing

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
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Auckland
35 O'Rorke Road
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Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - WA guidelines	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Total Recoverable Hydrocarbons	Per- and Polyfluoroalkyl Substances (PFASs)	BTEX
Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
29	SB01_1.2-1.3	Mar 16, 2022		Soil	S22-Ma35830		X											
Test Counts						5	7	12	8	8	13	13	9	2	13	12	8	1

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. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. Information identified on this report with the colour **orange** indicates sections of the report not covered by the laboratory's scope of NATA accreditation.
6. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).
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:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w**).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
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.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021).
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
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* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

This report has been revised (V2) to exclude samples Ma35819 & Ma35820, reported on 874845.

22-Ma35813 and 22-Ma35816: Samples received were less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	No
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

Asbestos Counter/Identifier:

Chamath JHM Annakkage	Senior Analyst-Asbestos (NSW)

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos (NSW)



Glenn Jackson
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.

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JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

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Attention: **Ruby Chapman**

Report **872222-W-V2**
Project name HALE ST BOTANY
Project ID 62740
Received Date Mar 16, 2022

Client Sample ID			**RINSATE**	**S_FB**	**TRIP BLANK**	**TRIP SPIKE**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S22-Ma35821**	**S22-Ma35822**	**S22-Ma35823**	**S22-Ma35824**
Date Sampled			**Mar 16, 2022**	**Mar 16, 2022**	**Mar 16, 2022**	**Mar 16, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	-	-	-
TRH C10-C14	0.05	mg/L	< 0.05	-	-	-
TRH C15-C28	0.1	mg/L	< 0.1	-	-	-
TRH C29-C36	0.1	mg/L	< 0.1	-	-	-
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	-	-	-
Naphthalene[N02]	0.01	mg/L	< 0.01	-	-	-
TRH C6-C10	0.02	mg/L	< 0.02	-	-	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	-	-	-
TRH >C10-C16	0.05	mg/L	< 0.05	-	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	-	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	-	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	-	-	-
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	-	-	-
BTEX						
Benzene	0.001	mg/L	< 0.001	-	< 0.001	-
Toluene	0.001	mg/L	< 0.001	-	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	-	< 0.001	-
m&p-Xylenes	0.002	mg/L	< 0.002	-	< 0.002	-
o-Xylene	0.001	mg/L	< 0.001	-	< 0.001	-
Xylenes - Total*	0.003	mg/L	< 0.003	-	< 0.003	-
4-Bromofluorobenzene (surr.)	1	%	88	-	137	-
Volatile Organics						
1.1-Dichloroethane	0.001	mg/L	< 0.001	-	-	-
1.1-Dichloroethene	0.001	mg/L	< 0.001	-	-	-
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	-	-	-
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	-	-	-
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	-	-	-
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	-	-	-
1.2-Dibromoethane	0.001	mg/L	< 0.001	-	-	-
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	-	-	-
1.2-Dichloroethane	0.001	mg/L	< 0.001	-	-	-
1.2-Dichloropropane	0.001	mg/L	< 0.001	-	-	-
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	-	-	-
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	-	-	-
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	-	-	-

Client Sample ID			RINSATE	S_FB	TRIP BLANK	TRIP SPIKE
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma35821	S22-Ma35822	S22-Ma35823	S22-Ma35824
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
1.3-Dichloropropane	0.001	mg/L	< 0.001	-	-	-
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	-	-	-
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	-	-	-
2-Butanone (MEK)	0.005	mg/L	< 0.005	-	-	-
2-Propanone (Acetone)	0.005	mg/L	< 0.005	-	-	-
4-Chlorotoluene	0.001	mg/L	< 0.001	-	-	-
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	< 0.005	-	-	-
Allyl chloride	0.001	mg/L	< 0.001	-	-	-
Benzene	0.001	mg/L	< 0.001	-	-	-
Bromobenzene	0.001	mg/L	< 0.001	-	-	-
Bromochloromethane	0.001	mg/L	< 0.001	-	-	-
Bromodichloromethane	0.001	mg/L	< 0.001	-	-	-
Bromoform	0.001	mg/L	< 0.001	-	-	-
Bromomethane	0.005	mg/L	< 0.005	-	-	-
Carbon disulfide	0.001	mg/L	< 0.001	-	-	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	-	-	-
Chlorobenzene	0.001	mg/L	< 0.001	-	-	-
Chloroethane	0.005	mg/L	< 0.005	-	-	-
Chloroform	0.005	mg/L	< 0.005	-	-	-
Chloromethane	0.005	mg/L	< 0.005	-	-	-
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	-	-	-
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	-	-	-
Dibromochloromethane	0.001	mg/L	< 0.001	-	-	-
Dibromomethane	0.001	mg/L	< 0.001	-	-	-
Dichlorodifluoromethane	0.005	mg/L	< 0.005	-	-	-
Ethylbenzene	0.001	mg/L	< 0.001	-	-	-
Iodomethane	0.001	mg/L	< 0.001	-	-	-
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	-	-	-
m&p-Xylenes	0.002	mg/L	< 0.002	-	-	-
Methylene Chloride	0.005	mg/L	< 0.005	-	-	-
o-Xylene	0.001	mg/L	< 0.001	-	-	-
Styrene	0.001	mg/L	< 0.001	-	-	-
Tetrachloroethene	0.001	mg/L	< 0.001	-	-	-
Toluene	0.001	mg/L	< 0.001	-	-	-
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	-	-	-
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	-	-	-
Trichloroethene	0.001	mg/L	< 0.001	-	-	-
Trichlorofluoromethane	0.005	mg/L	< 0.005	-	-	-
Vinyl chloride	0.005	mg/L	< 0.005	-	-	-
Xylenes - Total*	0.003	mg/L	< 0.003	-	-	-
Total MAH*	0.003	mg/L	< 0.003	-	-	-
Vic EPA IWRG 621 CHC (Total)*	0.005	mg/L	< 0.005	-	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.005	mg/L	< 0.005	-	-	-
4-Bromofluorobenzene (surr.)	1	%	88	-	-	-
Toluene-d8 (surr.)	1	%	73	-	-	-

Client Sample ID			RINSATE	S_FB	TRIP BLANK	TRIP SPIKE
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma35821	S22-Ma35822	S22-Ma35823	S22-Ma35824
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	-	-	-
Acenaphthylene	0.001	mg/L	< 0.001	-	-	-
Anthracene	0.001	mg/L	< 0.001	-	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	-	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	-	-
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	-	-	-
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	-	-	-
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	-	-	-
Chrysene	0.001	mg/L	< 0.001	-	-	-
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	-	-	-
Fluoranthene	0.001	mg/L	< 0.001	-	-	-
Fluorene	0.001	mg/L	< 0.001	-	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	-	-	-
Naphthalene	0.001	mg/L	< 0.001	-	-	-
Phenanthrene	0.001	mg/L	< 0.001	-	-	-
Pyrene	0.001	mg/L	< 0.001	-	-	-
Total PAH*	0.001	mg/L	< 0.001	-	-	-
2-Fluorobiphenyl (surr.)	1	%	61	-	-	-
p-Terphenyl-d14 (surr.)	1	%	[Q09]INT	-	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.002	mg/L	< 0.002	-	-	-
4.4'-DDD	0.0002	mg/L	< 0.0002	-	-	-
4.4'-DDE	0.0002	mg/L	< 0.0002	-	-	-
4.4'-DDT	0.0002	mg/L	< 0.0002	-	-	-
a-HCH	0.0002	mg/L	< 0.0002	-	-	-
Aldrin	0.0002	mg/L	< 0.0002	-	-	-
b-HCH	0.0002	mg/L	< 0.0002	-	-	-
d-HCH	0.0002	mg/L	< 0.0002	-	-	-
Dieldrin	0.0002	mg/L	< 0.0002	-	-	-
Endosulfan I	0.0002	mg/L	< 0.0002	-	-	-
Endosulfan II	0.0002	mg/L	< 0.0002	-	-	-
Endosulfan sulphate	0.0002	mg/L	< 0.0002	-	-	-
Endrin	0.0002	mg/L	< 0.0002	-	-	-
Endrin aldehyde	0.0002	mg/L	< 0.0002	-	-	-
Endrin ketone	0.0002	mg/L	< 0.0002	-	-	-
g-HCH (Lindane)	0.0002	mg/L	< 0.0002	-	-	-
Heptachlor	0.0002	mg/L	< 0.0002	-	-	-
Heptachlor epoxide	0.0002	mg/L	< 0.0002	-	-	-
Hexachlorobenzene	0.0002	mg/L	< 0.0002	-	-	-
Methoxychlor	0.0002	mg/L	< 0.0002	-	-	-
Toxaphene	0.005	mg/L	< 0.005	-	-	-
Aldrin and Dieldrin (Total)*	0.0002	mg/L	< 0.0002	-	-	-
DDT + DDE + DDD (Total)*	0.0002	mg/L	< 0.0002	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.002	mg/L	< 0.002	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.002	mg/L	< 0.002	-	-	-
Dibutylchlorendate (surr.)	1	%	133	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	93	-	-	-

Client Sample ID			RINSATE	S_FB	TRIP BLANK	TRIP SPIKE
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma35821	S22-Ma35822	S22-Ma35823	S22-Ma35824
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.005	mg/L	< 0.005	-	-	-
Aroclor-1221	0.005	mg/L	< 0.005	-	-	-
Aroclor-1232	0.005	mg/L	< 0.005	-	-	-
Aroclor-1242	0.005	mg/L	< 0.005	-	-	-
Aroclor-1248	0.005	mg/L	< 0.005	-	-	-
Aroclor-1254	0.005	mg/L	< 0.005	-	-	-
Aroclor-1260	0.005	mg/L	< 0.005	-	-	-
Total PCB*	0.005	mg/L	< 0.005	-	-	-
Dibutylchlorendate (surr.)	1	%	133	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	93	-	-	-
Heavy Metals						
Arsenic	0.001	mg/L	< 0.001	-	-	-
Cadmium	0.0002	mg/L	< 0.0002	-	-	-
Chromium	0.001	mg/L	< 0.001	-	-	-
Copper	0.001	mg/L	< 0.001	-	-	-
Lead	0.001	mg/L	< 0.001	-	-	-
Mercury	0.0001	mg/L	< 0.0001	-	-	-
Nickel	0.001	mg/L	< 0.001	-	-	-
Zinc	0.005	mg/L	< 0.005	-	-	-
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	-	-
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluoroheptanoic acid (PFHpA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
13C4-PFBA (surr.)	1	%	60	61	-	-
13C5-PFPeA (surr.)	1	%	98	102	-	-
13C5-PFHxA (surr.)	1	%	96	107	-	-
13C4-PFHpA (surr.)	1	%	104	111	-	-
13C8-PFOA (surr.)	1	%	112	120	-	-
13C5-PFNA (surr.)	1	%	129	137	-	-
13C6-PFDA (surr.)	1	%	127	131	-	-
13C2-PFUnDA (surr.)	1	%	132	140	-	-
13C2-PFDoDA (surr.)	1	%	122	117	-	-
13C2-PFTeDA (surr.)	1	%	119	119	-	-
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	-	-
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	-	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	-	-
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	-	-

Client Sample ID			RINSATE	S_FB	TRIP BLANK	TRIP SPIKE
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma35821	S22-Ma35822	S22-Ma35823	S22-Ma35824
Date Sampled			Mar 16, 2022	Mar 16, 2022	Mar 16, 2022	Mar 16, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	-	-
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	-	-
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	-	-
13C8-FOSA (surr.)	1	%	75	66	-	-
D3-N-MeFOSA (surr.)	1	%	43	39	-	-
D5-N-EtFOSA (surr.)	1	%	46	41	-	-
D7-N-MeFOSE (surr.)	1	%	29	27	-	-
D9-N-EtFOSE (surr.)	1	%	35	31	-	-
D5-N-EtFOSAA (surr.)	1	%	100	95	-	-
D3-N-MeFOSAA (surr.)	1	%	151	143	-	-
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorononanesulfonic acid (PFNS)[N15]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	-	-
13C3-PFBS (surr.)	1	%	108	118	-	-
18O2-PFHxS (surr.)	1	%	113	121	-	-
13C8-PFOS (surr.)	1	%	115	123	-	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	-	-
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	-	-
13C2-4:2 FTSA (surr.)	1	%	106	118	-	-
13C2-6:2 FTSA (surr.)	1	%	135	143	-	-
13C2-8:2 FTSA (surr.)	1	%	196	194	-	-
13C2-10:2 FTSA (surr.)	1	%	[Q09]INT	[Q09]INT	-	-
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	< 0.01	-	-
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	< 0.05	-	-
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	< 0.1	-	-
BTEX						
Benzene	1	%	-	-	-	110
Ethylbenzene	1	%	-	-	-	100
m&p-Xylenes	1	%	-	-	-	110
o-Xylene	1	%	-	-	-	100
Toluene	1	%	-	-	-	110
Xylenes - Total	1	%	-	-	-	100
4-Bromofluorobenzene (surr.)	1	%	-	-	-	133

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Mar 21, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Mar 18, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Mar 21, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Mar 18, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Volatile Organics	Sydney	Mar 18, 2022	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons	Sydney	Mar 21, 2022	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Mar 21, 2022	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Mar 21, 2022	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Mar 18, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Brisbane	Mar 21, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Brisbane	Mar 21, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Brisbane	Mar 21, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Brisbane	Mar 21, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

eurofins | Environment Testing

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: HALE ST BOTANY
Project ID: 62740

Order No.:
Report #: 872222
Phone: 02 8245 0300
Fax:

Received: Mar 16, 2022 6:00 PM
Due: Mar 21, 2022
Priority: 3 Day
Contact Name: Ruby Chapman

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - WA guidelines	HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Total Recoverable Hydrocarbons	Per- and Polyfluoroalkyl Substances (PFASs)	BTEX
Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**													
1	MW01_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35800						X				X			
2	MW01_0.5-0.6	Mar 16, 2022		Soil	S22-Ma35801			X	X	X	X	X	X		X	X	X	
3	SB05_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35802			X			X	X			X	X		
4	SB05_0.9-1.0	Mar 16, 2022		Soil	S22-Ma35803			X	X	X	X	X	X		X	X		
5	SB05_1.4-1.5	Mar 16, 2022		Soil	S22-Ma35804									X	X			
6	SB04_0.5-0.6	Mar 16, 2022		Soil	S22-Ma35805			X	X	X	X	X	X		X	X	X	
7	SB04_0.9-1.0	Mar 16, 2022		Soil	S22-Ma35806			X			X	X	X		X	X		
8	SB03_0-0.1	Mar 16, 2022		Soil	S22-Ma35807			X	X	X	X	X	X		X	X	X	
9	SB03_0.3-0.4	Mar 16, 2022		Soil	S22-Ma35808			X			X	X		X	X	X		

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web: www.eurofins.com.au
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Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
10	SB02_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35809			X	X	X	X	X	X		X	X	X	
11	SB01_0.4-0.5	Mar 16, 2022		Soil	S22-Ma35810			X	X	X	X	X	X		X	X	X	
12	SB01_0.9-1.0	Mar 16, 2022		Soil	S22-Ma35811			X			X	X			X	X	X	
13	QA01-20220316	Mar 16, 2022		Soil	S22-Ma35812			X	X	X	X	X	X		X	X		
14	AQ01_0.2-0.6	Mar 16, 2022		Soil	S22-Ma35813	X												
15	AQ01_0.6-1.0	Mar 16, 2022		Soil	S22-Ma35814		X											
16	AQ02_0.15-0.4	Mar 16, 2022		Soil	S22-Ma35815	X												
17	AQ03_0-0.2	Mar 16, 2022		Soil	S22-Ma35816	X												
18	AQ04_0.1-0.6	Mar 16, 2022		Soil	S22-Ma35817	X												

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Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
19	AQ05_0.15-0.6	Mar 16, 2022		Soil	S22-Ma35818	X												
20	RINSATE	Mar 16, 2022		Water	S22-Ma35821			X	X	X	X	X	X			X	X	
21	S_FB	Mar 16, 2022		Water	S22-Ma35822												X	
22	TRIP BLANK	Mar 16, 2022		Water	S22-Ma35823							X						
23	TRIP SPIKE	Mar 16, 2022		Water	S22-Ma35824													X
24	SB05_0.5-0.6	Mar 16, 2022		Soil	S22-Ma35825		X											
25	SB04_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35826		X											
26	SB04_1.2-1.3	Mar 16, 2022		Soil	S22-Ma35827		X											
27	SB02_0.4-0.5	Mar 16, 2022		Soil	S22-Ma35828		X											
28	SB01_0.2-0.3	Mar 16, 2022		Soil	S22-Ma35829		X											

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

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Melbourne Laboratory - NATA # 1261 Site # 1254																		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X		X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794														X			X	
Mayfield Laboratory - NATA # 1261 Site # 25079																		
Perth Laboratory - NATA # 2377 Site # 2370																		
External Laboratory																		
29	SB01_1.2-1.3	Mar 16, 2022		Soil	S22-Ma35830		X											
Test Counts						5	7	12	8	8	13	13	9	2	13	12	8	1

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 1999, as amended May 2013 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. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. 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.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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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. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
2-Butanone (MEK)	mg/L	< 0.005			0.005	Pass	
2-Propanone (Acetone)	mg/L	< 0.005			0.005	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.005			0.005	Pass	
Allyl chloride	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.005			0.005	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene	mg/L	< 0.001			0.001	Pass	
Chloroethane	mg/L	< 0.005			0.005	Pass	
Chloroform	mg/L	< 0.005			0.005	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chloromethane	mg/L	< 0.005			0.005	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.001			0.001	Pass	
Dichlorodifluoromethane	mg/L	< 0.005			0.005	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
Methylene Chloride	mg/L	< 0.005			0.005	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene	mg/L	< 0.001			0.001	Pass	
Trichlorofluoromethane	mg/L	< 0.005			0.005	Pass	
Vinyl chloride	mg/L	< 0.005			0.005	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.002			0.002	Pass	
4.4'-DDD	mg/L	< 0.0002			0.0002	Pass	
4.4'-DDE	mg/L	< 0.0002			0.0002	Pass	
4.4'-DDT	mg/L	< 0.0002			0.0002	Pass	
a-HCH	mg/L	< 0.0002			0.0002	Pass	
Aldrin	mg/L	< 0.0002			0.0002	Pass	
b-HCH	mg/L	< 0.0002			0.0002	Pass	
d-HCH	mg/L	< 0.0002			0.0002	Pass	
Dieldrin	mg/L	< 0.0002			0.0002	Pass	
Endosulfan I	mg/L	< 0.0002			0.0002	Pass	
Endosulfan II	mg/L	< 0.0002			0.0002	Pass	
Endosulfan sulphate	mg/L	< 0.0002			0.0002	Pass	
Endrin	mg/L	< 0.0002			0.0002	Pass	
Endrin aldehyde	mg/L	< 0.0002			0.0002	Pass	
Endrin ketone	mg/L	< 0.0002			0.0002	Pass	
g-HCH (Lindane)	mg/L	< 0.0002			0.0002	Pass	
Heptachlor	mg/L	< 0.0002			0.0002	Pass	
Heptachlor epoxide	mg/L	< 0.0002			0.0002	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Hexachlorobenzene	mg/L	< 0.0002			0.0002	Pass	
Methoxychlor	mg/L	< 0.0002			0.0002	Pass	
Toxaphene	mg/L	< 0.005			0.005	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/L	< 0.005			0.005	Pass	
Aroclor-1221	mg/L	< 0.005			0.005	Pass	
Aroclor-1232	mg/L	< 0.005			0.005	Pass	
Aroclor-1242	mg/L	< 0.005			0.005	Pass	
Aroclor-1248	mg/L	< 0.005			0.005	Pass	
Aroclor-1254	mg/L	< 0.005			0.005	Pass	
Aroclor-1260	mg/L	< 0.005			0.005	Pass	
Total PCB*	mg/L	< 0.005			0.005	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	92			70-130	Pass	
TRH C10-C14	%	126			70-130	Pass	
Naphthalene	%	104			70-130	Pass	
TRH C6-C10	%	91			70-130	Pass	
TRH >C10-C16	%	122			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	113			70-130	Pass	
Toluene	%	102			70-130	Pass	
Ethylbenzene	%	115			70-130	Pass	
m&p-Xylenes	%	125			70-130	Pass	
o-Xylene	%	123			70-130	Pass	
Xylenes - Total*	%	125			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	84			70-130	Pass	
1.1.1-Trichloroethane	%	75			70-130	Pass	
1.2-Dichlorobenzene	%	106			70-130	Pass	
1.2-Dichloroethane	%	93			70-130	Pass	
Trichloroethene	%	79			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	86			70-130	Pass	
Acenaphthylene	%	79			70-130	Pass	
Anthracene	%	87			70-130	Pass	
Benz(a)anthracene	%	80			70-130	Pass	
Benzo(a)pyrene	%	80			70-130	Pass	
Benzo(b&j)fluoranthene	%	82			70-130	Pass	
Benzo(g.h.i)perylene	%	80			70-130	Pass	
Benzo(k)fluoranthene	%	86			70-130	Pass	
Chrysene	%	80			70-130	Pass	
Dibenz(a.h)anthracene	%	75			70-130	Pass	
Fluoranthene	%	85			70-130	Pass	
Fluorene	%	84			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	74			70-130	Pass	
Naphthalene	%	71			70-130	Pass	
Phenanthrene	%	86			70-130	Pass	
Pyrene	%	87			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	72			70-130	Pass	
4.4'-DDD	%	74			70-130	Pass	
4.4'-DDE	%	74			70-130	Pass	
4.4'-DDT	%	95			70-130	Pass	
a-HCH	%	71			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aldrin	%	77			70-130	Pass	
b-HCH	%	79			70-130	Pass	
d-HCH	%	76			70-130	Pass	
Dieldrin	%	79			70-130	Pass	
Endosulfan I	%	79			70-130	Pass	
Endosulfan II	%	75			70-130	Pass	
Endosulfan sulphate	%	82			70-130	Pass	
Endrin	%	87			70-130	Pass	
Endrin aldehyde	%	86			70-130	Pass	
Endrin ketone	%	82			70-130	Pass	
g-HCH (Lindane)	%	76			70-130	Pass	
Heptachlor	%	81			70-130	Pass	
Heptachlor epoxide	%	75			70-130	Pass	
Hexachlorobenzene	%	107			70-130	Pass	
Methoxychlor	%	80			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	89			70-130	Pass	
Aroclor-1260	%	77			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	84			80-120	Pass	
Cadmium	%	93			80-120	Pass	
Chromium	%	97			80-120	Pass	
Copper	%	103			80-120	Pass	
Lead	%	100			80-120	Pass	
Mercury	%	82			80-120	Pass	
Nickel	%	98			80-120	Pass	
Zinc	%	99			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	95			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	93			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	88			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	88			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	86			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	86			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	83			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	96			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	94			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	54			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	96			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	95			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	95			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	90			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	97			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	95			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	97			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	87			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	88			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorononanesulfonic acid (PFNS)	%	85			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	84			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	78			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	91			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	97			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	94			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	80			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	97			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	98			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	86			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	97			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S22-Ma33969	NCP	%	118			70-130	Pass	
TRH >C10-C16	S22-Ma33969	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Ma27983	NCP	%	82			75-125	Pass	
Cadmium	S22-Ma27983	NCP	%	89			75-125	Pass	
Chromium	S22-Ma27983	NCP	%	94			75-125	Pass	
Copper	S22-Ma27983	NCP	%	103			75-125	Pass	
Lead	S22-Ma27983	NCP	%	96			75-125	Pass	
Nickel	S22-Ma27983	NCP	%	95			75-125	Pass	
Zinc	S22-Ma27983	NCP	%	96			75-125	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	S22-Ma35822	CP	%	92			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S22-Ma35822	CP	%	93			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	S22-Ma35822	CP	%	89			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S22-Ma35822	CP	%	88			50-150	Pass	
Perfluorooctanoic acid (PFOA)	S22-Ma35822	CP	%	85			50-150	Pass	
Perfluorononanoic acid (PFNA)	S22-Ma35822	CP	%	84			50-150	Pass	
Perfluorodecanoic acid (PFDA)	S22-Ma35822	CP	%	81			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	S22-Ma35822	CP	%	89			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S22-Ma35822	CP	%	94			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	S22-Ma35822	CP	%	71			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S22-Ma35822	CP	%	93			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	S22-Ma35822	CP	%	96			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S22-Ma35822	CP	%	98			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S22-Ma35822	CP	%	99			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	S22-Ma35822	CP	%	96			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	S22-Ma35822	CP	%	103			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S22-Ma35822	CP	%	96			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S22-Ma35822	CP	%	86			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	S22-Ma35822	CP	%	94			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	S22-Ma35822	CP	%	91			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S22-Ma35822	CP	%	86			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S22-Ma35822	CP	%	82			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S22-Ma35822	CP	%	91			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S22-Ma35822	CP	%	92			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	S22-Ma35822	CP	%	92			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	S22-Ma35822	CP	%	89			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S22-Ma35822	CP	%	100			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	S22-Ma35822	CP	%	97			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S22-Ma35822	CP	%	89			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S22-Ma35822	CP	%	97			50-150	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Ma33579	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	W22-Ma30489	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	W22-Ma30489	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	W22-Ma30489	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Naphthalene	S22-Ma33579	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S22-Ma33579	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	W22-Ma30489	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	W22-Ma30489	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	W22-Ma30489	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Ma33579	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S22-Ma33579	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S22-Ma33579	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S22-Ma33579	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S22-Ma33579	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S22-Ma33579	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Ma35821	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S22-Ma35821	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S22-Ma35821	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S22-Ma35821	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	S22-Ma35821	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	S22-Ma35821	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S22-Ma35821	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S22-Ma35821	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	S22-Ma35821	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	S22-Ma35821	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S22-Ma35821	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S22-Ma35821	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	S22-Ma35821	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	S22-Ma35821	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S22-Ma35821	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S22-Ma35821	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	S22-Ma35821	CP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S22-Ma35821	CP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Comments

This report has been revised (V2) to exclude samples Ma35819 & Ma35820, reported on 874845.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	No
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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC

Authorised by:

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Gabriele Cordero	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)
Sarah McCallion	Senior Analyst-PFAS (QLD)



Glenn Jackson
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.

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eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Ruby Chapman
Project name:	HALE ST BOTANY
Project ID:	62740
Turnaround time:	3 Day
Date/Time received	Mar 16, 2022 6:00 PM
Eurofins reference	872222

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 15 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✗	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✗	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Ruby Chapman - Rchapman@jbsg.com.au.

Global Leader - Results you can trust

Chain of Custody

JBS&G

PROJECT NO.: 62740
PROJECT NAME: Hale St Botany
DATE NEEDED BY:
LABORATORY BATCH NO.:
SAMPLERS: RC, JW, HD, ST
QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) rchapman@jbsg.com.au; (3) jmichelson@jbsg.com.au; strani@jbsg.com.au; nainan.wallis@jbsg.com

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:
J = Jar
B = Bag

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	HM	TRH	BTEX	PAHS	VOC	OCP	PCB	Asbestos	PFAS	SPOCAS	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: REINSTATEMENT	NOTES:
MW01-0.2-0.3	SOIL	16/03		J+B+PFAS+ICE		X												
↓ 0.5-0.6	↓	↓	↓	J+B+PFAS+ASS+ICE		X	X	X	X	X	X	X		X				
SB05-0.2-0.3				J+B+PFAS+ICE		X	X	X	X									
0.5-0.6				↓														
0.9-1.0				J+PFAS+ICE		X	X	X	X	X	X	X						
↓ 1.4-1.5				J+PFAS+ASS+ICE											X			
SB04-0.2-0.3				J+B+PFAS+ICE														
0.5-0.6				↓		X	X	X	X	X	X	X		X				
0.9-1.0				J+PFAS		X	X	X	X	X								
↓ 1.2-1.3				↓														
SB03-0-0.1				J+B+PFAS+ICE		X	X	X	X	X	X	X		X				
↓ 0.3-0.4				J+PFAS+ASS	↓	X	X	X	X						X			
SB02-0.2-0.3				J+B+PFAS+ICE		X	X	X	X	X	X	X		X				
↓ 0.4-0.5				J+PFAS														
SB01-0.2-0.3				J+B+PFAS+ASS														
0.4-0.5				J+B+PFAS		X	X	X	X	X	X	X		X				
0.9-1.0				↓		X	X	X	X						X			
↓ 1.2-1.3	↓	↓	↓	J+PFAS	↓													
QA01-20220316	SOIL	16/03		J+PFAS+ICE		X	X	X	X	X	X	X		X				

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bott

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: L-M L-M	COOLER SEAL – Yes ..... No ..... Intact ..... Broken ...
OF: JBS&G	TRANSPORT CO.	DATE: 16/3 16/3/22	COOLER TEMP 15 deg C # 872222
NAME: DATE:	CONSIGNMENT NOTE NO.	OF: NAME: DATE:	COOLER SEAL – Yes ..... No ..... Intact ..... Broken
OF:	TRANSPORT CO	OF: 6:00 pm	COOLER TEMP ..... deg C

Chain of Custody

JBS&G

PROJECT NO.: 62740
PROJECT NAME: Hale St Botany
DATE NEEDED BY:
LABORATORY BATCH NO.:
SAMPLERS: RC, JW, HD, ST
QC LEVEL: NEPM (2013)
PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) r.chapman@jbsg.com.au; (3) j.nicholas@jbsg.com.au, stran, jwallis, ndinan@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:
B = bag

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	No. of containers	TYPE OF LABORATORY ANALYSIS: IDENTIFICATION	TYPE OF LABORATORY ANALYSIS: REPLICATES	NOTES:
AQ01-0.2-0.6	soil	16/03		B + ice		x		x	
↓ 0.6-1.0	↓	↓		↓		x		x	
AQ02-0.15-0.4						x		x	
AQ03-0-0.2						x		x	
AQ04-0.1-0.6						x		x	
AQ05-0.15-0.6						x		x	
AQ06-0.15-0.3						x		x	
↓ 0.3-0.8	↓	↓		↓		x		x	

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Serena Tran DATE: 16/03/22	CONSIGNMENT NOTE NO.	NAME: L-M DATE: 16/3/22	COOLER SEAL – Yes ..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	COOLER TEMP 15 deg C #872222
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes ..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF: 6:00 PM	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Chain of Custody

JBS&G

PROJECT NO.: 62740
PROJECT NAME: Hale st Botany
DATE NEEDED BY:
PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) E.Chapman.....@jbsg.com.au; (3) jmicholson.....@jbsg.com.au, Stran, jwallis, hdinan@jbsg.com.au

LABORATORY BATCH NO.:
SAMPLERS: RC, JW, HD, ST
QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	EH	TRH	BTEX	PAHS	VOC	OCP	PCB	PFAS	ID/QUANTITATION	RINSATE	NOTES:
rinsate	water	16/03		bottle set +ice		x	x	x	x	x	x	x	x			
S-FB	Water	↓		PPAS +ice				x					x			
TS/TB	water			2x vile +ice												

TYPE OF ASBESTOS ANALYSIS

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Serena Tran DATE: 16/03/22	CONSIGNMENT NOTE NO.	NAME: LM	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 16/3/22	COOLER TEMP 15 deg C #872222
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF: 6:00 PM	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

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Accreditation Number 1261
Site Number 1254

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Attention: **Julia Nicholson**

Report **872956-A**
Project name BOTANY
Project ID 62740
Received Date Mar 21, 2022

Client Sample ID			**SV06 FRONT**	**SV06 BACK**	**SV10 FRONT**	**SV10 BACK**
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins Sample No.			**S22-Ma41944**	**S22-Ma41945**	**S22-Ma41946**	**S22-Ma41947**
Date Sampled			**Mar 21, 2022**	**Mar 21, 2022**	**Mar 21, 2022**	**Mar 21, 2022**
Test/Reference	LOR	Unit				
Isopropanol	10	Total ug	< 10	< 10	< 10	< 10
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	0.5	< 0.5
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV06 FRONT	SV06 BACK	SV10 FRONT	SV10 BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S22-Ma41944	S22-Ma41945	S22-Ma41946	S22-Ma41947
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	4.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	93	110	93	95
4-Bromofluorobenzene (surr.)	1	%	102	107	102	105
Dibromofluoromethane (surr.)	1	%	100	96	101	100
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons						
TRH C6-C10	20	Total ug	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	Total ug	< 20	< 20	< 20	< 20
TRH >C10-C16	20	Total ug	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	20	Total ug	< 20	< 20	< 20	< 20

Client Sample ID			SV11 FRONT	SV11 BACK	QV1 FRONT	QV1 BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S22-Ma41948	S22-Ma41949	S22-Ma41950	S22-Ma41951
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
Isopropanol	10	Total ug	< 10	< 10	< 10	< 10
VOCs in Ambient Air by GC/MS						
1.1-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromo-3-chloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SV11 FRONT	SV11 BACK	QV1 FRONT	QV1 BACK
Sample Matrix			Air	Air	Air	Air
Eurofins Sample No.			S22-Ma41948	S22-Ma41949	S22-Ma41950	S22-Ma41951
Date Sampled			Mar 21, 2022	Mar 21, 2022	Mar 21, 2022	Mar 21, 2022
Test/Reference	LOR	Unit				
VOCs in Ambient Air by GC/MS						
1.3-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
2.2-Dichloropropane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
p-Isopropyltoluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
sec-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	5	Total ug	< 5	< 5	< 5	< 5
tert-Butylbenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	1.5	Total ug	< 1.5	< 1.5	< 1.5	< 1.5
Fluorobenzene (surr.)	1	%	94	95	94	96
4-Bromofluorobenzene (surr.)	1	%	102	104	103	105
Dibromofluoromethane (surr.)	1	%	103	99	97	99
1.2-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	Total ug	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons						
TRH C6-C10	20	Total ug	29	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	Total ug	29	< 20	< 20	< 20
TRH >C10-C16	20	Total ug	< 20	< 20	< 20	< 20
TRH >C10-C16 less Naphthalene (F2)[N01]	20	Total ug	< 20	< 20	< 20	< 20

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
Isopropanol	Melbourne	Mar 21, 2022	14 Days
- Method: LTM-ORG-2030 VOCs in Ambient Air by GC/MS			
VOCs in Ambient Air by GC/MS	Melbourne	Mar 21, 2022	14 Days
- Method: LTM-ORG-2030 VOCs in Ambient Air by GC/MS			
VOC AIR-TRH (Total Recoverable Hydrocarbons)			
Total Recoverable Hydrocarbons	Melbourne	Mar 21, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			

eurofins | Environment Testing

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BOTANY
Project ID: 62740

Order No.:
Report #: 872956
Phone: 02 8245 0300
Fax:

Received: Mar 21, 2022 5:00 PM
Due: Mar 24, 2022
Priority: 3 Day
Contact Name: Julia Nicholson

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Isopropanol	VOC AIR-TRH (Total Recoverable Hydrocarbons)	VOCs in Ambient Air by GC/MS
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217								
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	SV06 FRONT	Mar 21, 2022		Air	S22-Ma41944	X	X	X
2	SV06 BACK	Mar 21, 2022		Air	S22-Ma41945	X	X	X
3	SV10 FRONT	Mar 21, 2022		Air	S22-Ma41946	X	X	X
4	SV10 BACK	Mar 21, 2022		Air	S22-Ma41947	X	X	X
5	SV11 FRONT	Mar 21, 2022		Air	S22-Ma41948	X	X	X
6	SV11 BACK	Mar 21, 2022		Air	S22-Ma41949	X	X	X
7	QV1 FRONT	Mar 21, 2022		Air	S22-Ma41950	X	X	X
8	QV1 BACK	Mar 21, 2022		Air	S22-Ma41951	X	X	X
Test Counts						8	8	8

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 1999, as amended May 2013 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. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. 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.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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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. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Isopropanol	Total ug	< 10			10	Pass	
Method Blank							
VOCs in Ambient Air by GC/MS							
1.1-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.1-Dichloroethene	Total ug	< 0.5			0.5	Pass	
1.1-Dichloropropene	Total ug	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	Total ug	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromo-3-chloropropane	Total ug	< 0.5			0.5	Pass	
1.2-Dibromoethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloroethane	Total ug	< 0.5			0.5	Pass	
1.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	Total ug	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
1.3-Dichloropropane	Total ug	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	Total ug	< 0.5			0.5	Pass	
2-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
2.2-Dichloropropane	Total ug	< 0.5			0.5	Pass	
4-Chlorotoluene	Total ug	< 0.5			0.5	Pass	
Benzene	Total ug	< 0.5			0.5	Pass	
Bromochloromethane	Total ug	< 0.5			0.5	Pass	
Bromodichloromethane	Total ug	< 0.5			0.5	Pass	
Bromoform	Total ug	< 0.5			0.5	Pass	
Carbon Tetrachloride	Total ug	< 0.5			0.5	Pass	
Chlorobenzene	Total ug	< 0.5			0.5	Pass	
Chloroform	Total ug	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	Total ug	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Dibromochloromethane	Total ug	< 0.5			0.5	Pass	
Dibromomethane	Total ug	< 0.5			0.5	Pass	
Ethylbenzene	Total ug	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	Total ug	< 0.5			0.5	Pass	
n-Butylbenzene	Total ug	< 0.5			0.5	Pass	
n-Propylbenzene	Total ug	< 0.5			0.5	Pass	
Naphthalene	Total ug	< 0.5			0.5	Pass	
p-Isopropyltoluene	Total ug	< 0.5			0.5	Pass	
sec-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Styrene	Total ug	< 5			5	Pass	
tert-Butylbenzene	Total ug	< 0.5			0.5	Pass	
Tetrachloroethene	Total ug	< 0.5			0.5	Pass	
Toluene	Total ug	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	Total ug	< 0.5			0.5	Pass	
Trichloroethene	Total ug	< 0.5			0.5	Pass	
Trichlorofluoromethane	Total ug	< 0.5			0.5	Pass	
Vinyl chloride	Total ug	< 0.5			0.5	Pass	
Xylenes - Total*	Total ug	< 1.5			1.5	Pass	
1.2-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	Total ug	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.3-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	Total ug	< 0.5			0.5	Pass	
Hexachlorobutadiene	Total ug	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C10	Total ug	< 20			20	Pass	
TRH >C10-C16	Total ug	< 20			20	Pass	
LCS - % Recovery							
Isopropanol	%	112			70-130	Pass	
LCS - % Recovery							
VOCs in Ambient Air by GC/MS							
1.1-Dichloroethene	%	96			70-130	Pass	
1.1-Dichloropropene	%	91			70-130	Pass	
1.1.1-Trichloroethane	%	89			70-130	Pass	
1.2-Dibromo-3-chloropropane	%	89			75-125	Pass	
1.2-Dichloroethane	%	80			70-130	Pass	
Benzene	%	94			70-130	Pass	
Ethylbenzene	%	85			70-130	Pass	
Naphthalene	%	91			70-130	Pass	
Toluene	%	85			70-130	Pass	
Trichloroethene	%	92			70-130	Pass	
Xylenes - Total*	%	89			70-130	Pass	
1.2-Dichlorobenzene	%	95			70-130	Pass	
1.2.3-Trichlorobenzene	%	91			70-130	Pass	
1.2.4-Trichlorobenzene	%	91			70-130	Pass	
1.4-Dichlorobenzene	%	90			70-130	Pass	

Comments

Eurofins | Environment Testing accreditation number 1261, site 18217 is currently in progress of a controlled transition to a new custom built location at 179 Magowar Road, Girraween, NSW 2145. All results on this report denoted as being performed by Eurofins | Environment Testing Unit F3, Building F, 16 Mars road, Lane Cove West, NSW 2066, corporate site 18217, will have been performed on either Lane Cove or new Girraween 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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Authorised by:

Ursula Long	Analytical Services Manager
Joseph Edouard	Senior Analyst-Organic (VIC)
Vivian Wang	Senior Analyst-Volatile (VIC)



Glenn Jackson
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.

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eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Julia Nicholson
Project name:	BOTANY
Project ID:	62740
Turnaround time:	3 Day
Date/Time received	Mar 21, 2022 5:00 PM
Eurofins reference	872956

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
N/A	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✗	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Julia Nicholson - jnicholson@jbsg.com.au.

Global Leader - Results you can trust

Chain of Custody

JBS&G

PROJECT NO.: 62740
PROJECT NAME: Botany
DATE NEEDED BY: 3 day

LABORATORY BATCH NO.:
SAMPLERS: JN RS ST
QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JNichols@jbsg.com.au; (3) RStraas@jbsg.com.au STran@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	VOC *	TRH	Isopropanol	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
SV06	Gas	21/3/22		carbon tube		x	x	x			* 8260 methods
SV10	↓	↓		↓		x	x	x			
SV11	↓	↓		↓		x	x	x			
QV1	↓	↓		↓		x	x	x			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: JN DATE: 21/3/22 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: A Sinharage DATE: 21/03/22, 5:00pm OF: EUT Office	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP N/A deg C 872956
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Julia Nicholson**

Report **873319-W**
Project name BOTANY
Project ID 62740
Received Date Mar 22, 2022

Client Sample ID			**MW01**	**MW02**	**MW03**	**QW1**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S22-Ma44632**	**S22-Ma44633**	**S22-Ma44634**	**S22-Ma44635**
Date Sampled			**Mar 22, 2022**	**Mar 22, 2022**	**Mar 22, 2022**	**Mar 22, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	104	99	99	100
Volatile Organics						
1.1-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dibromoethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			MW01	MW02	MW03	QW1
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma44632	S22-Ma44633	S22-Ma44634	S22-Ma44635
Date Sampled			Mar 22, 2022	Mar 22, 2022	Mar 22, 2022	Mar 22, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
1.3-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (MEK)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2-Propanone (Acetone)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
4-Chlorotoluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Allyl chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Carbon disulfide	0.001	mg/L	0.001	< 0.001	< 0.001	< 0.001
Carbon Tetrachloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chloroform	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Iodomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Methylene Chloride	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total MAH*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Vic EPA IWRG 621 CHC (Total)*	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Vic EPA IWRG 621 Other CHC (Total)*	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
4-Bromofluorobenzene (surr.)	1	%	104	99	99	100
Toluene-d8 (surr.)	1	%	86	87	87	87

Client Sample ID			MW01	MW02	MW03	QW1
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma44632	S22-Ma44633	S22-Ma44634	S22-Ma44635
Date Sampled			Mar 22, 2022	Mar 22, 2022	Mar 22, 2022	Mar 22, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	118	74	85	114
p-Terphenyl-d14 (surr.)	1	%	52	88	105	130
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.002	0.007	0.006	0.007
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	0.002	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Mercury (filtered)	0.0001	mg/L	0.0002	0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.004	< 0.001	< 0.001	0.001
Zinc (filtered)	0.005	mg/L	< 0.005	< 0.005	0.013	0.011
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	0.02	0.07	0.02
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	< 0.01	[N09]0.05	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.01	ug/L	< 0.01	< 0.01	[N09]0.01	< 0.01
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	< 0.01	[N09]0.02	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	64	99	78	79
13C5-PFPeA (surr.)	1	%	105	126	118	109
13C5-PFHxA (surr.)	1	%	94	121	102	110
13C4-PFHpA (surr.)	1	%	94	101	119	103
13C8-PFOA (surr.)	1	%	103	123	119	114
13C5-PFNA (surr.)	1	%	100	114	127	115
13C6-PFDA (surr.)	1	%	108	119	102	100
13C2-PFUnDA (surr.)	1	%	123	110	105	100
13C2-PFDoDA (surr.)	1	%	[Q09]INT	107	103	103
13C2-PFTeDA (surr.)	1	%	[Q09]INT	79	74	83

Client Sample ID			MW01	MW02	MW03	QW1
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma44632	S22-Ma44633	S22-Ma44634	S22-Ma44635
Date Sampled			Mar 22, 2022	Mar 22, 2022	Mar 22, 2022	Mar 22, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	177	96	103	91
D3-N-MeFOSA (surr.)	1	%	126	54	64	52
D5-N-EtFOSA (surr.)	1	%	121	60	62	58
D7-N-MeFOSE (surr.)	1	%	128	58	60	50
D9-N-EtFOSE (surr.)	1	%	114	60	62	55
D5-N-EtFOSAA (surr.)	1	%	155	118	110	121
D3-N-MeFOSAA (surr.)	1	%	123	97	91	99
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	[N09]0.03	< 0.01	[N09]0.04	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	[N09]0.08	[N09]0.08	[N09]0.06	[N09]0.08
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	98	108	111	103
18O2-PFHxS (surr.)	1	%	98	110	104	90
13C8-PFOS (surr.)	1	%	150	93	88	80
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	0.05	ug/L	< 0.05	< 0.05	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	< 0.01	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	93	120	103	116
13C2-6:2 FTSA (surr.)	1	%	113	153	106	134
13C2-8:2 FTSA (surr.)	1	%	121	113	111	115
13C2-10:2 FTSA (surr.)	1	%	114	89	93	105
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	0.11	0.08	0.1	0.08
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	0.08	0.08	0.08	0.08
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	0.11	0.08	0.12	0.08
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.11	0.1	0.25	0.1
Sum of PFASs (n=30)*	0.1	ug/L	0.11	0.1	0.25	0.1

Client Sample ID			RINSATE	TS	TB	FIELD BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma44636	S22-Ma44637	S22-Ma44638	S22-Ma44639
Date Sampled			Mar 22, 2022	Mar 22, 2022	Mar 22, 2022	Mar 22, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	-	-	-
TRH C10-C14	0.05	mg/L	< 0.05	-	-	-
TRH C15-C28	0.1	mg/L	< 0.1	-	-	-
TRH C29-C36	0.1	mg/L	< 0.1	-	-	-
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	-	-	-
Naphthalene[N02]	0.01	mg/L	< 0.01	-	-	-
TRH C6-C10	0.02	mg/L	< 0.02	-	-	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	-	-	-
TRH >C10-C16	0.05	mg/L	< 0.05	-	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	-	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	-	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	-	-	-
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	-	-	-
BTEX						
Benzene	0.001	mg/L	< 0.001	-	< 0.001	-
Toluene	0.001	mg/L	< 0.001	-	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	-	< 0.001	-
m&p-Xylenes	0.002	mg/L	< 0.002	-	< 0.002	-
o-Xylene	0.001	mg/L	< 0.001	-	< 0.001	-
Xylenes - Total*	0.003	mg/L	< 0.003	-	< 0.003	-
4-Bromofluorobenzene (surr.)	1	%	97	-	109	-
Volatile Organics						
1.1-Dichloroethane	0.001	mg/L	< 0.001	-	-	-
1.1-Dichloroethene	0.001	mg/L	< 0.001	-	-	-
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	-	-	-
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	-	-	-
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	-	-	-
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	-	-	-
1.2-Dibromoethane	0.001	mg/L	< 0.001	-	-	-
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	-	-	-
1.2-Dichloroethane	0.001	mg/L	< 0.001	-	-	-
1.2-Dichloropropane	0.001	mg/L	< 0.001	-	-	-
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	-	-	-
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	-	-	-
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	-	-	-
1.3-Dichloropropane	0.001	mg/L	< 0.001	-	-	-
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	-	-	-
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	-	-	-
2-Butanone (MEK)	0.005	mg/L	< 0.005	-	-	-
2-Propanone (Acetone)	0.005	mg/L	< 0.005	-	-	-
4-Chlorotoluene	0.001	mg/L	< 0.001	-	-	-
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	< 0.005	-	-	-
Allyl chloride	0.001	mg/L	< 0.001	-	-	-
Benzene	0.001	mg/L	< 0.001	-	-	-
Bromobenzene	0.001	mg/L	< 0.001	-	-	-
Bromochloromethane	0.001	mg/L	< 0.001	-	-	-
Bromodichloromethane	0.001	mg/L	< 0.001	-	-	-
Bromoform	0.001	mg/L	< 0.001	-	-	-
Bromomethane	0.005	mg/L	< 0.005	-	-	-

Client Sample ID			RINSATE	TS	TB	FIELD BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma44636	S22-Ma44637	S22-Ma44638	S22-Ma44639
Date Sampled			Mar 22, 2022	Mar 22, 2022	Mar 22, 2022	Mar 22, 2022
Test/Reference	LOR	Unit				
Volatile Organics						
Carbon disulfide	0.001	mg/L	< 0.001	-	-	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	-	-	-
Chlorobenzene	0.001	mg/L	< 0.001	-	-	-
Chloroethane	0.005	mg/L	< 0.005	-	-	-
Chloroform	0.005	mg/L	< 0.005	-	-	-
Chloromethane	0.005	mg/L	< 0.005	-	-	-
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	-	-	-
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	-	-	-
Dibromochloromethane	0.001	mg/L	< 0.001	-	-	-
Dibromomethane	0.001	mg/L	< 0.001	-	-	-
Dichlorodifluoromethane	0.005	mg/L	< 0.005	-	-	-
Ethylbenzene	0.001	mg/L	< 0.001	-	-	-
Iodomethane	0.001	mg/L	< 0.001	-	-	-
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	-	-	-
m&p-Xylenes	0.002	mg/L	< 0.002	-	-	-
Methylene Chloride	0.005	mg/L	< 0.005	-	-	-
o-Xylene	0.001	mg/L	< 0.001	-	-	-
Styrene	0.001	mg/L	< 0.001	-	-	-
Tetrachloroethene	0.001	mg/L	< 0.001	-	-	-
Toluene	0.001	mg/L	< 0.001	-	-	-
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	-	-	-
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	-	-	-
Trichloroethene	0.001	mg/L	< 0.001	-	-	-
Trichlorofluoromethane	0.005	mg/L	< 0.005	-	-	-
Vinyl chloride	0.005	mg/L	< 0.005	-	-	-
Xylenes - Total*	0.003	mg/L	< 0.003	-	-	-
Total MAH*	0.003	mg/L	< 0.003	-	-	-
Vic EPA IWRG 621 CHC (Total)*	0.005	mg/L	< 0.005	-	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.005	mg/L	< 0.005	-	-	-
4-Bromofluorobenzene (surr.)	1	%	97	-	-	-
Toluene-d8 (surr.)	1	%	86	-	-	-
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	-	-	-
Acenaphthylene	0.00001	mg/L	< 0.00001	-	-	-
Anthracene	0.00001	mg/L	< 0.00001	-	-	-
Benz(a)anthracene	0.00001	mg/L	< 0.00001	-	-	-
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	-	-	-
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	-	-	-
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	-	-	-
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	-	-	-
Chrysene	0.00001	mg/L	< 0.00001	-	-	-
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	-	-	-
Fluoranthene	0.00001	mg/L	< 0.00001	-	-	-
Fluorene	0.00001	mg/L	< 0.00001	-	-	-
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	-	-	-
Naphthalene	0.00001	mg/L	< 0.00001	-	-	-
Phenanthrene	0.00001	mg/L	< 0.00001	-	-	-
Pyrene	0.00001	mg/L	< 0.00001	-	-	-
Total PAH*	0.00001	mg/L	< 0.00001	-	-	-

Client Sample ID			RINSATE	TS	TB	FIELD BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma44636	S22-Ma44637	S22-Ma44638	S22-Ma44639
Date Sampled			Mar 22, 2022	Mar 22, 2022	Mar 22, 2022	Mar 22, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
2-Fluorobiphenyl (surr.)	1	%	74	-	-	-
p-Terphenyl-d14 (surr.)	1	%	87	-	-	-
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	-	-	-
Cadmium (filtered)	0.0002	mg/L	< 0.0002	-	-	-
Chromium (filtered)	0.001	mg/L	< 0.001	-	-	-
Copper (filtered)	0.001	mg/L	< 0.001	-	-	-
Lead (filtered)	0.001	mg/L	< 0.001	-	-	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	-	-	-
Nickel (filtered)	0.001	mg/L	0.002	-	-	-
Zinc (filtered)	0.005	mg/L	0.007	-	-	-
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA)[N11]	0.05	ug/L	< 0.05	-	-	< 0.05
Perfluoropentanoic acid (PFPeA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorohexanoic acid (PFHxA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluoroheptanoic acid (PFHpA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorooctanoic acid (PFOA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorononanoic acid (PFNA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorodecanoic acid (PFDA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluoroundecanoic acid (PFUnDA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorododecanoic acid (PFDoDA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorotridecanoic acid (PFTrDA)[N15]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
13C4-PFBA (surr.)	1	%	78	-	-	76
13C5-PFPeA (surr.)	1	%	126	-	-	131
13C5-PFHxA (surr.)	1	%	99	-	-	96
13C4-PFHpA (surr.)	1	%	106	-	-	93
13C8-PFOA (surr.)	1	%	117	-	-	113
13C5-PFNA (surr.)	1	%	108	-	-	118
13C6-PFDA (surr.)	1	%	109	-	-	104
13C2-PFUnDA (surr.)	1	%	93	-	-	104
13C2-PFDoDA (surr.)	1	%	113	-	-	123
13C2-PFTeDA (surr.)	1	%	104	-	-	102
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA)[N11]	0.05	ug/L	< 0.05	-	-	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.05	ug/L	< 0.05	-	-	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.05	ug/L	< 0.05	-	-	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)[N11]	0.05	ug/L	< 0.05	-	-	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)[N11]	0.05	ug/L	< 0.05	-	-	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.05	ug/L	< 0.05	-	-	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.05	ug/L	< 0.05	-	-	< 0.05
13C8-FOSA (surr.)	1	%	83	-	-	82
D3-N-MeFOSA (surr.)	1	%	63	-	-	62
D5-N-EtFOSA (surr.)	1	%	70	-	-	70
D7-N-MeFOSE (surr.)	1	%	68	-	-	73
D9-N-EtFOSE (surr.)	1	%	71	-	-	72

Client Sample ID			RINSATE	TS	TB	FIELD BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S22-Ma44636	S22-Ma44637	S22-Ma44638	S22-Ma44639
Date Sampled			Mar 22, 2022	Mar 22, 2022	Mar 22, 2022	Mar 22, 2022
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
D5-N-EtFOSAA (surr.)	1	%	117	-	-	106
D3-N-MeFOSAA (surr.)	1	%	91	-	-	93
Perfluoroalkyl sulfonic acids (PFSAs)						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorononanesulfonic acid (PFNS)[N15]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorooctanesulfonic acid (PFOS)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
Perfluorodecanesulfonic acid (PFDS)[N15]	0.01	ug/L	< 0.01	-	-	< 0.01
13C3-PFBS (surr.)	1	%	97	-	-	116
18O2-PFHxS (surr.)	1	%	107	-	-	103
13C8-PFOS (surr.)	1	%	88	-	-	78
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)[N11]	0.05	ug/L	< 0.05	-	-	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.01	ug/L	< 0.01	-	-	< 0.01
13C2-4:2 FTSA (surr.)	1	%	73	-	-	73
13C2-6:2 FTSA (surr.)	1	%	68	-	-	79
13C2-8:2 FTSA (surr.)	1	%	82	-	-	83
13C2-10:2 FTSA (surr.)	1	%	110	-	-	114
PFASs Summations						
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	-	-	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	< 0.01	-	-	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	< 0.01	-	-	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	< 0.05	-	-	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	< 0.1	-	-	< 0.1
BTEX						
Benzene	1	%	-	120	-	-
Ethylbenzene	1	%	-	120	-	-
m&p-Xylenes	1	%	-	110	-	-
o-Xylene	1	%	-	110	-	-
Toluene	1	%	-	110	-	-
Xylenes - Total	1	%	-	110	-	-
4-Bromofluorobenzene (surr.)	1	%	-	99	-	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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
Eurofins Suite B7 (filtered metals/PAH trace level)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Mar 24, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Mar 24, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Mar 24, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Melbourne	Mar 24, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons (Trace level)	Melbourne	Mar 24, 2022	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water (trace)			
Metals M8 filtered	Melbourne	Mar 24, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Volatile Organics	Melbourne	Mar 24, 2022	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Brisbane	Mar 23, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Brisbane	Mar 23, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Brisbane	Mar 23, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Brisbane	Mar 23, 2022	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

eurofins | Environment Testing

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BOTANY
Project ID: 62740

Order No.:
Report #: 873319
Phone: 02 8245 0300
Fax:

Received: Mar 22, 2022 4:56 PM
Due: Mar 25, 2022
Priority: 3 Day
Contact Name: Julia Nicholson

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						BTEX	Volatile Organics	Per- and Polyfluoroalkyl Substances (PFASs)	BTEX	Eurofins Suite B7 (filtered metals/PAH trace level)
Melbourne Laboratory - NATA # 1261 Site # 1254							X			X
Sydney Laboratory - NATA # 1261 Site # 18217						X			X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								X		
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	MW01	Mar 22, 2022		Water	S22-Ma44632		X	X		X
2	MW02	Mar 22, 2022		Water	S22-Ma44633		X	X		X
3	MW03	Mar 22, 2022		Water	S22-Ma44634		X	X		X
4	QW1	Mar 22, 2022		Water	S22-Ma44635		X	X		X
5	RINSATE	Mar 22, 2022		Water	S22-Ma44636		X	X		X
6	TS	Mar 22, 2022		Water	S22-Ma44637				X	
7	TB	Mar 22, 2022		Water	S22-Ma44638	X				
8	FIELD BLANK	Mar 22, 2022		Water	S22-Ma44639			X		
Test Counts						1	5	6	1	5

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 1999, as amended May 2013 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. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. 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.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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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. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
2-Butanone (MEK)	mg/L	< 0.005			0.005	Pass	
2-Propanone (Acetone)	mg/L	< 0.005			0.005	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.005			0.005	Pass	
Allyl chloride	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.005			0.005	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene	mg/L	< 0.001			0.001	Pass	
Chloroethane	mg/L	< 0.005			0.005	Pass	
Chloroform	mg/L	< 0.005			0.005	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chloromethane	mg/L	< 0.005			0.005	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.001			0.001	Pass	
Dichlorodifluoromethane	mg/L	< 0.005			0.005	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
Methylene Chloride	mg/L	< 0.005			0.005	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene	mg/L	< 0.001			0.001	Pass	
Trichlorofluoromethane	mg/L	< 0.005			0.005	Pass	
Vinyl chloride	mg/L	< 0.005			0.005	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	mg/L	< 0.00001			0.00001	Pass	
Acenaphthylene	mg/L	< 0.00001			0.00001	Pass	
Anthracene	mg/L	< 0.00001			0.00001	Pass	
Benz(a)anthracene	mg/L	< 0.00001			0.00001	Pass	
Benzo(a)pyrene	mg/L	< 0.00001			0.00001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.00001			0.00001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Chrysene	mg/L	< 0.00001			0.00001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.00001			0.00001	Pass	
Fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Fluorene	mg/L	< 0.00001			0.00001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.00001			0.00001	Pass	
Naphthalene	mg/L	< 0.00001			0.00001	Pass	
Phenanthrene	mg/L	< 0.00001			0.00001	Pass	
Pyrene	mg/L	< 0.00001			0.00001	Pass	
Total PAH*	mg/L	< 0.00001			0.00001	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	ug/L	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	105			70-130	Pass	
Naphthalene	%	92			70-130	Pass	
TRH C6-C10	%	107			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	90			70-130	Pass	
Toluene	%	87			70-130	Pass	
Ethylbenzene	%	88			70-130	Pass	
m&p-Xylenes	%	88			70-130	Pass	
Xylenes - Total*	%	88			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	111			70-130	Pass	
1.1.1-Trichloroethane	%	124			70-130	Pass	
1.2-Dichlorobenzene	%	104			70-130	Pass	
1.2-Dichloroethane	%	119			70-130	Pass	
Trichloroethene	%	94			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	%	93			70-130	Pass	
Acenaphthylene	%	112			70-130	Pass	
Anthracene	%	108			70-130	Pass	
Benz(a)anthracene	%	87			70-130	Pass	
Benzo(a)pyrene	%	93			70-130	Pass	
Benzo(b&j)fluoranthene	%	92			70-130	Pass	
Benzo(g.h.i)perylene	%	82			70-130	Pass	
Benzo(k)fluoranthene	%	107			70-130	Pass	
Chrysene	%	126			70-130	Pass	
Dibenz(a.h)anthracene	%	84			70-130	Pass	
Fluoranthene	%	89			70-130	Pass	
Fluorene	%	126			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	79			70-130	Pass	
Naphthalene	%	102			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Phenanthrene	%	117			70-130	Pass	
Pyrene	%	87			70-130	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	84			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	77			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	72			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	83			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	69			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	70			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	80			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	89			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	79			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	66			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	71			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	80			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	68			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	63			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	%	74			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	%	64			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	83			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	76			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	74			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	86			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	83			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	77			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	90			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	88			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	88			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	71			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	91			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	%	74			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	85			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	71			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	S22-Ma44632	CP	%	95			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S22-Ma44632	CP	%	87			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	S22-Ma44632	CP	%	106			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S22-Ma44632	CP	%	104			50-150	Pass	
Perfluorooctanoic acid (PFOA)	S22-Ma44632	CP	%	95			50-150	Pass	
Perfluorononanoic acid (PFNA)	S22-Ma44632	CP	%	97			50-150	Pass	
Perfluorodecanoic acid (PFDA)	S22-Ma44632	CP	%	101			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	S22-Ma44632	CP	%	102			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S22-Ma44632	CP	%	96			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorotridecanoic acid (PFTrDA)	S22-Ma44632	CP	%	90			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S22-Ma44632	CP	%	97			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	M22-Ma40359	NCP	%	101			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	M22-Ma40359	NCP	%	84			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	M22-Ma40359	NCP	%	90			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	M22-Ma40359	NCP	%	111			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	M22-Ma40359	NCP	%	86			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	M22-Ma40359	NCP	%	96			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	M22-Ma40359	NCP	%	107			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	M22-Ma40359	NCP	%	82			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	M22-Ma40359	NCP	%	110			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	M22-Ma40359	NCP	%	98			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	M22-Ma40359	NCP	%	87			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	M22-Ma40359	NCP	%	108			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	M22-Ma40359	NCP	%	100			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	M22-Ma40359	NCP	%	108			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	M22-Ma40359	NCP	%	89			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	M22-Ma40359	NCP	%	116			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	M22-Ma40359	NCP	%	86			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	M22-Ma40359	NCP	%	103			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	M22-Ma40359	NCP	%	87			50-150	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M22-Ma46645	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Naphthalene	M22-Ma46645	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	M22-Ma46645	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1-Dichloroethene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1-Trichloroethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2-Trichloroethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dibromoethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichlorobenzene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloroethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloropropane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.3-Trichloropropane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.4-Trimethylbenzene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3-Dichlorobenzene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3-Dichloropropane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3.5-Trimethylbenzene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.4-Dichlorobenzene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
2-Butanone (MEK)	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Propanone (Acetone)	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Chlorotoluene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Allyl chloride	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromobenzene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromochloromethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromodichloromethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromoform	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromomethane	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Carbon disulfide	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Carbon Tetrachloride	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chlorobenzene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chloroethane	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloroform	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloromethane	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
cis-1.2-Dichloroethene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
cis-1.3-Dichloropropene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromochloromethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromomethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dichlorodifluoromethane	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Iodomethane	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Isopropyl benzene (Cumene)	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Methylene Chloride	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Styrene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Tetrachloroethene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.2-Dichloroethene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.3-Dichloropropene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichloroethene	M22-Ma46645	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichlorofluoromethane	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Vinyl chloride	M22-Ma46645	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	L22-Ma43931	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	L22-Ma43931	NCP	ug/L	0.04	0.04	8.0	30%	Pass	
Perfluorohexanoic acid (PFHxA)	L22-Ma43931	NCP	ug/L	0.11	0.13	11	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	L22-Ma43931	NCP	ug/L	0.03	0.03	10	30%	Pass	
Perfluorooctanoic acid (PFOA)	L22-Ma43931	NCP	ug/L	0.04	0.05	4.0	30%	Pass	

Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorononanoic acid (PFNA)	L22-Ma43931	NCP	ug/L	0.03	0.03	23	30%	Pass
Perfluorodecanoic acid (PFDA)	L22-Ma43931	NCP	ug/L	< 0.01	0.01	26	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	L22-Ma43931	NCP	ug/L	0.03	0.03	4.0	30%	Pass
Perfluorododecanoic acid (PFDoDA)	L22-Ma43931	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	L22-Ma43931	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	L22-Ma43931	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	L22-Ma43931	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	L22-Ma43931	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	L22-Ma43931	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol (N-MeFOSE)	L22-Ma43931	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol (N-EtFOSE)	L22-Ma43931	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	L22-Ma43931	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	L22-Ma43931	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	L22-Ma43931	NCP	ug/L	0.03	0.03	4.0	30%	Pass
Perfluorononanesulfonic acid (PFNS)	L22-Ma43931	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	L22-Ma43931	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	L22-Ma43931	NCP	ug/L	0.02	0.02	9.0	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	L22-Ma43931	NCP	ug/L	0.30	0.32	6.0	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	L22-Ma43931	NCP	ug/L	0.03	0.03	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	L22-Ma43931	NCP	ug/L	2.9	2.6	9.0	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	L22-Ma43931	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	L22-Ma43931	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	L22-Ma43931	NCP	ug/L	0.06	0.06	8.0	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	L22-Ma43931	NCP	ug/L	0.03	0.03	7.0	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	L22-Ma43931	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Ma33579	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S22-Ma33579	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S22-Ma33579	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S22-Ma33579	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S22-Ma33579	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S22-Ma33579	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Comments

Eurofins | Environment Testing accreditation number 1261, site 18217 is currently in progress of a controlled transition to a new custom built location at 179 Magowar Road, Girraween, NSW 2145. All results on this report denoted as being performed by Eurofins | Environment Testing Unit F3, Building F, 16 Mars road, Lane Cove West, NSW 2066, corporate site 18217, will have been performed on either Lane Cove or new Girraween site

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N09	Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC

Authorised by:

Hannah Mawbey	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)
Sarah McCallion	Senior Analyst-PFAS (QLD)
Vivian Wang	Senior Analyst-Volatile (VIC)



Glenn Jackson
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.

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eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Julia Nicholson
Project name:	BOTANY
Project ID:	62740
Turnaround time:	3 Day
Date/Time received	Mar 22, 2022 4:56 PM
Eurofins reference	873319

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 1.1 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Julia Nicholson - jnicholson@jbsg.com.au.

Global Leader - Results you can trust

Chain of Custody

JBS&G

PROJECT NO.: 62740	LABORATORY BATCH NO.:
PROJECT NAME: Botany	SAMPLERS: JN ST
DATE NEEDED BY: 3 day	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) Nichelson@jbsg.com.au; (3) STran@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	HM	PAH low-level	TRH	VOC	PFAS	BTEX	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
MW01	Water	22/3/22		vials amber metal	PFAs	X	X	X	X	X				
MW02	↓			↓		X	X	X	X	X				
MW03						X	X	X	X	X				
QW1						X	X	X	X	X				
rinsate						X	X	X	X	X				
TS/TB				Vials							X			
Fieldblank				PFAs						X				

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: JN DATE: 22/3/22	CONSIGNMENT NOTE NO.	NAME: AMS DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF: 22,3,22 4:56 PM	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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873319

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

CERTIFICATE OF ANALYSIS 291137

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	R Chapman
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**62740, Hale St Botany**
Number of Samples	1 soil
Date samples received	16/03/2022
Date completed instructions received	16/03/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	23/03/2022
Date of Issue	23/03/2022

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

Results Approved By
Dragana Tomas, Senior Chemist
Liam Timmins, Chemist
Steven Luong, Senior Chemist
Thomas Lovatt, Chemist

Authorised By

Nancy Zhang, Laboratory Manager

VOCs in soil		
Our Reference		291137-1
Your Reference	UNITS	QA01_20220316
Date Sampled		16/03/2022
Type of sample		soil
Date extracted	-	18/03/2022
Date analysed	-	18/03/2022
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1

VOCs in soil		
Our Reference		291137-1
Your Reference	UNITS	QA01_20220316
Date Sampled		16/03/2022
Type of sample		soil
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	87
Surrogate aaa-Trifluorotoluene	%	103
Surrogate Toluene-d_8	%	99
Surrogate 4-Bromofluorobenzene	%	109

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		291137-1
Your Reference	UNITS	QA01_20220316
Date Sampled		16/03/2022
Type of sample		soil
Date extracted	-	18/03/2022
Date analysed	-	18/03/2022
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	103

svTRH (C10-C40) in Soil		
Our Reference		291137-1
Your Reference	UNITS	QA01_20220316
Date Sampled		16/03/2022
Type of sample		soil
Date extracted	-	18/03/2022
Date analysed	-	23/03/2022
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	84

PAHs in Soil		
Our Reference		291137-1
Your Reference	UNITS	QA01_20220316
Date Sampled		16/03/2022
Type of sample		soil
Date extracted	-	18/03/2022
Date analysed	-	18/03/2022
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	0.2
Pyrene	mg/kg	0.2
Benzo(a)anthracene	mg/kg	0.1
Chrysene	mg/kg	0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.2
Benzo(a)pyrene	mg/kg	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1
Total +ve PAH's	mg/kg	1.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	76

Organochlorine Pesticides in soil		
Our Reference		291137-1
Your Reference	UNITS	QA01_20220316
Date Sampled		16/03/2022
Type of sample		soil
Date extracted	-	18/03/2022
Date analysed	-	18/03/2022
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	71

PCBs in Soil		
Our Reference		291137-1
Your Reference	UNITS	QA01_20220316
Date Sampled		16/03/2022
Type of sample		soil
Date extracted	-	18/03/2022
Date analysed	-	18/03/2022
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCMX	%	71

Acid Extractable metals in soil		
Our Reference		291137-1
Your Reference	UNITS	QA01_20220316
Date Sampled		16/03/2022
Type of sample		soil
Date prepared	-	18/03/2022
Date analysed	-	21/03/2022
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.4
Chromium	mg/kg	2
Copper	mg/kg	4
Lead	mg/kg	9
Mercury	mg/kg	0.1
Nickel	mg/kg	1
Zinc	mg/kg	180

Moisture		
Our Reference		291137-1
Your Reference	UNITS	QA01_20220316
Date Sampled		16/03/2022
Type of sample		soil
Date prepared	-	18/03/2022
Date analysed	-	21/03/2022
Moisture	%	13

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
Date analysed	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
cis-1,2-dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chloroform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
2,2-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
1,1-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
bromodichloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	86	[NT]
trans-1,3-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
1,2-dibromoethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromoform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
styrene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-023	82	[NT]	[NT]	[NT]	[NT]	60	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	113	[NT]
Surrogate Toluene-d_8	%		Org-023	101	[NT]	[NT]	[NT]	[NT]	106	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	108	[NT]	[NT]	[NT]	[NT]	110	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
Date analysed	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	100	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	108	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	100	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	97	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	113	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	92	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	92	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	103	[NT]
Surrogate o-Terphenyl	%		Org-020	89	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
Date analysed	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	79	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	87	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	81	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	72	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	85	[NT]	[NT]	[NT]	[NT]	86	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
Date analysed	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	79	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	85	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	70	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	68	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	83	[NT]	[NT]	[NT]	[NT]	83	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
Date analysed	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	83	[NT]	[NT]	[NT]	[NT]	83	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date prepared	-			18/03/2022	[NT]	[NT]	[NT]	[NT]	18/03/2022	[NT]
Date analysed	-			21/03/2022	[NT]	[NT]	[NT]	[NT]	21/03/2022	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	103	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	105	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

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

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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

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

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

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

SAMPLE RECEIPT ADVICE

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	R Chapman

Sample Login Details

Your reference	62740, Hale St Botany
Envirolab Reference	291137
Date Sample Received	16/03/2022
Date Instructions Received	16/03/2022
Date Results Expected to be Reported	23/03/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	15
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	VOCs in soil	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	PCBsin Soil	Acid Extractable metalsin soil
QA01_20220316	✓	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Enviolab.

Chain of Custody

JBS&G

PROJECT NO.: 62740	LABORATORY BATCH NO.:
PROJECT NAME: Hale st Botany	SAMPLERS: RC, JW, HD, ST
DATE NEEDED BY: Standard	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) r.chapman@jbsg.com.au; (3) jmitchell@jbsg.com.au; Stran.hdinan.jwallis@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

J=Jar, Julia to email analysis

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	TRH	HM	BTEX	PAHS	VOC	OCP	PCB	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
QC01_202203|6	soil	16|03		J + PFAS tile		X	X	X	X	X	X	X			

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

Job No: 29137
Date Received: 16/03/22
Time Received: 1800
Received by: CH
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Serena Tran DATE: 16|03|22	CONSIGNMENT NOTE NO.	NAME: Christine DATE: 16/03/22	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: ENVIROLAB	COOLER TEMP 15 deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 291458

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	J Nicholson, Ruby Staas, S Tran
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**62740, Botany**
Number of Samples	1 soil
Date samples received	21/03/2022
Date completed instructions received	21/03/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

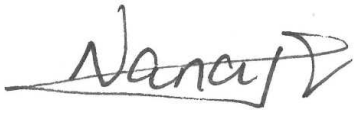
Date results requested by	24/03/2022
Date of Issue	24/03/2022

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

Results Approved By
Dragana Tomas, Senior Chemist
Hannah Nguyen, Metals Supervisor
Jeremy Faircloth, Operations Manager, Sydney

Authorised By



Nancy Zhang, Laboratory Manager

VOCs in soil		
Our Reference		291458-1
Your Reference	UNITS	QC20220321
Date Sampled		21/03/2022
Type of sample		soil
Date extracted	-	22/03/2022
Date analysed	-	23/03/2022
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1

VOCs in soil		
Our Reference		291458-1
Your Reference	UNITS	QC20220321
Date Sampled		21/03/2022
Type of sample		soil
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	97
Surrogate aaa-Trifluorotoluene	%	84
Surrogate Toluene-d_8	%	108
Surrogate 4-Bromofluorobenzene	%	94

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		291458-1
Your Reference	UNITS	QC20220321
Date Sampled		21/03/2022
Type of sample		soil
Date extracted	-	22/03/2022
Date analysed	-	23/03/2022
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	84

svTRH (C10-C40) in Soil		
Our Reference		291458-1
Your Reference	UNITS	QC20220321
Date Sampled		21/03/2022
Type of sample		soil
Date extracted	-	22/03/2022
Date analysed	-	23/03/2022
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	90

PAHs in Soil		
Our Reference		291458-1
Your Reference	UNITS	QC20220321
Date Sampled		21/03/2022
Type of sample		soil
Date extracted	-	22/03/2022
Date analysed	-	23/03/2022
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	0.2
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	0.3
Pyrene	mg/kg	0.3
Benzo(a)anthracene	mg/kg	0.2
Chrysene	mg/kg	0.2
Benzo(b,j+k)fluoranthene	mg/kg	0.3
Benzo(a)pyrene	mg/kg	0.2
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1
Total +ve PAH's	mg/kg	1.9
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	105

Organochlorine Pesticides in soil		
Our Reference		291458-1
Your Reference	UNITS	QC20220321
Date Sampled		21/03/2022
Type of sample		soil
Date extracted	-	22/03/2022
Date analysed	-	23/03/2022
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	0.2
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	100

PCBs in Soil		
Our Reference		291458-1
Your Reference	UNITS	QC20220321
Date Sampled		21/03/2022
Type of sample		soil
Date extracted	-	22/03/2022
Date analysed	-	23/03/2022
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCMX	%	100

Acid Extractable metals in soil		
Our Reference		291458-1
Your Reference	UNITS	QC20220321
Date Sampled		21/03/2022
Type of sample		soil
Date prepared	-	22/03/2022
Date analysed	-	23/03/2022
Arsenic	mg/kg	6
Cadmium	mg/kg	3
Chromium	mg/kg	94
Copper	mg/kg	28
Lead	mg/kg	49
Mercury	mg/kg	1.8
Nickel	mg/kg	3
Zinc	mg/kg	78

Moisture		
Our Reference		291458-1
Your Reference	UNITS	QC20220321
Date Sampled		21/03/2022
Type of sample		soil
Date prepared	-	22/03/2022
Date analysed	-	23/03/2022
Moisture	%	18

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			22/03/2022	[NT]	[NT]	[NT]	[NT]	22/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
cis-1,2-dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chloroform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	86	[NT]
2,2-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	73	[NT]
1,1-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	76	[NT]
bromodichloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	77	[NT]
trans-1,3-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	79	[NT]
1,2-dibromoethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	80	[NT]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromoform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
styrene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-023	99	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	93	[NT]	[NT]	[NT]	[NT]	90	[NT]
Surrogate Toluene-d_8	%		Org-023	107	[NT]	[NT]	[NT]	[NT]	103	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	94	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			22/03/2022	[NT]	[NT]	[NT]	[NT]	22/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	93	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	80	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	93	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	101	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	93	[NT]	[NT]	[NT]	[NT]	90	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			22/03/2022	[NT]	[NT]	[NT]	[NT]	22/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	99	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	99	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	103	[NT]
Surrogate o-Terphenyl	%		Org-020	100	[NT]	[NT]	[NT]	[NT]	91	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			22/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	116	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	115	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	94	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	105	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			22/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	116	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	99	[NT]	[NT]	[NT]	[NT]	103	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			22/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	99	[NT]	[NT]	[NT]	[NT]	103	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			22/03/2022	[NT]	[NT]	[NT]	[NT]	22/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	93	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	94	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

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

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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

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

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

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

SAMPLE RECEIPT ADVICE

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	J Nicholson, Ruby Staas, S Tran

Sample Login Details

Your reference	62740, Botany
Envirolab Reference	291458
Date Sample Received	21/03/2022
Date Instructions Received	21/03/2022
Date Results Expected to be Reported	24/03/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 soil
Turnaround Time Requested	3 days
Temperature on Receipt (°C)	19
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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

Sample ID	VOCs in soil	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	PCBsin Soil	Acid Extractable metalsin soil
QC20220321	✓	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

62740

Chain of Custody

JBS&G

PROJECT NO.: 62740	LABORATORY BATCH NO.:
PROJECT NAME: Botany	SAMPLERS: JN KS ST
DATE NEEDED BY: 3 day	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JNichelson@jbsg.com.au; (3) RStaas@jbsg.com.au STan@jbsg

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	HM	TRHBTEX	PAHs	VOCs	OCPs/PCBs	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
QC20220321	Soil	21/3/22		J		X	X	X	X	X			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE: 21/3/22	CONSIGNMENT NOTE NO.	NAME: Anthony DATE: 21/3/22	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: EASID	COOLER TEMP ..... deg C 29/4/58
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE: 1630	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 291577

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	J Nicholson
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**62740, Botany**
Number of Samples	1 Water
Date samples received	22/03/2022
Date completed instructions received	22/03/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

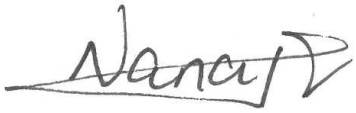
Date results requested by	25/03/2022
Date of Issue	25/03/2022

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

Results Approved By
Alexander Mitchell Maclean, Senior Chemist
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Josh Williams, Organics and LC Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

VOCs in water		
Our Reference		291577-1
Your Reference	UNITS	QW1a
Date Sampled		22/03/2022
Type of sample		Water
Date extracted	-	24/03/2022
Date analysed	-	25/03/2022
Dichlorodifluoromethane	µg/L	<10
Chloromethane	µg/L	<10
Vinyl Chloride	µg/L	<10
Bromomethane	µg/L	<10
Chloroethane	µg/L	<10
Trichlorofluoromethane	µg/L	<10
1,1-Dichloroethene	µg/L	<1
Trans-1,2-dichloroethene	µg/L	<1
1,1-dichloroethane	µg/L	<1
Cis-1,2-dichloroethene	µg/L	<1
Bromochloromethane	µg/L	<1
Chloroform	µg/L	<1
2,2-dichloropropane	µg/L	<1
1,2-dichloroethane	µg/L	<1
1,1,1-trichloroethane	µg/L	<1
1,1-dichloropropene	µg/L	<1
Cyclohexane	µg/L	<1
Carbon tetrachloride	µg/L	<1
Benzene	µg/L	<1
Dibromomethane	µg/L	<1
1,2-dichloropropane	µg/L	<1
Trichloroethene	µg/L	<1
Bromodichloromethane	µg/L	<1
trans-1,3-dichloropropene	µg/L	<1
cis-1,3-dichloropropene	µg/L	<1
1,1,2-trichloroethane	µg/L	<1
Toluene	µg/L	<1
1,3-dichloropropane	µg/L	<1
Dibromochloromethane	µg/L	<1
1,2-dibromoethane	µg/L	<1
Tetrachloroethene	µg/L	<1
1,1,1,2-tetrachloroethane	µg/L	<1
Chlorobenzene	µg/L	<1
Ethylbenzene	µg/L	<1

VOCs in water		
Our Reference		291577-1
Your Reference	UNITS	QW1a
Date Sampled		22/03/2022
Type of sample		Water
Bromoform	µg/L	<1
m+p-xylene	µg/L	<2
Styrene	µg/L	<1
1,1,2,2-tetrachloroethane	µg/L	<1
o-xylene	µg/L	<1
1,2,3-trichloropropane	µg/L	<1
Isopropylbenzene	µg/L	<1
Bromobenzene	µg/L	<1
n-propyl benzene	µg/L	<1
2-chlorotoluene	µg/L	<1
4-chlorotoluene	µg/L	<1
1,3,5-trimethyl benzene	µg/L	<1
Tert-butyl benzene	µg/L	<1
1,2,4-trimethyl benzene	µg/L	<1
1,3-dichlorobenzene	µg/L	<1
Sec-butyl benzene	µg/L	<1
1,4-dichlorobenzene	µg/L	<1
4-isopropyl toluene	µg/L	<1
1,2-dichlorobenzene	µg/L	<1
n-butyl benzene	µg/L	<1
1,2-dibromo-3-chloropropane	µg/L	<1
1,2,4-trichlorobenzene	µg/L	<1
Hexachlorobutadiene	µg/L	<1
1,2,3-trichlorobenzene	µg/L	<1
Surrogate Dibromofluoromethane	%	92
Surrogate toluene-d8	%	93
Surrogate 4-BFB	%	103

vTRH in Water (C6-C9) NEPM		
Our Reference		291577-1
Your Reference	UNITS	QW1a
Date Sampled		22/03/2022
Type of sample		Water
Date extracted	-	24/03/2022
Date analysed	-	25/03/2022
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
Surrogate Dibromofluoromethane	%	92
Surrogate toluene-d8	%	93
Surrogate 4-BFB	%	103

svTRH (C10-C40) in Water		
Our Reference		291577-1
Your Reference	UNITS	QW1a
Date Sampled		22/03/2022
Type of sample		Water
Date extracted	-	23/03/2022
Date analysed	-	23/03/2022
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
Total +ve TRH (C10-C36)	µg/L	<50
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Total +ve TRH (>C10-C40)	µg/L	<50
Surrogate o-Terphenyl	%	89

PAHs in Water - Low Level		
Our Reference		291577-1
Your Reference	UNITS	QW1a
Date Sampled		22/03/2022
Type of sample		Water
Date extracted	-	23/03/2022
Date analysed	-	23/03/2022
Naphthalene	µg/L	<0.2
Acenaphthylene	µg/L	<0.1
Acenaphthene	µg/L	<0.1
Fluorene	µg/L	<0.1
Phenanthrene	µg/L	<0.1
Anthracene	µg/L	<0.1
Fluoranthene	µg/L	<0.1
Pyrene	µg/L	<0.1
Benzo(a)anthracene	µg/L	<0.1
Chrysene	µg/L	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2
Benzo(a)pyrene	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5
Total +ve PAH's	µg/L	<0.1
Surrogate p-Terphenyl-d14	%	100

HM in water - dissolved		
Our Reference		291577-1
Your Reference	UNITS	QW1a
Date Sampled		22/03/2022
Type of sample		Water
Date prepared	-	23/03/2022
Date analysed	-	23/03/2022
Arsenic-Dissolved	µg/L	7
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	<1
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	<1
Zinc-Dissolved	µg/L	3

PFAS in Waters Extended		
Our Reference		291577-1
Your Reference	UNITS	QW1a
Date Sampled		22/03/2022
Type of sample		Water
Date prepared	-	23/03/2022
Date analysed	-	23/03/2022
Perfluorobutanesulfonic acid	µg/L	<0.01
Perfluoropentanesulfonic acid	µg/L	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01
Perfluoroheptanesulfonic acid	µg/L	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	0.07
Perfluorodecanesulfonic acid	µg/L	<0.02
Perfluorobutanoic acid	µg/L	<0.02
Perfluoropentanoic acid	µg/L	<0.02
Perfluorohexanoic acid	µg/L	0.01
Perfluoroheptanoic acid	µg/L	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01
Perfluorononanoic acid	µg/L	<0.01
Perfluorodecanoic acid	µg/L	<0.02
Perfluoroundecanoic acid	µg/L	<0.02
Perfluorododecanoic acid	µg/L	<0.05
Perfluorotridecanoic acid	µg/L	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5
4:2 FTS	µg/L	<0.01
6:2 FTS	µg/L	<0.01
8:2 FTS	µg/L	<0.02
10:2 FTS	µg/L	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	96
Surrogate $^{13}C_2$ *PFOA*	%	96
Extracted ISTD $^{13}C_3$ *PFBS*	%	105
Extracted ISTD $^{18}O_2$ *PFHxS*	%	100
Extracted ISTD $^{13}C_4$ *PFOS*	%	102
Extracted ISTD $^{13}C_4$ *PFBA*	%	100

PFAS in Waters Extended		
Our Reference		291577-1
Your Reference	UNITS	QW1a
Date Sampled		22/03/2022
Type of sample		Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	110
Extracted ISTD $^{13}C_2$ *PFHxA*	%	96
Extracted ISTD $^{13}C_4$ *PFHpA*	%	103
Extracted ISTD $^{13}C_4$ *PFOA*	%	97
Extracted ISTD $^{13}C_5$ *PFNA*	%	103
Extracted ISTD $^{13}C_2$ *PFDA*	%	108
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	100
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	105
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	87
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	110
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	106
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	116
Extracted ISTD $^{13}C_8$ *FOSA*	%	106
Extracted ISTD d_3 *N MeFOSA*	%	102
Extracted ISTD d_5 *N EtFOSA*	%	99
Extracted ISTD d_7 *N MeFOSE*	%	98
Extracted ISTD d_9 *N EtFOSE*	%	103
Extracted ISTD d_3 *N MeFOSAA*	%	106
Extracted ISTD d_5 *N EtFOSAA*	%	110
Total Positive PFHxS & PFOS	µg/L	0.07
Total Positive PFOA & PFOS	µg/L	0.07
Total Positive PFAS	µg/L	0.09

Method ID	Methodology Summary
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			24/03/2022	[NT]	[NT]	[NT]	[NT]	24/03/2022	[NT]
Date analysed	-			25/03/2022	[NT]	[NT]	[NT]	[NT]	25/03/2022	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroform	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
2,2-dichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromomethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	126	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
1,2-dibromoethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromoform	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Styrene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	92	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate toluene-d8	%		Org-023	94	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate 4-BFB	%		Org-023	104	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: vTRH in Water (C6-C9) NEPM						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			24/03/2022	[NT]	[NT]	[NT]	[NT]	24/03/2022	[NT]
Date analysed	-			25/03/2022	[NT]	[NT]	[NT]	[NT]	25/03/2022	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate Dibromofluoromethane	%		Org-023	92	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate toluene-d8	%		Org-023	94	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate 4-BFB	%		Org-023	104	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	89	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	92	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	125	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	89	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	92	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	125	[NT]
Surrogate o-Terphenyl	%		Org-020	112	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: PAHs in Water - Low Level						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	291577-1
Date extracted	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	23/03/2022
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	23/03/2022
Naphthalene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	109	113
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	92	98
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	104
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	124
Anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	97	100
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	98	102
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	70	72
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	92	108
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	100	[NT]	[NT]	[NT]	[NT]	105	100

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date prepared	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	103	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date prepared	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Date analysed	-			23/03/2022	[NT]	[NT]	[NT]	[NT]	23/03/2022	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	105	[NT]
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	112	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	112	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	102	[NT]
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	115	[NT]
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	91	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	108	[NT]
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	108	[NT]
4:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	96	[NT]
6:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	116	[NT]
8:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	108	[NT]
10:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	102	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	107	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	131	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	86	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	97	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	97	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	106	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	108	[NT]	[NT]	[NT]	[NT]	109	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	97	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	107	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	86	[NT]	[NT]	[NT]	[NT]	82	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	124	[NT]	[NT]	[NT]	[NT]	121	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	110	[NT]	[NT]	[NT]	[NT]	107	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	115	[NT]	[NT]	[NT]	[NT]	112	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

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

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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

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

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

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

SAMPLE RECEIPT ADVICE

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	J Nicholson

Sample Login Details

Your reference	62740, Botany
Envirolab Reference	291577
Date Sample Received	22/03/2022
Date Instructions Received	22/03/2022
Date Results Expected to be Reported	25/03/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 Water
Turnaround Time Requested	3 days
Temperature on Receipt (°C)	5
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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

Sample ID	VOCs in water	vTRH in Water (C6-C9) NEPM	svTRH (C10-C40) in Water	PAHs in Water - Low Level	HM in water - dissolved	PFAS in Waters Extended
QW1a	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Chain of Custody

JBS&G

PROJECT NO.: 62740	LABORATORY BATCH NO.:
PROJECT NAME: Botany	SAMPLERS: JN ST
DATE NEEDED BY: 3 day	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JNicholson@jbsg.com.au; (3) STran@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	HM	PAH low level	TRH	VOC	PFAS	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
(1)	QWIa	Water	22322		Vials, amber, metals, PFAS		X	X	X	X	X			

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

Job No: 291577

Date Received: 22/03/2022

Time Received: 10:50

Received by: [signature]

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken/None

4°C

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: JN DATE: 22/3/22	CONSIGNMENT NOTE NO.	NAME: Nancy Zhang	COOLER SEAL Yes / No Intact / Broken
OF: JBS&G	TRANSPORT CO.	DATE: 22/03/2022 10:50	COOLER TEMP 4 deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL Yes / No Intact / Broken
OF:	TRANSPORT CO	OF:	COOLER TEMP deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Appendix G QA/QC Results

Soil RPDs
Project Number: 62740
Project Name: Botany DSI

Field Duplicates (SOIL)
Filter: ALL

SDG		872222	872222		872968	872968		872222	ENVIROLAB 2022-03-17T00:00:00		872968	ENVIROLAB 2022-03-21T00:00:00	
Field ID		SB05_0.9-1.0	QA01-20220316	**RPD**	MW03_0.2-0.3	QA20220321	**RPD**	SB05_0.9-1.0	QA01_20220316	**RPD**	MW03_0.2-0.3	QC20220321	**RPD**
Sampled Date/Time		16/03/2022	16/03/2022		21/03/2022	21/03/2022		16/03/2022	16/03/2022		21/03/2022	21/03/2022	
Chem_Group	**ChemName**	**Units**	**EQL**										
Metals & Metalloids	Arsenic	mg/kg	2 : 4 (Interlab)	<2	<2	0	6.6	6.1	8	<2	<4	0	6.6	6	10
	Cadmium	mg/kg	0.4	<0.4	<0.4	0	2.6	2.5	4	<0.4	<0.4	0	2.6	3	14
	Chromium (III+VI)	mg/kg	5 : 1 (Interlab)	<5	<5	0	110	120	9	<5	2	22	110	94	16
	Copper	mg/kg	5 : 1 (Interlab)	<5	5.6	77	25	25	0	<5	4	46	25	28	11
	Lead	mg/kg	5 : 1 (Interlab)	10	13	26	**55**	**110**	**67**	10	9	11	55	49	12
	Mercury	mg/kg	0.1	**0.3**	**0.2**	**40**	1.4	1.2	15	**0.3**	**0.1**	**100**	1.4	1.8	25
	Nickel	mg/kg	5 : 1 (Interlab)	<5	<5	0	5.7	<5	78	<5	1	86	**5.7**	**3**	**62**
	Zinc	mg/kg	5 : 1 (Interlab)	170	170	0	93	87	7	170	180	6	93	78	18
TRHs (NEPC 2013)	C6-C10	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<20	0	<20	<25	0	<20	<25	0
	C10-C16	mg/kg	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0
	C16-C34	mg/kg	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0
	C34-C40	mg/kg	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0
	C10-C40 (Sum of total)	mg/kg	100 : 50 (Interlab)	<100	<100	0	<100	<100	0	<100	<50	0	<100	<50	0
	F1 (C6-C10 minus BTEX)	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<20	0	<20	<25	0	<20	<25	0
	F2 (C10-C16 less Naphthalene)	mg/kg	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0
BTEXN	Benzene	mg/kg	0.1 : 0.2 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.2	0	<0.1	<0.2	0
	Toluene	mg/kg	0.1 : 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.5	0
	Ethylbenzene	mg/kg	0.1 : 1 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<1	0	<0.1	<1	0
	Xylene (o)	mg/kg	0.1 : 1 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<1	0	<0.1	<1	0
	Xylene (m & p)	mg/kg	0.2 : 2 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<2	0	<0.2	<2	0
	Xylene Total	mg/kg	0.3 : 1 (Interlab)	<0.3	<0.3	0	<0.3	<0.3	0	<0.3	<1	0	<0.3	<1	0
PAH	Acenaphthene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Acenaphthylene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Anthracene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Benz(a)anthracene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.1	0	<0.5	0.2	0
	Benzo(a)pyrene	mg/kg	0.5 : 0.05 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.1	0	<0.5	0.2	0
	Benzo(b+j)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	Benzo(g,h,i)perylene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.1	0	<0.5	0.1	0
	Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	Chrysene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.1	0	<0.5	0.2	0
	Dibenz(a,h)anthracene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Fluoranthene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	0.5	<0.5	0	<0.5	0.2	0	**0.5**	**0.3**	**50**
	Fluorene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.1	0	<0.5	0.1	0
	Naphthalene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Naphthalene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Phenanthrene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	0.2	0
	Pyrene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	0.5	<0.5	0	<0.5	0.2	0	**0.5**	**0.3**	**50**
	PAHs (Sum of total)	mg/kg	0.5 : 0.05 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	**<0.5**	**1.1**	**126**	**<0.5**	**1.9**	**153**
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	0.06	<0.05	18	<0.05	<0.1	0	0.06	<0.1	0
	a-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	b-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	d-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	g-BHC (Lindane)	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Aldrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Dieldrin	mg/kg	0.05 : 0.1 (Interlab)	0.06	<0.05	82	**0.28**	**0.4**	**35**	0.06	<0.1	0	**0.28**	**0.2**	**33**
	Aldrin + Dieldrin	mg/kg	0.05	0.06	<0.05	82				0.06					
	Chlordane	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1			<0.1		
	DDT	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	DDD	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	DDT+DDE+DDD	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0				<0.05	<0.1	0			
	Endosulfan I	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endosulfan II	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endosulfan sulphate	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endrin aldehyde	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endrin ketone	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05			<0.05		
	Heptachlor	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Heptachlor Epoxide	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Methoxychlor	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Toxaphene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
Chlorinated Alkanes	1,1,1,2-tetrachloroethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,1,1-trichloroethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,1,2,2-tetrachloroethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,1,2-trichloroethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,1-dichloroethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,2,3-trichloropropane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,2-dichloroethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,2-dichloropropane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,3-dichloropropane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Bromochloromethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Carbon tetrachloride	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Chloroethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Chloromethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Dichlorodifluoromethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Dichloromethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	Trichlorofluoromethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
Chlorinated Alkenes	1,1-dichloroethene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	3-chloropropene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	4-chlorotoluene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	cis-1,2-dichloroethene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	cis-1,3-dichloropropene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Tetrachloroethene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	trans-1,2-dichloroethene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	trans-1,3-dichloropropene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Trichloroethene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Vinyl Chloride	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
Solvents	Acetone	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	Arochlor 1221	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	Arochlor 1232	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	Arochlor 1242	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	Arochlor 1248	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	Arochlor 1254	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	Arochlor 1260	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	PCBs (Sum of total)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
MAH	1,2,4-trimethylbenzene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,3,5-trimethylbenzene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Styrene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Total MAH	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	Bromobenzene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Isopropylbenzene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
Miscellaneous Hydrocarbons	1,2-dibromoethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Bromomethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Dibromomethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Iodomethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	4-Methyl-2-pentanone	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	Methyl Ethyl Ketone	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
Chlorinated Benzenes	1,2-Dichlorobenzene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,3-dichlorobenzene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	1,4-dichlorobenzene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Chlorobenzene	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Hexachlorobenzene	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
Trihalomethanes	Dibromochloromethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Chloroform	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Tribromomethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
	Bromodichloromethane	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<1	0
Organic Sulfur Compounds	Carbon disulfide	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
Other	Moisture Content (dried @ 103°C)	%	1	15	14	7	14	13	7	15			14		

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (1-10 x EQL); 30 (10-30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Vapour RPDs
Project Number: 62740
Project Name: Botany DSI
Field Duplicates (gas)
Filter: ALL

SDG	872956	872956		872956	872956	
Field ID	SV06 FRONT	QV1 FRONT	RPD	SV06 BACK	QV1 BACK	RPD
Sampled Date/Time	21/03/2022	21/03/2022		21/03/2022	21/03/2022	

Chem_Group	ChemName	Units	EQL						
TRHs (NEPC 2013)	C6-C10	mg/m3	3.33334	<3.33334	<3.33334	0	<3.33334	<3.33334	0
	C10-C16	mg/m3	3.33334	<3.33334	<3.33334	0	<3.33334	<3.33334	0
	F1 (C6-C10 minus BTEX)	mg/m3	3.33334	<3.33334	<3.33334	0	<3.33334	<3.33334	0
	F2 (C10-C16 less Naphthalene)	mg/m3	3.33334	<3.33334	<3.33334	0	<3.33334	<3.33334	0
BTEXN	Benzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Toluene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Ethylbenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Xylene Total	mg/m3	0.250001	<0.2500005	<0.2500005	0	<0.2500005	<0.2500005	0
PAH	Naphthalene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
Chlorinated Alkanes	1,1,1,2-tetrachloroethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,1,1-trichloroethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,1,2,2-tetrachloroethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,1,2-trichloroethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,1-dichloroethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,2,3-trichloropropane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,2-dibromo-3-chloropropane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,2-dichloroethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,2-dichloropropane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,3-dichloropropane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	2,2-dichloropropane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Bromochloromethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Carbon tetrachloride	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Trichlorofluoromethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
Chlorinated Alkenes	1,1-dichloroethene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,1-dichloropropene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	2-chlorotoluene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	4-chlorotoluene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	cis-1,2-dichloroethene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	cis-1,3-dichloropropene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Tetrachloroethene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	trans-1,3-dichloropropene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Trichloroethene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Vinyl Chloride	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
MAH	1,2,4-trimethylbenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,3,5-trimethylbenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	n-butylbenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	n-propylbenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	p-isopropyltoluene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	sec-butylbenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Styrene	mg/m3	0.833335	<0.833335	<0.833335	0	<0.833335	<0.833335	0
	tert-butylbenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Isopropylbenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
Miscellaneous Hydrocarbons	1,2-dibromoethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Dibromomethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
Chlorinated Benzenes	1,2,3-trichlorobenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,2,4-trichlorobenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,2-Dichlorobenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,3-dichlorobenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	1,4-dichlorobenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Chlorobenzene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
Trihalomethanes	Dibromochloromethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Chloroform	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Tribromomethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
	Bromodichloromethane	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0
Organic Alcohols	2-Propanol	mg/m3	1.66667	<1.66667	<1.66667	0	<1.66667	<1.66667	0
Chlorinated Hydrocarbons	Hexachlorobutadiene	mg/m3	0.0833335	<0.0833335	<0.0833335	0	<0.0833335	<0.0833335	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (1-10 x EQL); 30 (10-30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Groundwater RPDs
Project Number: 62740
Project Name: Botany DSI

Field Duplicates (water)
Filter: ALL

SDG	873319	873319		873319	ENVIROLAB 2022-03-22T00:00:00	
Field ID	MW02	QW1	RPD	MW02	QW1a	RPD
Sampled Date/Time	22/03/2022	22/03/2022		22/03/2022	22/03/2022	

Chem_Group	ChemName	Units	EQL						
Metals & Metalloids	Arsenic (Filtered)	mg/l	0.001	0.007	0.007	0	0.007	0.007	0
	Cadmium (Filtered)	mg/l	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0002	0	<0.0002	<0.0001	0
	Chromium (III+VI) (Filtered)	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Copper (Filtered)	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Lead (Filtered)	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Mercury (Filtered)	mg/l	0.0001 : 5e-005 (Interlab)	0.0001	<0.0001	0	0.0001	<0.00005	120
	Nickel (Filtered)	mg/l	0.001	<0.001	0.001	0	<0.001	<0.001	0
	Zinc (Filtered)	mg/l	0.005 : 0.001 (Interlab)	<0.005	0.011	126	<0.005	0.003	18
TRHs (NEPC 2013)	C6-C10	mg/l	0.02 : 0.01 (Interlab)	<0.02	<0.02	0	<0.02	<0.01	0
	C10-C16	mg/l	0.05	<0.05	<0.05	0	<0.05	<0.05	0
	C16-C34	mg/l	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	C34-C40	mg/l	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	C10-C40 (Sum of total)	mg/l	0.1 : 0.05 (Interlab)	<0.1	<0.1	0	<0.1	<0.05	0
	F1 (C6-C10 minus BTEX)	mg/l	0.02	<0.02	<0.02	0	<0.02		
	F2 (C10-C16 less Naphthalene)	mg/l	0.05	<0.05	<0.05	0	<0.05		
BTEXN	Benzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Toluene	µg/l	1	<1	<1	0	<1	<1	0
	Ethylbenzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Xylene (o)	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Xylene (m & p)	mg/l	0.002	<0.002	<0.002	0	<0.002	<0.002	0
	Xylene Total	mg/l	0.003	<0.003	<0.003	0	<0.003		
PAH	Acenaphthene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Acenaphthylene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Anthracene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Benz(a)anthracene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Benzo(a)pyrene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Benzo(b+j)fluoranthene	mg/l	1e-005	<0.00001	<0.00001	0	<0.00001		
	Benzo(g,h,i)perylene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Benzo(k)fluoranthene	mg/l	1e-005	<0.00001	<0.00001	0	<0.00001		
	Chrysene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Dibenz(a,h)anthracene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Fluoranthene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Fluorene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Indeno(1,2,3-c,d)pyrene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Naphthalene	mg/l	1e-005 : 0.0002 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0002	0
	Naphthalene	mg/l	0.01 : 0.0002 (Interlab)	<0.01	<0.01	0	<0.01	<0.0002	0
	Phenanthrene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Pyrene	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	PAHs (Sum of total)	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
Chlorinated Alkanes	1,1,1,2-tetrachloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1,1-trichloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1,2,2-tetrachloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1,2-trichloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1-dichloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,2,3-trichloropropane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,2-dichloroethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,2-dichloropropane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,3-dichloropropane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Bromochloromethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Carbon tetrachloride	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Chloroethane	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
	Chloromethane	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
	Dichlorodifluoromethane	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
	Dichloromethane	mg/l	0.005	<0.005	<0.005	0	<0.005		
	Trichlorofluoromethane	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
Chlorinated Alkenes	1,1-dichloroethene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	3-chloropropene	mg/l	0.001	<0.001	<0.001	0	<0.001		
	4-chlorotoluene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	cis-1,2-dichloroethene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	cis-1,3-dichloropropene	µg/l	1	<1	<1	0	<1	<1	0
	Tetrachloroethene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	trans-1,2-dichloroethene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	trans-1,3-dichloropropene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Trichloroethene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Vinyl Chloride	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
Solvents	Acetone	mg/l	0.005	<0.005	<0.005	0	<0.005		
PFAS	Perfluorobutanoic acid (PFBA)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	0	<0.05	<0.02	0
	Perfluoropentanoic acid (PFPeA)	µg/L	0.01 : 0.02 (Interlab)	0.02	0.02	0	0.02	<0.02	0
	Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.01	<0.01	0	<0.01	0.01	0
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0
	Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0
	Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0
	Perfluorodecanoic acid (PFDA)	µg/L	0.01 : 0.02 (Interlab)	<0.01	<0.01	0	<0.01	<0.02	0
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01 : 0.02 (Interlab)	<0.01	<0.01	0	<0.01	<0.02	0
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.01 : 0.05 (Interlab)	<0.01	<0.01	0	<0.01	<0.05	0
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.1	0
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01 : 0.5 (Interlab)	<0.01	<0.01	0	<0.01	<0.5	0
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0
	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0
	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0
	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	0	<0.05	<0.5	0
	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	0	<0.05	<0.02	0
	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	0	<0.05	<0.02	0
	Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.01	<0.01	0	<0.01		
	Perfluorobutanesulfonic acid (PFBS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0
	Perfluoropentanesulfonic acid (PFPeS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0
	Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0
	Perfluorooctanesulfonic acid (PFOS)	µg/L	0.01	0.08	0.08	0	0.08	0.07	13
	Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.01	<0.01	0	<0.01		
	Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01 : 0.02 (Interlab)	<0.01	<0.01	0	<0.01	<0.02	0
	1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0
	1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	0	<0.05	<0.01	0
	1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	µg/L	0.01 : 0.02 (Interlab)	<0.01	<0.01	0	<0.01	<0.02	0
	1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	µg/L	0.01 : 0.02 (Interlab)	<0.01	<0.01	0	<0.01	<0.02	0
	Sum of PFHxS and PFOS	µg/L	0.01	0.08	0.08	0	0.08	0.07	13
	Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	µg/L	0.01	0.08	0.08	0	0.08		
	Sum of US EPA PFAS (PFOS + PFOA)*	µg/L	0.01	0.08	0.08	0	0.08	0.07	13
	Sum of PFAS (WA DER List)	µg/L	0.05	0.1	0.1	0	0.1		
	Sum of PFAS	µg/L	0.1 : 0.01 (Interlab)	0.1	0.1	0	0.1	0.09	11
MAH	1,2,4-trimethylbenzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,3,5-trimethylbenzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Styrene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Total MAH	mg/l	0.003	<0.003	<0.003	0	<0.003		
	Bromobenzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Isopropylbenzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
Miscellaneous Hydrocarbons	1,2-dibromoethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Bromomethane	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
	Dibromomethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Iodomethane	mg/l	0.001	<0.001	<0.001	0	<0.001		
	4-Methyl-2-pentanone	mg/l	0.005	<0.005	<0.005	0	<0.005		
	Methyl Ethyl Ketone	mg/l	0.005	<0.005	<0.005	0	<0.005		
Chlorinated Benzenes	1,2-Dichlorobenzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,3-dichlorobenzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,4-dichlorobenzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Chlorobenzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
Trihalomethanes	Dibromochloromethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Chloroform	mg/l	0.005 : 0.001 (Interlab)	<0.005	<0.005	0	<0.005	<0.001	0
	Tribromomethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Bromodichloromethane	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
Organic Sulfur Compounds	Carbon disulfide	mg/l	0.001	<0.001	<0.001	0	<0.001		
EPA VIC - IWRG621	Chlorinated Hydrocarbons EPAVic	mg/l	0.005	<0.005	<0.005	0	<0.005		
	Other Chlorinated Hydrocarbons EPAVic	mg/l	0.005	<0.005	<0.005	0	<0.005		

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (1-10 x EQL); 30 (10-30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Appendix H Field Reports

Field Equipment Calibration and Decontamination

PROJECT NAME:	2-4 Hale St Botany	PROJECT NO:	62740
FIELD DATES:	16/3/22, 21/3/22 and 22/3/22	FIELD STAFF:	JN, ST, RC, RS, HD, JW

CALIBRATION SUMMARY	
EQUIPMENT:	PID
CALIBRATION STANDARD:	100ppm Isobutylene

DATE	TIME	READING (ppmv)	COMMENTS
16/3/22	7:32	0	Zero cal
↓	7:33	100	100 ppm Isobutylene
	7:34	101.4	Post cal bump test
21/3/22	7:05	0	
↓	7:06	100	
	7:07	100.9	
22/3/22	7:45	0	
↓	7:46	100	
	7:47	103.1	

DECONTAMINATION SUMMARY

EQUIPMENT:
Hand auger, hollow flight augers, IP

1. Was the equipment decontaminated appropriately prior to sampling at each location?	(Y)	N	NA
2. Was excess soil removed by scraping, brushing or wiping with disposable towels?	(Y)	N	NA
3. Was the equipment contaminated with grease, tar or similar material? If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y Y	N N	(NA)
4. Was phosphate-free detergent used to wash the equipment?	(Y)	N	NA
5. Was the equipment rinsed with clean water?	(Y)	N	NA
6. Was the equipment then rinsed with deionised water?	(Y)	N	NA
7. Were all sample containers cleaned and acid or solvent washed prior to sample collection?	(Y)	N	NA

WERE ANY ADDITIONAL DECONTAMINATION MEASURES REQUIRED? PROVIDE DETAILS.
New pair of PFAS free gloves used for each sample.

Groundwater Gauging Data

PROJECT NAME: Botany	PROJECT NO: 62740
FIELDWORK DATES: 22.3.22	SAMPLERS: ST + JN
TYPE OF INVESTIGATION:	PROJECT MANAGER: JN

WELL ID	DATE	TIME	DEPTH TO LNAPL (mbtoc)	DEPTH TO WATER (mbtoc)	DEPTH TO DNAPL (mbtoc)	TOTAL DEPTH (mbtoc)	NAPL VISUALLY VERIFIED	COMMENTS
MW02	22/03/22		—	1.204				PID: 0 ppm
MW01	↓		—	0.971				PID: 0 ppm
MW03	↓		—	~~1.049~~ 1.049				PID: 1.0 ppm

Notes: _____

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Groundwater Sampling Form

PROJECT NAME: Botany	**PROJECT NO:** 62740
SAMPLING DATES: 22/03/22	**SAMPLERS:** ST
TYPE OF INVESTIGATION:	**PROJECT MANAGER:** JN
WELL ID: MW01	**WEATHER:** Sunny

Casing Diameter (mm): 50		**Depth to NAPL (mBTOC):** –
Well Completion:	Flush Mount / Monument	**Depth to SWL (mBTOC):** 0.971
Well Cap Type:	Locking Cap / PVC / Other	**NAPL Thickness (m):** –
Well Condition:	Good / Compromised	**Depth to EoH (mbtoc):**
Calculated Well Volume (L): 10L		**Water Column Depth (m):**
Sampling Method: peri pump		**NAPL Visually Verified?**
Purge Volume	4 Casings Vol. (L)	
Low Flow	Pump Submersion depth (mBTOC)	

TIME	VOLUME PURGED L	DSSOLVED OXYGEN ☐ % ☑ mgL/ppm	TEMP °C	pH pH units	EC µS/cm	ORP mV	Comments Inc SWL for low flow (mBTOC) TDS mg/L
9:45	1	~~2~~ 0.54	24.6	6.5	861	129.5	565.5 0.97
9:48	2	0.1	24.6	6.52	865	206.9	565.5 0.97
9:51	3	0.01	24.6	6.52	868	250.6	565.5 0.97
9:54	4	0.01	24.7	6.53	871	253.3	572 0.98
9:57	5	0.01	24.7	6.53	873	254.6	572 0.97
Acceptable Variations*		+/-10%	+/- 0.2 °C	+/-0.05 pH	+/-3%	+/-10mV	Results Acceptable: YES / NO

LOW FLOW: Typical flow rate = 0.2- 0.4 L/min - Max. drawdown = 0.1 m - Well stable when 3 consecutive readings (either 3min apart or 1L apart)

PURGE: Min. sampling volume is 4 casing volumes or dry twice - 1 casing volume (50mm wells) = 2 L/m - 1 casing volume (100mm wells) = 8 L/m

Clarity:	low turbidity	**Sheen:**	YES / NO
Colour:	light yellow	**Odour:**	YES / NO ~~slight~~ sulfur mod

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Groundwater Sampling Form

PROJECT NAME: Botany	**PROJECT NO:** 62740
SAMPLING DATES: 22/03/22	**SAMPLERS:** ST
TYPE OF INVESTIGATION:	**PROJECT MANAGER:** JN
WELL ID: MW02	**WEATHER:** Sunny

Casing Diameter (mm): 50	**Depth to NAPL (mBTOC):** —
Well Completion: (Flush Mount) / Monument	**Depth to SWL (mBTOC):** 1.204
Well Cap Type: (Locking Cap) / PVC / Other	**NAPL Thickness (m):** —
Well Condition: (Good) / Compromised	**Depth to EoH (mbtoc):**
Calculated Well Volume (L): 10L	**Water Column Depth (m):**
Sampling Method: Peri pump	**NAPL Visually Verified?**
Purge Volume 4 Casings Vol. (L)	
Low Flow Pump Submersion depth (mBTOC)	

TIME	VOLUME PURGED L	DSSOLVED OXYGEN ☐ % ☑ mgL/ppm	TEMP °C	pH pH units	EC µS/cm	ORP mV	Comments Inc SWL for low flow (mBTOC) TDS mg/L
8:38	1	0.36	21.2	6.38	261.7	144.3	183.3 1.21
8:41	2	01.03	21.2	6.41	263.0	131.2	184.6 1.22
8:44	3	0.93	21.2	6.42	265.1	120.0	186.5
8:47	4	0.67	21.2	6.45	266.4	111.9	187.2 1.21
8:50	5	0.35	21.1	6.47	269.9	99.6	189.8 1.21
8:53	6	0.21	21.2	6.48	269.7	91.1	189.16 1.21
8:56	7	0.14	21.2	6.47	268.5	84.7	188.5 1.21
9:00	8	0.10	21.2	6.48	268.4	75.2	187.85
9:03	9	0.10	21.2	6.48	267.1	70.2	187.2
9:06	10	0.10	21.2	6.48	268	66.2	187.2
Acceptable Variations*		+/-10%	+/-0.2 °C	+/-0.05 pH	+/-3%	+/-10mV	Results Acceptable: YES / NO

LOW FLOW: Typical flow rate = 0.2-0.4 L/min - Max. drawdown = 0.1 m - Well stable when 3 consecutive readings (either 3min apart or 1L apart)

PURGE: Min. sampling volume is 4 casing volumes or dry twice - 1 casing volume (50mm wells) = 2 L/m - 1 casing volume (100mm wells) = 8 L/m

Clarity:	Low turbidity	**Sheen:**	YES / (NO)
Colour:	Yellow brown	**Odour:**	YES / (NO)

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Groundwater Sampling Form

PROJECT NAME: Botany	**PROJECT NO:** 62746
SAMPLING DATES: 22/03/22	**SAMPLERS:** ST
TYPE OF INVESTIGATION:	**PROJECT MANAGER:** JN
WELL ID: MW03	**WEATHER:** Sunny

Casing Diameter (mm): 50		**Depth to NAPL (mBTOC):** —	
Well Completion:	Flush Mount / Monument	**Depth to SWL (mBTOC):** 1.409	
Well Cap Type:	Locking Cap / PVC / Other	**NAPL Thickness (m):** —	
Well Condition:	Good / Compromised	**Depth to EoH (mbtoc):**	
Calculated Well Volume (L): 10L		**Water Column Depth (m):**	
Sampling Method: peri pump		**NAPL Visually Verified?**	
Purge Volume	4 Casings Vol. (L)		
Low Flow	Pump Submersion depth (mBTOC)		

TIME	VOLUME PURGED L	DSSOLVED OXYGEN ☐ % ☑ mgL/ppm	TEMP °C	pH pH units	EC _S/cm	ORP mV	Comments Inc SWL for low flow (mBTOC) TDS mg/L	DTW
10:22	1	0.08	21.9	6.39	487.3	-197.5	336.7	1.04
10:25	2	0.01	21.9	6.41	487.9	-199.6	336.7	1.04
10:28	3	0.01	21.8	6.41	488.2	-195.7	338	1.04
10:31	4	0.01	21.9	6.42	490.6	-202.2	339.3	1.04
10:34	5	0.01	21.8	6.42	493.1	-204.7	341.25	1.04
Acceptable Variations*		+/-10%	+/-0.2 °C	+/-0.05 pH	+/-3%	+/-10mV	Results Acceptable: YES / NO	

LOW FLOW: Typical flow rate = 0.2-0.4 L/min - Max. drawdown = 0.1 m - Well stable when 3 consecutive readings (either 3min apart or 1L apart)

PURGE: Min. sampling volume is 4 casing volumes or dry twice - 1 casing volume (50mm wells) = 2 L/m - 1 casing volume (100mm wells) = 8 L/m

Clarity:	very low turbidity	**Sheen:**	YES / (NO)
Colour:	clear	**Odour:**	(YES) / NO slight sulfur

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Vapour Purging Form

JBS&G

Project Number: 62740	Date: 16/3/22	Sampler/s: ST, HD
Site Address: 2-4 Hale St Botany	Sample Method: Carbon Tube	Weather: Rainy, then sunny

Field Measurements

Sample ID	Time	Oxygen %	Carbon Dioxide %	PID ppm	Methane %	LEL %	Leak Detection PID
SV01	0905	17.4	0.9	1.6	0	0	
	+30s	17.7	0.7		0	0	
	+30s	12.0	1.6		0	0	
	+30s	16.9	1.7		0	0	
	+30s	17.0	1.8		0	0	
SV02	0945	16.4	1.9	1.9	0	0	
	+30s	15.8	2.9		0	0	
	+30s	15.7	3.2		0	0	
	+30s	15.7	3.4		0	0	
	+30s	15.7	3.5		0	0	
	+30s	15.7	3.6		0	0	
SV03	1014	16.9	3.2	1.0	0	0	
	+30s	16.8	3.6		0	0	
	+30s	16.7	3.7		0	0	
	+30s	16.7	4.0		0	0	
	+30s	16.7	4.1		0	0	
SV04	1036	18.5	0.6	3.5	0	0	
	+30s	18.4	0.6		0	0	
	+30s	18.3	0.6		0	0	
	+30s	18.3	0.7		0	0	
	+30s	18.3	0.7		0	0	
	+30s	18.3	0.7		0	0	
SV05	1106	15.5	0.2	2.3	0	0	
	+30s	15.2	0.3		0	0	
	+30s	15.2	0.4		0	0	
	+30s	15.2	0.4		0	0	
	+30s	15.2	0.4		0	0	
	+30s	15.2	0.4		0	0	
	+30s	15.2	0.4		0	0	

PID.

Vapour Purging Form

Project Number:	62740	Date:	16/3/22	Sampler/s:	ST, HD
Site Address:	2-4 Hale St Botany	Sample Method:	Carbon Tube	Weather:	Rainy, then Sunny

Field Measurements

Sample ID	Time	Oxygen	Carbon Dioxide	PID	Methane	LEL	Leak Detection PID
SV07	1222	0.6	18.2	2.2	0	0	
	+30s	7.2	7.8		0	0	
	+30s	7	8.9		0	0	
	+30s	6.9	9.5		0	0	
	+30s	6.8	9.9		0	0	
	+30s	6.7	10.1		0	0	
	+30s	6.7	10.3		0	0	
	+30s	6.6	10.5		0	0	
	+30s	6.6	10.6		0	0	
	+30s	6.6	10.8		0	0	
	+30s	6.6	10.8		0	0	
	+30s	6.6	11.0		0	0	
	+30s	6.6	11.0		0	0	
SV08	1230	14.6	0.8	41.5	0	0	
	+30s	14.3	1.2		0	0	
	+30s	14.1	1.9		0	0	
	+30s	~~14.0~~ 14.0	2.3		0	0	
	+30s	14.0	2.6		0	0	
	+30s	13.9	2.9		0	0	
SV09	1342	17.2	0.9	2.8	0	0	
	+30s	16.6	0.9		0	0	
	+30s	16.5	1.2		0	0	
	+30s	16.4	1.3		0	0	
	+30s	16.4	1.4		0	0	
	+30s	16.4	1.5		0	0	
	+30s	16.4	1.6		0	0	
	+30s	16.4	1.7		0	0	
	+30s	16.4	1.7		0	0	
	+30s	16.4	1.8		0	0	
	+30s	16.4	1.9		0	0	

Vapour Purging Form

JBS&G

Project Number:	Date: 21/03/22	Sampler/s:
Site Address: 2-4 Hale St. Botany	Sample Method:	Weather:

Field Measurements

Sample ID	Time	Oxygen	Carbon Dioxide	PID	Methane	LEL	Leak Detection PID
SV06	10:30:00	1.1	6.9	3.1	0	0	
↓	10:30:30	0.6	7.8	5.5	0	0	
	10:31:00	0.3	9.9	5.7	0	0	
	10:31:30	0.3	10.9	↓	0	0	
↓	10:32:00	0.2	11.7	↓	0	0	
	10:32:30						5.7
SV10	11:55:00	18	4.1	1.9	0	0	
	11:55:30	17.6	4.3		0	0	
	11:56:00	17.6	4.4		0	0	
	11:56:30	17.6	4.4		0	0	
	11:57:00						
SV11	12:51:00	15.9	0.5	5.6	0	0	
	12:51:30	15.5	0.7		0	0	
	12:52:00	15.4	0.9		0	0	
	12:52:30	15.3	1.0		0	0	
	12:53:00	15.3	1.3				
	12:53:30	15.1	1.5				

pump: AC147

pump on: 10:4

pump off: 11:11

QV01 = SV06

AC116

pump on: 11:5

pump off: 12:2

pump on: 12:5

6L sample @ 200mL/min for 30 min

Appendix I Historical Title Records

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

Address: - 2 to 4 Hale Street, Botany

Description: - Lot 1 D.P. 562374

As regards the pat numbered (1) on the attached Cadastral Records Enquiry Report

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
24.07.1912	Minister for Public Works (Constructing Authority)	Vol 2274 Fol 248 Now Vol 2938 Fol 188
24.07.1912 (1912 to 1952)	Metropolitan Water Sewerage and Drainage Board	Vol 2938 Fol 188 Now Vol 5978 Fol 136

As regards the pat numbered (2) on the attached Cadastral Records Enquiry Report

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
29.03.1911	Minister for Public Works (Constructing Authority) (Resumed for the purpose of the disposal of sewage)	Vol 1652 Fol's 146 to 148
29.03.1911 (1911 to 1952)	Metropolitan Water Sewerage and Drainage Board	Vol 1652 Fol's 146 to 148 Now Vol 5978 Fol 136

As regards the pat numbered (3) on the attached Cadastral Records Enquiry Report

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
29.03.1911	Minister for Public Works (Constructing Authority) (Resumed for the purpose of the disposal of sewage)	Book 948 No. 681 (Gazette)
29.03.1911 (1911 to 1952)	Metropolitan Water Sewerage and Drainage Board	Now Vol 5978 Fol 136

As regards the pat numbered (4) on the attached Cadastral Records Enquiry Report

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
	Formerly part of Bay Street, subsequently closed.	

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Continued as regards the whole of the subject land.

Date of Acquisition and term held	**Registered Proprietor(s) & Occupations where available**	**Reference to Title at Acquisition and sale**
	As regards parts numbered (1), (2) and (3)	
10.03.1952 (1952 to 1972)	Geigy Australasia (Pty) Limited	Vol 5978 Fol 136 Now Vol 9146 Fol's 27 & 28
	As regards the part numbered (4)	
	Formerly part of Bay Street, subsequently closed.	
08.09.1961 (1961 to 1972)	Geigy Australasia (Pty) Limited	Vol 8301 Fol 131
	As regards the whole of the subject land	
15.09.1972 (1972 to 1988)	195 Crown Street Pty Limited	Vol 9146 Fol's 27 & 28 & Vol 8301 Fol 131 Then Vol 12159 Fol 90 Now 1/562374
30.08.1988 (1988 to date)	# Peter Szorenyi # Eva Szorenyi	1/562374

# Denotes Current Registered Proprietors

Easements: -

- 07.07.1961 Easement for Transmission Line 200 feet wide

Leases, excluding premises: -

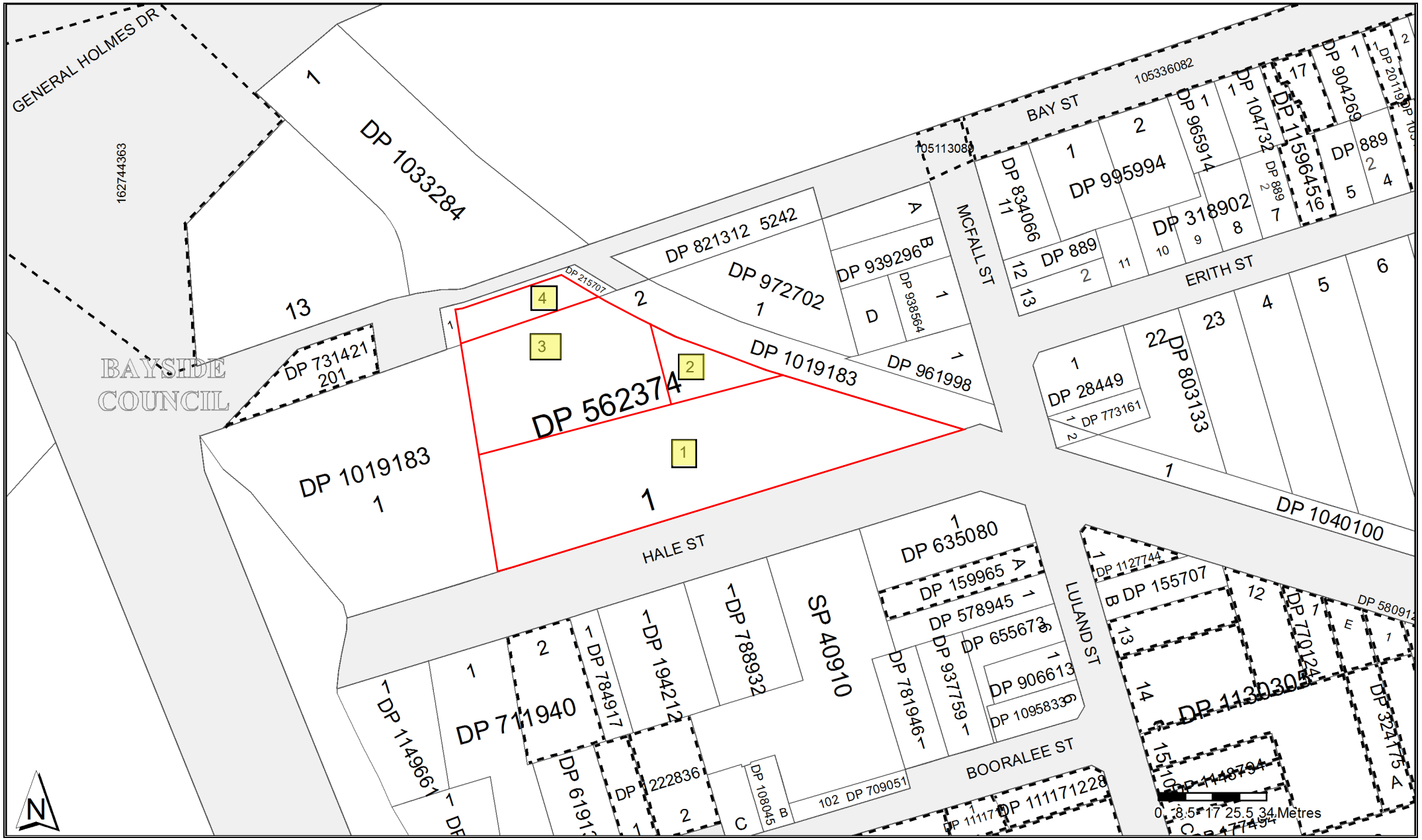
- 03.04.1962 to Sydney County Council, of part, together with easements and rights
- 19.12.1983 to Sydney County Council of part (Lot 1 D.P. 205080), together with a right of way and easement for electricity purposes – expires 31.03.2001.
- Various leases were found from 20.04.1990 that have since expired or have been surrendered – not investigated.

Yours Sincerely
Mark Groll
5 July 2020

Cadastral Records Enquiry Report : Lot 1 DP 562374

Ref : 2-4 Hale Street, Botany

Locality : BOTANY
Parish : BOTANY
LGA : BAYSIDE
County : CUMBERLAND



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This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

InfoTrack

PLAN FORM 1 WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION DP562374 • OFFICE USE ONLY

Council Clerk's Certificate

I hereby certify that –

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of section 349 of the †Metropolitan Water, Sewerage, and Drainage Act, 1924, as amended, †Hunter District Water, Sewerage, and Drainage Act, 1938, as amended,

have been complied with by the applicant in relation to the proposed Subdivision (Insert "new road", "subdivision" or "consolidated lot") set out herein

Subdivision No. 73/12

Date 10th April 1973

(Signature) Council Clerk

*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.

†Delete if inapplicable.

Surveyor's Certificate

I, Gordon Russell

of 32 Empire Ave Concord

a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan has been compiled from DP205080 and DP215707 is accurate and has been made *(1) by me (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1933, and was completed on † 3rd Jan. 1973

Signature Gordon Russell

Surveyor registered under Surveyors Act, 1929, as amended.

Datum Line of Azimuth.

*Strike out either (1) or (2). †Insert date of survey.

PLAN OF LOTS 1 & 2 D.P. 205080 AND PORTION 5151

Mun./~~Shire~~ ~~City~~ : BOTANY

Locality: BOTANY

Parish: BOTANY

County: CUMBERLAND

Reduction Ratio 1:800

Lengths are in metres

DP 562374

Registered: 7.12.6.1973

C.A.: NO 73/12 OF 10-4-1973

Title System: TORRENS

Purpose: CONSOLIDATION

Ref. Map: BOTANY SH 2

Last Plan: D.P. 205080

NOTIFIED

Signatures, seals and statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

THE CROWN STREET BAY LIMITED CO.

The Common Seal of the Company was hereunto affixed by authority of the Board and in the presence of

Director

Secretary

(A) COVENANT F 639755 Lot 1 D.P. 215707

BAY ST.

38°40' 32.155

(A)

1 7442m²

LULAND ST.

D.P. 562374

HALE STREET

153.08

254° 00' 10"

MPD

SURVEYOR'S REFERENCE 1059 GEIGY

Plan Drawing only to appear in this space

Plan Drawing only to appear in this space

I, Jack Hayward Watson, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 17th day of December, 1976.

Jack Watson

Req:R457275 /Doc:DP 0562374 P /Rev:10-Sep-1992 /NSW LRS /Pgs:ALL /Prt:09-Mar-2022 08:56 /Seq:1 of 1
© Office of the Registrar-General /Src:INFOTRACK /Ref:2-4 Hale Street, Botany

Req:R457273 /Doc:CT 09146-027 CT /Rev:13-Jun-2008 /NSW LRS /Pgs:ALL /Prt:09-Mar-2022 08:56 /Seq:1 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:2-4 Hale Street, Botany

M

NEW SOUTH WALES
(For Grant and title reference prior to first edition see Deposited Plan.)

[redacted]TIFICATE OF TITLE

[redacted]PERTY ACT, 1900, as amended.

09146027

Vol. 9146 Fol. 27

1st Edition issued 19-3-1962

2/

Vol. 9146 Fol.

(Page 1)

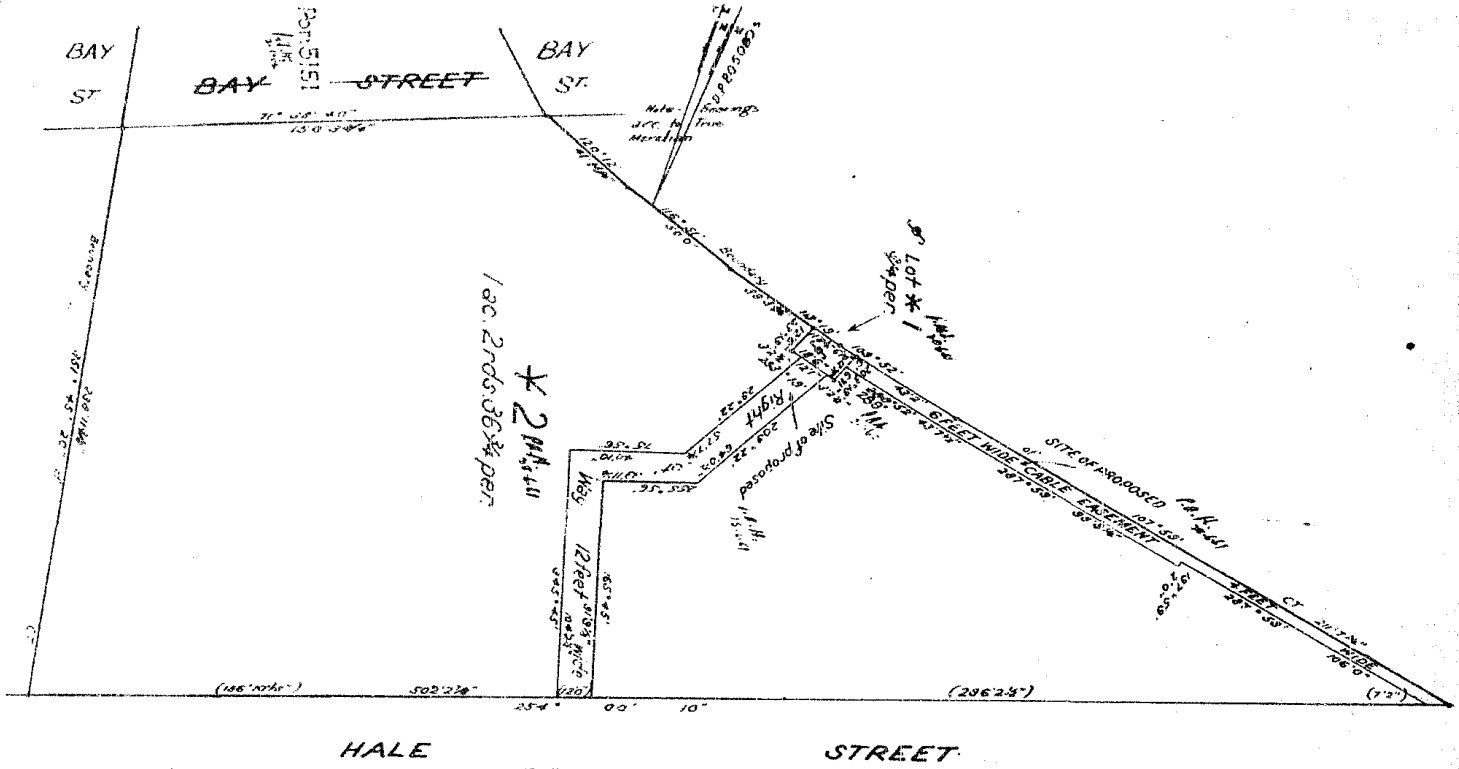
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness

Registrar-General.

CANCELLED

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 205080 in the Municipality of Botany Parish of Botany and County of Cumberland excepting thereout the mines and deposits specified in Section 134 Public Works Act, 1900.

FIRST SCHEDULE (Continued overleaf)

~~GEIGY AUSTRALASIA (PTY.) LIMITED.~~

Registrar General

SECOND SCHEDULE (Continued overleaf)

1. Covenant created by Transfer No. F639755.

Registrar General

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED.

25031 11.60 St 1609 V. C. N. Blight, Government Printer

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
195 Crown Street Pty. Limited	Transfer	M907985	15-9-1972	4-10-1972	

This deed is cancelled as to the whole

New Certificates of Title have issued on 19-7-1973

for lots in Deposited Plan No. 562374 as follows:-

Lot 1 Vol. 12159 Fol 90 respectively.

REGISTRAR GENERAL

H851736 K
— 737 4/L
M824548 K
M907985 Lapsed
M907985 Withdrawn

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		
Lease	H851736	24-7-1961	To The Sydney County Council (Together with Easements and Right)	3-4-1963				
~~Caveat~~	M824548	21-7-1972		1-8-1972		Lapsed	M907985	

FORM No. 184 NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED

Req:R457273 /Doc:CT 09146-027 CT /Rev:13-Jun-2008 /NSW LRS /Pgs:ALL /Prt:09-Mar-2022 08:56 /Seq:2 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:2-4 Hale Street, Botany

Vol. 9140 Fol. 27

Req:R457272 /Doc:CT 09146-028 CT /Rev:13-Jun-2008 /NSW LRS /Pgs:ALL /Prt:09-Mar-2022 08:56 /Seq:1 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:2-4 Hale Street, Botany

M

NEW SOUTH WALES
(For Grant and title reference prior to first edition see Deposited Plan.)

RTIFICATE OF TITLE

OPERTY ACT, 1900, as amended

Vol. 9146 Fol. 28

1st Edition issued 19-3-1962

Fol. 28

(Page 1) Vol. 9146

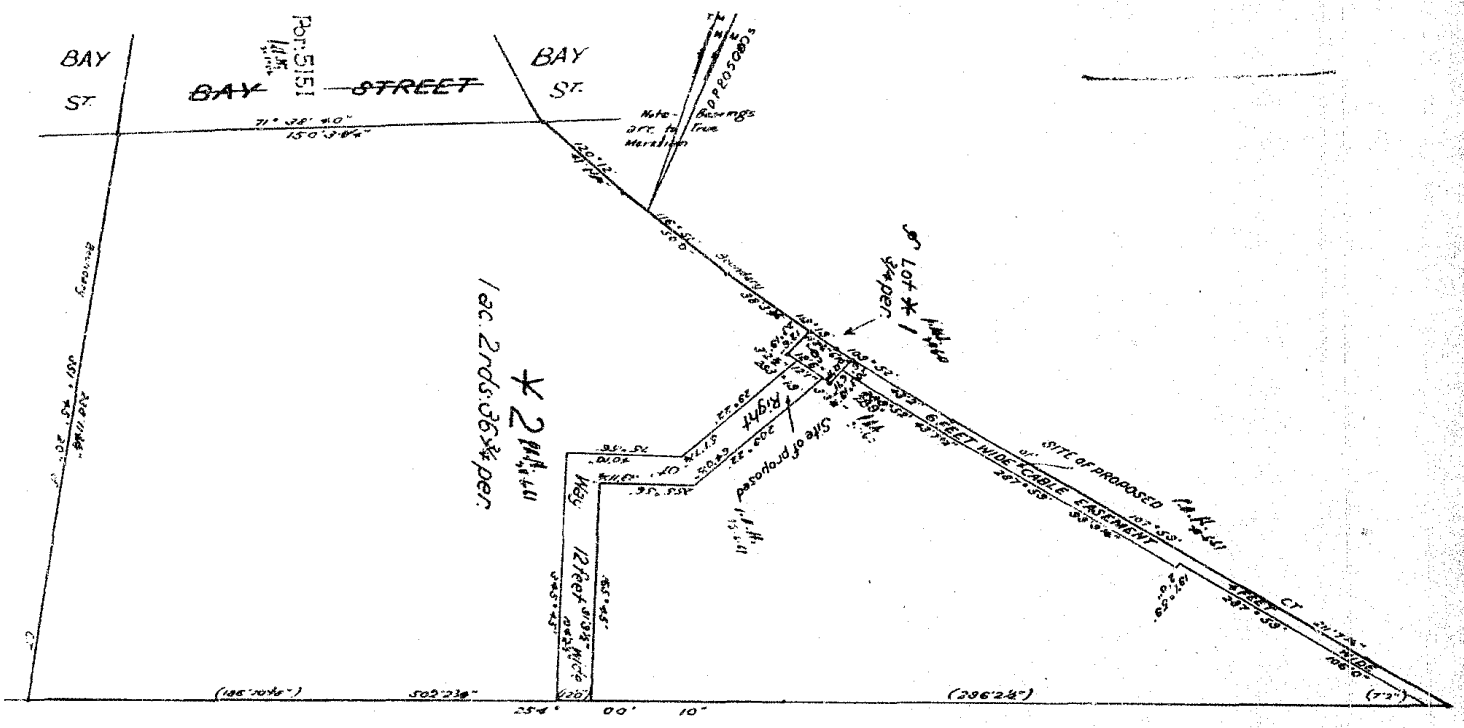
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness

Registrar-General.

CANCELLED

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 2 in Deposited Plan 205080s in the Municipality of Botany Parish of Botany and County of Cumberland excepting thereout the mines and deposits specified in Section 134 Public Works Act, 1900.

FIRST SCHEDULE (Continued overleaf)

~~GEIGY AUSTRALASIA (PTY.) LIMITED.~~

Registrar General

SECOND SCHEDULE (Continued overleaf)

1. Covenant created by Transfer No. F639755.

Registrar General

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED.

25031 11.60 St 1609 V. C. N. Blight, Government Printer

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
195 Crown Street Pty. Limited	Transfer	M907985	15-9-1972	4-10-1972	

This deed is cancelled as to the whole

New Certificates of Title have issued on 19-7-1973

for lots in Deposited Plan No. 562374 as follows:-

Lots 1 Vol. 12159 Fol 90 respectively.

REGISTRAR-GENERAL

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		
Caveat	M821554	21-7-1972		1-8-1972		Lapsed	M907985	

FORM No. 184

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED

Req:R457272 /Doc:CT 09146-028 CT /Rev:13-Jun-2008 /NSW LRS /Pgs:ALL /Prt:09-Mar-2022 08:56 /Seq:2 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:2-4 Hale Street, Botany

Req:R457259 /Doc:CT 12159-090 CT /Rev:03-Feb-2011 /NSW LRS /Pgs:ALL /Prt:09-Mar-2022 08:55 /Seq:3 of 4
© Office of the Registrar-General /Src:INFOTRACK /Ref:2-4 Hale Street, Botany

CERTIFICATE OF TITLE

NEW SOUTH WALES

REAL PROPERTY ACT, 1900

TORRENS TITLE
Register
CANCELLED
Vol. 12159 Fol. 90
See new edition.
Edition issued 19-7-1973

Appln. Nos. 230, 13892 and 36576 (part)

Prior Title: Vol.8301 Fol.131
Vol.9146 Fols.27 and 28

12159 Fol. 90

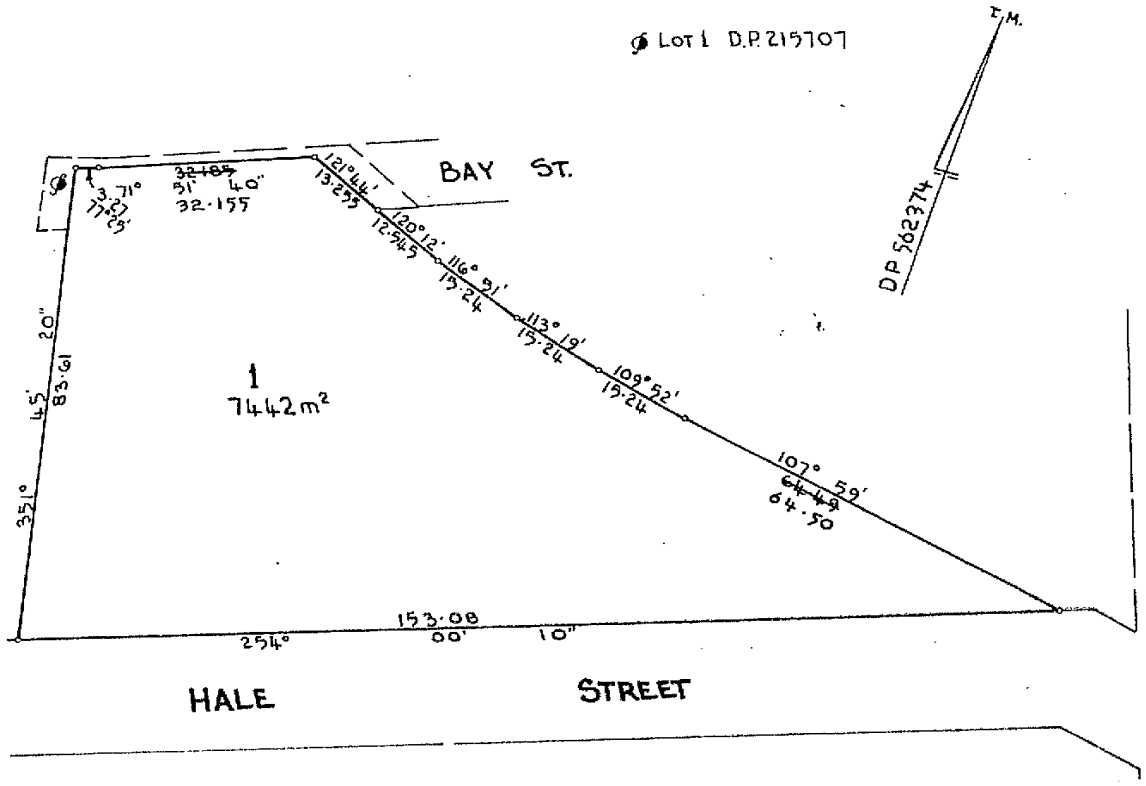
(Page 1) Vol.

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 562374 in the Municipality of Botany Parish of Botany and County of Cumberland being part of Portion 153 granted to Simeon Lord on 27-5-1823 and Portion 5151 granted by Crown Grant Volume 8301 Folio 131. EXCEPTING THEREOUT the mines and deposits specified in Section 134 Public Works Act, 1900 as regard parts and the minerals reserved by the Crown Grant of Portion 5151.

FIRST SCHEDULE

195 CROWN STREET PTY. LIMITED.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Covenant created by Transfer No.F639755 as regard parts.
3. ~~Lease No.H851736 of the right of the land within described formerly comprised in Certificate of Title Volume 9146 Folio 27 to The Sydney County Council (together with easements and rights). Entered 5-4-1962.~~ T834592

Registrar General

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

Vol. 12159 Fol. 90

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
CANCELLED See new edition issued 4-7-1985 VIDE V614855					

SECOND SCHEDULE (continued)

NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
~~Caveat~~	~~N507882~~	~~2-10-1973~~	~~[illegible]~~	~~24-10-1973~~		Withdrawn	N934658	
~~Caveat~~	~~N933205~~	~~11-7-1974~~	~~[illegible]~~	~~11-7-1974~~		Withdrawn	Q708679	
~~Lease~~	~~N991077~~	~~23-5-1974~~	~~of premises being Factory No. 1 in the building known as "Office Block" No. 2 Hale Street, Botany to James Forbes Irvine of Castle Cove, Manufacturer and Beryl Winifred Irvine his wife (with consent of caveator)~~	~~13-11-1974~~		Expired	24-12-1976	
~~Lease~~	~~Q21628~~		~~of premises being Factory No. 1 in the Building known as "Office Block" No. 2 Hale Street, Botany, to James Forbes Irvine, of Canterbury, Manufacturer and Beryl Winifred Irvine, his wife. Date of Expiry 31-5-1980 (with consent of Caveator).~~	~~21-12-1976~~		Expires	R843226	
~~Mortgage~~	~~Q768116~~		~~to Australia and New Zealand Banking Group Limited~~	~~20-7-1978~~		Discharged	R811793 20-5-1980	
~~Mortgage~~	~~R811793~~		~~to Perpetual Trustee Company Limited~~	~~20-5-1980~~		Discharged	T505701	
~~Mortgage~~	~~R843226~~		~~to Australia and New Zealand Banking Group Limited~~	~~21-8-1980~~		Discharged	V482671	
T634570	Lease to Appetite Pty. Limited of premises being Factory No.14 in the building known as 2 Hale Street, Botany together with and reserving rights and an option of renewal. Expires 31-7-1985. Registered 26-7-1983							
T834582	Lease to The Sydney County Council easement for electricity purposes		of premises being Lot 1 in DP 205080 together with a right of way and an over other parts of the land within described Expires 31-3-2001. Registered 19-12-1983					

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

(Page 2 of 2 pages)

N507882 P
N933205 P
N934658 W
CT 23-5-74
N991077 (with bona
CT 16-11-76
Q216228
Q708679
Q768116
R811793
R843226
T505701
C.T. 20.6.
T634570 L
Factory No 14
C.T. 4.11.83
TP3
V482671 DMA
V614855 he.

Req:R457259 /Doc:CT 12159-090 CT /Rev:03-Feb-2011 /NSW LRS /Pgs:ALL /Prt:09-Mar-2022 08:55 /Seq:4 of 4
© Office of the Registrar-General /Src:INFOTRACK /Ref:2-4 Hale Street, Botany

Req:R457259 /Doc:CT 12159-090 CT /Rev:03-Feb-2011 /NSW LRS /Pgs:ALL /Prt:09-Mar-2022 08:55 /Seq:1 of 4
© Office of the Registrar-General /Src:INFOTRACK /Ref:2-4 Hale Street, Botany

12159090

[redacted]ICATE OF TITLE

NEW SOUTH WALES PROPERTY ACT, 1900

Vol. 12159 Fol. 90

First Title Old System

Prior Titles Vol. 8301 Fol. 131
Vol. 9146 Fols. 27 & 28

EDITION 4 ISSUED 7 1985

12159 Fol. 90

(Page 1) Vol.

I certify that the person named in the First Schedule is the registered proprietor of an estate in fee simple (or such other estate or interest as is set out below) in the land described subject to the recordings appearing in the Second Schedule and to the provisions of the Real Property Act, 1900.

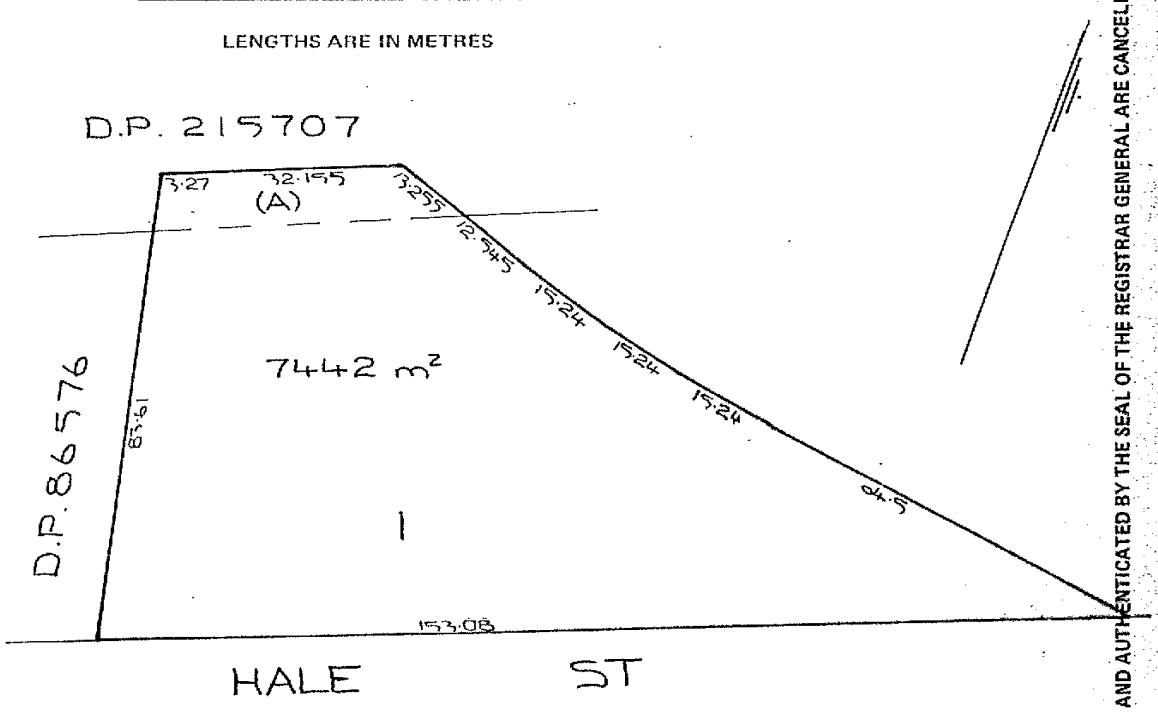
CANCELLED

Registrar General.

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



(A) LAND EXCLUDES MINERALS - SEE CROWN GRANT

V614855 [redacted]

LAND REFERRED TO

Lot 1 in DP562374 at Botany in the Municipality of Botany Parish of Botany County of Cumberland.

FIRST SCHEDULE

195 CROWN STREET PTY. LIMITED.

SECOND SCHEDULE

GRM 1. Land excludes minerals (as to the part shown in the plan hereon) and is subject to reservations and conditions in favour of the Crown - see Crown grants.

XB 2. Land excludes the minerals specified in s.134 Public Works Act, 1900 as to the part shown in DP436528.

CV 3. F639755 Covenant affecting the land shown so burdened in DP436528.

4. ~~T634570 Lease to Appetite Pty. Limited of Factory No. 14 in the building known as 2 Hale Street, Botany, together with rights. Expires 31-7-1986. Option of renewal 3 years.~~ Expired 1-4-1986

L 5. T834582 Lease to The Sydney County Council of Lot 1 in DP205080 together with a right of way and an easement for electricity purposes over other parts of the land within described. Expires 31-3-2001.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

RG 2/64

40828—4036

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR — Registrar General

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

PARTICULARS — Registrar General — CANCELLATION

V614855 P Lease toPrecision Elevators Pty. Limited of the part of premises known as 2 Hale Street, Botany as shown in plan with V614855 together with and reserving rights. Expires 30-6-1989, option of renewal 5 years. REgistered 24-7-1985.

V882614 P Lease to John Thomas Mackenzie and Sue Denise Mackenzie as joint tenants of premises known as Factory No. 5 in the Industrial Estate, 2 Hale Street, Botany. Expires 30-9-1987. Option of renewal 3 years. Registered 18-10-1985

V982615 P Lease to Bruce Morton of premises known as Factory No. 3 in the Industrial Estate, 2 Hale Street, Botany. Expires 28-2-1986. Option of renewal 3 years. Registered 18-10-1985

~~V888464 Lease to Viana Bronzes Pty. Limited of premises known as Office No. 3, being part of the rear ground floor of the Office Tower, having an area of approximately 147.86 sq.m. in the Industrial Estate, 2 Hale Street, Botany. Expires 30-9-1987. Option of renewal 3 years. Registered 18-10-1985~~ X489357.

W110811 P Lease to Appetite Pty. Limited of Factory 13 in Industrial Estate, 2 Hale Street, Botany with and reserving rights Expires 31-3-1989 Option of renewal 5 years Registered 14-1-1986

W119620 P Lease to Schindler Lifts Australia Pty. Limited of Office No. 1, 1st Floor, Office Tower, 2 Hale Street, Botany, reserving rights. Expires 30-6-1989. Option of renewal 5 years. Registered 6-2-1986

W178913 P Lease to Appetite Pty. Limited of Factory 14 in Industrial Estate 2 Hale Street Botany with and reserving rights Expires 31-7-1989 Option of renewal 5 years Registered 1-4-1986

W178913 P Lease. W808474 Transfer of Lease to Australian Mushroom Growers Pty. Limited. Registered 27-3-1987.

W110811 P Lease. W808475 Transfer of Lease to Australian Mushroom Growers Pty. Limited. Registered 27-3-1987.

X359654 P Lease to Zomea Pty Limited of premises known as Office Nos 4 & 5 being part of the ground floor of the Office Tower including the amenities block known as "A". Expires 31-3-1990 with option of renewal for 5 years. Registered 9-2-1988.

X489357 P Lease to Viana Bronzes Pty. Limited of premises known as office No 3 at 2 Hale St, Botany. Expires 30-9-1990. Registered 6-5-1988.

NOTATIONS AND UNREGISTERED DEALINGS

V614855 L
V882614 P Factory (No 5)
V888464 Lease Office No 3
W110811 P
W119620 Office No 1 1st Floor Office Tower
W178913 P (Factory No 14)
W808474 L.R.
X359654 L.R.
X489357 L P

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Req:R457259 /Doc:CT 12159-090 CT /Rev:03-Feb-2011 /NSW LRS /Pgs:ALL /Prt:09-Mar-2022 08:55 /Seq:2 of 4
© Office of the Registrar-General /Src:INFOTRACK /Ref:2-4 Hale Street, Botany

LAND REGISTRY SERVICES Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
9/3/2022 8:55AM

FOLIO: 1/562374

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 12159 FOL 90

Recorded	Number	Type of Instrument	C.T. Issue
28/3/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
1/8/1988		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
30/8/1988	X809130	TRANSFER OF LEASE	
30/8/1988	X809131	TRANSFER OF LEASE	
30/8/1988	X809129	TRANSFER	EDITION 1
20/4/1990	Y942501	LEASE	EDITION 2
12/11/1991	E54232	LEASE	EDITION 3
29/1/1992	E222359	LEASE	EDITION 4
20/5/1992	E469338	LEASE	EDITION 5
17/2/1993	I126096	LEASE	EDITION 6
22/3/1993	I202506	SURRENDER OF LEASE	EDITION 7
27/1/1995	U970652	LEASE	EDITION 8
5/9/1996	2435855	LEASE	EDITION 9
17/10/1996	2542259	SURRENDER OF LEASE	
17/10/1996	2542260	LEASE	EDITION 10
26/5/1998	5010998	LEASE	EDITION 11
24/3/2000	6667474	LEASE	EDITION 12
14/11/2005	AB761225	LEASE	EDITION 13
24/11/2005	AB926892	LEASE	EDITION 14
7/12/2005	AB967007	LEASE	EDITION 15
15/3/2006	AC179702	LEASE	EDITION 16

END OF PAGE 1 - CONTINUED OVER

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
9/3/2022 8:55AM

FOLIO: 1/562374 PAGE 2

Recorded	Number	Type of Instrument	C.T. Issue
28/7/2006	AC491527	LEASE	EDITION 17
17/1/2007	AC875357	LEASE	
17/1/2007	AC875358	LEASE	EDITION 18
6/6/2008	AD815156	LEASE	
6/6/2008	AD972333	REQUEST	EDITION 19
29/6/2010	AF588284	LEASE	EDITION 20
26/10/2010	AF834977	TRANSFER OF LEASE	
7/6/2011	AG270288	LEASE	EDITION 21
8/10/2012	AH282202	VARIATION OF LEASE	EDITION 22
27/3/2014	AI474126	TRANSFER OF LEASE	
4/2/2015	AJ227691	SURRENDER OF LEASE	
4/2/2015	AJ227692	LEASE	
4/2/2015	AJ227693	LEASE	
4/2/2015	AJ227694	LEASE	EDITION 23
19/8/2016	AK645871	LEASE	EDITION 24
30/8/2017	AM687977	LEASE	EDITION 25
14/9/2017	AM728155	LEASE	EDITION 26
6/5/2019	AP222449	LEASE	
6/5/2019	AP222450	LEASE	EDITION 27
7/5/2019	AP223911	CAVEAT	
16/3/2021	AQ609919	APPLICATION FOR PREPARATION OF LAPSING NOTICE	

*** END OF SEARCH ***

2-4 Hale Street, Botany PRINTED ON 9/3/2022

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Received: 09/03/2022 08:55:15

Req:R457260 /Doc:DL X809129 /Rev:02-Sep-2010 /NSW LRS /Pgs:ALL /Prt:09-Mar-2022 08:55 /Seq:1 of 1
© Office of the Registrar-General /Src:INFOTRACK /Ref:2-4 Hale Street, Botany

RP 13
1905

STAMP DUTY

[redacted]

X809129

OFFICE OF STATE REVENUE (N.S.W. TREASURY)

TRANSFER

REAL PROPERTY ACT, 1900

T

A 1 of 3 X R3B

$ 42

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
Volume 12159 Folio 90 NOW BEING Whole OF IN FOLIO 1/562374	WHOLE	BOTANY

DESCRIPTION OF LAND
Note (a)

TRANSFEROR
Note (b)

195 CROWN STREET PTY LIMITED of 181 Castlereagh Street, Sydney

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 1,850,000.00

ESTATE
Note (c)

and transfers an estate in fee simple
in the land above described to the TRANSFEREE

TRANSFEREE
Note (d)

PETER SZORENYI of 48 Vaucluse Road, Vaucluse
and EVA SZORENYI of the same address

OFFICE USE ONLY
JT2

TENANCY
Note (e)

as joint tenants/~~tenants in common~~

PRIOR ENCUMBRANCES
Note (f)

subject to the following PRIOR ENCUMBRANCES 1. Covenant E639755. V614355, V822614, V982615, W110811.
2. W119420. W178913 (W902474). (W110811) X259657. 3. X489357, T834662

DATE 22-8-88

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION
Note (g)

Signed in my presence by the transferor who is personally known to me

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

The Common Seal of the Company was hereunto affixed by authority of the Board and in the presence of

Secretary

195 CROWN STREET PTY. LIMITED Common Seal

Signature of Transferor

Note (g)

Signed in my presence by the transferee who is personally known to me

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Signature of Transferee

solicitor for PETER CARR (Solicitor)

TO BE COMPLETED BY LODGING PARTY
Notes (h) and (i)

LODGED BY
PETER R. MURPHY & CO.,
SOLICITORS,
36 SPRING STREET,
BONDI JUNCTION 2022.
DX 568 SYDNEY

Delivery Box Number 624-H

LOCATION OF DOCUMENTS

CT	OTHER	
		Herewith.
		In L.T.O. with
		Produced by

Secondary Directions	
Delivery Directions	CT 624 H

OFFICE USE ONLY
$126

Checked	Passed
Signed	Extra Fee

REGISTERED - -19

30 AUG 1988

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1/562374

SEARCH DATE	TIME	EDITION NO	DATE
9/3/2022	8:54 AM	27	6/5/2019

LAND

LOT 1 IN DEPOSITED PLAN 562374
AT BOTANY
LOCAL GOVERNMENT AREA BAYSIDE
PARISH OF BOTANY COUNTY OF CUMBERLAND
TITLE DIAGRAM DP562374

FIRST SCHEDULE

PETER SZORENYI
EVA SZORENYI
AS JOINT TENANTS (T X809129)

SECOND SCHEDULE (11 NOTIFICATIONS)

---

1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
2 LAND EXCLUDES MINERALS (S.134 PUBLIC WORKS ACT, 1900) AS TO THE PART SHOWN IN DP436528
3 F639755 COVENANT
4 AJ227692 LEASE TO COLLECTIVE SOCIETY PTY LIMITED OF FACTORIES 8 & 9, 2-4 HALE STREET, BOTANY. EXPIRES: 4/1/2020. OPTION OF RENEWAL: 5 YEARS.
5 AJ227693 LEASE TO ADIEMAS SERVICES PTY LIMITED OF FACTORY 4A, 2-4 HALE STREET, BOTANY. EXPIRES: 31/3/2016. OPTION OF RENEWAL: 5 YEARS.
6 AJ227694 LEASE TO A.K. WELDING PTY LIMITED OF FACTORY 4B, 2-4 HALE STREET, BOTANY. EXPIRES: 30/11/2017. OPTION OF RENEWAL: 5 YEARS AND A FURTHER OPTION OF 5 YEARS.
7 AK645871 LEASE TO RIPE PROVIDORES PTY LTD OF FACTORY 12, 2-4 HALE STREET, BOTANY. EXPIRES: 31/5/2021.
8 AM687977 LEASE TO DAVID LUCAS HOSPITALITY PTY LIMITED OF FACTORY 2, 2-4 HALE STREET, BOTANY. EXPIRES: 6/9/2020.
9 AM728155 LEASE TO A.K. WELDING PTY LIMITED BEING FACTORY 4B,2-4 HALE STREET, BOTANY.COMMENCING DATE 1/12/2017. EXPIRES: 30/11/2022. OPTION OF RENEWAL: 5 YEARS.
10 AP222449 LEASE TO MARK CURTAIN OF UNIT 3, 2-4 HALE STREET, BOTANY. EXPIRES: 30/11/2025.
11 AP222450 LEASE TO ECOSSE ENGINEERING PTY LTD OF UNIT 14, 2-4 HALE STREET, BOTANY. EXPIRES: 1/6/2023.

END OF PAGE 1 - CONTINUED OVER

FOLIO: 1/562374 PAGE 2

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

Copyright © Office of the Registrar-General 2022 Received: 09/03/2022 08:54:43

Appendix J Photolog

PHOTO 1: SITE FRONTAGE, FACING NORTH



PHOTO 2: CARPARK CONCRETE AREA, FACING NORTH



PHOTO 3: FRONTLINE FABRICATION, UNIT 14

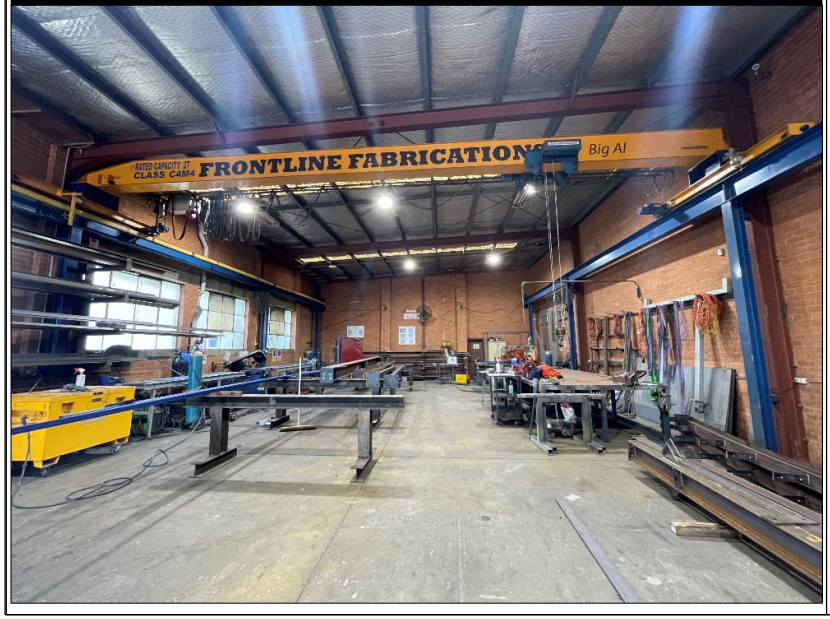


PHOTO 4: CANOPY, SOUTHWESTERN BOUNDARY, FACING WEST



JBS&G

Job No: 62740	
Client: Coombes Property Group Pty Ltd	
Version: R01 Rev A	Date: 10-Mar-2022
Drawn By: JN	Checked By: GD
Not to Scale	
Coord. Sys n/a	

2-4 Hale St Botany

APPENDIX A: PHOTOLOG

PHOTO 5: WESTERN BOUNDARY, FACING SOUTH



PHOTO 6: WESTERN BOUNDARY, FACING NORTH



PHOTO 7: ASBESTOS FRAGMENT ON GROUND SURFACE, WESTERN BOUNDARY



PHOTO 8: UST(S) CENTRAL PORTION OF SITE, FACING NORTH



JBS&G

Job No: 62740	
Client: Coombes Property Group Pty Ltd	
Version: R01 Rev A	Date: 10-Mar-2022
Drawn By: JN	Checked By: GD
Not to Scale	
Coord. Sys n/a	
2-4 Hale St Botany	
APPENDIX A: PHOTOLOG	

PHOTO 9: BOWSER BASE AND VENT, CENTRAL PORTION



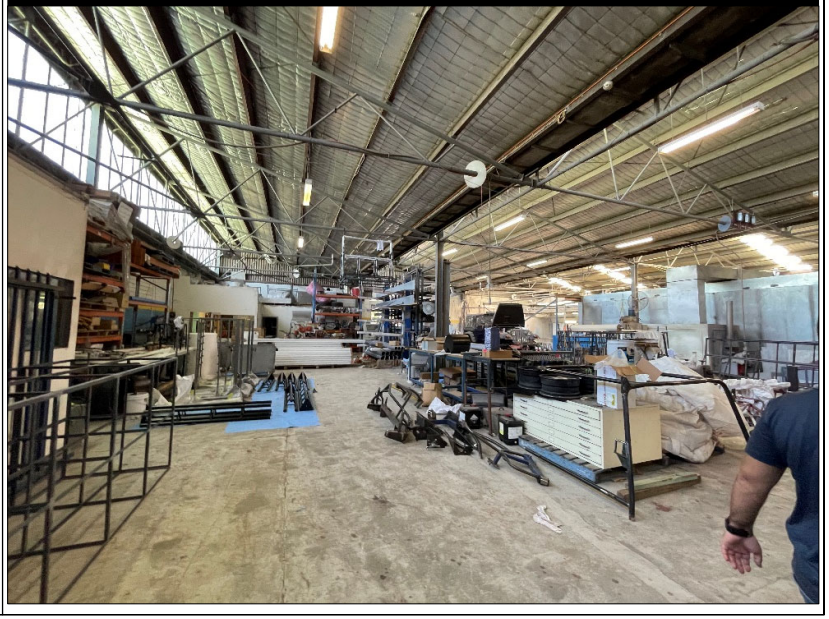
PHOTO 10: STORAGE, UNIT 11



PHOTO 11: BOTANY POWDER COATERS, UNIT 4



PHOTO 12: BOTANY POWDER COATERS, UNIT 4



JBS&G

Job No: 62740	
Client: Coombes Property Group Pty Ltd	
Version: R01 Rev A	Date: 10-Mar-2022
Drawn By: JN	Checked By: GD
Not to Scale	
Coord. Sys n/a	

2-4 Hale St Botany

APPENDIX A: PHOTOLOG

PHOTO 13: BOTANY POWDER COATERS, UNIT 4

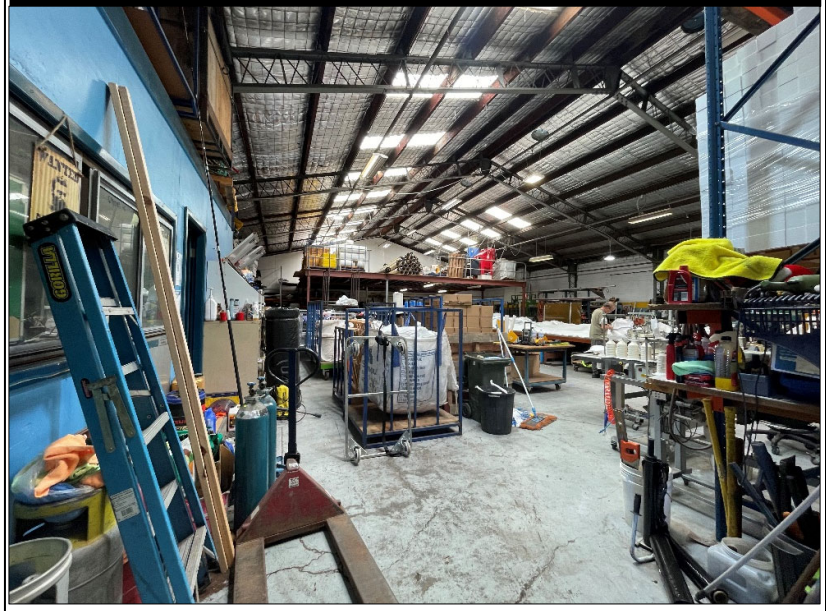


PHOTO 14: UNPAVED AREA, NORTHEASTERN CORNER, FACING NORTHEAST, USED CHEMICALS



PHOTO 15: UNPAVED AREA, NORTHEASTERN CORNER, IBCS



PHOTO 16: ASBESTOS FRAGMENTS, NORTHEASTERN PORTION OF THE SITE



JBS&G

Job No: 62740	
Client: Coombes Property Group Pty Ltd	
Version: R01 Rev A	Date: 10-Mar-2022
Drawn By: JN	Checked By: GD
Not to Scale	
Coord. Sys n/a	

2-4 Hale St Botany

APPENDIX A: PHOTOLOG

PHOTO 17: MECHANIC, UNIT 3, IBC AND LIQUID STORAGE



PHOTO 18: MECHANIC, UNIT 3, CHEMICAL STORAGE AREA

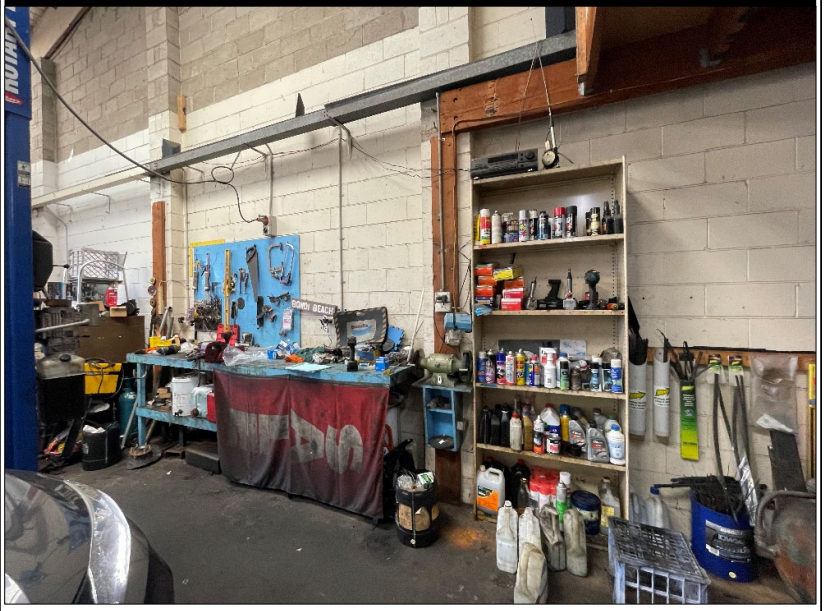


PHOTO 19: ASBESTOS FRAGMENT OUTSIDE UNIT 3



PHOTO 20: UNPAVED AREA OUTSIDE UNIT 3



JBS&G

Job No: 62740	
Client: Coombes Property Group Pty Ltd	
Version: R01 Rev A	Date: 10-Mar-2022
Drawn By: JN	Checked By: GD
Not to Scale	
Coord. Sys n/a	

2-4 Hale St Botany

APPENDIX A: PHOTOLOG

PHOTO 21: RIPE PROVIDORES, UNIT 12



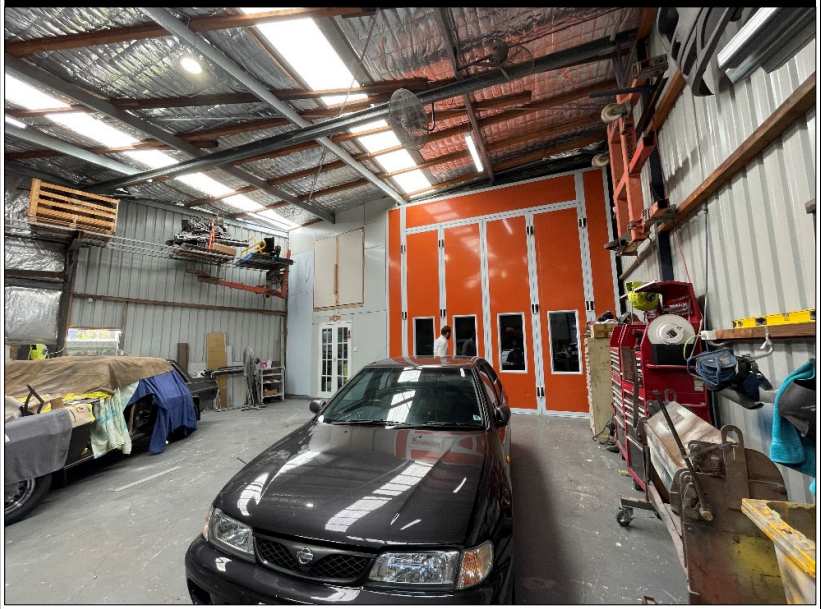
PHOTO 22: MEAT STORAGE, COOL ROOMS



PHOTO 23: SMASH REPAIRS



PHOTO 24: SMASH REPAIRS, PAINT BOOTH



JBS&G

Job No: 62740	
Client: Coombes Property Group Pty Ltd	
Version: R01 Rev A	Date: 10-Mar-2022
Drawn By: JN	Checked By: GD
Not to Scale	
Coord. Sys n/a	

2-4 Hale St Botany

APPENDIX A: PHOTOLOG

PHOTO 25: SOUTHEASTERN BUILDING



PHOTO 26: DIESEL UST(S), EASTERN BOUNDARY



PHOTO 27: SWITCH BOARD, ELECTRICAL ROOM



PHOTO 28: TRANSMISSION BOX, EASTERN BOUNDARY



JBS&G

Job No: 62740

Client: Coombes Property Group Pty Ltd

Version: R01 Rev A	Date: 10-Mar-2022
Drawn By: JN	Checked By: GD

Not to Scale

Coord. Sys n/a

2-4 Hale St Botany

APPENDIX A: PHOTOLOG

PHOTO 29: STORAGE AREA, UNIT 1



PHOTO 30: WORKSHOP, UNIT 8

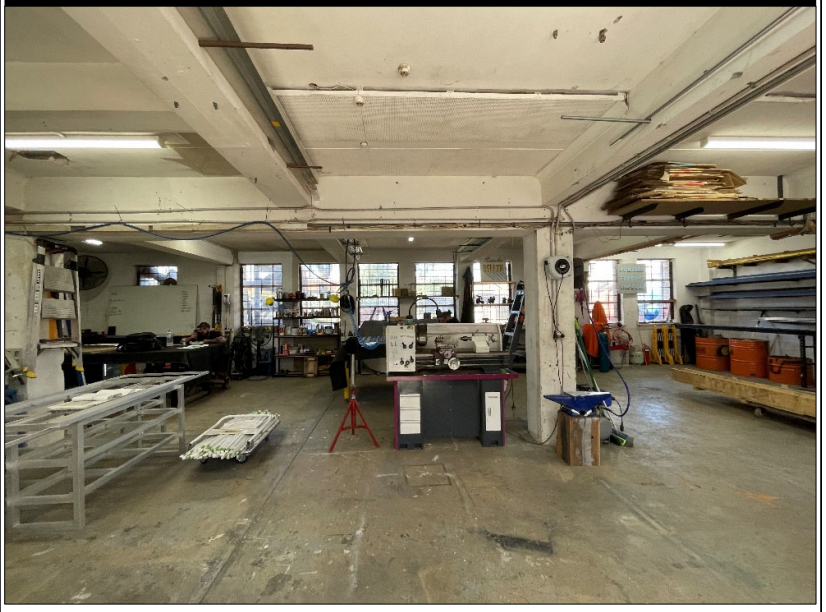


PHOTO 31: WORKSHOP, UNIT 8

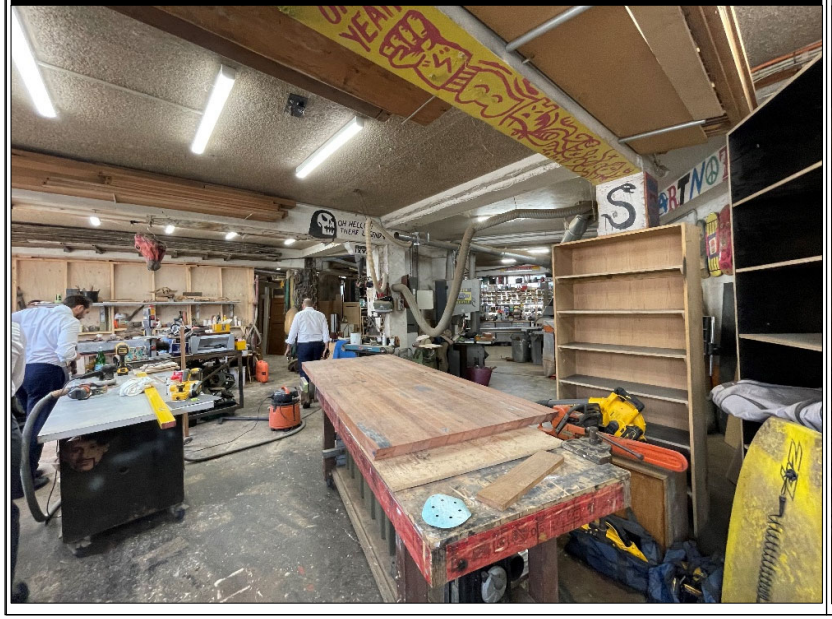


PHOTO 31: WORKSHOP, UNIT 8, PAINT/LACQUER STORAGE



JBS&G

Job No: 62740

Client: Coombes Property Group Pty Ltd

Version: R01 Rev A	Date: 10-Mar-2022
Drawn By: JN	Checked By: GD

Not to Scale

Coord. Sys n/a

2-4 Hale St Botany

APPENDIX A: PHOTOLOG

PHOTO 32: USED PAINTS/LACQUERS, SOUTHEASTERN PORTION



PHOTO 33: FORMER SCHINDLER LIFTS BUILDING, SOUTHEASTERN PORTION, FACINGWEST



PHOTO 34: NORTHERN BOUNDARY, STORMWATER CANAL, FACING WEST



PHOTO 35: SOUTHERN BOUNDARY, PAVED AREA



JBS&G

Job No: 62740

Client: Coombes Property Group Pty Ltd

Version: R01 Rev A	Date: 10-Mar-2022
Drawn By: JN	Checked By: GD

Not to Scale

Coord. Sys n/a

2-4 Hale St Botany

APPENDIX A: PHOTOLOG

Appendix K Historical Aerial Photographs



Legend

Approximate Site Boundary

JBS&G

Job No: 62740

Client: Coombes Property Group

Version: R01_RevA	Date 9/03/2022
Drawn By: YY	Checked By: RC

Scale 1:1,750

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1943

FIGURE 1943

File Name: N:\Projects\Coombes Property Group\62740 - 2-4 Hale Street Botany\GIS\Maps\Aerials\62740_1943.mxd
Reference: NSW Government | Copyright © Spatial Services 2022



Legend

Approximate Site Boundary

JBS&G

Job No: 62740

Client: Coombes Property Group

Version: R01_RevA	Date 9/03/2022
Drawn By: YY	Checked By: RC

Scale 1:1,750

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1955

FIGURE 1955

File Name: N:\Projects\Coombes Property Group\62740 - 2-4 Hale Street Botany\GIS\Maps\Aerials\62740_1955.mxd
Reference: NSW Government | Copyright © Spatial Services 2022



Legend

Approximate Site Boundary

JBS&G

Job No: 62740

Client: Coombes Property Group

Version: R01_RevA	Date 10/03/2022
Drawn By: YY	Checked By: RC

Scale 1:1,750

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1961

FIGURE 1961

File Name: N:\Projects\Coombes Property Group\62740 - 2-4 Hale Street Botany\GIS\Maps\Aerials\62740_1961.mxd
Reference: NSW Government | Copyright © Spatial Services 2022



Legend

Approximate Site Boundary

JBS&G

Job No: 62740

Client: Coombes Property Group

Version: R01_RevA	Date 9/03/2022
Drawn By: YY	Checked By: RC

Scale 1:1,750

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1971

FIGURE 1971

File Name: N:\Projects\Coombes Property Group\62740 - 2-4 Hale Street Botany\GIS\Maps\Aerials\62740_1971.mxd
Reference: NSW Government | Copyright © Spatial Services 2022



Legend

Approximate Site Boundary

JBS&G

Job No: 62740

Client: Coombes Property Group

Version: R01_RevA	Date 28/03/2022
Drawn By: YY	Checked By: RC

Scale 1:1,750

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1982

FIGURE 1982

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Coombes Property Group\62740 - 2-4 Hale Street Botany\GIS\Maps\Aerials\62740_1982.mxd
Reference: NSW Government | Copyright © Spatial Services 2022



Legend

Approximate Site Boundary

JBS&G

Job No: 62740

Client: Coombes Property Group

Version: R01_RevA	Date 10/03/2022
Drawn By: YY	Checked By: RC

Scale 1:1,750

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1986

FIGURE 1986

File Name: N:\Projects\Coombes Property Group\62740 - 2-4 Hale Street Botany\GIS\Maps\Aerials\62740_1986.mxd
Reference: NSW Government | Copyright © Spatial Services 2022



Legend

Approximate Site Boundary

JBS&G

Job No: 62740	
Client: Coombes Property Group	
Version: R01_RevA	Date 9/03/2022
Drawn By: YY	Checked By: RC
Scale 1:1,750	

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1991

FIGURE 1991

File Name: N:\Projects\Coombes Property Group\62740 - 2-4 Hale Street Botany\GIS\Maps\Aerials\62740_1991.mxd
Reference: NSW Government | Copyright © Spatial Services 2022



Legend

Approximate Site Boundary

JBS&G

Job No: 62740

Client: Coombes Property Group

Version: R01_RevA	Date 9/03/2022
Drawn By: YY	Checked By: RC

Scale 1:1,750

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2004

FIGURE 2004

File Name: N:\Projects\Coombes Property Group\62740 - 2-4 Hale Street Botany\GIS\Maps\Aerials\62740_2004.mxd
Reference: NSW Government | Copyright © Spatial Services 2022



Legend

Approximate Site Boundary

JBS&G

Job No: 62740	
Client: Coombes Property Group	
Version: R01_RevA	Date 10/03/2022
Drawn By: YY	Checked By: RC
Scale 1:1,750	

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2013

FIGURE 2013

File Name: N:\Projects\Coombes Property Group\62740 - 2-4 Hale Street Botany\GIS\Maps\Aerials\62740_2013.mxd
Reference: www.nearmap.com_20130518



Legend

Approximate Site Boundary

JBS&G

Job No: 62740	
Client: Coombes Property Group	
Version: R01_RevA	Date 9/03/2022
Drawn By: YY	Checked By: RC
Scale 1:1,750	

0 25 50

metres

Coord. Sys. GDA 1994 MGA Zone 56

2-4 Hale Street
Botany, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2021

FIGURE 2021

File Name: N:\Projects\Coombes Property Group\62740 - 2-4 Hale Street Botany\GIS\Maps\Aerials\62740_2021.mxd
Reference: www.nearmap.com_20211221

Appendix L SafeWork NSW Dangerous Goods

35/021645
35/021645

WCA - Unclassified Recfind File

WorkCover Authority of NSW

Custodian Licensing Team
Created 1/01/1975

35/021645

HEALTH & SAFETY MANAGEMENT - LICENSING - Dangerous Goods Keeping Licence 35/021645 - Botany, 2 Hale St

35/021645
WORKCOVER AUTHORITY OF NSW
009609

Licence Number 35/021645

CANCELLED FILE 1996

SCHINDLER LIFTS AUST P/L

2 HALE ST
BOTANY 2019

George Ambrose

Commercial Real Estate Agents

COMMERCIAL · INDUSTRIAL · RETAIL
SALES · LEASING · MANAGEMENT

22nd April, 1996

M/s Lucy Sarkisian
Level 3
Scientific Services Branch
400 Kent Street
SYDNEY NSW 2000

RECEIVED
Mail Room
24 APR 1996
WORKCOVER
NEW SOUTH WALES

Dear Madam,

EXPIRED LICENCE NO 35/021645 AT
2 HALE ST BOTANY 2019

In response to your letter dated 12th April 1996, I wish to advise, that the above Fuel Tank has not been in use since 1991, and has no dangerous goods underground.

The tank has been filled in for ballast purposes. ?

Yours Faithfully

G. Ambrose
Managing Agent for the Owners
Mr & Mrs. P.Szorenyi

RECEIVED
24 APR 1996
SCIENTIFIC SERVICES
BRANCH

Suite 302, Third Floor 64–76 Kippax Street, Surry Hills NSW 2010 Australia
Tel: (02) 212 2600 Fax: (02) 212 2099

file to be site subdivided?

WorkCover Authority

Details of Licence for Keeping Dangerous Goods on 26 October 1995

Licence Number 35/021645 **Expiry Date** 15/04/90

Licensee Details

Licensee SCHINDLER LIFTS AUST P/L

Trading name

Postal Address BOX 117 P O, BOTANY 2019

Licensee Contact

Site Details

Premises Licensed to Keep Dangerous Goods
2 HALE ST
BOTANY 2019

Nature of Site **Supplier** NOT APPLICABLE

Emergency Contact ph.

Site staffing

Details of Depots

Depot No.	Depot Type	Goods Stored in Depot	Qty
1	UNDERGROUND TANK	Class 3	20000 L
		UN 1203 PETROL	0 L

Printed by Scientific Services Branch, 400 Kent St, Sydney 2000 ☎ (02) 370 5187

Form DG1

Department of Industrial Relations

DANGEROUS GOODS ACT, 1975

ATTACH TO FILE

LICENCE No. 35— 021645-2

APPLICATION FOR LICENCE (or AMENDMENT or TRANSFER of LICENCE)* FOR THE KEEPING OF DANGEROUS GOODS

(* delete whichever is not required)

FEE: $15.00 per Depot for new licence.
$15.00 for amendment or transfer.

Name of Applicant in full (see Item 1—Explanatory notes—page 4)	SCHINDLER LIFTS AUST. P/LTD
Trading name or occupier's name (if any)	— AS ABOVE —
Postal Address	P.O. BOX 117, BOTANY Postcode 2019
Address of the premises to be licensed. (Including Street No.)	2 HALE ST., BOTANY Postcode 2019
Nature of premises (See Item 2—Explanatory notes—page 4)	Office / factory
Telephone number of applicant	STD Code 02 Number 666-5344

Particulars of type of depots and maximum quantities of dangerous goods to be kept at any one time.

Depot number	Type of depot (See item 3—Explanatory notes—page 4)	Storage capacity (Litres)	Dangerous goods: Product being stored	C & C Office use only
1	U/ground	21,000	Petrol	
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Has site plan been approved by the Dangerous Goods Branch? Yes / No — If yes, no plans required. If no, please attach site plan, or provide sketch plan overleaf.

Have premises previously been licensed? Yes / No — If, yes, state name of previous occupier, and licence No. (if known).

Name of oil company supplying flammable liquid (if applicable). Shell

Signature of applicant ..... Date 29.8.85

For external explosives magazine(s), please fill in page 3.

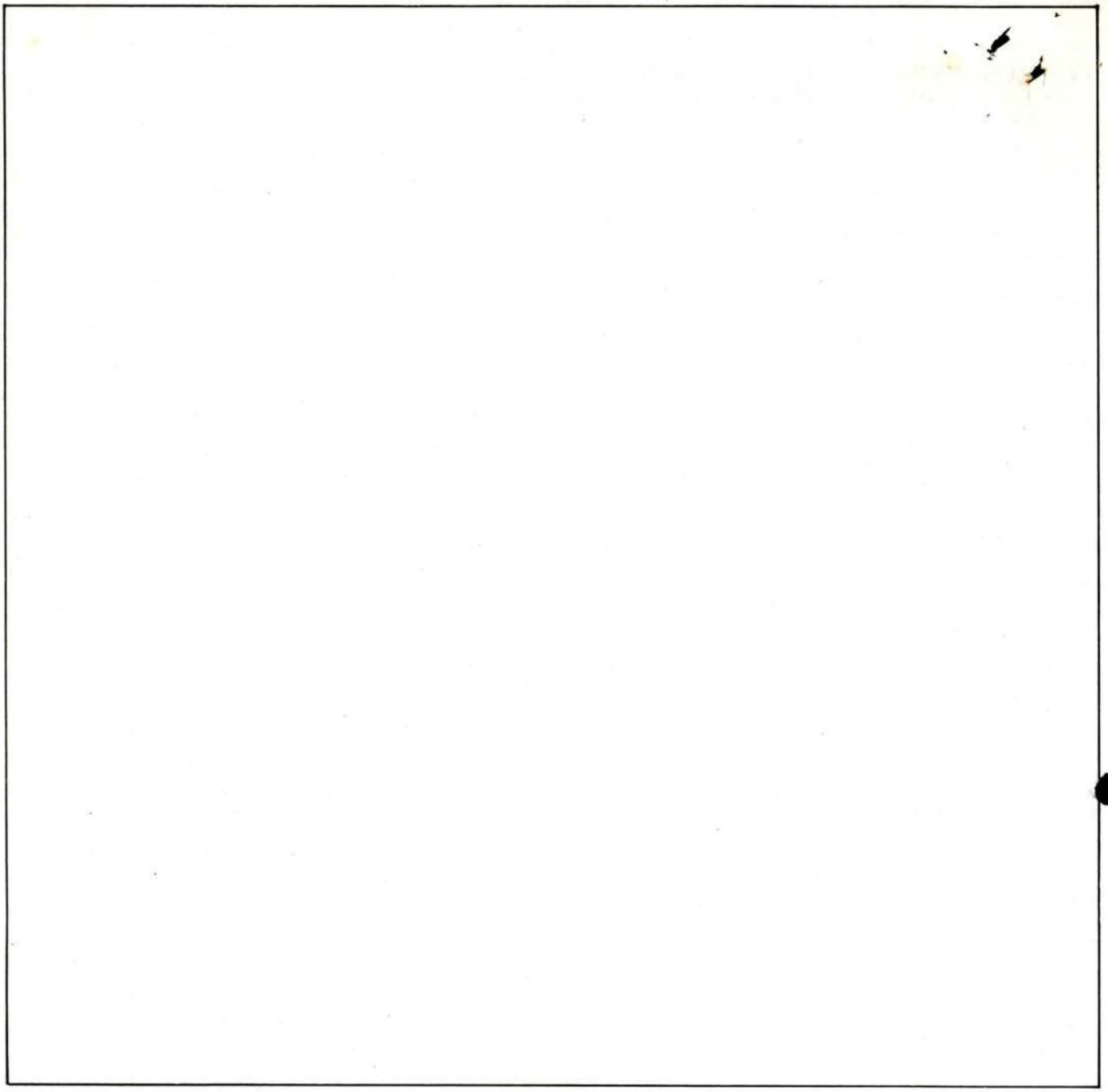
FOR OFFICE USE ONLY

CERTIFICATE OF INSPECTION

I, ... being an Inspector under the Dangerous Goods Act, 1975, do hereby certify that the premises described above do comply with the requirements of the Dangerous Goods Act, 1975, and the Dangerous Goods Regulation with regard to their situation and construction for the keeping of dangerous goods of the nature and in the quantity specified.

Signature of Inspector ..... Date .....

SKETCH PLAN OF SITE



Show positions of Depot(s) with:—

(1) distances from public places and protected works;

(2) street names;

(3) nature and details of adjacent properties.

FORM DG1

I ment

LICENCE No. 350 21645 2

DANGEROUS GOODS ACT, 1975

APPLICATION FOR LICENCE (or AMENDMENT or TRANSFER of LICENCE) FOR THE KEEPING OF DANGEROUS GOODS

Application is hereby made for—*a licence (or amendment of the licence) *the transfer of the licence for the keeping of dangerous goods in or on the premises described below.

(*delete whichever is not required)

FEE: $10.00 per Depot

DG 80 04 001 - - - - 81 -

8320 27/05/80 03A

Name of Applicant in full (see over)	Surname Precision Elevators Pty. Ltd. Given Names
Trading name or occupier's name (if any)	NF PRECISION ELEVATORS PTY. LTD.
Postal address PF/PP	P.O Box 47 Botany Postcode 2019
Telephone number of applicant	STD Code Number 6665344
Address of the premises in or on which the depot or depots are situated (including street number, if any)	LF/2 Hale Street Botany Postcode 2019
Nature of premises (see over)	Factory New licence Expiry date 15.4.81

PLEASE ATTACH SITE PLAN

Particulars of type of depots and maximum quantities of dangerous goods to be kept at any one time.

Depot number	Type of depot (see over)	Storage capacity	Dangerous goods DD 001 020 8 Product being stored	C & C Office use only
1	Underground Tank	21000 litres	3.1. Petrol	2 020 24
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Name of company supplying flammable liquid (if any) Shell

Have premises previously been licensed? No

If known, state name of previous occupier _____ Licence No.

Signature of applicant K. [illegible] Date 30.4.80

For external explosives magazine(s), please fill in side 2.

FOR OFFICE USE ONLY

CERTIFICATE OF INSPECTION

I, George E Brooks being an Inspector under the Dangerous Goods Act, 1975, do hereby certify that the premises described above do comply with the requirements of the Dangerous Goods Act, 1975, and the Dangerous Goods Regulation with regard to their situation and construction for the keeping of dangerous goods of the nature and in the quantity specified.

Signature of Inspector G E Brooks

Date 18-6-80

ST 618-1 © WEST. GOVERNMENT PRINTER

For each external explosives magazine, supply the following additional information.

1. (a) Construction of
   (i) Walls (ii) Roof (iii) Shade roof (iv) Door(s) (v) Lock(s) (vi) Lining (vii) Lightning conductor
   (b) Internal dimensions (mm)
2. Special attention is directed to the necessity for filling in accurately the distances from each of the undermentioned places, irrespective of the quantity of Explosives intended to be kept. If any of the "Protected Places or Protected Works" specified below, are not within a radius of 3 km of the Magazine, place the word NIL against such place or works.

[redacted]

PROTECTED PLACES or PROTECTED WORKS	Distance in metres from magazine to nearest works or place	
	Not occupied or used by applicant	Occupied or used by applicant
Public place		
Waterway used for navigation		
Reservoir (public or private)		
River or sea wall		
Bridge		
Dock, wharf, pier or jetty		
Any furnace, kiln, forge or fire for manufacturing purposes or for the use of any boiler, engine, or machine		
Aboveground water main or water supply channel		
Electrical power transmission line		
Radio or television transmitter		
Shop		
Store or warehouse		
Factory		
Other building or timber yard in which any person is employed or engaged in any trade, business or profession		
Magazine or premises licensed for the keeping of explosives		
Depot for other dangerous goods		
Railway, tramway or aerodrome		
Any dwelling house		
Any church, chapel, college, school or theatre		
Hospital		
Government or public building		
Any other building or structure in or about which persons are usually present or from time to time assemble		

FORM DG1

EXPLANATORY NOTES

1. Name of applicant in full: Full name(s) including given name(s) or holding company name (if any) must be supplied.
2. Nature of premises: State whether premises are a dwelling, service station, fuel storage depot, general store, farm, mine site, etc.
3. Type of depot: Describe depot as "aboveground tank", "underground tank", "magazine" "roofless package store", "roofed package store", "cylinder store" (or where not more than two LPG decanting cylinders each of a capacity not exceeding 50 kg are kept) "decanting cylinders". For safety cartridges describe as "in original packages".
4. If space is insufficient for depot particulars, attach a separate list.
5. For each magazine supply additional information above.
6. A site plan of the premises showing the position(s) of the depot(s) with distances from protected works and public places is to be attached.
7. The completed form and site plan accompanied by the prescribed fee ($10 per depot) should be forwarded to:

Chief Inspector,
Dangerous Goods Branch,
Box 846, P.O.,
Darlinghurst, N.S.W. 2010
(6th Floor, 1 Oxford Street).

FAILURE TO ANSWER ALL QUESTIONS WILL RESULT IN A DELAY IN THE ISSUE OF YOUR LICENCE

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

Mineral spirit	Mineral oil	Dangerous goods				
Litres	Litres	Class 1 Litres	Class 2 Litres			

N/L

WHITAN INSTALLATION PTY. LTD.

PETROLEUM EQUIPMENT SUPPLIERS AND
INSTALLATION CONTRACTORS

30 MAVIS AVENUE
PEAKHURST 2210

Phone 534 1852

PRECISION ELEVATORS PTY LTD 2 HALE ST BOTANY

PROPOSE INSTALLATION FOR TYPE 15 U/G PETROL TANK (16,000 LT)

CAR PARK

FACTORY

FILL

PUMP

VENT

HALE

GATE

STREET

FACTORY

DANGEROUS GOODS BRANCH
PASSED
M. Canon
FOR CHIEF INSPECTOR
31/3/80
SUBJECT TO COMPLIANCE WITH REGULATIONS

LICENCE No.	VOL
35-030712	

N.S.W. GOVERNMENT DEPARTMENT OF INDUSTRIAL RELATIONS

DANGEROUS GOODS BRANCH

Fineseat manufacturers P/L
unit 4, 2 Hale Street
BOTANY 2019

KEEPING LICENCE

INSPECTION DISTRICT NO. .....

.....

LICENCE No.	VOL	DISPOSAL DATE
35-030712		

RJS CC 15/9/96

PRINTED IN AUSTRALIA
L.O. 1265

WorkCover NSW
43143

2001

Licence Number 35/030712

WorkCover New South Wales, 400 Kent Street, Sydney 2000. Tel: 9370 5000 Fax: 9370 5999 ALL MAIL TO G.P.O. BOX 5364 SYDNEY 2001

WORKCOVER
NEW SOUTH WALES

CLOSED FILE
2001

Occupier: FINESEAT MANUFACTURERS P/L

Site: UNIT 4
2 HALE ST,
BOTANY 2019

Application for Licence to Keep Dangerous Goods

WorkCover NEW SOUTH WALES

Application for ☑ new licence ☐ amendment ☐ transfer ☐ renewal of expired licence

RECEIVED
23 OCT 1995
SCIENTIFIC SERVICES BRANCH

PART A – Applicant and site information

1 Name of applicant

FINESEAT MANUFACTURERS PTY LTD

ACN 050 611 464

2 Postal address of applicant

PO Box 144 | Suburb/Town: ROSEBERY | Postcode: 2018

3 Trading name or site occupier's name

FINESEAT MANUFACTURERS PTY LTD

4 Contact for licence inquiries

Phone: 316 5100 | Fax: 316 5449 | Name: NORMAN DUSHEIKO

5 Previous licence number (if known) 35/030712

6 Previous occupier (if known)

7 Site to be licensed

No: UNIT 4, NO 2 | Street: HALE ST

Suburb / Town: BOTANY, NSW | Postcode: 2019

8 Main business of site MANUFACTURE OF OFFICE CHAIRS * 2929

9 Site staffing: Hours per day 10 Days per week 5

10 Emergency contact

Phone: 662 6585 | Name: NORMAN DUSHEIKO

11 Major supplier of dangerous goods HARCROS ADHESIVES

12 If a new site or for amendments to depots

Plan stamped by: Name of Accredited Consultant | Date stamped

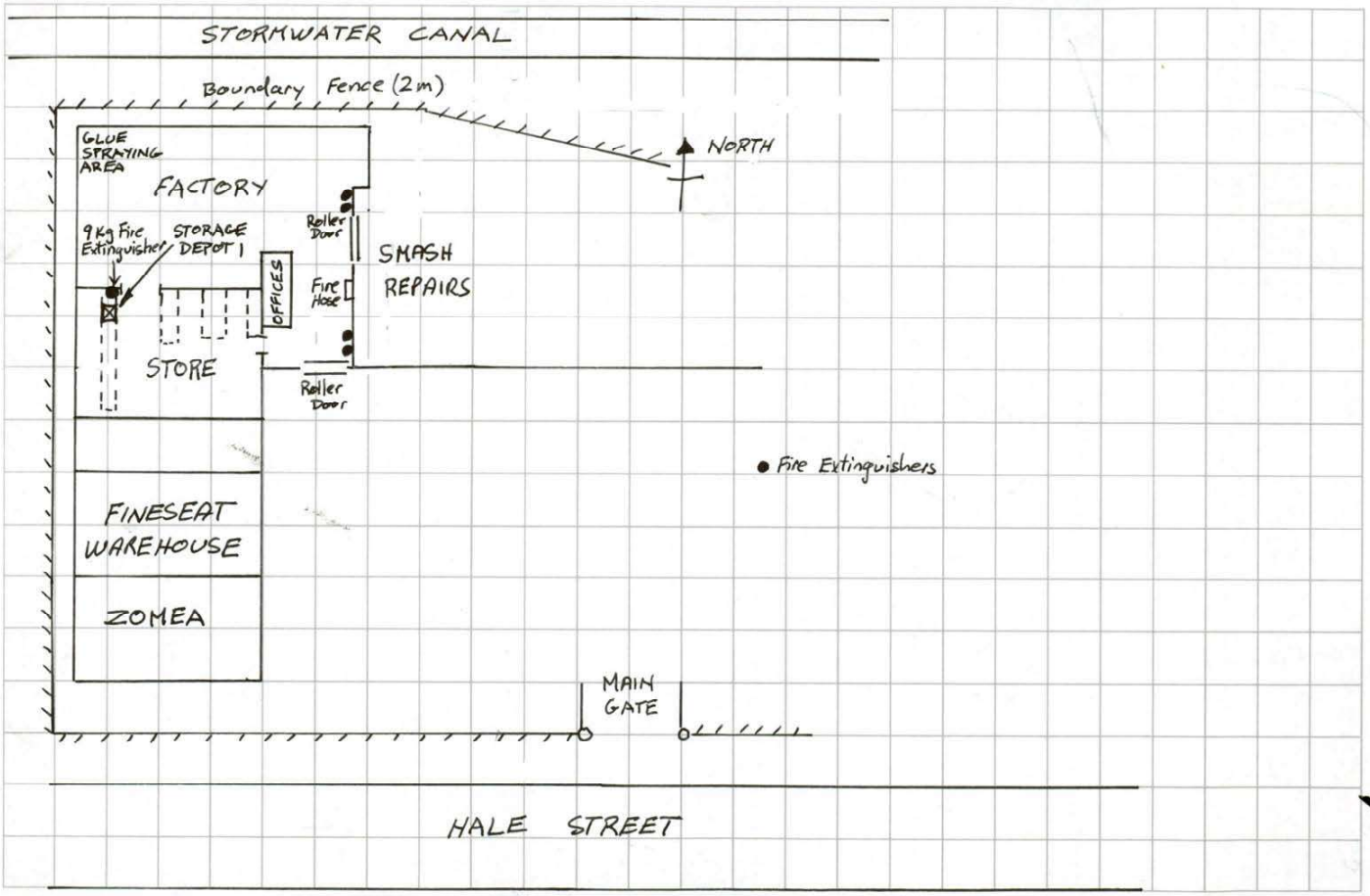
I certify that the details in this application (including any accompanying computer disk) are correct and cover all licensable quantities of dangerous goods kept on the premises.

13 Signature of applicant | Date: 19/10/95

Please send your application, marked *CONFIDENTIAL*, to:
Dangerous Goods Licensing, Level 3, Locked Bag 10, Clarence Street, SYDNEY NSW 2000

Site Sketch Please carefully read the instructions on page 3 of the guide before sketching the site.

PART B



PART C – Dangerous Goods Storage *Complete one section per depot.*

If you have more depots than the space provided, photocopy sufficient sheets first.

Depot Number	Type of depot	Depot Class	Maximum storage capacity
1	Designated Area in Raw Material Store	3	800 L

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m³
1133	Adhesive containing flammable liquid	3	II	Craftband 1423 Adhesive.	400	L
1993	Flammable liquid Nos	3	II	Grasp adhesive Cleaner.	400	L

Depot Number	Type of depot	Depot Class	Maximum storage capacity

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m³

Depot Number	Type of depot	Depot Class	Maximum storage capacity

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m³

Depot Number	Type of depot	Depot Class	Maximum storage capacity

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m³

PART C – Dangerous Goods Storage *Complete one section per depot.*

If you have more depots than the space provided, photocopy sufficient sheets first.

Depot Number	Type of depot	Depot Class	Maximum storage capacity

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m^3

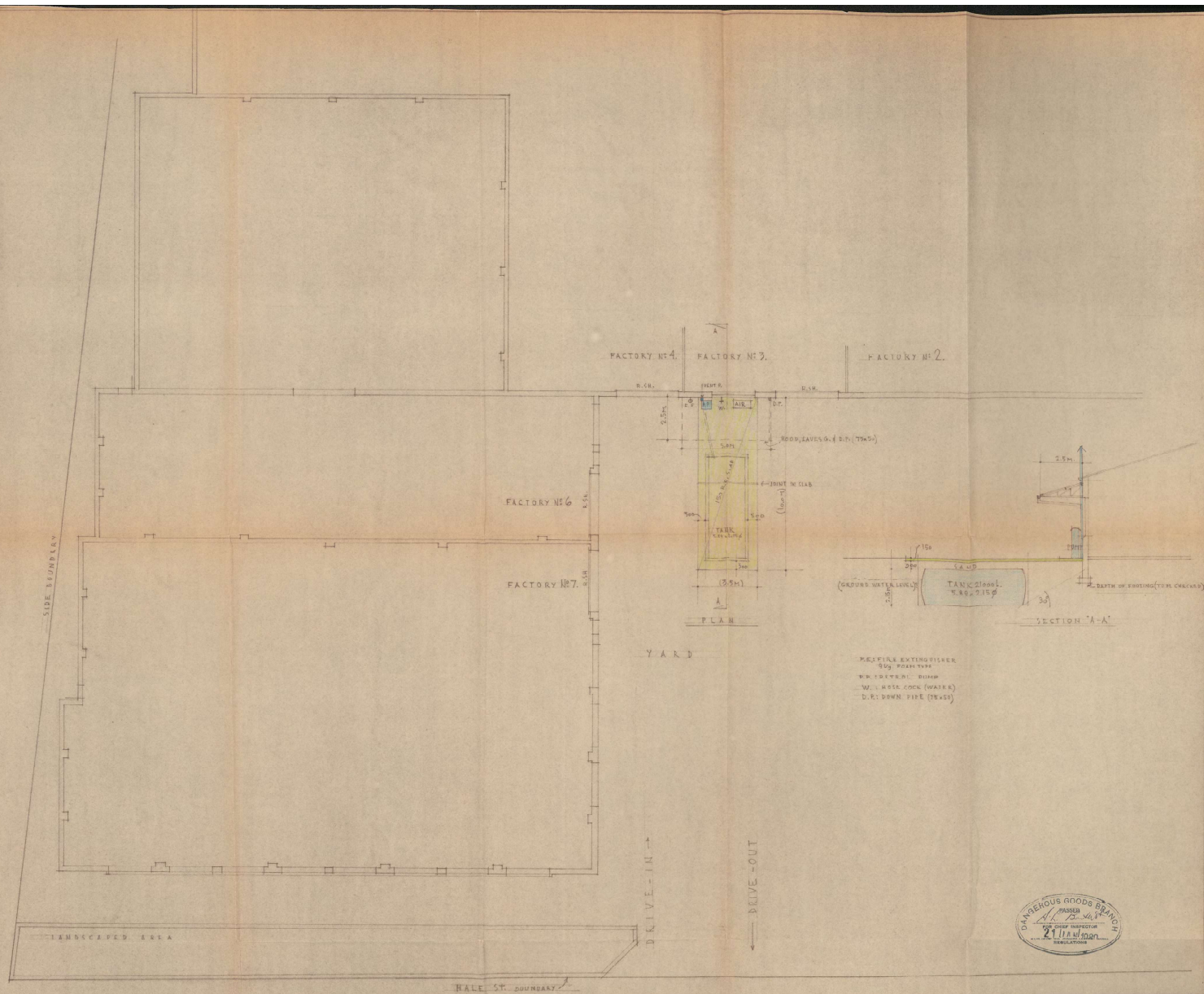
Depot Number	Type of depot	Depot Class	Maximum storage capacity

UN Number	Correct Shipping Name	Class	PG (I, II, III)	Product or common name	Typical quantity	Unit, e.g. L, kg, m^3

OVERSIZE

IMAGE

23



PETROL TANK INSTALLATION AT 2 HALE ST. BOTANY NSW FOR DR. ELSTON ELEVATORS PTY. LTD. 2 HALE ST. BOTANY NSW.	DRAWN	M.H.	AMENDMENTS
	CHECKED	C.H.	
	SCALE	1:100	
	DATE	7.1.80	
C. RAYES F.R.A.I.A. 3 WELBY ST. EASTWOOD	DRG No.	5HB79	

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