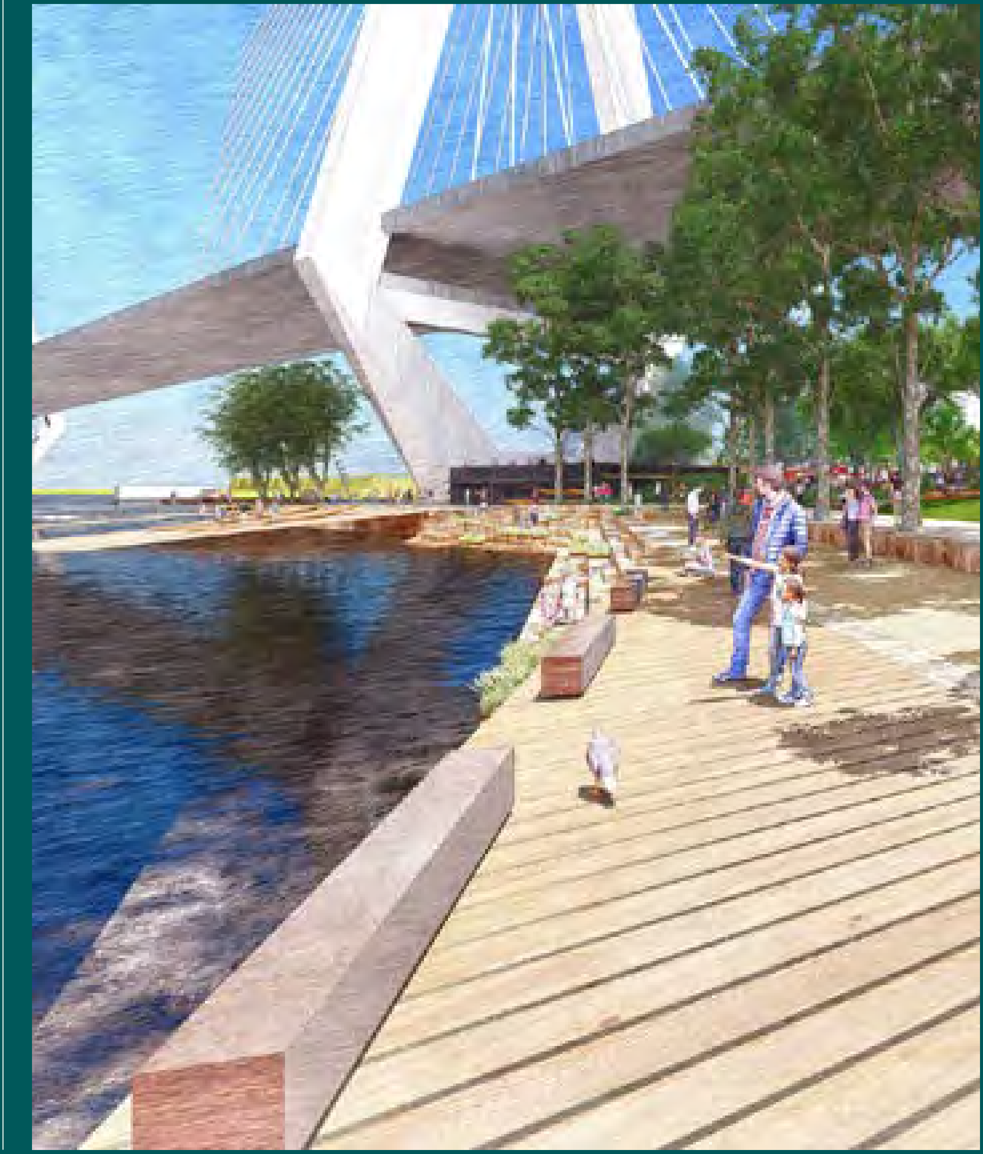
Bank Street Park
Blackwattle Bay / Tjerruing

SSD-53386706

Appendix Y

Detailed Site Investigation (JBS&G)



December 2023

Infrastructure NSW
Bank Street Park

Detailed Site Investigation

1A-19 Bank Street, Pyrmont NSW

26 October 2023

64669/151,386 Rev 2

JBS&G Australia Pty Ltd

www.jbsg.com.au

Infrastructure NSW
Bank Street Park

Detailed Site Investigation

1A-19 Bank Street, Pyrmont NSW

26 October 2023

64669/151386 Rev 2

JBS&G Australia Pty Ltd

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Abbreviations

Term	Definition
ABC	Ambient Background Concentrations
ACM	Asbestos Containing Materials
AEC	Areas of Environmental Concern
AF/FA	Asbestos Fines/Friable Asbestos
AHD	Australian Height Datum
ASS	Acid Sulfate Soils
ASSMP	Acid Sulfate Soils Management Plan
B(a)P	Benzo(a)Pyrene
B(a)P TEQ	Benzo(a)Pyrene Toxic Equivalency Quotient
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
BWBDG	Black Wattle Bay Design Guidelines
BWBP	Blackwattle Bay Precinct
BYDA	Before You Dig Australia
CEMP	Construction Environmental Management Plan
CLM Act	Contaminated Land Management Act
COC	Chain of Custody
COPC	Contaminants of Potential Concern
CSM	Conceptual Site Model
DNAPL	Dense Nonaqueous Phase Liquids
DO	Dissolved Oxygen
DP	Development Plan
DQI	Data Quality Indicators
DQO	Data Quality Objectives
DSI	Detailed Site Investigation
EC	Electrical Conductivity
Eh	Redox Potential
EIL	Ecological Investigation Levels
EPA	NSW Environment Protection Authority
ESLs	Ecological Screening Levels
GSV	Gas Screening Value
Ha	Hectare
HDPE	High Density Polyethylene
HEPA	Heads of EPA Australia and New Zealand
HILs	Health Investigation Levels
HSLs	Health Screening Levels
JBS&G	JBS&G Australia Pty Ltd
JRA	Job Risk Assessment
INSW	Infrastructure NSW
LEP	Local Environmental Plan
LGA	Local Government Area
LNAPL	Light Nonaqueous Phase Liquids
LOR	Limit of Reporting
MAH	Monocyclic Aromatic Hydrocarbons
NAA	Noel Arnold & Associates
NAPL	Non-Aqueous Phase Liquid
NATA	National Accreditation Testing Authority
NEPC	National Environment Protection Council
OCP	Organochlorine Pesticides
PAD	Potential Archaeological Deposit
PAH	Polycyclic Aromatic Hydrocarbons
PASS	Potential Acid Sulfate Soils
PCB	Polychlorinated Biphenyls
PFAS	Per- and polyfluoroalkyl substances
PFHxS	Perfluorohexanesulfonic Acid
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid

PID	Photo-ionisation Detector
PMNSW	Placemaking NSW
POEO Act	Protection of Environment Operations Act
PSI	Preliminary Site Investigation
QA/QC	Quality Assurance/Quality Control
RAP	Remedial Action Plan
REF	Review of Environmental Factors
REMP	Remediation Environmental Management Plan
RPD	Relative Percentage Difference
SAQP	Sampling Analytical and Quality Plan
SAS	Site Audit Statement
SEARs	Secretary's Environmental Assessments Requirements
SEPP	State Environment Planning Policy - Resilience and Hazards
SSD	State Significant Development
SSDA	State Significant Development Application
SWMS	Safe Work Method Statement
SWRCP	Site Wide Remedial Concept Plan
TAW	Temporary Public Open Space Activation
TBT	Tributyl Tin
TDS	Total Dissolved Solids
TfNSW	Transport NSW
TRH	Total Recoverable Hydrocarbons
UCL	Upper Confidence Limit
UGNSW	UrbanGrowth NSW
UFP	Unexpected Finds Protocol
UST	Underground Storage Tank
VENM	Virgin Excavated Natural Material
VOC	Volatile Organic Compounds
WH&S	Work Health and Safety
WHSP	Work Health and Safety Management Plan

Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by Infrastructure NSW (INSW, the client) to provide a Detailed Site Investigation (DSI) to support a State Significant Development Application (SSDA) for a new waterfront public park within Blackwattle Bay, to be known as Bank Street Park (SSD-53386706). Bank Street Park is located at 1A-19 Bank Street, Pyrmont on the shoreline of Tjerruing Blackwattle Bay and adjacent areas of Blackwattle Bay.

Bank Street Park comprises 13 individual lots formally identified as Lot 1 in Deposited Plan (DP) 188671, Lot 1 in DP439245, Lot 1 in DP85206, Lots 1 and 2 in DP1089643, Lots 19 – 22 in DP803159, Lots 5-6 in DP803160, Part Lot 5 in DP1209992, Part Lot 107 in DP 1076596 and part Bank Street road reserve (inclusive of the existing Anzac Bridge pylon footprint, for which it is not anticipated any specific work will be required). The 'Site' as being the relevant lots within the red line in the attached **Figures** has been defined for the purposes of this investigation report to exclude Part Lot 5 in DP1209992, Part Lot 107 in DP 1076596 and part Bank Street road reserve and comprises an area of approximately 1.1 ha. The 'broader site area' comprises the proposed extent of works, including the area covered by the purple line, inclusive of the water based portion (Part Lot 5 in DP1209992, Part Lot 107 in DP 1076596) and current public domain areas (part Bank Street road reserve) the subject of street improvements. The Site and broader site area are shown in **Figures 1 and 2A**.

Bank Street Park forms part of the Blackwattle Bay Precinct (BWBP), which is an area of predominantly government owned land located on the western edge of the Pyrmont Peninsula and adjoining the waters of Blackwattle Bay. The precinct was rezoned in December 2022 to facilitate a new mixed-use community, providing for around 2,000 new residents and 5,600 new jobs and creating a vibrant 24/7 economy. Updated planning and land use controls were incorporated into the Sydney Local Environmental Plan 2012, along with site specific design guidance in the *Blackwattle Bay Design Guidelines.*

A critical part of the BWBP is the high quality public domain which includes a series of parks and open spaces connected by a foreshore promenade. Bank Street Park will bring new active and passive recreation uses into a unique park environment, catering for both existing and future communities in the vicinity.

Previous inground investigations conducted on Site identified the presence of fill material containing ash, coke, coal tar and slag extending to approximately 4.05 m below ground surface (m bgs) in some areas. Heavy metals, total recoverable hydrocarbons (TRH) and polycyclic aromatic hydrocarbons (PAHs) were reported at elevated concentrations within fill material.

Bonded asbestos containing material (ACM) was identified in a limited area in the central portion of the site during remediation works (Consara 2020[1]) completed within a portion of the site which were finalised in July 2020 following containment of impacted material onsite and offsite disposal of excess material, with a site audit statement (SAS) issued for that portion of the Site, being an area of 3,600 m^2 (JBS&G 2020[2]).

Given the age and limitations of much of the existing intrusive investigation data set, further intrusive soil investigation activities and associated laboratory analysis of representative samples of potentially contaminated media was completed for this current investigation as described herein. Given the proximity of the Site to the adjoining Blackwattle Bay and potential for historical reclamation activities, the potential for acid sulfate soil conditions also required further assessment, inclusive of soil sampling and laboratory analysis.

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[1] *Validation Report, Maritime Facility, Northern Part of 5-11 Bank Street, Pyrmont NSW.* Consara Pty Ltd, 10 July 2020 (Consara 2020)

[2] *Site Audit Statement, 5-11 Bank Street, Pyrmont*. JBS&G Australia Pty Ltd, 30 July 2020 (JBS&G 2020)

Based on the results of the site assessment and subject to the limitations in **Section 14**, the following summarises the outcomes of the assessment:

- The investigation included the implementation of 15 soil sampling locations and sampling of four existing groundwater wells to facilitate analysis of selected representative soil and groundwater samples undertaken for a broad range of contaminants of potential concern (COPCs) identified in the conceptual site model (CSM) including heavy metals, PAHs, TRH, benzene, ethylbenzene, toluene and xylene (BTEX), organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), volatile organic carbons (VOCs), Per and poly fluoroalkyl substances (PFAS) and asbestos. With consideration to the adopted site assessment criteria, based on public/recreational open space, the following conditions were identified that require further consideration from a health and/or ecological risk viewpoint with regard to the suitability of the site for the proposed land use:
    - The presence of asbestos fines/friable asbestos (AF/FA) and asbestos containing material (ACM) contaminated soils at one sampling location (BH01 0.0-0.4), that represents a potentially unacceptable risk to future site users under a long term land use exposure scenario, unless subject to remediation and/or management;
    - The presence of trace level AF/FA impacts in fill material at two sampling locations (BH05 and BH09). Whilst not currently constituting an exceedance of the applicable long term land use exposure site assessment criteria, management of these materials will be required to ensure workplace exposure hazards during and following development of the Site to ensure that there are no unacceptable asbestos exposures to Site workers, nor asbestos present on the site surface following redevelopment;
    - Fill material contaminated with lead and PAHs (carcinogenic and total PAHs) was distributed across the site with contaminant concentrations exceeding the adopted health based criteria posing an unacceptable risk to future site users under a under a long term land use exposure scenario, unless subject to remediation and/or management;
    - Fill material was also observed to be impacted with copper, lead, zinc, TRHs and B(a)P exceeding the adopted ecological based criteria broadly across the site and as such management of the fill material will be required also with this regard in future landscaped areas;
    - Perfluorooctanesulfonic acid (PFOS) in groundwater concentrations were identified at the four current groundwater monitoring locations being reported at levels above the most sensitive 99 % criterion for ecological protection at all locations. PFOS concentrations in groundwater at one location was reported in exceedance of the less sensitive 95% ecological protection criterion. All PFAS compound concentrations were less than the adopted health based recreational exposure criterion. Given the limited data set, further assessment of the potential nature and extent of PFOS in groundwater in this portion of the site is recommended prior to final decisions with regard to management requirements;
    - In addition to the PFOS in groundwater, copper, lead and zinc in groundwater were also considered to be elevated with regard to the generic site assessment criteria. The concentrations are considered to most likely reflect urban background conditions within the site setting, however further consideration of contaminant migration to groundwater will be completed with consideration to the management of heavy metal contaminated fill material at the site (as discussed above).
- Alluvial/marine soils present at depth in proximity of the Blackwattle Bay site boundary have been assessed as PASS material. Given the potential for site development works to result in

disturbance of such materials, an ASSMP has been prepared (separately) to support the development proposal;

- The potential presence of a UST and associated fuel lines in the northern site portion will require further consideration. Whilst significant soil impact has not been identified as associated with this potential infrastructure during investigations to date, it remains a potential contamination source and as such, if present, will require decommissioning and removal during site preparation activities to ensure that no minor areas of inground impact occur within these areas of the site;
- In the short term, the presence of asbestos in soil at the site should be identified via inclusion of the conditions in the Site Asbestos Register incorporated into the Asbestos Management Plan (AMP) in accordance with WHS Regulations such that potential occupational exposure scenarios may be appropriately addressed during maintenance of the site in its current state;
- No other potentially unacceptable risks to future site users from contamination conditions were identified at the site during this assessment;
- No evidence of background contamination of site soils was identified;
- No potential issues resulting from chemical mixtures were identified at the site;
- With consideration of the proposed land uses, and observations made during the investigation, aesthetic issues other than the presence of ACM within soil and the hydrocarbon odours at BH16 were not identified at the site; and
- It is considered that the site can be made suitable for the proposed public open space land use comprising a public park and community facility subject to preparation and successful implementation of an appropriate remedial action plan (RAP) to address the areas of concern as outlined above.

Based on the conclusions of the investigation it is recommended that:

- Management of the identified asbestos and chemical contamination in fill material will be required in relation to development of the site, the requirements of which will be identified via preparation and implementation of a RAP to be prepared in conjunction with design of the site redevelopment;
- In the meantime, appropriate site management procedures should be implemented via update of the Site AMP/asbestos register to ensure occupational exposure risks are appropriately managed during any/all activities that result in ground surface disturbance;
- Management of the identified PASS will require preparation and implementation of an ASSMP specific to the proposed development works; and
- During development of the site, a construction environmental management plan (CEMP) should be prepared (in conjunction with the RAP), which will incorporates an unexpected finds protocol (UFP) to address any unexpected contamination and/or ASS conditions as may be encountered during development of the site.

1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by Infrastructure NSW (INSW, the client) to provide a Detailed Site Investigation (DSI) to support a State Significant Development Application (SSDA) for a new waterfront public park within Blackwattle Bay, to be known as Bank Street Park (SSD-53386706). Bank Street Park is located at 1A-19 Bank Street, Pyrmont (the 'site') on the shoreline of Tjerruing Blackwattle Bay and adjacent areas of Blackwattle Bay.

Bank Street Park comprises 13 individual lots formally identified as Lot 1 in Deposited Plan (DP) 188671, Lot 1 in DP439245, Lot 1 in DP85206, Lots 1 and 2 in DP1089643, Lots 19 – 22 in DP803159, Lots 5-6 in DP803160, Part Lot 5 in DP1209992, Part Lot 107 in DP 1076596 and part Bank Street road reserve (inclusive of the existing Anzac Bridge pylon footprint, for which it is not anticipated any specific work will be required). The 'Site' as being the relevant lots within the red line in the attached **Figures** has been defined for the purposes of this investigation report to exclude Part Lot 5 in DP1209992, Part Lot 107 in DP 1076596 and part Bank Street road reserve and comprises an area of approximately 1.1 ha. The 'broader site area' comprises the proposed extent of works, including the area covered by the purple line, inclusive of the water based portion (Part Lot 5 in DP1209992, Part Lot 107 in DP 1076596) and current public domain areas (part Bank Street road reserve) the subject of street improvements. The Site and broader site area are shown in **Figures 1 and 2A**.

Bank Street Park forms part of the Blackwattle Bay Precinct (BWBP), which is an area of predominantly government owned land located on the western edge of the Pyrmont Peninsula and adjoining the waters of Blackwattle Bay. The precinct was rezoned in December 2022 to facilitate a new mixed-use community, providing for around 2,000 new residents and 5,600 new jobs and creating a vibrant 24/7 economy. Updated planning and land use controls were incorporated into the Sydney Local Environmental Plan 2012, along with site specific design guidance in the *Blackwattle Bay Design Guidelines*.

A critical part of the Blackwattle Bay Precinct is the high quality public domain which includes a series of parks and open spaces connected by a foreshore promenade. Bank Street Park will bring new active and passive recreation uses into a unique park environment, catering for both existing and future communities in the vicinity.

The site contamination investigation is required in response to the relevant requirements outlined in section 15 (Ground and Water Conditions) and section 19 (Contamination) within the Planning Secretary's Environmental Assessments Requirements (SEARs) issued on 11 May 2023 for application SSD-53386706 such that appropriate decisions can be made in development of the land use design. As mentioned in SEARS, the assessment is required to meet the requirements of the *State Environmental Planning Policy (Resilience and Hazards)* 2021 (SEPP R&H), demonstrating that the site is considered suitable, or can be made suitable for the proposed land use such that consent can be granted.

Previous investigations conducted on site, including those discussed in the site contamination assessment report prepared in support of the BWBP rezoning (JBS&G 2021[3]), identified the presence of fill material containing ash, coke, coal tar and slag while extending to approximately 4.05 m below ground surface (m bgs) in some areas. Soil contaminants comprising heavy metals, total recoverable hydrocarbons (TRH) and polycyclic aromatic hydrocarbons (PAHs) were previously reported at elevated concentrations within fill material with consideration to the proposed future land use.

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[3] *Environmental Site Assessment, Blackwattle Bay Study Area*, JBS&G Australia Pty Ltd, 12 January 2021 (JBS&G 2021)

Bonded asbestos containing material (ACM) was identified in a limited area in the central portion of the site during remediation works (Consara 2020[4]) completed within a portion of the site which were finalised in July 2020 following containment of impacted material onsite and offsite disposal of excess material, with a site audit statement (SAS) issued for that portion of the site, being an area of 3,600 m^2 (JBS&G 2020[5]).

The northern most portion of the site was occupied by a number of buildings, the history of which has been reported to comprise a number of residences, one of which housed a former boat builder's workshop beneath the living area. One building was reported as formerly been used as an abattoir whilst the last building was reported to have previously been used as an art studio/gallery. The buildings were assessed to have been constructed prior to 1961. A small boiler was identified in this building. One drainage pit was identified at the site and a potential underground storage tank (UST) has been identified in the yard area between the buildings, which will require further confirmation. In addition, a hazardous building materials survey report (Prensa 2023[6]) documents the presence of a range of hazardous materials, including but not limited to lead and asbestos within these structures.

Given the age and limitations of much of the existing intrusive investigation data set, further intrusive soil investigation activities and associated laboratory analysis of representative samples of potentially contaminated media was identified as required to update the existing site contamination data set to current standards, confirm any potential change in site conditions as a result of interim site activities (possibly including regrading of the site) and provide a suitable data set such that suitable evaluation of remedial/management requirements could be confirmed. In addition, given the proximity of the site to the adjoining Blackwattle Bay and potential for historical reclamation activities, the potential for acid sulfate soil conditions also required further assessment, inclusive of soil sampling and laboratory analysis. It is noted that the site boundaries extend to parts of Blackwattle Bay to the west and south and to parts of Bank Street road reserve, however the investigation works as documented herein were limited to ground portions only within the cadastral boundaries of 1A-19 Bank Street.

1.2 Objective

The objective of the investigation was to evaluate from a land contamination perspective, whether the site is suitable for the proposed land use, or alternatively, to make recommendations to enable such conclusions to be made.

1.3 Scope of Works

The investigation has been developed in accordance with guidelines made or approved by the NSW Environment Protection Authority (EPA) including the *National Environment Protection (Assessment of Site Contamination) Measure* (ASC NEPM) (NEPC 2013[7]). The scope of works to prepare this DSI comprised:

- Review of the previous site contamination (environmental) reports as available to JBS&G;
- Environmental setting with reference to relevant published maps and other information, including topography, hydrology, soils, geology and hydrogeology, acid sulfate soils (ASS), and land uses;

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[4] *Validation Report, Maritime Facility, Northern Part of 5-11 Bank Street, Pyrmont NSW.* Consara Pty Ltd, 10 July 2020 (Consara 2020)

[5] *Site Audit Statement, 5-11 Bank Street, Pyrmont*. JBS&G Australia Pty Ltd, 30 July 2020 (JBS&G 2020)

[6] *Destructive Hazardous Building Materials Assessment, 1-3 Bank Street, Pyrmont NSW 2009*. Prensa Pty Ltd, May 2023 (Prensa 2023)

[7] *National Environment Protection (Assessment of Site Contamination) Measure 1999*. As compiled 16 May 2013 National Environment Protection Council (NEPC 2013)

- Recent aerial photographs to identify changes in land use since previous reports were completed at the site;
- Consideration of EPA and other information relating to potential off site impacts from adjacent regulated and notified land;
- Licensed groundwater usage within a 1.5 km radius of the site, as may be available on the Office of Water website;
- Completion of a thorough inspection of the site and immediate surrounds;
- Development and documentation of a conceptual site model (CSM) based on the available information;
- Implementation of an intrusive site investigation program including soil sampling and analysis at 15 locations across the site, sampling and analysis of groundwater samples from existing site monitoring wells;
- Assessment of investigation data with consideration to established Data Quality Objectives; and
- Preparation of a DSI report, in general accordance with relevant EPA made or endorsed guidelines.

1.4 Proposed Development

JBS&G understands that development consent is being sought for a recreation area for the primary purpose of a public park. The concept design plan is provided in **Figure 4**. As such, consideration has been given to a variety of generic land-uses as provided to N*ational Environment Protection (Assessment of Site Contamination) Measure, 1999 Amendment No 1*, National Environment Protection Council (NEPC 2013) for public open space such as parks, playgrounds, playing fields, secondary schools and footpaths (HIL-C) considered as the applicable land use for the site. The public park will comprise the following:

- Site preparation works, including tree removal, earthworks and remediation to facilitate proposed use;
- Demolition of three existing buildings at 1-3 Bank Street;
- New and adapted facilities for community use, including:
    - New single storey building to accommodate flexible community space, café, and marina office/store facilities, with green roof and photovoltaics;
    - Adaptive reuse of Building D for public amenities, bin and other storage;
    - Boat launching ramp and pontoon for passive watercraft, including dragon boats and kayaks;
    - Boat storage building with change facilities for dragon boat users with publicly accessible rooftop deck.
- Public domain works including:
    - ‘Interpretation Garden’ in existing building ‘ruins’ at 1-3 Bank Street;
    - Split level foreshore promenade;
    - Multi-purpose court with edge seating and partial fence;
    - Nature-based inclusive playspace for ages 2-12;
    - Fitness equipment;

- Public plaza and grassed open space areas;
  - New tree plantings and planter beds;
  - Public art, wayfinding and interpretative signage, lighting, bike parking and seating.
- Harbour works including:
  - Overwater boardwalk;
  - Land/water interface works, including sandstone terracing into water and support structure, to improve marine habitat;
  - Demolition and construction of a new timber launching ramp for dragon boats;
  - Kayak/passive craft pontoon; and
  - Restoration, repair and alterations to the existing seawall for new stormwater outlets.
- Works to Bank Street road reserve, including:
  - Road space reallocation to provide separated cycleway;
  - Cycleway transition to Bank Street to continue south as part of future works;
  - Reinstatement of existing on-street parallel parking;
  - Tree planting;
  - Accessible parking space; and
  - Loading zone adjacent 1-3 Bank Street.

1.5 Environmental Assessments Requirements

The site contamination investigation is required in response to the relevant requirements outlined in section 15 (Ground and Water Conditions) and section 19 (Contamination) within the SEARs issued on 11 May 2023 for application SSD-53386706 and sections 2.4 (Staging and Delivery) and 4.8 (Contamination) within Black Wattle Bay Design Guidelines (BWBDG) such that appropriate decisions can be made in development of the land use design. **Table 1.1** below addresses the relevant SEARs requirements and provides a project response. It is noted that some requirements of the SEARs sections are beyond the scope of this assessment and will be addressed in technical reports by others.

Table 1.1: Summary Site Details

Item	Environmental Assessments Requirements
SEARs Section 15 (Groundwater and Water Conditions)	Assess potential impacts on soil resources and related infrastructure and riparian lands on and near the site, including soil erosion, salinity, and acid sulfate soils. The EIS must map features relevant to water and soils including acid sulfate soils, rivers, streams, wetlands, estuaries, groundwater and groundwater dependent ecosystems, and proposed intake and discharge locations. The EIS must describe background conditions for any water resource likely to be affected by the development, including existing surface and groundwater, hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations. Provide a Surface and Groundwater Impact Assessment that: • describes any works/activities that may intercept, extract, use, divert or receive surface water and/or groundwater. This includes the description of any development, activities or structures that will intercept, interfere with or remove groundwater, both temporary and permanent. • details of the water balance including quantity, quality and source and take for the life of the project and post closure where applicable. This is to include water taken directly and indirectly, and the relevant water source where water entitlements are

Item	Environmental Assessments Requirements
	required to account for the water take. If the water is to be taken from an alternative source confirmation should be provided by the supplier that the appropriate volumes can be obtained. • details of Water Access Licences (WALs) held to account for any take of water where required, or demonstration that WALs can be obtained prior to take of water occurring. This should include an assessment of the current market depth where water entitlement is required to be purchased. Any exemptions or exclusions to requiring approvals or licenses under the Water Management Act 2000 should be detailed by the proponent. Assess potential impacts on: • surface water resources (quality and quantity) including related infrastructure, hydrology, dependent ecosystems, drainage lines, downstream assets and watercourses. • groundwater resources in accordance with the *Groundwater Guidelines*. • identifies and assesses all works/activities located on waterfront land including an assessment against Guidelines for Controlled Activities on Waterfront Land (NRAR 2018). • mitigates the effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options. • identifies the proposed monitoring of hydrological attributes. Assess the impact on the Sydney Metro West substratum directly beneath the land including: • details of any proposed penetrative subsurface investigations (e.g. boreholes) 2m or deeper to be drilled within the first or second protection reserve • consideration of the Sydney Metro Underground Corridor Protection Guidelines and Sydney Metro at Grade and Elevated Sections Guidelines.
Sears Section 19 (Contamination)	In accordance with SEPP (Resilience and Hazards) 2021, assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable (or will be suitable, after remediation) for the development.
BWBDG Section 2.4 (3) (Staging and Delivery – Provisions)	Stormwater management solutions and decontamination and remediation works are to be coordinated across each stage of development so that: • land is suitable for its intended use prior to works commencing; and • development of a building lot does not unreasonably impact on the ability of other proximate building lots to develop.
BWBDG Section 4.8 (Contamination)	**2.** The processes outlined in the Site Wide Remedial Concept Plan – Blackwattle Bay Study Area, (JBS&G Australia Pty Ltd, 12 January 2021) are to be implemented, including: • a Remediation Environmental Management Plan (REMP), to document the monitoring and management measures required to control the environmental impacts of the works and ensure the validation protocols are being addressed • a Work Health and Safety Management Plan (WHSP) to document the procedures to be followed to manage the risks posed to the health of the remediation workforce. 2. A REMP must be provided by the applicant as a separate document for each remediation works stage. A WHSP is to be developed prior to the commencement of remediation works. 3. Each REMP and WHSP should address the potential for a range of chemical contaminant conditions in soil in addition to groundwater, ground gas/vapour and sediment in various areas of the Precinct, in addition to the potential occurrence and storage / handling of asbestos contaminated soils on the Precinct.

Item	Environmental Assessments Requirements
	4. Upon completion of the works, validation reports and on-going Environmental Management Plans (EMPs) for residual impacted materials as may be retained beneath the specific area footprints will be required to be submitted to the consent authority documenting that the applicable footprint is considered suitable for the proposed use(s), subject (where applicable) to implementation of the relevant ongoing EMP. 5. Any development is not to activate polluted sediments by disturbance. 6. Strategies for extraction, capture and disposal are to be developed for the most polluted sediments (close to existing stormwater outfalls) to ensure that the local marine ecosystem improves in line with well-established biodiversity conservation principles and obligations. 7. Continued engagement of a NSW EPA accredited site auditor/s is required, where necessary, to help any consent authority be satisfied that the specific parcels of land are suitable for all the purposes for which it is permitted to be used.

2. Site Condition and Environmental Setting

2.1 Site Identification

The Site and broader site area location are shown on **Figure 1**. The extent of the Site, broader site area and associated cadastral boundaries and features are shown on **Figures 2A** and **2B**. The details are summarised in **Table 2.1** and described in detail in the following sections.

Table 2.1: Summary Site Details

The Site – Lot / DP Property Identification and Ownership	The Site is comprised of the following legal properties: • Lot 1 in DP188671- Transport for NSW • Lot 1 in DP439245 – Infrastructure NSW • Lot 1 in DP85206 – Transport for NSW • Lot 1 in DP1089643 – Infrastructure NSW • Lot 2 in DP1089643 – Infrastructure NSW • Lot 19 in DP803159 – Transport for NSW • Lot 20 in DP803159 – Transport for NSW • Lot 21 in DP803159 – Transport for NSW • Lot 22 in DP803159 – Transport for NSW • Lot 5 in DP803160 – Transport for NSW • Lot 6 in DP803160 – Transport for NSW
The broader site area – Lot / DP Property Identification and Ownership	The broader site area is comprised of the following additional legal properties: • Part Lot 5 in DP1209992 – Roads and Maritime Services (Transport for NSW) • Part Lot 107 in DP1076596 – Transport for NSW • Part Bank Street road reserve – Transport for NSW (City of Sydney Council)
Local Government Authority	City of Sydney Council
Approximate MGA Coordinates (MGA 56)	As shown on **Figure 2A**
Current Site Zoning	RE1 Public Recreation under City of Sydney Local Environmental Plan (LEP) 2012 and Zone 1 Maritime Waters under Section 6.27 of State Environmental Planning Policy (Biodiversity and Conservation) 2021
Current Use	Lots 5-6 in DP803160 and Part Lot 20 in DP803159 – Vacant Lot 19, Part Lot 20, Lot 21 and Lot 22in DP803159 – Blackwattle Bay Marina Lot 1 in DP 188671, Lot 1 in DP85206, Lot 1 in DP439245 and Lots 1-2 in DP1089643 – Vacant Part Lot 5 in DP 1209992- Blackwattle Bay Part Lot 107 in DP1076596 – Blackwattle Bay Part Bank Street road reserve – Public road
Previous Use	Holding yard, Blackwattle Marina Bay. Industrial purposes and public road
Proposed Use	Public open space / Public park and community facility
Site Area	Approximately 1.1 ha

2.2 Site Description

The Site and broader site were inspected by a suitably qualified and experienced JBS&G environmental consultant on 27 March 2023. They are located within the City of Sydney local government area (LGA) and includes harbour development in Blackwattle Bay and situated on Gadigal Land, one of the twenty-nine clans of the great Eora Nation and adjoins the foreshores of Glebe to the west and Pyrmont Bridge Road and Wentworth Park to the south. The Site in general comprised an irregular shaped parcel of land comprising 11 lots with the broader site area comprising Part Lot 5 in DP1209992, Part Lot 107 in DP1076596 and Part Bank Street road reserve. Bank Street and Bowman Street bound the site to the east and northeast, respectively. The southeastern portion of the site was secured via a steel fence towards Bank Street and a chain link fence to the north separating that portion from the central portion which was occupied by Blackwattle Bay Marina. The Site contained four access points as follows:

- An access gate along Bank Street providing access to Lots 5-6 in DP803160 and Part Lot 20 in DP803159;

- A driveway along Bank Street providing access to Lot 19, Lot 21, Lot 22 and Part Lot 20 in DP803159;
- An access gate along Bank Street providing access to Lot 1 in DP439245 and Lots 1-2 in DP1089643;
- An access gate along Bank Street and Bowman Street providing access to Lot 1 in DP 188671 and Lot 1 in DP85206.

Broadly, the Site was covered by hardstand and buildings with some vegetated areas observed in the northwestern corner of the site and along the southern portion along the seawall adjacent to Blackwattle Bay.

No existing storage of bulk chemicals or wastes were observed at the site. Observations of site conditions indicated the ground was generally absent of apparent odours or staining.

The key features noted within each lot that form the focus of this investigation in addition to the broader site area are discussed in the following sections and presented in **Figure 2B**. A photographic log is included in **Appendix I.**

2.2.1 Lots 5-6 in DP803160 Part Lot 20 in DP803159

This area comprised a large vacant space surfaced generally with compacted aggregate. Several shipping containers, dragon boat vessel storage, vehicle trailers and other associated infrastructure were stored within this yard. A ramp extended down to the southwest and there is a landscaped area adjoining a boat launching ramp at the water’s edge.

2.2.2 Lot 19, Part Lot 20, Lot 21 and Lot 22 in DP803159

This area comprised the Blackwattle Bay Marina and was covered by hardstand apart from a feature in the northern portion comprising gravel gabions placed across four levels. A substation and exposed soils were observed adjacent to gravel feature to the north along Bank Street. This feature is consistent with that described in Consara (2020a) as capping an area of contaminated material on site.

A demountable office structure was observed in the northeastern portion, with an adjacent area containing an above ground storage tank (AST), heating unit, pump and a sewer alarm believed to be used for pumping sewage water from moored boats. Adjacent to the west of the sewage pumping system was a brick structure that housed the waste bins for the Marina. A small workshop and multiple shipping containers used for storage (tools, beverages, solvents, etc) were observed in the southeastern portion of the area.

Anzac Bridge infrastructure is situated in the western portion of this premises, including a large pylon structure and an asphalt hardstand area.

2.2.3 Lot 1 in DP 188671, Lot 1 in DP85206, Lot 1 in DP439245 and Lots 1-2 in DP1089643

A premises comprised a series of adjoining brick commercial/industrial type buildings built to the Bank Street boundary with a central enclosed courtyard. Based on the layout, it appeared the premises facing Bank St to the east and vacant land to the north (buildings C and D) were likely residences formerly converted to commercial offices. Building B at the west was likely formerly a workshop where a rusted engine and an empty drum were observed at ground level, whereas the level above appeared to be a residence. The buildings at the south site extent (building A) may have previously also been used as a seafood/poultry distribution premises and abattoir. At the time of the inspection, the premises were all vacant and displaying signage noting the presence of asbestos containing material within the buildings.

Previous assessment reports including CDM (2012a[8]) reported two vents and associated indicators of a UST and former bowser plinth within the paved central courtyard. At the time of the current inspection JBS&G couldn't verify these conditions as at the time of the recent inspection remnants of the heritage coal loader originating from the Fish Market construction site were stored in this area (and could not be moved given their heritage significance).

A seawall retaining the property above the water line was apparent at the southwest property extent. Several large trees and understorey vegetation were situated in the southwest property corner adjacent to the water's edge, in addition to an area (Lot 1 in DP85206 and Lot 1 in DP 188671) of overgrown vegetation suited to the north between the property boundary and the Glebe Island Bridge approach to the northwest.

2.2.4 Part Lot 5 in DP1209992, Part Lot 107 in DP1076596 and Part Bank Street road reserve

Part Lot 5 in DP1209992 and Part Lot 107 in DP1076596 comprise portions of Blackwattle Bay in the western and southern portions of the site respectively, whereas part Bank Street road reserve comprises an asphalt paved public road.

2.3 Surrounding Land Use

The land uses of adjacent properties or properties across adjacent roads at the time of inspection are summarised below.

- North – The Site is bound to the north by a NSW Roads and Maritime Service (RMS) depot and a high rise office building followed by Waterfront Park and Johnston's Bay further north;
- South – The Site is bound to the south by Blackwattle Bay;
- West – The Site is bound to the west by Blackwattle Bay overlain by the Anzac Bridge; and
- East – The Site is bound to the east by Bank Street followed by sandstone rock and high rise residential and office buildings on top of the sandstone rock.

2.4 Topography

Review of topographic information obtained from the Spatial Information Exchange Viewer, LPI (2015[9]) regional topographic map indicated that the site ground level range between approximately 4 and 7 m Australian Height Datum (AHD) and was generally flat, consistent with historical amendment of ground levels as associated with quarrying and reclamation activities.

The Site is located adjacent to Blackwattle Bay, with a combination of batter slopes and/or sea (retaining) walls along the southwestern site boundary. The general suburb of Pyrmont located to the east of the site is located on a sandstone headland with a vertical relief of approximately 30 m AHD within approximately 100 m to the east of the site. Historical quarrying activities have occurred in proximity of the site as apparent by the vertical sandstone quarry face to the east of the Bank St road reserve with a height of approximately 3 – 6m above the current street pavement level.

2.5 Geology and Soils

Reference to the 1:100 000 Geological Series Sheet for Sydney (Herbert 1983[10]) indicates that the site is generally underlain by three geological types:

- Man-made fill typically comprising dredged estuarine sand and mud, demolition rubble, industrial and household waste;

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[8] *Phase 2 Environmental Site Assessment, 1 Bank Street, Pyrmont NSW*. CDM Smith Australia Pty Ltd, 27 November 2012 (CDM 2012a)

[9] *'Spatial Information Exchange Viewer'*, NSW Land and Property Information, Accessed 21 March 2023, https://maps.six.nsw.gov.au/;

[10] *'Sydney 1:100 000 Geological Sheet 9130 (1st Edition)'*. Herbert C., 1983;

- Quaternary aged silty to peaty quartz sand, silt and clay deposits with ferruginous and humic cementation in places and with common shell layers; and
- Hawkesbury Sandstone typically characterised as medium to coarse-grained quartz sandstone with very minor shale and laminate lenses.

Reference to the NSW Department of Planning and Environment's online eSPADE application[11] indicates that the site is within two landscape groups as follows:

- Disturbed Terrain: The landscape is characterised by level plain to hummocky terrain, extensively disturbed by human activity, including complete disturbance, removal or burial of soil, with < 10m local relief, < 30% slopes, inclusion of soil, rock building and waste material within landfill. Soils comprise turfed fill areas commonly capped with sandy loam or compacted clay over fill or waste material. Limitations include mass movement hazard, unconsolidated low wet strength materials, impermeable soil, poor drainage, localised very low fertility and toxic materials.
- Gymea: The landscape is characterised by undulating to rolling rises and low hills on Hawksbury Sandstone, with 20-80 m local relief and 10-25% slopes. Soils are characterised by shallow to moderately deep (30-100 cm) yellow earth sand earthy sands on crests and inside of benches; shallow siliceous sands on leading edges of benches; localised gleyed podzolic soils and yellow podzolic soils on shale lenses; shallow to moderately deep (<100 cm) siliceous sands and leached sands along drainage lines. Limitations included localised steep slopes, high erosion hazard, rock outcrop, shallow highly permeable soil and very low soil fertility.

The lithology observed during previous investigations comprised rubble/sand fill material with sandstone gravel and/or concrete rubble fill, roadbase gravel and subsurface asphalt pavements overlying natural sand/sandstone strata.

2.6 Hydrology

The nearest surface body receptor is Blackwattle Bay located at the south and west boundary of the site. Given the local topography and existing site features comprising buildings, hard stand pavements and/or compacted aggregate, there is limited potential for infiltration of surface water into site soils. Rainfall runoff following precipitation events is controlled by building/site stormwater infrastructure and is expected to discharge into Blackwattle Bay located west and south of the site. This is expected to predominantly occur via collection in localised stormwater systems and subsequent discharge to the nearest down-gradient location. Infiltration in unsealed areas of the site and subsequent tidal influences in shallow groundwater near sea walls are expected to be a minor source of discharge. Direct run off from sealed surfaces into the Bay is also expected to be a minor source of discharge directly adjoining the waterfront.

2.7 Hydrogeology

Registered groundwater bore information was obtained from the NSW Department of Primary Industries groundwater mapping tools, NSW Department of Primary Industries (DPI 2016[12]). A review of the registered bore information indicated that there were 36 bores within a 1.5 km radius of the site.

Details of the ten closest registered groundwater bores are summarised in **Table 2.2** below and are included in **Appendix B**.

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[11] eSPADE DPE web application accessed on 21 March 2023 https://www.environment.nsw.gov.au/eSpade2WebApp

[12] NSW Department of Primary Industries, 2015. Groundwater Monitoring Overview Map. Http://allwaterdata.water.nsw.gov.au/water.stm. Accessed 22 March 2023.

Table 2.2 Summary of Registered Groundwater Bores

Bore ID	Approximate distance/ direction from site centre	Date and Intended Use	Final Drilled Depth (m)	Standing Water Level (swl)	Encountered Geology
GW102671	0.96 km Northwest	1993 – Monitoring Bore	4.80	NA	0-1.0 Sandy Oil 1.0-2.5 Soil 2.5-4.3 Sandy Clay 4.3-4.8 Sandstone
GW109713	1.1 km North	2004 – Monitoring Bore	6.00 m	2.521	0-2.6 Fill 2.6-6.0 Weathered Sandstone
GW115130	1.3 km North	2011 – Monitoring Bore	10.00 m	NA	0-0.2 Concrete 0.2-1.6 Fill, Gravelly Sand 1.6-3.4 Weathered Sandstone 3.4-10.0 Bedrock Sandstone
GW113562	1.40km Northeast	2011 – Monitoring Bore	10.7 m	NA	NA
GW113565	1.4km Northeast	2011 – Monitoring Bore	4.00 m	NA	NA
GW109086	1.3km Northeast	2008 – Monitoring Bore	5.68 m	NA	0-0.5 Fill, medium to coarse 0.5-1.0 Fill, Silty Sand 1.0-1.8 Fill, Clayey Sand 1.8-2.0 Fill, Gravelly Sand 2.0-3.8 Fill, Silty Sand 3.8-4.5 Fill, Clay/Silt/Sand 4.5-5.68 Sand
GW111329	0.3km Southeast	2010 – Monitoring Bore	6.00 m	NA	0-0.15 Unknown 0.15-1.5 Fill, Silty Sand 1.5-6.0 Sandstone
GW114182	0.33km Southeast	2013 – Monitoring Bore	11.55 m	NA	NA
GW114187	0.4km Southeast	2013 – Monitoring Bore	6.00 m	NA	NA
GW110373	0.6km South	2001 – Monitoring Bore	4.00 m	0.60	0-1.6 Fill, Sandy Clay 1.6-3.4 Silt 3.4-3.7 Silty Sand 3.7-4.0 Sandy Clay

Based on the reported geology, topography and depth to groundwater, groundwater migration is expected to occur in a south, southwest direction, towards Blackwattle Bay located south and west of the site.

Previous investigations (CDM 2012 and E3 2012) reported groundwater levels on site to range between 1.833 and 4.271 m bgs with seepage noted generally at the intersection of fill-natural soils or sandstone bedrock.

2.8 Acid Sulfate Soils

Review of the *Prospect/Parramatta River 1:25 000 Acid Sulfate Soil Risk Map Sheets 9130N3* indicates that the majority of the site is located within an area classed as 'disturbed terrain'. Areas having this classification typically include filled areas which often occur following reclamation of low lying swamps for urban development. Other areas with this classification may include areas which have been mined, dredged, or have undergone heavy ground disturbance through general urban development. Soil investigation is required to assess these areas for acid sulfate potential.

Blackwattle Bay immediately to the west of the site comprises an area of 'high probability' of acid sulfate soils (ASS) within bottom sediments. In such areas, there is the potential for severe environmental risk if bottom sediments are disturbed by activities such as dredging.

Based on previous site investigation activities completed in various portions of the site, there is the potential that fill material and/or natural alluvial/marine soil underlying fill material and in adjoining bay sediments within Blackwattle Bay has the potential to comprise ASS. Where natural alluvial/marine soil/sediments are identified or fill materials have alluvial/marine characteristics, appropriate measures to manage the acid generation risks will be required to be documented as an ASS management plan (ASSMP) prior to any works that may result in disturbance (and so oxidation) of these materials.

2.9 Salinity

None of the above mentioned geological and soil landscapes are associated with saline soil conditions and as such this area of Sydney is not presented in published salinity risk maps. However, it is noted that groundwater within the foreshore area has previously been characterised as brackish to marine in character as a result of Blackwattle Bay surface water intrusion and tidal influence and as such, design of below ground infrastructure in proximity to the water front would need to consider the potentially aggressive nature of marine water.

2.10 Meteorology

A review of average climatic data for the nearest Bureau of Meteorology monitoring location (Sydney Airport AMO[13]) indicates the site is located within the following meteorological setting:

- Average minimum temperatures vary from 7.4 ^{o}C in July to 19.2 ^{o}C in February;
- Average maximum temperatures vary from 17.2 ^{o}C in July to 26.7 ^{o}C in January;
- The average annual rainfall is approximately 1093.4 mm with rainfall greater than 1 mm occurring on an average of 96 days per year; and
- Monthly rainfall varies from 59.8 mm in September to 124.7 mm in March with the wettest periods occurring on average in January to June.

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[13] http://www.bom.gov.au/climate/averages/tables/cw_066037.shtml, Commonwealth of Australia, 2013 Bureau of Meteorology, Product IDCJCM0028 prepared on 16 March 2023 and accessed by JBS&G on 22 March 2023.

3. Site History

3.1 Historical Aerial Photographs

Copies of historical aerial photographs from regular intervals were obtained from the NSW Department of Finance, Services and Innovation in addition to recent aerial imagery from NearMap. Imagery is presented in relation to the site boundaries in **Appendix C**. Relevant information from the aerial imagery review is summarised in **Table 3.1.**

Table 3.1: Summary of Historical Aerial Imagery Review

Year	Observations
1943	• The northern portion of the site appeared to be occupied by four industrial buildings, with an additional three buildings adjacent to the south. • The central and southeastern portion of the site appeared to be used as holding yards. • Multiple buildings were observed to be scattered adjacent to Bank Street, across the central, southern and southeastern portions. • Three shipping docks were observed along the western and southern portions of the site, with the largest noted to the south. • Bank Street reserve was observed bounding the site to the north and east, leading to Glebe Island Bridge to the north of the site. • Industrial buildings were noted surrounding the site to the north and east with a site noted to contain seven above ground storage tanks (ASTs) (consistent with CSR sugar refinery).
1955	• The buildings in the northern portion appeared to have undergone redevelopment works. • A former building adjacent to the second shipping dock appeared to have been demolished. • Former buildings within the central, southern and southeastern portions appeared to have been demolished with the areas reorganised with material stored in the central and southern portions. • An additional AST was noted on the site located north-east of the site beyond Bank St. • Buildings appeared to have been demolished northeast of the site with a large material stockpile (potentially coal) observed in their former location.
1965	• A former building adjacent to the largest shipping dock in the northern portion of the site appeared to have been demolished. • Two of the three former shipping docks to the west of the site appeared to have been demolished whilst the one furthest to the north remained. • Three additional ASTs were noted on the site located north-east of the site beyond Bank St. • Stockpiled material (potentially coal) remained apparent to the northeast of the site.
1975	• The site and surrounding properties appeared relatively unchanged from the previous 1965 aerial imagery apart from the stored material in the central and southern portions of the site where the majority appeared to have been removed. • The surrounding properties appeared unchanged from the previous 1965 aerial imagery.
1986	• The northern portion of the site remained relatively unchanged with the exception of one former building along Bank Street which appeared to have been demolished. • The central and southern portions of the site appeared to have undergone some levelling works with the portions appearing vacant and covered by compacted gravel with the exception of the batter slope at the water's edge, which appeared vegetated with small shrubs or similar. • Exposed soil was apparent in the southeastern portion of the site, apart from a small shed or similar, this area was also vacant. • The surrounding properties remained relatively unchanged from the previous 1975 aerial imagery apart from the area northeast of the site which was covered by hardstand and some landscaped areas and converted into a truck park/depot.
1998	• The ANZAC bridge was observed to be constructed with some reclaimed land noted in the southwestern portion of the site with the carriageway obscuring the central portion of the site. • The northern portion of the site remained relatively unchanged from the 1986 aerial imagery, with the remaining buildings surrounded by vegetation observed along the eastern, southern and southeastern boundaries. • Beyond the carriageway, the balance of the site appeared to be vacant and surfaced with a combination of either hardstand or gravel, and grass/weed cover, extending from Bank St to Blackwattle Bay. • Demolition and redevelopment works appeared to be in progress at the former CSR refinery to the east of Bank St, with some of the former ASTs been demolished in the site north/east of the site with five ASTs observed.

Year	Observations
	- The industrial building to the north appeared to have been demolished, leaving a vacant wharf structure adjacent to the Bay. - The surrounding area appeared to be undergoing major redevelopment works with the majority of industrial buildings noted to have been demolished, apart from those east of the site facing Bank St.
2005	- The site remained relatively unchanged from the 1998 aerial imagery, with cars observed parked on site and the southeastern portion observed to be covered by compacted gravel and vegetation. - All former infrastructure, including the previous ASTs appeared to have been demolished in the site north/east of the site, with the area transformed into a landscaped public open area at the crest of the hill, and material storage yards further to the north. - The surrounding area was in the process of being redeveloped with multiple high rise residential/office buildings and landscaped areas observed to the northeast and east. - The area to the north of the site was observed to be vacant, whilst an additional warehouse building had been constructed further to the south of the site facing Bank St.
2015	- The central (visible) portion of the site appeared to have been repaved. - The southeastern portion appeared to be used as a holding yard for dragon boats and associated shipping containers observed within that portion of the site. - Vegetation in the southern and northern most areas of the site appear to have matured. - The surrounding properties appeared to have undergone additional redevelopment works with high rise residential/office buildings observed.
2023	- Two structures containing solar panel across their roofs appeared to have been constructed in the central (visible) portion of the site. - The driveway leading to site (central portion and surrounding buildings appeared to have been covered by concrete and a feature of gravel filled gabions placed across four levels was observed adjacent to the buildings to the north along the new paved driveway. - A shipping dock appeared to have been established underneath the Anzac Bridge with multiple boats noted docked west of the site. - The surrounding properties remained relatively unchanged from the 2015 aerial imagery.

3.2 Historical Title Records

Historical title records for the Lot 6 in DP 803160, Lots 1 and 2 in DP 1089643 and Lot 1 in DP 439245 as representative of site are included in **Appendix D**. A summary of the historical title documentation records is provided in **Tables 3.2** below.

Table 3.2: Summary of Historical Title Search

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
Lot 6 in DP 803160		
04.10.1929 (1929 to 1993)	The Municipal Council of Sydney	Volume 4332 Folio 131
13.07.1993 (1993 to 2003)	Roads and Traffic Authority of New South Wales	Volume 4332 Folio 131
07.03.2003 (2003 to 2003	# Waterways Authority Now # Transport for NSW	Volume 4332 Folio 131 Now 6/803160

<table>
<tr><th>Date of Acquisition and term held</th><th>Registered Proprietor(s) & Occupations where available</th><th>Reference to Title at Acquisition and sale</th></tr>
<tr><td colspan="3"># Denotes current registered proprietor

Leases: - NIL

Easements: -
• 07.03.2003 (9420339) Easement to Drain Water 2.735 wide.
• 07.03.2003 (9420339) Easement for Footings and Support.
• 07.03.2003 (9420339) Easement to Drain Water variable width.
• 07.03.2003 (9420339) Easement for Water Supply shown as Easement for Rising Main 1.8 wide on D.P. 882897.
• 07.03.2003 (9420339) Easement for Electricity purposes 3 and 4.265 wide desilted (E) in D.P. 1041963)
• 07.03.2003 (9420339) Easement to Drain Water 1.75 wide designated (F) in D.P. 1041963).</td></tr>
<tr><td colspan="3">Lots 1 and 2 in DP 1089643 and Lot 1 in DP 439245</td></tr>
<tr><td>28.12.1932
(1932 to 1937)</td><td>Charles Caminiti (Fish Merchant)</td><td>Volume 4551 Folio 26 &
Volume 4558 Folio 58</td></tr>
<tr><td>16.07.1934
(1934 to 1955)
(Part)
08.03.1937
(1937 to 1955)
(Part)</td><td>Cam and Sons Limited
Now
Cam and Sons Proprietary Limited</td><td>Volume 4551 Folio 26 &
Volume 4558 Folio 58</td></tr>
<tr><td>08.02.1955
(1935 to 1973)</td><td>Keene & Co. Pty Limited</td><td>Volume 4551 Folio 26 &
Volume 4558 Folio 58
Now
Volume 7012 Folio 136</td></tr>
<tr><td>01.11.1973
(1973 to 1980)</td><td>Fork Lift Holdings Pty Limited</td><td>Volume 7012 Folio 136</td></tr>
<tr><td>02.06.1980
(1980 to 1988)</td><td>Hendrikus Jelis Holster (Self Employed)
Jakob Meyer (Company Director)</td><td>Volume 7012 Folio 136
Now
Volume 15060 Folio 206</td></tr>
<tr><td>30.08.1988
(1988 to 2004)</td><td>Hendrikus Jelis Holster (Self Employed)</td><td>Volume 15060 Folio 206</td></tr>
<tr><td>02.11.2004
(2004 to 2007)</td><td>Ann Louise Forrester</td><td>Volume 15060 Folio 206
Now
Auto Consol 15060-206</td></tr>
<tr><td>31.08.2007
(2007 to 2016)</td><td>Sydney Harbour Foreshore Authority</td><td>Auto Consol 15060-206</td></tr>
<tr><td>09.09.2016
(2016 to 2018)</td><td>Landcom</td><td>Auto Consol 15060-206</td></tr>
<tr><td>20.02.2018
(2018 to 2019)</td><td>UrbanGrowth NSW Development Corporation</td><td>Auto Consol 15060-206</td></tr>
<tr><td>08.10.2019
(2019 to date)</td><td># Infrastructure NSW</td><td>Auto Consol 15060-206</td></tr>
<tr><td colspan="3"># Denotes current registered proprietor

Leases, excluding premises and Easements: - NIL</td></tr>
</table>

3.3 Council Records

Copies of the Section 10.7 Planning Certificate for five Lots (Lots 1 and 2 DP 1089643, Lot 1 DP 439245 and Lots 5 and 6 DP 803160) representative of the terrestrial portions of the site were obtained by JBS&G from Council and are included in **Appendix E**. Relevant details are summarised below:

3.3.1 Lots 1 and 2 DP 1089643 and Lot 1 DP 439245 – 1-3 Bank Street, Pyrmont NSW 2009

- The land is zoned RE1 Public Recreation under Sydney LEP 2012;
- The land is subject to the requirements of Sydney Development Control Plan 2012;
- The land has not been identified as a property that comprises, or on which there is, an item that is listed on the State Heritage Register under the *Heritage Act 1977* or that is subject to an interim heritage order under the *Heritage Act 1977*;
- The land has been identified as being on an Acid Sulfate Soils Map as being Class 1 or Class 2;
- The land has not been identified as a land that is subject to a biobanking agreement under part 7A of the threatened *Species Conservation Act 1995* or a property vegetation plan under the *Native Vegetation Act 2003*;
- The land has not been identified by an environmental planning instrument, a development control plan or a policy adopted by the council as being or affected by a coastline hazard, a coastal hazard or a coastal erosion hazard;
- The land has been identified as being land in a foreshore area;
- The land is within the flood planning area and between the flood planning area and probable maximum flood;
- The land has not been identified as land that is declared to be a special area under the *Sydney Water Catchment Management Act 1998*;
- The Council has not adopted policies to restrict the development of the subject land because of the likelihood of landslip, bushfire, flooding, tidal inundation, subsidence, acid sulfate soils or any other risk;
- The land has not been proclaimed to be a mine subsidence district within the meaning of Section 15 of the *Mine Subsidence Compensation Act 2017*;
- The land is not affected by a road widening or road realignment under any planning instrument;
- The land is not bush fire prone land;
- The land is not biodiversity certified land; and
- The land has not been identified by an environmental planning instrument, a development control plan or a policy adopted by the council as being or affected by coastline hazard, a coastal hazard or a coastal erosion hazard.

Under the section Matters Arising under the *Contaminated Land Management Act 1997* and *Contaminated Land Management Amendment Act 2008*, it was reported that the following information is available to Council:

- The land is not significantly contaminated land;
- The land is not subject to a management order;
- The land is not subject to an approved voluntary management proposal;
- The land is not subject to an ongoing maintenance order; and
- The land is not subject of a site audit statement.

3.3.2 Lots 5 and 6 DP 803160 – 17-19 Bank Street, Pyrmont NSW 2009

- The land is zoned RE1 Public Recreation under Sydney LEP 2012;

- The land is subject to the requirements of Sydney Development Control Plan 2012;
- The land has not been identified as a property that comprises, or on which there is, an item that is listed on the State Heritage Register under the *Heritage Act 1977* or that is subject to an interim heritage order under the *Heritage Act 1977*;
- The land has been identified as being on an Acid Sulfate Soils Map as being Class 1 or Class 2;
- The land has not been identified as a land that is subject to a biobanking agreement under part 7A of the threatened *Species Conservation Act 1995* or a property vegetation plan under the *Native Vegetation Act 2003*;
- The land has not been identified by an environmental planning instrument, a development control plan or a policy adopted by the council as being or affected by a coastline hazard, a coastal hazard or a coastal erosion hazard;
- The land has been identified as being land in a foreshore area;
- The land is within the flood planning area and between the flood planning area and probable maximum flood;
- The land has not been identified as land that is declared to be a special area under the *Sydney Water Catchment Management Act 1998*;
- The Council has not adopted policies to restrict the development of the subject land because of the likelihood of landslip, bushfire, flooding, tidal inundation, subsidence, acid sulfate soils or any other risk;
- The land has not been proclaimed to be a mine subsidence district within the meaning of Section 15 of the *Mine Subsidence Compensation Act 2017*;
- The land is not affected by a road widening or road realignment under any planning instrument;
- The land is not bush fire prone land;
- The land is not biodiversity certified land; and
- The land has not been identified by an environmental planning instrument, a development control plan or a policy adopted by the council as being or affected by coastline hazard, a coastal hazard or a coastal erosion hazard.

Under the section Matters Arising under the *Contaminated Land Management Act 1997* and *Contaminated Land Management Amendment Act 2008*, it was reported that the following information is available to Council:

- The land is not significantly contaminated land;
- The land is not subject to a management order;
- The land is not subject to an approved voluntary management proposal;
- The land is not subject to an ongoing maintenance order; and
- The land is not subject of a site audit statement.

3.4 EPA Records

A search of the EPA's public register maintained under the *Protection of the Environment Operations Act (POEO) 1997* was undertaken and is included as **Appendix F**.

The search identified that, for the site, there were:

- No prevention, clean up or prohibition notices; and
- No transfer, variation, suspension, surrender or revocation of an environmental protection licence.

The Site has not been notified to the EPA under section 60 of the *Contaminated Land Management (CLM) Act* with regards to contamination. An excerpt of the list of properties located in the vicinity of the site as notified to the EPA is included in **Appendix F**. The search identified the following for properties in proximity of the site:

- A former Council Works Depot (Fig and Wattle Depot) located at 14-26 Wattle St Pyrmont has previously been notified to the NSW EPA, however regulation under the CLM Act was not required. It is located approximately 800 southeast of the site.
- Notices have been issued to Pacific Power (registered business name of the Electricity Commission of New South Wales) located at Lot 122 DP828957, Pyrmont Street, Pyrmont for the presence of asbestos in degraded form and for the presence of drums and vessels containing chemicals and chemical wastes. It should be noted that the notices have since been revoked (May 1994).
- A penalty notice (notice number: 3085775606) was issued to Environmental Investigations Australia Pty Ltd, located at 55 Miller Street Pyrmont in May 2015 for the supply of misleading information regarding other waste. This relates to the business address of the company that issued the reports, rather than the location of the offence and is considered to not be related to the Pyrmont area.
- A variation of license (EPL 1253) notice (notice number 1009061) was issued to Hymix Australia Pty Limited, located at 41-45 Bank Street, Pyrmont in June 2001 for concrete batching of material exceeding 50,000 m^3. It is located approximately 280 m southeast of the site.
- A license (EPL 11718) was issued to Lendlease Building Pty Limited, located at Bowman Street, Pyrmont in 2004 for crushing, grinding or separating works between 0 to 30,000 tonnes. The license was associated with redevelopment works historically completed to the northeast of the site and has since been surrendered.

A search was also undertaken through the EPA's PFAS register of contaminated sites. The search identified that there were no sites in the Pyrmont area notified to the EPA with regards to PFAS contamination.

3.5 Local Searches (NSW: Loose Asbestos Fill Register)

A search of the Fair-Trading NSW Loose-fill Asbestos Insulation Register (LFAI register[14]) for the site address has indicated the site is not currently registered as being affected by the presence of LFAI.

3.6 Australian and NSW Heritage Register

A search of the Australian Heritage database and NSW Heritage database did not identify any heritage items on the site. However, a number of heritage listed items were identified in surrounding areas as discussed below. Records of heritage searches are provided in **Appendix G**.

- The Glebe Island Bridge, located approximately 50 m to the north of the northern site portion which is a historic piece of infrastructure in the inner western suburbs;

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[14] https://www.fairtrading.nsw.gov.au/loose-fill-asbestos-insulation-register accessed 22 March 2023

- Harbour Queen, which is a floating hall, on a former ferry wharf which has historic associations with the most heavily patronised public transport route in Sydney prior to the opening of Sydney Harbour Bridge;
- the Glebe Island Dyke Exposure, which is a geological formation, exposed within a railway cutting present at Glebe Island. The dyke is of significance as it is the only exposure not covered by urbanisation, providing a rare opportunity for examination; and
- The former CSR site which comprised the Cooperage Building, gate house, laboratory building B, main office building, store house and tablet house. These buildings are located to the north-east of Bank St within a redeveloped mixed use area.

3.7 Heritage Assessment Information

JBS&G was provided with draft archaeological advice prepared by City Plan Heritage P/L (CPH, 2023a[15]) the purpose of which was to provide information on the potential for inground heritage as associated with historical site activities and direct requirements for the monitoring of boreholes completed during this investigation. The information with regard to historical site activities identified in this advice included:

- An Aboriginal Potential Archaeological Deposit (PAD, AHIMS #45-6-3338) has been identified at the site (PAD02), located specifically within the 1-3 Bank St site portion. This deposit was inferred to be situated at depths of 0.26 - 3.8 m bgs based on previous investigation reports;
- An Aboriginal PAD (PAD02A) has been identified at the site, located specifically within the 1-3 Bank St site portion. This deposit was inferred to be situated at depths of 0.5 – 4.2 m bgs based on previous and the current investigation reports;
- An Aboriginal Potential Archaeological Deposit (PAD03) has been identified at the site, located specifically within the 5 Bank St site portion. This deposit was inferred to be situated at depths of 2.0 - 2.95 m bgs based on previous investigation and the current investigation reports;
- An Aboriginal Potential Archaeological Deposit (PAD04) has been identified at the site, located specifically within the 5 Bank St site portion. This deposit was inferred to be situated at depths of 1.8 - 2.5 m bgs based on previous investigation and the current investigation reports; and
- Prior to European settlement, it was envisaged this location was characterised by sandstone outcrops overlain by soils of the Gymea erosional landscape, and the alluvial sediments and soils of the drainage lines.

3.8 WorkSafe Dangerous Goods

A hazardous goods search was lodged with SafeWork NSW and is attached in **Appendix H**. The search did not locate any records on the storage of hazardous chemicals at the site.

3.9 Integrity Assessment and Summary Site History

Based on the range of sources and the general consistency of the historical information along with historical aerial photographs, it is considered that the historical assessment has an acceptable level of accuracy with respect to the potentially contaminating activities historically occurring at the site. These appear to relate predominantly to land use, introduction of fill to create site levels, storage and use of materials, the potential for a UST, former and current structures with potential hazardous materials (e.g. asbestos and lead paint).

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[15] *Re: Draft Archaeological Monitoring of Site Contamination Assessment of 1-19 Bank Street, Pyrmont, NSW*. City Plan Heritage P/L, 17 May 2023 (CPH 2023a)

4. Review of Previous Site Investigations

The following environmental reports were provided to JBS&G for review:

- *Review of Environmental Factors Pier Demolition at Blackwattle Bay, Pyrmont*. Umwelt Australia Pty Ltd. June 2008. (Umwelt 2008) incorporating *Report on Marine Sediment Contamination Assessment – Hymix Wharf Blackwattle Bay*, Pyrmont. Douglas Partners Pty Ltd, June 2008, Ref: 45560 (DP 2008);
- *Environmental Site Investigation, Blackwattle Bay Maritime Precinct, Blackwattle Bay Maritime Precinct, NSW*. March 2009, Parsons Brinckerhoff (PB 2009);
- *Soil Contamination Investigation, 1 Bank Street, Pyrmont NSW*. June 2010, Noel Arnold and Associates Pty Ltd (NAA 2010);
- *Report to Land and Property Management Authority C/- Government Architects Office on Preliminary Environmental Site Assessment for Proposed Redevelopment – Waterfront at Markets, 56-60 Pyrmont Bridge Road, Pyrmont, NSW*. Ref: E24125Krpt, EIS, August 2010 (EIS 2010);
- *Limited Phase 2 Environmental Site Investigation, Bank Street, Pyrmont NSW*. June 2011, RCA Australia Pty Ltd (RCA 2011);
- *Limited Phase 2 Investigation, 5 Bank Street, Pyrmont NSW.* 16 July 2012, E3 Consulting Australia Pty Ltd. (E3C 2012a);
- *Stage 1 Preliminary Site Investigation, 1 Bank Street, Pyrmont NSW*. 27 July 2012, E3 Consulting Australia Pty Ltd (E3C 2012b);
- *Phase 2 Environmental Site Assessment, 1 Bank Street, Pyrmont NSW*. 27 November 2012, Draft, CDM Smith Australia Pty Ltd (CDM 2012a);
- *Long-term Environmental Management Plan, 5 Bank Street Pyrmont, NSW*. 30 October 2012, CDM Smith Australia Pty Ltd (CDM 2012b);
- *Validation Report, Maritime Facility, Northern Part of 5-11 Bank Street, Pyrmont NSW.* 10 July 2020, Consara Pty Ltd, (Consara 2020a); and
- *Long Term Environment Management Plan Maritime Facility, Northern Part of 5-11 Bank Street, Pyrmont NSW.* 10 July 2020, Consara Pty Ltd, (Consara 2020b).

In addition, JBS&G has previously prepared the following reports for the broader Blackwattle Bay site which includes the current Site:

- *Preliminary Site Investigation, Bays Precinct*. October 2014, JBS&G Australia Pty Ltd, Rev 1 (JBS&G 2014);
- *The Bays Precinct Urban Transformation Area – Environmental Site Assessment,* 18 November 2015, JBS&G Australia Pty Ltd, Rev 1 (JBS&G 2015);
- *Environmental Site Assessment, the Sydney Fish Market, Corner of Pyrmont Bridge Road and Bank Street, Pyrmont, NSW*. JBS&G, 17 July 2019 (JBS&G 2019);
- *Environmental Site Assessment, Blackwattle Bay Study Area*, 12 January 2021, JBS&G Australia Pty Ltd, Rev 3 (JBS&G 2021a); and
- *Site Wide Remedial Concept Plan, Blackwattle Bay Study Area,* 12 January 2021, JBS&G Australia Pty Ltd, Rev 3 (JBS&G 2021b).

4.1 Summary of Previous Investigations

The following provides a summary of the information and site characterisation data presented within key assessment reports. These reports include both historical reviews and information relating to investigations conducted at that time within the subject site.

Comments in relation to contaminants of potential concern (COPC) are provided in the following text in relation to assessment criteria adopted at the time of report preparation. Sample locations completed during the previous investigations are shown on **Figure 3**.

It is noted that at the time of many of the previous investigations, NEPC (1999) and EPA (1994[16]) were the guidelines enforced which have since been updated to NEPM (2013). During the pre-2013 investigations, petroleum based hydrocarbons were reported as total petroleum hydrocarbons (TPH) and compared against EPA (1994) criteria, however; with the updated guidelines (NEPM 2013), petroleum based hydrocarbons are now also reported as TRH (comprising different carbon chain links) with guidelines available for TRH. On this basis, the results from the previous investigations were compared against the criteria in force (NEPM 2013), while still considering EPA (1994) for TPH reported impacts. Reference to adopted site assessment criteria as derived from NEPM (2013) is further discussed in **Section 8** of this DSI.

It should also be further noted that development works completed subsequent to previous investigations, including but not necessarily limited to those within the Consara (2021a) site boundary, may have resulted in changes to the location and extent of site contamination as reported in these documents. As such, whilst the information is presented and discussed with regard to development of the CSM of site contamination conditions, further investigation is required to confirm the current status of site conditions.

Reports from the broader Blackwattle Bay Precinct have been included with discussion focused on sediment assessment within Blackwattle Bay. The reports conveyed consistent conclusions identifying sediments within the Bay to be impacted variously with heavy metals, PAHs, TPH/TRH and some tributyl tin (TBT). In addition, sediments within the Bay were considered to comprise PASS and should be treated as such in the case of works resulting in disturbance.

4.2 Review of Environmental Factors Pier Demolition (Umwelt 2008)

Umwelt prepared a Review of Environmental Factors (REF) to assess the potential environmental impacts of demolishing a pier at the Hymix concrete batching plant located at 41-45 Bank Street Pyrmont. The report discussed a marine sediment contamination assessment conducted by Douglas Partners Pty Ltd (DP 2008[17]) which comprised collection of five sediment samples from within the footprint of the pier and five additional samples from the surrounding areas of Blackwattle Bay.

Samples were collected via insertion of PVC tubes into the sediment by commercial divers to a depth of approximately 0.3 m below the sediment bed. The surface material typically comprised dark grey silty sand and sandy silt material. Some clay material and organic material was present in a number of locations, whilst those closest to the shoreline identified gravel inclusions.

A number of contaminants (heavy metals, TRH and PAHs) were reported at elevated concentrations within the sediment samples which were considered to be representative of background concentrations in sediments across Blackwattle Bay and in the Port Jackson/Parramatta River system.

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[16] Contaminated Sites: Guidelines for Assessing Service Station Sites. NSW EPA 1994 (EPA 1994).

[17] *Report on Marine Sediment Contamination Assessment – Hymix Wharf Blackwattle Bay, Pyrmont*. Douglas Partners Pty Ltd, June 2008, Ref: 45560 (DP 2008)

4.3 Blackwattle Bay Maritime Precinct Environmental Site Investigation (PB 2009)

This report prepared for Maritime NSW was completed for an area comprising the former coal loader and adjacent wharf, situated between the Hanson Concrete batching plant site and the Sydney Fish Markets at the southeastern extent of Blackwattle Bay. The site comprised a land portion of approximately 3422 m^2 formally identified as Lots 3 and 4 DP1064339 and an adjoining water portion of approximately 17 923 m^2 identified as Part Lot 107 DP1076596.

The scope of works included a desktop assessment of historical site use and review of previous assessment reports; a soil sampling program including 7 soil boreholes, installation of 3 monitoring wells and sediment sampling at 18 locations; laboratory analysis of selected samples and assessment of the investigation data.

Eighteen sediment samples were collected via either drop core or hand collected as surface sediment samples by a professional diver.

Various sediment samples were identified to have individual heavy metal concentrations, PAHs and TPH concentrations above the adopted criteria. In addition, TBT concentrations were reported above the nominated criteria for five surface sediment samples.

4.4 Soil Contamination Investigation (NAA 2010)

Noel Arnold & Associates (NAA) was engaged to conduct a soil contamination investigation at a portion of the site covering an area of approximately 10,000 m^2 (although sampling was limited to an area of approximately 1,600 m^2 in the middle of the Site). The objective of the works was to evaluate potential contamination conditions with respect to planned redevelopment of the site to include a boat ramp (public open space).

The scope of works included eight test pit locations to a maximum of 1.3 m bgs; sampling of representative soil strata; a laboratory analysis program; data assessment and documentation of the assessment results. Selected soil samples were analysed for TPH, benzene, toluene, ethyl benzene and xylene (BTEX), heavy metals, volatile organic compounds (VOCs), PAHs and asbestos in soil.

The test pits locations as shown on **Figure 3** identified the presence of rubble/sand fill material with sandstone gravel and/or concrete rubble fill, roadbase gravel and subsurface asphalt pavements overlying sand/sandstone strata. No obvious signs of contamination were noted on the ground surface at the time of the inspection.

A summary of the reported sample laboratory analysis results compared against the updated criteria (NEPM 2013) are provided in **Table A2, Appendix A**.

The laboratory analysis results identified elevated TPH (C_{10}-C_{36}) and PAH concentrations in fill material at several sampling locations. The PAH concentrations exceeded the adopted health and ecological criteria (NEPM 2013), while two samples reported TPH concentrations exceeding the EPA (1994) criteria (adopted at the time of investigation).

The elevated TPH results coincided with samples with the highest PAH concentrations, indicating the TPH may be attributable to PAHs rather than petroleum hydrocarbon impacts. These samples were all encountered at 0.3 m to 0.6 m bgs at the time of the investigation.

Heavy metals in soil concentrations were all less than the adopted site criteria whilst BTEX, VOC and asbestos concentrations in all analysed samples were less than the laboratory limit of reporting (LOR) and below the site assessment criteria.

Based on the results, NAA considered that management of the identified site contamination concerns would be required for the site to be considered suitable from a contamination viewpoint for use as a boat ramp (public open space). It was recommended that subsurface materials be excavated, sorted into building/demolition rubble, roadbase, sandstone fill etc. and characterised as suitable for on-site reuse, or otherwise disposed of from the site.

Given the reviewed report copy did not include detailed sample logs, laboratory sample receipt advice or chain of custody documentation (COCs). Further the field quality assurance/quality control (QA/QC) program was very limited. On this basis, JBS&G considers that the NAA (2010) data would be suitable to provide an overall understanding of site conditions, however, should not be solely relied upon in drawing conclusions with respect to land use suitability and/or requirements for remedial actions within the relevant site portion.

4.5 Preliminary Assessment Sydney Fish Markets Waterfront Redevelopment, 56-60 Pyrmont Bridge Rd, Pyrmont (EIS 2010)

This report documents a preliminary environmental site assessment for the proposed redevelopment of waterfront land at the Sydney Fish Markets site. The objectives of the investigation were to assess the potential for significant soil, sediment and groundwater contamination conditions and acid sulfate soils at the site in relation to the proposed land use and to provide a waste classification for potential off-site removal of excess soil.

Three sediment samples were collected from the site with elevated levels of heavy metals, PAHs, TPHs and TBT identified above the adopted criteria.

4.6 Limited Phase 2 Environmental Site Investigation (RCA 2011)

RCA was engaged to complete a limited phase 2 investigation of a parcel of land off Bank Street, Pyrmont beneath the Anzac Bridge overpass. This site incorporated the footprint of the previous NAA (2010) investigation, in addition to an extended area between Bank St and Blackwattle Bay to the south-east (outside the current site boundaries) comprising a total footprint of approximately 5,600 m^2 (this referenced site size is likely more defensible than the 10,000 m^2 noted by NAA given the inclusion of a referenced survey drawing). The objective of the works was to characterise the contamination status of the site prior to the commencement of earthworks to address due diligence and work health and safety (WH&S) purposes.

At the time of the field investigation the site had been divided into two sections comprising a construction compound for bridge maintenance activities in the north-west and storage/access for dragon boat users in the south-east. RCA indicated that the bridge maintenance contractors proposed to complete minor earthworks to re-grade the compound area, including adjustment of site levels and construction of a boat ramp.

The RCA scope of work included the installation of nine test pits, primarily to the south-east of the previous NAA investigation locations as shown in **Figure 3**, to provide for sampling of representative soil strata; a laboratory analysis program; data assessment; and documentation of the assessment results. Selected soil samples were analysed for TRH, BTEX, heavy metals, PAHs and tributyl tin (TBT). In addition, one composite sample of surface soils was prepared and analysed for organochlorine pesticides (OCPs) and polychlorinated biphenyls (PCBs).

The completed sampling locations generally extended only 0.3-0.4 m bgs and encountered fill material of clayey sand with concrete/tile/brick inclusions and gravels. Natural soil was reportedly identified in one sampling location extended through the fill material, with dark brown/black clayey sand soil encountered at a depth of 0.6 m bgs that extended to the completed test pit depth of 0.8 m bgs (JBS&G consider that this material is likely to be fill material rather than natural soil).

A summary of the reported sample laboratory analysis results is provided in **Table A2, Appendix A**. Review of the QA/QC assessment indicated that the data as summarised is suitable to be adequately reliable for the purposes of developing a conceptual site model and future remedial strategy for the broader site.

The laboratory analysis results identified TPH (C_{10}-C_{36}) and PAH concentrations in fill material at several sampling locations. The PAH concentrations exceeded the adopted health and ecological criteria (NEPM 2013), while two samples reported TPH concentrations exceeding the EPA (1994) criteria (adopted at the time of investigation). All individual heavy metals concentrations were less than the adopted site criteria, with the BTEX, TPH (C_6-C_9), OCPs, PCBs and TBT concentrations reported to be less than the laboratory LOR and less than the guidelines.

RCA recommended that capping of the impacted material be implemented to provide a complete exposure barrier between future site users and the impacted material such that the site could be considered suitable from a contamination viewpoint for the proposed use. In addition, a site environmental management plan (EMP) was recommended to address worker exposure during site activities.

JBS&G note that no evaluation of potential risks to the environment of the identified TPH/PAH impacted 'natural' soil, in particular to the adjoining Blackwattle Bay ecological receptor, was completed as part of this assessment.

4.7 Limited Phase 2 Investigation (E3C 2012a)

E3 Consulting (E3C) was engaged by NSW Roads and Maritime (RMS) to undertake a limited phase 2 investigation of a land parcel known as 5 Bank Street Pyrmont which comprised a portion of the current site. The reviewed report documents additional investigation works completed within the portion of land consistent with that identified and assessed in NAA (2010) and RCS (2011). The reported objective of the E3C works was to address data gaps from these previous site assessments to evaluate the potential need to complete remediation works such that the site could be considered suitable for the proposed recreational use and/or whether the contamination could be managed via implementation of a long term EMP.

At the time of the investigation activities, the site had been divided into two areas, the northern portion being a fenced off area in use as a construction compound for the Bridge Solutions Alliance (BSA) associated with maintenance of the Anzac Bridge. The southern portion of the site was undergoing construction works for the proposed use of the site as a dragon boat equipment storage and launch area.

The scope of this investigation included installation of three additional boreholes and their conversion into monitoring wells; sampling of soil and groundwater; and subsequent laboratory analysis for targeted contaminants of concern. Selected soil samples were analysed for TPHs, BTEX, PAHs and heavy metals and some were also analysed for OCPs and PCBs. Groundwater samples were analysed for TPH, BTEX, PAHs and heavy metals. Laboratory analysis results were compared with the previously adopted criteria (parks and public recreational open space, NEPC 1999) for soils and Australian and New Zealand Environment and Conservation Council (ANZECC 2000) ecological thresholds for groundwater. The completed sampling locations are presented in **Figure 3**.

The field investigation was reported to have encountered generally gravelly sand fill material with crushed sandstone gravel. At one location (BH1) in the south-east most site extent, 'black tar staining' and a slight petroleum hydrocarbon odour were noted. Gravelly sand fill material was identified to extend to depths of between 0.75 m to 4.05 m bgs. At several locations, some fragments of slag and tarry material were observed. Natural gravelly, clayey and silty sand soils underlay the fill material and were in turn underlain by sandstone bedrock. No staining or odours were noted in the natural soil/rock profile. No standing groundwater was observed by E3C at sampling location BH01 installed to a depth of approximately 3.3 m, whilst groundwater levels in BH03 closer to Blackwattle Bay were reported to be 1.833 m below well collar height. Standing water levels at BH02 adjacent to the Bank St boundary were reported at a depth of 2.281 m below well collar height.

A summary of the reported sample laboratory analysis results are provided in **Tables A2** and **D2, Appendix A**.

Review of the reported assessment indicated that the E3C (2012a) data as summarised is suitable to be adequately reliable for the purposes of developing a conceptual site model and future remedial strategy for the broader site.

E3C reported elevated concentrations of TPH (C_{10}-C_{36}) and PAHs in one soil sample collected from BH01 (0.5-0.7 m), consistent with the tar stained and odorous material. One fill material sample was reported to have arsenic and benzo(a)pyrene (b(a)p) concentrations above the adopted ecological criteria and lead and b(a)p toxic equivalency quotient (TEQ) concentrations above the adopted health criteria. Two other soil samples were reported to have B(a)P and B(a)P TEQ concentrations above the adopted ecological and health criteria, respectively. All other heavy metals, BTEX, OCPs and PCB concentrations were less than the adopted criteria.

A groundwater sample from one installed well was analysed for TPH, BTEX and PAHs with concentrations of these organic analytes reported to be less than the laboratory LOR and below the adopted criteria. Copper and zinc concentrations in groundwater were reported to exceed the adopted site assessment criteria, whilst the remaining individual heavy metals concentrations were below the LOR or the adopted assessment criteria.

E3C considered that the limited scope of groundwater assessment completed was inadequate to characterise site conditions. However, based on the scope of the collected data, the groundwater conditions were indicated to be typical of those in the urban environment and were considered to not pose an unacceptable impact to users of the site or adjoining Blackwattle Bay.

E3C reported that the soil assessment program identified results similar to those reported by RCA and NAA. The surficial fill material comprising gravelly silty sand with crushed sandstone and concrete was underlain by subsurface fill profile of 0.7 m to 4.05 m bgs. Whilst the subsurface fill material was identified as impacted with TPH, PAHs and b(a)p at one location and by b(a)p and PAHs more broadly across the site, the recent gravelly fill material surface profile was considered by E3C to provide a suitable capping mechanism for protecting site users from exposure. Based on the use of the site for dragon boat storage and launching, E3C considered the identified contaminant concentrations would not likely pose a risk of harm to the health of site users.

Based on the outcomes of the assessment, E3C considered that the site was suitable for continued use associated with the dragon boat club subject to implementation of a long term EMP to control and limit the exposure of site users to the underlying fill material. It was further noted that if a more sensitive land use was proposed, further assessment of potential risks to human health would be required to establish appropriate recommendations in relation to the specific site use.

4.8 Stage 1 Preliminary Site Investigation (E3C 2012b)

This report documented a preliminary site investigation completed for the property identified as 1 Bank Street, Pyrmont, located at the northern most extent of the current site. The site occupied an area of approximately 1,500 m^2. The objective of the work was to review current and former site activities to assess the potential for soil and/or groundwater contamination to be present at the site that would require further investigation.

The scope of works included a review of available historical records and a detailed site inspection. It was identified that three of the buildings were reported to have formerly been used as residences, one of which housed a former boat builder's workshop beneath the living area. One building was reported as formerly having been used as an abattoir whilst the last building was reported to have previously been used as an art studio/gallery. The buildings were assessed to have been constructed prior to 1961. A small boiler was identified in this building. One drainage pit was identified at the site, however there were no other UST/ASTs identified at the time of this investigation.

Potential areas of concern identified during the Stage 1 preliminary assessment included the presence of a collection pit of unknown historical use; a former boiler; the presence of oil or greases stored at the site; paint associated with the former use of one building; possible historical use of one building as an abattoir; possible historical use OCPs and organophosphate pesticides (OPPs) in pest control activities; possible use of hazardous materials in buildings currently and formerly at the site and the potential presence of fill material of unknown origin to generate current site levels.

E3C recommended that further assessment of potential contamination conditions be completed to evaluate the potential suitability of the site for future proposed uses and/or identify remediation and/or long term management requirements to make the site suitable for a future proposed use.

4.9 Phase 2 Environmental Site Assessment (Draft) (CDM 2012a)

This draft report documented an assessment of the property identified as 1 Bank Street, Pyrmont, located at the northern most extent of the current site. The site occupied an area of approximately 1500 m^2. The report copy provided for review comprised an incomplete draft. The objectives were reported to include an assessment of soil and groundwater quality at the site such that potential contamination could be identified and the need for further assessment/ management assessed. It was indicated that the site was being considered for future potential redevelopment for commercial/industrial and open space land uses.

CDM (previously E3C) indicated that a previous Phase 1 assessment (as discussed above) had identified the potential for site contamination as a result of historical use of the five existing buildings. As such, potential contaminating activities may have previously included the storage of oils/fuel, paint and possibly an abattoir/cooling room; hazardous building materials; and historical site filling activities.

The scope of work undertaken for the assessment included installation and sampling of seven boreholes and three monitoring wells located as shown in **Figure 3** with subsequent laboratory analysis of representative samples. Soil and groundwater samples were analysed for heavy metals, TRH, BTEX, PAHs, OCPs, PCBs, VOCs and semi VOCs (sVOCs), in addition to limited analysis for ammonia, nitrate and nitrite in surface soil samples.

A potential current/former UST location was identified in the central yard area of the site during this investigation with possible vents attached to the north-east most building wall.

Sampling locations identified fill material at the site extending to depths of up to 2.4 m bgs underlain by natural sand, sandy clay and sandstone bedrock. The fill material comprised silty sand, sand, silt and gravel based fill material. Odorous soil conditions were identified in fill material at BH01 at depths of up to 1.5 m bgs, in near surface soils at BH02, and in natural sand soil in BH05 (3-3.8 m bgs), downgradient of the suspected UST location. Groundwater was at the time of the field works identified in the natural sand and weathered sandstone bedrock and was considered by E3C as likely to be influenced by tidal variation given the proximity of the adjoining bay.

A summary of the reported sample laboratory analysis results are provided in **Tables A2** and **D2, Appendix A**.

CDM indicated that data validation procedures employed in the assessment identified that the analytical data could be relied upon with respect to the project requirements. It is considered that the CDM (2012a) data as summarised herein is suitable to be adequately reliable for the purposes of developing a conceptual site model and future remedial strategy for the broader site.

TPH (C_{10}-C_{36}) concentrations in a number of analysed soil samples were reported to exceed the site assessment criterion (EPA 1994). Samples with elevated TPH were reported to have been collected from surface soils to depths of 3.5-3.8 m bgs. Lead, zinc, B(a)P and B(a)P TEQ concentrations were also reported to exceed the adopted health and ecological criteria at a number of locations.

All reported BTEX, PCB, VOC and sVOC (other than OCPs/PAHs) concentrations in soil were below the laboratory LOR and less than the adopted site criterion. Individual OCP concentrations in soil were less than the adopted site criteria for the respective compounds. It is noted that for several individual soil samples total PCB LORs were raised above the NEPM (2023) site assessment criteria as a result of matrix interference. All reported total PCBs were less than the resulting LORs.

Elevated concentrations of TPH (C_6-C_{36}) in groundwater were identified at MW5 (**Figure 3**). TPH concentrations in MW1 were less than the laboratory LOR, whilst MW2 was not analysed for TPH. BTEX and PAH compound concentrations in MW5 and MW1 were reported to be below the laboratory LOR. No significant concentrations of VOCs or sVOCs were identified in either sampled well. Copper, lead and zinc concentrations in groundwater also exceeded the adopted criteria at one sampling location.

Given the proximity of BH05/MW05 to the suspected UST, it was considered likely that the soil and groundwater impacts identified at this sampling location were associated with the present/former feature. Given the absence of volatile contaminants associated with the petroleum impact it was further considered that the impacts were associated with less mobile compounds (i.e. not petrol) or are weathered.

CDM recommended that should hardstand pavements remain at the site, the identified impacts and potential risks to human health and the environment be appropriately managed via a long term EMP. However, where a more sensitive land use was contemplated, identified impacts would require further consideration and potentially remediation.

4.10 Long-term Environmental Management Plan (CDM 2012b)

CDM (formerly E3C) prepared a long term EMP document for approximately 9,000 m^2 of land beneath the Anzac Bridge overpass known as 5 Bank St Pyrmont, parts of which had formerly been the subject of site contamination investigation activities as documented in NAA (2010), RCA (2011) and E3C (2012a) as discussed above.

The purpose of the long term EMP was to identify requirements for the control and limitation of site user exposure to the contaminated and potentially contaminated fill material at the site. CDM assumed the presence of PAH and heavy fraction petroleum hydrocarbon concentration in fill materials that exceed adopted health-based investigation levels for recreational land uses. Groundwater was considered by CDM to be typical of that encountered within an urban environment and are not considered to pose an unacceptable impact to users of the site.

The EMP identified that the hardstand surface and grassed/landscaped areas were required to be maintained such that site users are not exposed to the underlying contaminated fill material. In the event that works are required that disturb the ground surface, appropriate protocols as addressed in the EMP should be implemented such that workers and members of the public are not unacceptably exposed to the contaminated material.

4.11 Validation Report (Consara 2020a)

Consara prepared a validation report for approximately 3,600 m^2 of land comprising the central portion of the current site. The validation report was prepared to document the works undertaken to implement a Remedial Action Plan (RAP) prepared by SLR Consulting Australia Pty Ltd (SLR 2015[18]) which has not been sighted by JBS&G, and the addendum to the remediation action plan (ARAP, Consara 2018[19]) (also not sighted) in relation to the identified and potential contamination within the site as documented in previous investigations (**sections 4.4 and 4.6** to **4.9**). Site development and associated validation works reported to have been conducted comprised the following:

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[18] *Remedial Action Plan, Sydney Heritage Fleet Base, Bank Street Pyrmont*. 23 April 2015, SLR Consulting Australia Pty Ltd (SLR 2015)

[19] *Addendum to Remediation Action Plan, Maritime Facility, 5-11 Bank Street Pyrmont NSW*. Consara Pty Ltd, 10 September 2018 (Consara 2018)

- Excavation of soils to a depth ranging between 0.2 and 1.5 m bgs to allow the installation of underground services and to create a new surface on which the new surface treatments were installed;
- A cut and fill program which was required as part of the redevelopment of the site, which also dictated the containment of the contaminated material onsite;
- Sampling of approximately 300 m^3 of stockpiled material resulting from the cut and fill program and analysis for a range of COPC to characterise the material for on-site retention or off-site disposal. These works identified concentrations of some PAHs in a limited number of samples that were above the adopted assessment criteria. In addition, bonded ACM was identified within the stockpile fill material. All other COPC were reported below the adopted assessment criteria;
- Surplus soils which required offsite disposal accounted for 1621.76 tonnes and was classified in accordance with the *NSW EPA Waste Classification Guidelines* (EPA 2014) with all material disposed of from the site as general solid waste (GSW, non putrescible);
- Soils contaminated with PAHs and bonded ACM retained onsite were covered with a marker layer (geofabric) and capped with hardstand (concrete, asphalt, pavements, roadways) and with imported material that was characterised to be suitable for onsite use within landscaped areas; and
- A survey plan was provided of the location and extent of capped material showing the capping thickness achieved ranged between 282 mm and 606 mm within landscaped areas.

Following the validation works, Consara considered that the remediation and validation works required by the RAP and the ARAP were successfully implemented on the site such that the remedial objectives were achieved, and the site was suitable for commercial/industrial and open space/recreational land uses, subject to the implementation of a long term environment management plan (LTEMP).

4.12 Long Term Environment Management Plan (Consara 2020b)

Consara prepared a LTEMP document for the land comprising the central portion of the current site as discussed above to set out the requirements for the management of the potential risks to human health associated with the presence and potential presence of contamination in fill materials in the subsurface of the northern part of 5-11 Bank Street (site).

The purpose of the LTEMP was to identify requirements for the control and limitation of site user exposure to the contaminated and potentially contaminated fill material at the site. PAH contamination was identified within fill across the site and asbestos impacts were noted within fill materials limited to the northeastern site portion. Consara also considered the potential for fill material to be present within the subsurface contaminated with petroleum hydrocarbons and/or heavy metals.

The LTEMP identified that the hardstand surface and grassed/landscaped areas were required to be maintained such that site users are not exposed to the underlying contaminated fill material. In the event that works are required that disturb the ground surface, appropriate protocols as addressed in the LTEMP should be implemented such that workers and members of the public are not unacceptably exposed to the contaminated material.

JBS&G notes that a SAS was issued to that portion following submission of the validation report and LTEMP. The extent of the capped area and areas covered by marker layer are presented in **Figure 2B.**

4.13 Preliminary Site Investigation, Bays Precinct (JBS&G 2014)

JBS&G was engaged by UrbanGrowth NSW (UGNSW) to complete a phase 1 preliminary site investigation covering all seven Precincts of the Bays Precinct site (including Blackwattle Bay, White Bay Power Station, Rozelle Rail Yards, Rozelle Bay, Glebe Island, White Bay and Wentworth Park) to commence a staged site contamination evaluation process.

It was understood that the evaluation would contribute to a UGNSW driven concept plan for rezoning and future mixed use redevelopment of under-utilised foreshore land for mixed purposes. No surface or sub-surface intrusive investigations were undertaken for this assessment.

The objective of the Phase 1 assessment was to identify and document the potential for contamination concerns at the site based on available historical and current site use information in conjunction with available previous investigation information as available at the time of the engagement.

The outcomes of the phase 1 assessment included a Conceptual Site Model (CSM) which identifies: known and potential sources of impact and constituents of potential concern including the mechanism(s) of impact; potentially affected media (soil, sediment, groundwater, surface water, indoor air and ambient air); human and ecological receptors; potential and complete exposure pathways; and potential preferential pathways for migration. For the Blackwattle Bay (specifically the site) portion, the outcomes of this investigation are further refined in **Section 6** providing for the incorporation of information from additional previous site investigation reports as reviewed herein, or portions thereof.

4.14 Environmental Site Assessment – Bays Precinct (JBS&G 2015)

JBS&G was engaged by UrbanGrowth NSW (UGNSW) to complete a range of site contamination activities, inclusive of review of existing available reports and targeted supplementary assessment to provide a basis for preparation of a Site Wide Remedial Concept Plan (SWRCP) document as per the adopted UGNSW Management Strategy for Impacted Land within the Bays Precinct. The investigation covered all seven Precincts of the Bays Precinct site (including Blackwattle Bay, White Bay Power Station, Rozelle Rail Yards, Rozelle Bay, Glebe Island, White Bay and Wentworth Park).

The broadscale investigation works were part of a staged strategy designed to result in the delivery of a SWRCP to support the future rezoning application for the Bays Precinct Urban Transformation Program.

The scope of work comprised: implementation of a targeted site investigation program including soil, groundwater, soil vapour, landfill gas and acid sulfate soil sampling as per an approved Sampling Analysis and Quality Plan (SAQP); comparison of levels of environmental constituents against relevant guidelines; and preparation of the ESA report.

The soil sampling program comprised the collection of soil samples from boreholes advanced by push tube at nine locations within the Blackwattle Bay Study Area, with sampling and subsequent analysis of representative samples for identified COPCs from all locations and sampling/analysis for ASS characterisation at one location. Assessment of groundwater conditions comprised the installation of two new groundwater monitoring wells and sampling/ analysis of the 2 new wells in addition to 6 existing monitoring wells. Soil vapour assessment was also completed at 6 locations.

Fill material was identified underlying ground levels within the Blackwattle Bay Study Area to depths ranging between 1 m to 4 m bgs. The fill typically comprised gravelly sand and crushed sandstone with inclusions of sandstone, brick, ash, wood, metal, glass and concrete. The fill observed in this precinct was underlain by natural sand/clayey sand material and sandstone. Fill material consistent with a black coal tar type substance was noted at sampling location HHBH04 at a depth of approximately 3.0 m bgs (concrete batching plant site). Other than this location, there was no significant evidence of staining observed within the soil/fill profile during the field works, However, hydrocarbon odours were noted in fill and residual soils at sampling locations within the Fish Market portion in proximity to the identified UST locations.

Groundwater was grey-brown and ranged from clear to moderately turbid. Hydrocarbon odours and a sheen were present in groundwater at a number of locations within the Fish Markets site. However, field evaluation did not identify the presence of measurable non-aqueous phase liquid (NAPL) at any of the sampled monitoring wells. Standing groundwater levels were between 1.075 m bgs and 3.549 m bgs at the 8 sampled locations within the Blackwattle Bay Study Area.

Whilst no detections of methane gas were identified, low concentrations of carbon dioxide were identified in a number of the gas monitoring wells. In accordance with the EPA (2012) methodology, a gas screening value (GSV) of 0.021 L/h CO2 was adopted as worst case for the Precinct. This GSV value falls within 'characteristic gas situation 2', comprising low risk conditions.

Laboratory analysis results for soil identified the presence of TRH >C_{10}-C_{16} at two sampling locations exceeding the adopted criteria in localised fill material and natural soils adjacent to the USTs at the Fish Markets. Elevated levels of b(a)p and benzene were also detected at a number of groundwater sampling locations within the existing Fish Markets site, when considered against the adopted site assessment criteria. Limited characterisation of natural soils was also completed, which confirmed the occurrence of potential ASS conditions above the ASSMAC (1998) trigger values.

The report concluded the following with regard to the broad Blackwattle Bay Study Area:

- Significant widespread soil contamination conditions were not identified at soil sampling locations. However, the assessment confirmed specific areas where contaminant concentrations in soil will require further consideration, in conjunction with other existing site soil characterisation data in relation to the suitability of these areas for future uses.
- Investigation of groundwater did not identify significant widespread contaminant conditions at the implemented sampling locations. However, as with the soil conditions, groundwater characteristics at a number of locations will require further evaluation in conjunction with existing groundwater data to evaluate the need for ongoing monitoring and/or management of groundwater conditions.
- Volatile contaminant concentrations in soil, soil vapour and groundwater samples analysed for specific locations within the Blackwattle Bay Study Area did not identify indications of significant widespread volatile contaminant impacts that may be indicative of an unacceptable risk to human health in relation to the current or future potential land uses.
- The potential for ground gas conditions was assessed at investigation groundwater monitoring wells using a landfill gas meter. Based on the recorded field data, a conservative estimate of the Gas Screening Value (GSV) places conditions within the characteristic gas situation 2 category. As such, further assessment of potential ground gas conditions should be completed as part of future detailed site assessment activities where buildings and/or other infrastructure are proposed to be constructed.
- Limited sampling and assessment of alluvial soil conditions confirmed the occurrence of potential ASS (PASS) conditions that will require further consideration and where required, development and implementation of acid sulfate soil management measures during future disturbance of the alluvial soils.

The report recommended that the investigation data presented in this document be further evaluated in combination with the existing site contamination investigation data identified to be of suitable quality such that broader decisions could be made with respect to the potential requirements for management and/or remediation future development areas across the broader Precinct. Subsequent to the outcomes of this evaluation, it was anticipated that sufficient site characterisation information was available to support the development of a high level strategy for future management of contamination risks at the site

4.15 Environmental Site Assessment, new Sydney Fish Market Site (JBS&G 2019)

JBS&G was engaged to prepare a site contamination assessment to support the proposed new Fish Market site development application. The site was located at the head of Blackwattle Bay between the Pyrmont Peninsula and the foreshore of Glebe. The site is legally identified as Lots 3-5 in DP 1064339, part Lot 107 in DP 1076596 and part Lot 1 in DP835794 totalling an approx. 3.7 Ha, of which 0.7 Ha consists of land based areas above the high water mark.

The report identified that heavy metal, PAH and TRH contaminated sediments have been identified within the extent of the development site that were reported to exceed both low and high trigger value sediment quality guidelines protective of ecological communities. UNSW (2017[20]) further reported sediments within Blackwattle Bay had significant metal and nutrient contamination that were indicative of highly disturbed conditions.

4.16 Environmental Site Assessment – Blackwattle Bay (JBS&G 2021a)

JBS&G was engaged by Infrastructure NSW (INSW) to complete an Environmental Site Assessment (ESA) for the properties comprising the Blackwattle Bay Precinct which included individual properties along Bridge Road and Bank Street in addition to the Blackwattle Bay water. The ESA was required to assist with the State Significant Precinct (SSP) Study requirements.

The ESA aimed to complete a broad-scale assessment of contamination within the Blackwattle Bay Study Area, where individual lots will be subject to future redevelopment and as required, identify requirements for additional detailed contamination assessments and/or remediation.

The scope of work undertaken assessment included: a desktop review of site contamination and geotechnical investigation reports as available; a review of historical site use information and regional environmental information to identify areas of potential environmental concern (APECs) and associated COPCs; and development and documentation of a CSM based on the available information with consideration to the future redevelopment scenarios.

For the Blackwattle Bay (specifically the site) portion, the outcomes of this investigation are further refined in **Section 6** providing for the incorporation of information from additional previous site investigation reports as reviewed herein, or portions thereof.

4.17 Site Wide Remedial Concept Plan – Blackwattle Bay Study Area (JBS&G 2021b)

JBS&G was engaged by INSW to prepare a SWRCP for the properties that comprise the Blackwattle Bay Study Area (including the site) to assist with the SSP Study requirements to establish a suitable framework for management of potentially contaminated media at the site in order to facilitate the staged redevelopment of the Blackwattle Bay Study Area.

The SWRCP identified strategies and remedial/management options to address identified and suspected environmental (site contamination) impacts present at the site such that all areas of the site may be considered suitable for the proposed permissible land use(s) prior to future uses.

The SWRCP concluded that the Blackwattle Bay Study Area can be made suitable for the range of intended uses as proposed and that the risks posed by contamination can be managed in such a way as to be adequately protective of human health and the environment. Further it was recommended that the processes outlined in the SWRCP be implemented and that a REMP, WHSP in addition to the area specific RAPs be developed to ensure the risks and impacts during remediation works were controlled in an appropriate manner.

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[20] *Baseline Assessment of Ecological Structure and Environmental Conditions at the Bays Precinct*, University of New South Wales, March 2017 (UNSW 2017)

In addition, following the completion of remedial works it was recommended that validation report(s) and on-going EMP(s) for residual impacted materials as may be retained beneath the specific area footprints would be required to be submitted to the consent authority documenting that the applicable footprint is considered suitable for the proposed use(s), subject (where applicable) to implementation of the relevant ongoing EMP.

5. Data Gaps

Whilst a range of site investigations have previously been completed in various portions of the site, assessment of the collated data set following review of these reports, as discussed in **Section 4**, has identified a number of data gaps as to the extent of data available with which to support decision making in relation to drawing conclusions with regard to the contamination status of the site.

These data gaps relate to a combination of the age of the existing data, the spatial extent of previous sampling locations, the likelihood that development works have resulted in movement/off-site disposal and/or additional capping of impacted material, and specifically comprise:

- The occurrence and potential extent of asbestos/ACM impacts in soil across the site, given the majority of the intrusive investigation works were completed prior to introduction of NEPM (2013) and common implementation of asbestos quantification assessment methods.
- Uncertainty as to whether material represented by existing sampling locations remains on-site as a result of development activities, particularly in the central portion of the site, given indications that material may have been placed in different locations and/or additional materials may have been placed to cover the previously identified impacted materials;
- Current investigation data identifying the potential occurrence and extent of potentially mobile hydrocarbon contaminants including TRH in soil and/or groundwater, inclusive of conditions in the vicinity of the suspected UST in the northern portion of the site.
- The natural and extent of potentially contaminated fill material present in areas of the site not previously the subject of detailed site investigation, including the northern most portion of the site, below existing site structures and in the southern portion of the site, to the south of the current marina area.
- Assessment of potential leachability of contaminated fill material and/or data to support future waste classification assessment activities as appropriate to evaluate remedial works options including but not limited to excavation and off-site disposal and/or on-site cap and containment.

Given the uncertainty with regard to site contamination conditions as a result of these data gaps, additional investigations are required to specifically address the objectives of meeting current NSW EPA guidelines for the assessment of site contamination as per the requirements of *Resilience and Hazards State Environment Planning Policy, 2021* (R&H SEPP, 2021) to support the SSDA.

6. Conceptual Site Model

Based on review of previous assessments conducted for the Site and broader Precinct, and observations made during the recent JBS&G site inspection, a CSM has been prepared to document the COPCs, sources of COPCs, pathways, and potential receptors.

6.1 Overview

NEPC (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 assessments.

NEPC (2013) identified the essential elements of a CSM as including:

- Known and potential sources of contamination and contaminants of concern including the mechanism(s) of contamination;
- Potentially affected media (soil, sediment, 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).

6.2 Potential Areas of Concern

Areas of environmental concern for the subject Site and broader site area are summarised in **Table 6.1** following.

Table 6.1 Areas of Environmental Concern and associated Contaminants of Potential Concern

Areas of Environmental Concern (AEC)	Contaminants of Potential Concern (COPC)
Placed fill and reclaimed land areas across the Site	Heavy metals, PAHs, TRH/BTEX, OCPs, PCBs, VOCs, Per and poly fluoroalkyl substances (PFAS) and Asbestos
Current and former industrial areas including petroleum product storage, marine repairs/equipment storage, creative industries (art studio/workshop), abattoir, waste storage/transporting, shipping, etc.	Heavy metals, PAHs, TRH/BTEX, OCPs, PCBs, VOCs, PFAS and asbestos
Suspected current and former petroleum based storage and dispensing facilities	Heavy metals, PAHs, TRH/BTEX, VOCs and asbestos
Known impacted material contained onsite	Heavy metals, PAHs, TRH/BTEX, OCPs, PCBs, VOCs and asbestos
Natural soils	Potential occurrence of ASS
Blackwattle Bay sediments	Heavy metals, PAHs, TRH/BTEX and TBT Expected to comprise PASS

6.3 Potentially Contaminated Media

Each of the AECs and corresponding COPCs identified in **Table 6.1** have the potential to impact soil, sediments, surface water, groundwater and/or soil gas (where volatile constituents are identified) at the site.

Where fill material is present to depth, or soil has been disturbed (including for the burial of waste, and other infrastructure), 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 material impacted with chemical based contaminants is identified, there the potential for impact to have migrated laterally and vertically below the fill material to the natural strata. With the exception of asbestos, COPCs identified in **Table 6.1** for the Site have the potential to migrate from shallow soils into groundwater.

6.4 Potential for Migration

Contaminants generally migrate from 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 contaminants of concern identified in previous investigations are generally in solid form (e.g. asbestos, metals and PAHs) and in liquid form (TPH). Further, there is also the potential for additional contaminants to be present in liquid (VOCs, TRH and BTEX) and/or gaseous (BTEX, Volatile TRH) form.

Due to the generally compacted gravel and hardstand nature of the site, there is considered to be a low potential for the generation of windblown dust generated from surface soils. The potential for contamination migration via surface water movement and infiltration of water and subsequent migration through the soil profile is considered generally to be moderate given the extent of permeability of soils on site.

Natural soils at the site comprise a combination of alluvial/marine deposits of sand, residual sandy soil and sandstone bedrock. Given the anticipated shallow occurrence of sandstone in the eastern portion of the site (with reference to quarried sandstone faces east of Bank St), transitioning to deeper sediments adjacent to the Bay at the west of the site, there is the potential for migration of potentially impacted subsoil and groundwater seepage at the site. Migration of contaminants from the site via infiltration into groundwater is considered to be a potential pathway if there is significant liquid or liquid soluble (e.g. hydrocarbon) COPCs.

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 based contamination within and from the site.

Whilst available information has not identified the significant risk of petroleum hydrocarbon or volatile compound contamination source, beyond the potential for a small UST in the northern portion of the site, should broader such impacts be identified in soil and/or groundwater, there is the potential for these impacts to also occur in soil vapour underlying the site. These constituents can migrate laterally from the site through diffusive/advective processes as well as through preferential pathways (refer to **Section 6.6**). The potential for off-site migration of vapours will only be relevant where these constituents are identified at significant levels. Should elevated levels of volatile contaminants be identified, then the potential off-site migration of these constituents will require further consideration.

As mentioned in **Section 4.2** and JBS&G (2019[21]), in-situ sediments within the broader Blackwattle Bay have previously been considered to be impacted with heavy metals, TRH, BTEX, PAHs and TBT. It is anticipated that sediments as associated with the broader site area will be characterised with similar conditions. However, the potential for disturbance of such sediments and associated migration of contamination will be very low due to the very limited disturbance anticipated to occur as associated with the proposed works.

6.5 Potential Human and Ecological Receptors and Exposure Pathways

Table 6.2 summarises potential human receptors and associated exposure pathways for the site, based on the range of exposure scenarios that may occur under the potential land-uses of the site.

Table 6.2: Summary of Potential Human and Ecological Exposures

Receptor	Location	Media	Potential Exposure Pathways
Site visitors	Site	Soil	Inhalation (particulates, fibres) Oral Dermal
Construction worker or intrusive maintenance worker (short duration)	Construction areas/ Excavations	Soil	Inhalation (vapours, particulates, fibres) Oral Dermal
		Groundwater	Inhalation (vapours) Oral (infiltrating seepage water) Dermal (infiltrating seepage water)
		Sediments	Oral Dermal
Ecological (microorganisms, flora and fauna)	Blackwattle Bay and landscaped areas	Soil	Ingestion / Passive Absorption
		Groundwater	Ingestion / Passive Absorption by flora/fauna in Receiving Water Body
		Surface Water	Ingestion / Passive Absorption by flora/fauna in Receiving Water Body
		Sediments	Ingestion / Passive Absorption by flora/fauna in Receiving Water Body

Potential ecological receptors within the site include existing and/or future flora and fauna species established within the public open space under the proposed land-use scenario. Off-site ecological receptors may potentially be impacted by surface/groundwater and windblown dusts discharged from the site, including those associated with Blackwattle Bay.

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[21] *Environmental Site Assessment, The new Sydney Fish Market, 1A to 1C Bridge Rd, Glebe NSW and part 56-60 Pyrmont Bridge Road, Pyrmont NSW*, JBS&G Australia Pty Ltd, 4 April 2019 (JBS&G 2019)

6.6 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 at the site are limited to fill materials, including contained contaminated fill, sub-surface services and infrastructure (present and former) in which it is anticipated that the materials will have a high permeability, where present. Where environmental impact (particularly in liquid or gaseous form) is observed within fill materials, further consideration to the potential migration of these impacts will be required.

Natural preferential pathways are likely limited to natural lithological borders, such as between porous soils and bedrock, where infiltrating groundwater is vertically confined and begins to migrate laterally. Where environmental impact is observed within surface soils or surface water, in proximity of the drainage line, further consideration to the potential migration of these impacts will be required.

7. Sampling Analysis and Quality Plan (SAQP)

7.1 Data Quality Objectives

Data quality objectives (DQOs) were developed for the investigation, as discussed in the following sections.

7.1.1 State the Problem

It is understood that the site is proposed to be redeveloped into a public open space area including community facilities. Review of the previous investigation reports (see **Section 4**) identified a range of potential AECs and data gaps (see **Section 5**).

As a result, further site assessment including soil and groundwater sampling and visual inspection was required to characterise contamination conditions at the site that might be potentially unacceptable for the proposed development from a health and ecological health perspective such that conclusions/recommendations could be drawn on the suitability of the site for the proposed development.

As mentioned in **Section 4.2** and JBS&G (2019), in-situ sediments within the broader Blackwattle Bay have previously been considered to be impacted with heavy metals, TRH, BTEX, PAHs and TBT and it is anticipated sediments present within the broader site area will be consistent in character. As the potential for disturbance of the sediments associated with the proposed works is minor, and the nature of Blackwattle Bay sediments are reasonably well understood, specific characterisation was not considered to be required to support this DSI with regard to site suitability. Further, any potential risks associated with such materials will identified and managed during the civil works under the Construction Environmental Management Plan (CEMP) framework.

7.1.2 Identify the Decision

Based on the decision-making process for assessing urban redevelopment sites detailed in EPA (2017[22]), the following decisions must be made:

- Are there any unacceptable risks to likely future onsite receptors from soils?
- Are there any issues relating to background soil concentrations that exceed appropriate site soil criteria?
- Are there any unacceptable human health and ecological risks present in groundwater underlying the site?
- Has the extent of potential acid sulfate soils that may require management during future remediation/construction activities been appropriately defined?
- 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?

7.1.3 Identify Inputs to the Decision

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

- Review of previous investigations;
- Desktop review of historical and current site uses to identify areas of potential concern;

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[22] *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme*, 3rd Edition, NSW EPA, 2017 (EPA 2017)

- Site observations during a current site inspection/walkover;
- Soil and groundwater sampling to assess for the presence of potential chemical COPCs;
- Laboratory analysis data from potentially impacted media for COPCs;
- Development of appropriate assessment criteria for evaluation of soil and groundwater impacts; and
- Confirmation that data generated by sampling and analysis are of an acceptable quality to allow reliable comparison to assessment criteria as undertaken by assessment of quality assurance / quality control (QA/QC) as per the data quality indicators (DQIs) established in **Section 7.1.6**

Specifically, sufficient data needed to be collected from each of the identified potentially impacted media in the identified AEC for the associated COPC (**Table 6.1**).

7.1.4 Define the Study Boundary

The lateral extent of the study comprised the Site as shown on **Figure 2** and detailed in **Section 2.1** and occupied an area of approximately 1.1 ha.

The vertical extent of the investigation was to a maximum depth of 6 m for ASS/PASS assessment.

Due to the project objectives, seasonality was not assessed as part of this investigation. Data is therefore representative of the timing and duration of the current investigation (April-May 2023).

7.1.5 Develop a Decision Rule

Analytical data for potentially contaminated media was assessed against NSW EPA endorsed criteria as identified in **Section 8**.

A summary of the decision rules adopted for each of the environmental issues required to be addressed are outlined in **Table 7.1** below.

Table 7.1: Summary of Decision Rules

Decision Required to be Made	Decision Rule
1. Are there any unacceptable risks to likely future onsite receptors from soils?	Historical and current analytical data were compared against EPA endorsed criteria. Statistical analysis of the data were completed, where necessary, in accordance with relevant guidance documents, as appropriate, to facilitate the decisions. The criteria in **Section 8** will be adopted with respect to soil. Either: the reported concentrations were all be below the site criteria; Or: 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; And: the 95 % UCL of the average concentration for each analyte was below the adopted 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 background soil concentrations that exceed appropriate site soil criteria?	If COPC concentrations in 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 was compared against EPA endorsed criteria and reported background concentrations. If the criteria stated above were satisfied, the answer to the decision was **No**. If the criteria were not satisfied, the answer to the decision was **Yes.**

Decision Required to be Made	Decision Rule
4. Have potential acid sulfate soil conditions been identified at the site that may require management during future remediation/construction activities?	Site investigation data including soil observations, field tests and laboratory analysis data representative of fill material and natural soil at the site was assessed in accordance with the requirements of ASSMAC (1997) enabling identification of ASS characteristics. Where conditions did not identify the exceedance of ASSMAC action criteria, the answer to the decision was **No**. If the criteria were identified to have been exceeded, the answer to the decision was **Yes**. In this instance, an acid sulfate soil management plan (ASSMP) will be required to address SEARs requirements.
5. Are there any impacts of chemical mixtures?	Were there more than one group of contaminants present which increased the risk of harm? If there was, 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 were any asbestos containing material (ACM) fragments on the ground surface, any unacceptable odours or soil discolouration, or excessive extraneous/foreign/waste materials, 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?	Based on assessment results, was there any evidence of, or the potential for, migration of unacceptable contaminant concentrations to migrate from the site? If yes, the answer to the decisions was **Yes**. Otherwise, the answer to the decision was **No**.
8. Is a site management strategy required?	Was the answer to any of the above decisions Yes? If **Yes**, a site management strategy was required. If **No**, a site management strategy was not required.

7.1.6 Specify the Limits on Decision Error

This step was to establish the decision maker's tolerable limits on decision errors, which were 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.

Specific limits for this project have been adopted in accordance with the appropriate guidance from the NSW EPA, National Environment Protection (Assessment of Site Contamination) Measure (ASC NEPM) (NEPC 2013[23]), appropriate Data Quality Indicators (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 DQI established for the project as discussed below in relation to precision, accuracy, representativeness, comparability and completeness (PARCCS parameters). The acceptable limit on decision error was 95% compliance with DQIs.

The DQIs and data assessment criteria are summarised following and presented in **Table 7.2**:

- **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

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[23] National Environment Protection (Assessment of Site Contamination) Measure 1999. As compiled 16 May 2013 National Environment Protection Council (NEPC 2013)

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 laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted site assessment criteria.

Table 7.2: Summary of DQIs

Data Quality Objectives	Frequency	Data Quality Indicator
Precision		
Blind 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.	-	Soil and Water Organics (7-14 days), inorganics (6 months soil, 28 days water), PFAS (14 days)
Trip spike	1 per sampling event	70-130% recovery
Trip Blank	1 per sampling event	<Limit of Reporting (LOR)
Rinsate blank	1 per sampling event (where non disposable equipment was used)	<LOR
Method blank	1 per lab batch	<LOR
Comparability		
Standard operating procedures for sample collection & handling	All Samples	All samples
Standard analytical methods used for all analyses	All Samples	National Association of Testing Authorities (NATA) Accreditation

Data Quality Objectives	Frequency	Data Quality Indicator
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples
Limits of reporting appropriate and consistent	All Samples	All samples
Completeness		
Sample description and COCs completed and appropriate	All Samples	All samples
Appropriate documentation	All Samples	All samples
Satisfactory frequency and result for QC samples	All QA/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 will be 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 will be completed during the DQI compliance assessment.

7.1.7 Optimise the Design for Obtaining the Data

The purpose of this step was 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. JBS&G propose to undertake the following supplementary investigations:

Various strategies for developing a statistically based sampling plan were identified in *Sampling Design Part 1 – Application* (EPA 2022[24]). EPA (2022) recommended that for sites with an area of approximately 1 ha, a minimum of 21 sampling locations was required. With regard to the current character of the site, inclusive of the bridge foundations present at the site and potential constraints on access to specific areas of the site, the proposed scope of work comprised installation of 15 locations.

The site history and setting were well understood where previous investigations across portions of the site advanced nine boreholes (E3C 2012 and CDM 2012a) and 13 test pits (RCA 2011 and NAA 2010). In addition, exclusion of the bridge pylon easement and exclusion zones around an identified high voltage power cable is considered appropriate, such that the implemented program of intrusive investigation targeting areas of concern while providing site coverage at the nominated density was appropriate, whilst below the NSW EPA (2022) generic minimum density of investigation.

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

- A combination of a systematic and targeted fill/soil sampling program was completed, sampling soil from boreholes. The soil sampling program was designed to characterise the identified data gap COPCs (both chemical and asbestos) across the extent of the Site. **Figure 5** presents the sampling locations.
- Boreholes using spiral augers of greater than 150 mm diameter was completed for asbestos in soil assessment purposes, given the existing pavement/hardstand characteristics and operational nature of the site, which did not allow for excavation of larger intrusive sampling

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[24] *Environment Protection Authority – Sampling Design Part 1 – Application – Contaminated Land Guidelines*. Environment Protection Authority, August 2022 (EPA 2022)

locations. Use of boreholes of this diameter is consistent with advice presented in WA DOH (2009) as referenced by NEPM (2013).

- Judgemental sample locations targeted areas of higher contamination potential (AECs) as identified in **Table 6.1**. On this basis, soil inspection, sampling and analysis was focused on such media.
- A groundwater investigation comprising the sampling of four existing groundwater wells at the site. The primary objective of the groundwater assessment was to provide a current assessment of 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.

7.2 Soil Sampling Methodology

7.2.1 General

Prior to intrusive works commencing at the site, the following was undertaken:

- Development of site-specific Safe Work Method Statements (SWMS) and Job Risk Assessments (JRAs) for site work;
- Completion of a Before You Dig Australia (BYDA) search; and
- Clearance of sample locations via a professional accredited service locator.

7.2.2 Boreholes

Soil samples (for chemical analysis) were collected via push tube sampling using a Geoprobe track mounted drilling rig at the nominated borehole locations. Where access restrictions were encountered, sample locations were advanced via the use of hand tools (hand auger). Soil samples at each location were collected at the ground surface (0-0.1 m) or directly below existing hardstand pavements, then at 0.3 m below ground surface (bgs) and at 0.5 m intervals to a maximum depth of 6 m or prior refusal.

During the collection of soil samples, material was inspected from each soil horizon/1 m interval and features such as seepage, discolouration, staining, odours, ACM and other indicators of contamination were noted on the borehole logs (**Appendix K**). A photographic log is included in **Appendix I**.

Collected samples were immediately transferred to laboratory supplied sample jars and bags (for asbestos analysis). The sample jars were 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. Preservation of the primary soil and QA/QC samples obtained during this investigation was completed in accordance with the protocols outlined in NEPC 2013. Based upon field observations, samples were analysed in accordance with the laboratory schedule in **Table 7.3**.

Not all samples collected were analysed. All samples remain at the primary laboratory for a period of two months for possible future analysis (subject to holding times), if required, following the receipt of sample results.

7.2.3 Field PID Screening

Soil samples were screened onsite during the works using a photo-ionisation detector (PID) to assess the potential presence of volatile organic compounds (VOCs). Samples obtained for PID screening were placed in a sealed plastic bag for a period of approximately 5 minutes to equilibrate, prior to a PID being attached to the bag. Readings were then monitored for a period of approximately 1 minute or until values stabilise and the stabilised/highest reading was recorded on the borehole logs. Calibration and decontamination documents are provided in **Appendix J.**

7.2.4 Asbestos Quantification of Accessible Fill Based Soils

Asbestos quantification sampling was conducted via installation of spiral auger boreholes (150 mm diameter) at the relevant sampling locations. Asbestos in soil was quantified by the methods advised in WA DoH (2009[25]) and NEPC (2013) guidelines by appropriately trained JBS&G scientist experienced in the identification of asbestos. The following method is adopted during excavation and drilling works:

- Boreholes were advanced through the fill soil profile at 1 metre intervals, or to the depth of different strata (whichever was shallower) and extended (where practicable) into the underlying natural soils;
- ACM was quantified by the methods advised in NEPC (2013), in accordance with DOH (2009) with 10 L samples from boreholes collected (per meter/fill stratum). All identifiable ACM or AF/FA was collected in separate sample bags (*i.e.*, one sample bag for bonded ACM and one sample bag for FA per each 1 m interval/fill stratum) for weighing using an independently calibrated scale (0.01 g accuracy) to enable asbestos in soil concentrations to be calculated;
- Where more than one distinct fill material was observed, separate asbestos calculation was completed for each material type;
- The 10 L sample was sieved using a 7 mm sieve and any ACM fragments retained in the sieve was collected, photographed, double bagged and then weighed using calibrated scales; and
- A field observation log for each sampling location was recorded, noting the presence, type and status or absence of asbestos, ground surface details (e.g., concrete, exposed soils or grass) lithological description, moisture, volume of spoil quantified at each depth and any other observable contamination indicators such as staining, malodorous materials, ash and slag.

Asbestos percentages in soil was calculated as per the formula below:

$$\%w/w\ asbestos\ in\ soil = \ \%\ asbestos\ content\ x \frac{(bonded\ ACM\ or\ FA)(kg)}{soil\ volume\ (L)\ x\ soil\ density\ (kg/L)}$$

For bonded ACM, an asbestos content of 15% was used, in accordance with enHealth (2013[26]).

For FA, a conservative asbestos content of 100% was used.

7.3 Monitoring Well Sampling Methodology

Four groundwater monitoring wells were located onsite and were sampled by JBS&G as part of the current intrusive investigation. Given the time since installation/previous sampling, the wells were developed with high density polyethylene (HDPE) developing tubing and attached foot valve. Development was undertaken until dry or until eight casing volumes have been removed and minimal silt remaining.

7.3.1 Groundwater Sampling

Monitoring wells were sampled after a minimum of three days subsequent to 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 PFAS/PFOS samples:

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[25] *Guidelines for the Assessment Remediation and Management of Asbestos-Contaminated Sites in Western Australia*, 2009. Western Australia Department of Health (WA DoH), (WA DoH 2009)

[26] *Asbestos, A guide for householders and the general public, enHealth, February 2013 (enHealth 2013).*

- Before and between sampling each well, the interface probe and all other non-disposable equipment (i.e. HydraSleeve weights and clips) were 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 HydraSleeve sampler comprised a flexible 3mm thick lay-flat polyethylene sleeve with a weight on the bottom and check valve on the top and was lowered into the well to the prescribed sampling depth (i.e. within the screened interval).
- The correct HydraSleeve size selection for each monitoring well was undertaken. After placement in the monitoring well, the HydraSleeve was left for a minimum of one hour to allow the water column to re-equilibrate following the minor disturbance that occurred during deployment.
- The groundwater samples were collected by pulling the HydraSleeve up through the water column and to the surface. The recovered water sample were then decanted into the appropriate laboratory supplied sample bottles.
- Collected groundwater samples were immediately transferred to sample containers of appropriate composition (non-Teflon lined), which were pre-treated in a manner appropriate for the laboratory analysis. Groundwater samples were obtained in a manner that ensures no headspace remained in the bottles.
- Each of the sample bottles were labelled only using ball point pens with the project ID, date, sampler's initials and unique monitoring well ID (or QC sample name).
- In order to minimise exposure to sunlight, sample bottles were placed immediately into a pre-chilled ice chest, for transport to the testing laboratories.

Following the sampling for PFAS/PFOS as described above, the wells were purged and sampled using a low-flow methodology with peristaltic pump for all other constituents. Purging was undertaken to ensure the sample collected was representative of groundwater conditions. Field parameters of Ph, conductivity, redox and temperature were measured with field electrodes in a flow cell and samples obtained once the parameters stabilised such that:

- Consecutive electrical conductivity (EC) readings within 3%;
- Consecutive redox (Eh) readings within 10Mv;
- Consecutive DO readings within 10%; and
- Consecutive Ph readings within 0.5.

JBS&G utilised a low-flow peristaltic pump with dedicated tubing to purge and sample wells. JBS&G considered that this method was appropriate and does not result in measurable loss of VOCs when sampling at low flow rates in shallow groundwater and provided a significantly lower risk of cross-contamination between locations due to use of dedicated materials. Non-disposable groundwater monitoring equipment were decontaminated in accordance with the procedure detailed below in between each monitoring well.

Collected groundwater samples were immediately transferred to laboratory supplied sample bottles in the order of those for 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 7.3.**

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

7.4 Decontamination

Prior to the commencement of soil and groundwater sampling activities, non-disposable sampling equipment was cleaned with deionized water/detergent spray, rinsed with water and then air dried. 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.

A rinsate sample was obtained from non-disposable sampling equipment following completion of each day of field sampling activities to determine the effectiveness of the decontamination procedures implemented on re-usable sampling equipment.

Records of decontamination are provided in **Appendix J.**

7.4.1 Duplicate Sample Preparation

At selected sample points sufficient soil and groundwater was collected to provide a primary, blind (intra-lab) duplicate and split (inter-lab) duplicate samples. The collected samples were divided laterally into three samples with minimal disturbance to reduce the potential for loss of volatiles and placed in three clean glass jars, sample bags and sampling bottles as appropriate. Soil samples were not homogenised in order to minimise the loss of volatiles. Each sample was labelled with primary, duplicate or triplicate sample identification before being placed in the same chilled esky for transport to the laboratory.

7.5 Analytical Methodology

JBS&G proposed to contract Eurofins/mgt (Eurofins) as the primary laboratory, with Envirolab Services (Envirolab) as the secondary laboratory. Both laboratories were National Association of Testing Authorities (NATA) registered for the required analyses. In addition, the laboratories were required to meet JBS&G's internal QA/QC requirements. **Figure 5** presents the sampling locations.

Table 7.3: Analytical Schedule

Sample Type	No. of Sample Points	Analyses (exc. QA/QC)
Soil		
Soil (near surface fill)	15	Heavy Metals – 15 samples TRHs/BTEX – 15 samples PAHs – 15 samples OCPs/PCBs – 15 samples PFAS (30 compounds) – 4 samples Asbestos (500 ml) – 15 samples Cation exchange capacity (CEC)/Ph/Clay% - 3 samples TCLP/ASLPs – 5 samples
Soil (fill/subsurface fill)		Heavy Metals – 15 samples TRHs/BTEX – 16 samples VOCs – 5 samples PAHs – 15 samples OCPs/PCBs – 8 samples PFAS (30 compounds) – 2 samples Asbestos (500 ml) – 15 samples CEC/Ph/Clay% - 3 samples TCLP/ASLPs – 5 samples
Soil (natural)		Heavy Metals – 2 samples TRHs/VOCs – 6 samples PAHs – 6 samples Spocas – 10 samples
Groundwater	5	Heavy Metals – 5 samples TRHs/VOCs – 5 samples PAHs (low level) – 5 samples PFAS (low level) – 5 samples Ph, electrical conductivity, total dissolved solids, hardness – 5 samples

8. Assessment Criteria

8.1.1 Regulatory Guidelines

Development of site assessment criteria and the associated scope of investigation was undertaken with consideration to aspects of the following guidelines, as relevant:

- *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013),* National Environment Protection Council (NEPC 2013);
- *Environment Protection Authority – Sampling Design Part 1 – Application*. Contaminated Land Guidelines, August 2022 (EPA 2022)
- *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme*, 3rd Edition, NSW EPA, 2017 (EPA 2017);
- *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, 29 August 2018, (ANZG 2018);
- *Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination*, NSW DEC, March 2007 (DEC 2007);
- *Contaminated Sites: Guidelines on Duty to Report Contamination under the Contaminated Land Management Act 1997*, NSW EPA, September 2015 (EPA 2015);
- *Guidelines for the Assessment Remediation and Management of Asbestos-Contaminated Sites in Western Australia*, Western Australia Department of Health, 2009 (WA DoH 2009);
- *Consultants Reporting on Contaminated Land – Contaminated Land Guidelines*, April 2020, NSW Environmental Protection Authority (EPA 2020);
- *PFAS National Environmental Management Plan Version 2.0, January 2020*. National Chemicals Working Group of the Heads of EPAs Australia and New Zealand (HEPA, NEMP 2.0, 2020);
- *Waste Classification Guidelines, Part 1: Classifying Waste.* NSW EPA 2014 (EPA 2014); and
- *Addendum to the Waste Classification Guidelines (2013) – Part 1: Classifying Waste*. NSW EPA October 2016 (EPA 2016).

8.1.2 Soil Assessment Criteria – Contamination

As per the decision process for assessment of urban development sites (EPA 2017), a set of health and ecological assessment thresholds derived from NEPC (2013) were used for evaluation of site contamination data collected for this assessment. Given the proposed public/open space land use, the site was compared to the following criteria.

Relevant guidelines are presented below:

- Health Investigation Levels (HILs) for recreational / public open space (HIL C) land use scenarios;
- Soil Health Screening Levels (HSLs) for Vapour Intrusion, recreational / public open space (HSL C) land use scenario;
- HSLs for asbestos levels in soil for recreational / public open space (HSL C) land use scenario;
- Site specific Ecological Investigation Levels (EILs) for urban residential / public open space land use scenarios;
- Ecological Screening Levels (ESLs) for urban residential / public open space land use scenarios;

- Management limits for petroleum hydrocarbons for residential, parkland and public open space land use scenarios. Following the NEPM guidance, Management limits are considered only after HIL/HSLs and EIL/ESLs; and
- HEPA NEMP 2.0 Human Health Screening Values and Ecological direct and in-direct exposure for public open space land use scenarios were applied for PFAS compounds.

The results of asbestos analysis were assessed in general accordance with NEPC (2013) including DOH (2009[27]) guidance.

Aesthetics were also considered in the assessment of site suitability consistent with EPA (2017) and NEPC (2013).

Where there was no NSW EPA endorsed thresholds, the laboratory limit of reporting (LOR) was adopted as an initial screening value for the purposes of this assessment.

The adopted soil assessment criteria are presented in the results tables included as **Tables A1, A2, A3, B and C**, **Appendix A**.

The methodology to derive ecological investigation levels (EILs) as presented in NEPC (2013) accommodates consideration of ambient background concentrations (ABCs) and added contaminant limits (ACLs) based on a range of physicochemical soil properties. The derived EILs for the Site are presented in **Table 8.1** as applicable for urban residential and open public space land-uses where it has been assumed traffic volume was high and that site contaminants in soils are from an 'aged' source, based on the age of the current development.

Table 8.1: Derivation of EILs

Physical Parameters (Averaged)		
Average CEC (meq/100g)	**Average Ph (Ph units)**	**Total Organic Carbon Content (%)**
17.98	**8.1**	**1.82**
Investigation Levels		
	Site Specific EIL*	
Contaminant	**Urban Residential and Public Open Space**	
Arsenic	100	
Chromium (III)	190	
Copper	230	
DDT	180	
Lead	1100	
Naphthalene	170	
Nickel	240	
Zinc	720	

* EILs generated from the EIL Interactive Calculation Spreadsheet (December 2010) from the ASC NEPM Toolbox provided by NEPC

Consideration was also given to the Canadian Council of Ministers of the Environment (CCME 2010[28]) where PAH concentrations exceeded the current NSW EPA endorsed criteria to support decisions with respect to the requirement for management/remediation of soil with elevated PAH concentrations.

8.1.3 Soil Assessment Criteria – Acid Sulfate Soil

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*

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[27] *Guidelines for the Assessment Remediation and Management of Asbestos-Contaminated Sites in Western Australia*, May 2009. Western Australia Department of Health (DOH), (DOH 2009)

[28] *Canadian Soil Quality Guidelines for Carcinogenic and Other Polycyclic Aromatic Hydrocarbons (Environmental and Human Health Effects).* Scientific Criteria Document (revised), Canadian Council of Ministers of the Environment, 2010 (CCME 2010)

Sulfate Soil Manual (ASSMAC 1998[29]), as presented in **Table 8.1** below. Where results exceeded the site action criteria, material was considered to comprise Potential/Actual Acid Sulfate Soil.

Soil criteria are provided in **Tables A-C, Appendix A** with the summarised results of laboratory analysis.

Table 8.1: 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

8.1.4 Site Assessment Criteria – Groundwater

Groundwater samples were analysed according to the following guidelines:

- Groundwater health screening levels (HSLs) for vapour intrusion in coarse soil as presented in NEPC (2013);
- Criteria for the 95% protection in marine ecosystems presented in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG) (ANZG 2018);
- NEPC (2013) Groundwater Investigation Levels (GILs) Marine Waters;
- PFAS National Environmental Management Plan (NEMP) Tier 1 Screening Values for Fresh Water (99% Species Protection) (HEPA 2020); and
- Drinking water and recreational criteria will be adopted as a conservative assessment of worker exposure risk during potential excavation works involving interaction with groundwater, from the Australian Drinking Water Guidelines NHMRC (2011[30]) (Recreational is 10x the drinking water criteria for health).

Where there were no NSW EPA endorsed thresholds, the laboratory LOR was adopted as an initial screening value for the purpose of this assessment in lieu of site-specific risk assessment derived criteria.

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[29] *Acid Sulfate Soil Manual*, New South Wales Acid Sulfate Management Advisory Committee, August 1998 (ASSMAC 1998)

[30] Australian Drinking Water *Guidelines* (ADWG) NHMRC (2011, as amended 2016)

9. Quality Assurance /Quality Control

Data quality indicators (DQIs) have been calculated as per the requirements of **Table 7.2** and are summarised in **Table 9.1** following. Laboratory reports are provided as **Appendix L**, with summarised QA/QC results presented in **Appendix M**.

Table 7.1: Summary of Quality Assurance / Quality Control Assessment

Data Quality Indicator	Results Reported	DQI met
Precision		
Blind duplicates – soil	0-173 % RPD	See discussion below
Blind duplicates – groundwater	0-67 % RPD	See discussion below
Split duplicates – soil	0-178 % RPD	See discussion below
Split duplicates – groundwater	0-109 % RPD	See discussion below
Laboratory Duplicates	0-120 % RPD	See discussion below
Accuracy		
Surrogate spikes – soil	50-INT % recovery	See discussion below
Surrogate spikes – groundwater	25-169 % recovery	See discussion below
Laboratory control samples	70-133 % recovery	See discussion below
Matrix spikes	59-141 % recovery	See discussion below
Representativeness		
Sampling appropriate for media and analytes	All sampling appropriate	Yes
Samples extracted and analysed within holding times.	All samples extracted and analysed within holding times	See discussion below
Method blank	<LOR	
Trip blank (soil and groundwater) Trip Spike (soil and groundwater)	<LOR Recovery within 70-130%	Yes
Field Blank	<LOR-detects	See discussion below
Comparability		
Standard operating procedures for sample collection & handling	Standard procedures for all sampling	Yes
Standard analytical methods used for all analyses	Standard analytical methods	Yes
Consistent field conditions, sampling staff and laboratory analysis	Consistent field staff and consistent field and laboratory conditions	Yes
Limits of reporting appropriate and consistent	LORs appropriate and generally consistent	
Completeness		
Sample description and COCs completed and appropriate	Field documentation and COC provided and completed	Yes
Appropriate documentation	Documentation provided and completed	Yes
Satisfactory frequency and result for QC samples	The QC results are considered adequate for the purposes of the investigation.	Yes
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	LOR ≤ site assessment criteria	Yes

9.1 Discussion of QA/QC Results

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

9.1.1 Precision

Soil Duplicates

Soil blind and split duplicates were collected at a rate of greater than 1 per 20 primary samples. The resultant RPDs met the DQI with the exception of some heavy metals, TRH and PAH analytes which are considered to be a result of the difficulty in obtaining a homogeneous soil sample in undisturbed sample types. As a conservative measure, the highest reported concentration was considered when interpreting the results of the investigation.

Groundwater Duplicates

Groundwater blind and split duplicates were collected at a rate greater than 1 per 20 primary samples. The resultant RPDs met the DQI with the exception of one heavy metal analyte (arsenic) and two PFAS analytes (PFOA and PFHxS). The elevated RPD are considered to be a result of the reported concentrations been close to the laboratory LOR and the elevated RPDs are not considered to affect the outcomes of the assessment. As a conservative measure, the highest reported concentration was considered when interpreting the results of the investigation.

Laboratory Duplicates

All reported laboratory duplicate RPDs were within JBS&G adopted range (0-50%) with the exception of some heavy metal, TRH and PAH analytes that passed Eurofins Environment Testing's Acceptance Criteria.

9.1.2 Accuracy

Surrogate Spikes

Soil and groundwater surrogate spikes were conducted on all samples submitted for organic constituent analysis. Most soil and groundwater recoveries were reported within the preferred range (70-130 %). A small number of surrogates (in soil) were reported outside the preferred range, but within the laboratory's acceptable limits (between 50 and 150 % recovery) under their NATA accreditation. It is noted that recoveries for some PFAS, OCP and PCB surrogates in some soil samples could not be determined due to chromatographic interference. Where the surrogate recovery could not be determined, acceptable recoveries were obtained for the second surrogate.

A small number of surrogates (in groundwater) were reported outside the preferred range, but within the laboratory's acceptable limits (between 50 and 150 % recovery) under their NATA accreditation with the exception of some PFAS analytes. The laboratory reviewed the results where no positive PFAS results have been reported and no data was affected. Only one PFAS analyte Perfluoropentanoic acid (PFPeA) was not reviewed by the lab which reported positive PFAS result and surrogate recovery of 42%.

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.

Elevated surrogate recoveries indicate that reported concentrations may potentially be greater than the actual concentrations, while low surrogate recoveries indicate that 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 below the adopted site assessment criteria.

Matrix Spikes

The reported matrix spike recoveries were within JBS&G's preferred range (70-130%) except for ten PFAS analytes which slightly exceeded JBS&G's preferred range but were within the laboratory's acceptable range of 50-150% for PFAS. Two OCP analytes were also outside JBSG'S preferred range, however an acceptable recovery was obtained for the laboratory control sample, indicating a sample matrix interference.

On this basis DQIs for accuracy are considered to have been achieved for this investigation.

Laboratory Control Samples

A sufficient number of laboratory control samples were analysed for all media types. The reported laboratory control sample recoveries were within the JBS&G preferred range (70-130%) except for four PFAS analytes which slightly exceeded JBS&G's preferred range but were within the laboratory's acceptable limits (50-150%) for PFAS.

9.1.3 Representativeness

Sampling appropriate for media and analytes

All soil and groundwater 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/hardstand and the site was an operating marine/recreational dragon boat storage/maintenance year, it was considered the only practical method for completing the assessment.

Groundwater sampling was completed using a combination of Hydrasleeves and low flow peristaltic pump which are also considered appropriate for the potential site contaminants in groundwater.

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 of selected soil and groundwater were all completed within the recommended holding times for all analytes.

Trip Spike

A trip spike was submitted with each batch of soil and groundwater samples. All trip spike recoveries were within the acceptable limit of 70-130 %, indicating that the adopted assessment sample preservation methods were appropriate to result in a low risk of contaminant concentration loss during transport of the samples.

Trip Blank

A trip blank was submitted with the batch of soil and groundwater samples submitted to the laboratory. There were no reported concentrations of BTEX compounds above the laboratory LOR thus demonstrating the absence of significant contaminant cross contamination issues during the temporary storage and transportation of samples analysed during this investigation.

Rinsate

Rinsate samples were collected during soil and groundwater sampling activities. With the exceptions of 0.001 mg/L chromium, 0.002 mg/L copper and 0.001 mg/L lead from the rinsate collected off the interface probe during groundwater sampling, all other analyte concentrations in the rinsate samples were all below the LOR. Noting that the groundwater results are consistent with previous results (CDM 2012), the concentrations in the rinsate sample are attributed to the rinsate water and are not considered to affect the reliability of the groundwater data.

9.1.4 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.

It is noted that as a result of elevated PAH compound concentrations generating matrix interference, the LOR in one sample (BH16 0.8-0.9) for F1 hydrocarbons (C_6-C_{10} minus BTEX) was reported as <200 mg/kg, which exceeds the adopted ESL criteria for Urban residential and public open space, coarse soil (180 mg/kg). This is not considered to affect the reliability of the data due to the presence of other contaminant exceedances within the sample which will require management.

9.1.5 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.

9.2 QA/QC Assessment

The field sampling and handling procedures produced QA/QC results which indicate that the soil and groundwater 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 and groundwater data are of an acceptable quality in order to achieve the objectives of the assessment.

10. Soil Assessment

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

10.1 Field Observations

Field works were conducted on 14 and 15 April 2023 and on 5 May 2023 and included the advancement of 11 boreholes and four hand augers across the site. Hand augers were advanced in areas where accessibility was limited (BH01 and BH02) or where services were in close proximity to the borehole location (BH06 and BH09). The completed sample locations are shown on **Figure 5**.

Fill material was encountered at all sampling location ranging in depth from 0.0 to 6.0 m bgs (noting further discussion of obstructions below). The fill comprised of silty sand, gravelly sand, clayey sand, clayey sand, sandy gravels, sandy clay, sandstone and ash, ranging in colour between brown, dark brown, grey and black with inclusions of slag, ash, charcoal, seashells, wood, gypsum, brick, sandstone and concrete fragments.

Additional observations made during the test pit program are summarised in the following points:

- In addition to the ash observed in the majority of the sampling locations, an ash layer was observed in two boreholes with a thickness of 0.1 m (BH11 0.8-0.9) and 0.2 m (BH13 0.9-1.1);
- Two vents possibly linked to a potential UST were observed in the northern portion of the site, as presented in **Figure 2B**. These could not be inspected in detail due to the presence of heritage items within the suspected UST area;
- Hydrocarbon odours were observed at borehole BH16 in fill material between 0.0 and 1.0 m bgs;
- Proposed BH10 was not advanced due its location within the vicinity of multiple stormwater services and the electric easement;
- Six boreholes did not reach the extent of fill material for the following reasons:
    - BH01: borehole advanced via hand auger due to limited accessibility and refused on a potential concrete or sandstone obstruction at 0.4 m bgs;
    - BH02: borehole advanced via hand auger due to limited accessibility and terminated at 1.0 m bgs;
    - BH06: borehole advanced via hand auger due to presence of electrical services and terminated at 1.0 m bgs;
    - BH07: refusal on a potential concrete obstruction at 5.5 m bgs;
    - BH09: borehole advanced via hand auger due to presence of electrical easement and terminated at 0.3 m bgs due to presence of electrical services; and
    - BH12: borehole advanced to the programmed depth.

There were no significant indicators (odours or staining) of potential contamination within the fill or natural materials observed elsewhere across the site, apart from the potential ASS observed in fill and natural soils.

The fill material was underlain by natural grey/brown/red/ sandy clay, grey/brown/red/grey gravelly sand and clayey gravelly sand and grey/yellow/brown/white/red sandstone. Seepage was observed at four sampling locations (BH04, BH07, BH08 and BH12) with the depth ranging between 3.0 m bgs (BH04) and 4.7 m bgs (BH12).

10.2 Field Asbestos Quantification

Results of the quantification assessment are provided in **Table C, Appendix A**.

No ACM was observed within fill material at all sampling locations completed for this investigation including within ten litre samples representative of the respective fill profiles collected at all sampling locations for the purposes of asbestos quantification. The results are presented in **Table C, Appendix A**.

10.3 Analytical Results

Soil analytical results summary tables for the current investigation are provided in **Tables A1, A3, B** and **C, Appendix A**. Historical samples from the previous investigations within the Site (NAA 2010, RCA 2011, E3C 2012a and CDM 2012a) are also provided in **Table A2, Appendix A**. Comments about analytical results including previous investigations with comparison against the current adopted site criteria are provided following. BH05_0.2-0.3 was analysed twice in order to confirm the initial reported data.

10.3.1 Heavy Metals

JBS&G 2023

Heavy metal concentrations in analysed samples were reported to be below the adopted site assessment criteria with the exception of the following:

- Lead was reported in exceedance of the adopted HIL criteria for recreational / public open space (HIL-C) land use (600 mg/kg) in seven samples ranging between 700 mg/ kg (BH02 0.9-1.0) and 40,000 mg/kg (BH05 0.2-0.3). The lead concentrations also exceeded the site specific EIL criteria for Urban, Residential and Public Open Space (1100 mg/kg) in three samples with concentrations of 1,300 mg/kg (BH01 0.3-0.4), 1,400 mg/kg (BH05 0.5-0.6) and 40,000 mg/kg (BH05 0.2-0.3);
- Copper was reported at concentrations exceeding the adopted site specific EIL criteria for Urban, Residential and Public Open Space (220 mg/kg) in three samples ranging between 370 mg/kg (QC03, parent sample BH02 0.2-0.3) and 880 mg/kg (BH05 0.2-0.3); and
- Zinc was reported at concentrations exceeding the adopted site specific EIL criteria (720 mg/kg) in three samples ranging between 890 mg/kg (BH15 0.9-1.0) and 3,600 mg/kg (BH05 0.2-0.3).

It is noted that BH05 (0.2-0.3) was analysed twice to confirm the initial reported result was valid. All results are presented in **Table A1, Appendix A.**

E3C 2012a

Heavy metal concentrations in analysed samples were reported to be below the adopted site assessment criteria in samples selected for analysis with the exception of the following:

- Lead was reported to be in exceedance of the adopted HIL criteria for recreational / public open space (HIL-C) land use (600 mg/kg) in one sample (BH01 1.6-1.8) with a concentration of 880 mg/kg; and
- Arsenic was reported to be in exceedance of the adopted site specific EIL criteria (100 mg/kg) in one sample (BH01 1.6-1.8) with a concentration of 150 mg/kg.

CDM 2012a

Heavy metal concentrations in analysed samples were reported to be below the adopted site assessment criteria in samples selected for analysis with the exception of the following:

- Lead was reported to be in exceedance of the adopted HIL criteria (600 mg/kg) and the adopted site specific EIL criteria (1,100 mg/kg) in two samples at 2,100 mg/kg (BH01 4.4-4.7) and 3,000 mg/kg (BH02 0.5-0.6); and
- Zinc was reported to be in exceedance of the adopted site specific EIL criteria (720 mg/kg) in two samples at 820 mg/kg (BH01 4.4-4.7) and 2,800 mg/kg (BH06 0.15-0.2).

RCA 2011

Heavy metal concentrations in all analysed samples were reported to be below the adopted site assessment criteria in all samples selected for analysis.

NAA 2010

Heavy metal concentrations in all analysed samples were reported to be below the adopted site assessment criteria in all samples selected for analysis.

10.3.2 TRH and BTEX

JBS&G 2023

TRH and BTEX concentrations were reported to be below the laboratory limit of reporting (LOR) or less than the adopted assessment criteria in samples selected for analysis with the exception of the following:

- $C_{>16}$-C_{34} fraction hydrocarbons were reported to be in exceedance of the adopted ESL criteria for Urban residential and public open space, coarse soil (300 mg/kg) in seven samples with concentrations ranging between 360 mg/kg (BH14 0.5-0.6) and 9,700 mg/kg (BH05 0.2-0.3);
- $C_{>16}$-C_{34} fraction hydrocarbons was also reported to be in exceedance of the adopted management limits criteria for residential and parkland, coarse soil (2,500 mg/kg) in one sample (BH05 0.2-0.3) with a concentration of 5,100 mg/kg;
- It is noted that as a result of elevated PAH compound concentrations, the LOR in one sample (BH16 0.8-0.9) for F1 hydrocarbons (C_6-C_{10} minus BTEX) was reported as <200 mg/kg, which exceeds the adopted ESL criteria for Urban residential and public open space, coarse soil (180 mg/kg); and
- F2 hydrocarbons (C_{10}-C_{16} less naphthalene) were reported to be in exceedance of the adopted ESL criteria (120 mg/kg) in two samples with concentrations of 355.3 mg/kg (BH16 0.2-0.3) and 639.1 mg/kg (BH05 0.2-0.3).

E3C 2012a

At the time of the previous investigations petroleum hydrocarbon were assessed under NEPC (1999) and EPA (1994), which have since been updated to NEPM (2013) which resulted in a change from assessment under TPH fractions to TRH fractions (comprising different carbon chain links). On this basis, the TPH results from the previous investigations were compared against the criteria in force at the time of the investigations (EPA 1994).

TPH and BTEX concentrations were reported to be below the laboratory limit of reporting (LOR) or less than the adopted assessment criteria in all samples selected for analysis with the exception of C_{10}-C_{36} fraction hydrocarbon in one sample (BH01 0.5-0.7) with a concentration of 3,200 mg/kg, in exceedance of the adopted EPA criteria (1,000 mg/kg)

CDM 2012a

TPH and BTEX concentrations were reported to be below the laboratory limit of reporting (LOR) or less than the adopted assessment criteria in samples selected for analysis with the exception of C_{10}-C_{36} fraction hydrocarbons reported to be in exceedance of the adopted EPA criteria

(1,000 mg/kg) in five samples with concentrations ranging between 1,180 mg/kg (BH03 0.18-0.26) and 2,500 mg/kg (BH01 0-0.15).

RCA 2011

TRH and BTEX concentrations were reported to be below the laboratory limit of reporting (LOR) or less than the adopted assessment criteria in all samples selected for analysis with the exception of C_{10}-C_{36} fraction hydrocarbons reported in exceedance of the adopted EPA criteria (1,000 mg/kg) in two samples with concentrations ranging between 1,700 mg/kg (TP1A) and 5,000 mg/kg (TP11B).

NAA 2010

TRH and BTEX concentrations were reported to be below the laboratory limit of reporting (LOR) or less than the adopted assessment criteria in all samples selected for analysis with the exception of C_{10}-C_{36} fraction hydrocarbons in exceedance of the adopted EPA criteria (1,000 mg/kg) in two samples with concentrations ranging between 1,040 mg/kg (TP07 0.3) and 1,100 mg/kg (TP05 0.4).

10.3.3 PAHs

JBS&G 2023

The reported PAH concentrations were below the laboratory LOR or adopted site assessment criteria in samples with the exception of the following:

- B(a)p was reported to be in exceedance of the adopted ESL criteria (0.7 mg/kg) in 11 samples with concentrations ranging between 0.8 mg/kg (BH16 0.2-0.3) and 22 mg/kg (BH16 0.8-0.9). It is noted that 10 of the 11 sample concentrations are below the CCME criteria (20 mg/kg); and
- B(a)p TEQ was reported to be in exceedance of the adopted criteria for recreational / public open space (HIL-C) land use (3 mg/kg) in eight samples with concentrations ranging between 3.1 mg/kg (BH15 0.9-1.0) and 37 mg/kg (BH16 0.8-0.9).

E3C 2012

The reported PAH concentrations were below the laboratory LOR or adopted site assessment criteria in samples with the exception of the following:

- B(a)p was reported to be in exceedance of the adopted ESL criteria (0.7 mg/kg) in four samples with concentrations ranging between 2.3 mg/kg (BH02 1.2-1.4) and 9.9 mg/kg (BH01 0.5-0.7). It is noted that all sample concentrations are below the CCME criteria (20 mg/kg); and
- B(a)p TEQ was reported to be in exceedance of the adopted criteria for recreational / public open space (HIL-C) land use (3 mg/kg) in four samples with concentrations ranging between 3.3 mg/kg (BH02 1.2-1.4) and 13.3 mg/kg (BH01 0.5-0.7).

CDM 2012b

The reported PAH concentrations were below the laboratory LOR or adopted site assessment criteria in samples with the exception of the following:

- B(a)p was reported to be in exceedance of the adopted ESL criteria (0.7 mg/kg) in four samples with concentrations ranging between 3.5 mg/kg (BH03 0.18-0.26) and 23.6 mg/kg (BH01 0-0.15). It is noted that three of the four sample concentrations are below the CCME criteria (20 mg/kg); and
- B(a)p TEQ was reported to be in exceedance of the adopted criteria for recreational / public open space (HIL-C) land use (3 mg/kg) in four samples with concentrations ranging between 3.3 mg/kg (BH02 1.2-1.4) and 13.3 mg/kg (BH01 0.5-0.7).

<u>*RCA 2011*</u>

The reported PAH concentrations were below the laboratory LOR or adopted site assessment criteria in all samples with the exception of the following:

- B(a)p was reported to be in exceedance of the adopted ESL criteria (0.7 mg/kg) in five samples with concentrations ranging between 1.2 mg/kg (TP8A 0.2-0.3) and 120 mg/kg (TP2A+TP6A (composite)); It is noted that four of the five sample concentrations are below the CCME criteria (20 mg/kg);
- B(a)p TEQ was reported to be in exceedance of the adopted criteria (3 mg/kg) in three samples with concentrations ranging between 4.6 mg/kg (TP1A 0.3-0.4) and 210 mg/kg (TP2A+TP6A (composite)); and
- Total PAHs were reported to be in exceedance of the adopted criteria for recreational / public open space (HIL-C) land use (300 mg/kg) in one sample (TP2A+TP6A (composite)) with a concentration of 2,037 mg/kg.

<u>*NAA 2010*</u>

The reported PAH concentrations were below the laboratory LOR or adopted site assessment criteria in samples with the exception of the following:

- B(a)p was reported to be in exceedance of the adopted ESL criteria (0.7 mg/kg) in six samples with concentrations ranging between 1.3 mg/kg (TP02 0.5) and 41 mg/kg (TP05 0.4). It is noted that three of the six sample concentrations are below the CCME criteria (20 mg/kg);
- B(a)p TEQ was reported to be in exceedance of the adopted criteria (HIL-C, 3 mg/kg) in six samples with concentrations ranging between 10.3 mg/kg (TP03 0.6) and 54.8 mg/kg (TP05 0.4); and
- Total PAHs were reported to be in exceedance of the adopted criteria for recreational / public open space (HIL-C) land use (300 mg/kg) in two samples with concentrations ranging between 326.6 mg/kg (TP05 0.4) and 333.3 mg/kg (TP07 0.3).

10.3.4 OCP/PCBs

<u>*JBS&G 2023*</u>

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

<u>*E3C 2012*</u>

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

<u>*CDM 2012b*</u>

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

<u>*RCA 2011*</u>

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

<u>*NAA 2010*</u>

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

10.3.5 VOCs

JBS&G 2023

The reported concentrations of VOCs were below the laboratory LOR and adopted site criteria in all samples selected for analysis.

E3C 2012a

VOC analysis was not conducted during this investigation.

CDM 2012a

The reported concentrations of VOCs were below the laboratory LOR and adopted site criteria in all samples selected for analysis.

RCA 2011

VOC analysis was not conducted during this investigation.

NAA 2010

The reported concentrations of VOCs were below the laboratory LOR and adopted site criteria in all samples selected for analysis.

10.3.6 PFAS

JBS&G 2023

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

E3C 2012a, CDM 2012a, RCA 2011 and NAA 2010

PFAS analysis was not conducted as part of the previous investigations.

10.3.7 Asbestos

JBS&G 2023

Asbestos was generally reported to be present below the laboratory LOR in soil samples selected for analysis with the exception of the following:

- ACM was detected in BH01 0.0-0.4 (0.35 %w/w) at a concentration exceeding the adopted Health Screening Levels (HSL) criteria for public open space land use (0.02 %w/w);
- Asbestos Fines (AF) were detected in BH01 0.0-0.4 (0.0019 %w/w) exceeding the adopted Health Screening Levels (HSL) criteria for all land uses (0.001 % w/w);
- AF were detected in BH05 0.2-1.2 (0.00016 %w/w) and BH05 1.2-2.2 (0.0005 %w/w) at concentrations below the adopted criteria for all land uses (0.001%); and
- Friable asbestos (FA) was detected in BH09 0.0-0.3 (0.00043 %w/w) at a concentration below the adopted criteria for all land uses (0.001%).

E3C 2012a, CDM 2012a, RCA 2011 and NAA 2010

Asbestos presence/absence was conducted during the CDM (2012a) and NAA (2010) investigations with all samples submitted for analysis reporting the absence of asbestos. The scope of the remaining historical investigations did not include analysis for asbestos in soil.

10.3.8 Leachability Assessment

A leachate assessment (ASLPs) was conducted on three samples comprising some of the highest recorded concentrations for heavy metals and B(a)P during the JBS&G 2023 assessment. The results are presented in **Table A3, Appendix A**.

The ASLP B(a)P results for three samples were all reported to be less than the laboratory LOR, indicative of non-leaching conditions.

Three ASLP samples were analysed for lead, with the concentrations ranging from LOR (0.01 mg/L) to 1.4 mg/L (BH05 0.2-0.3), indicative of variable leaching conditions. The BH05 (0.2-0.3) sample was analysed for a broader range of heavy metals, with concentrations of copper (0.09 mg/L), mercury (0.006 mg/L), and zinc (0.42 mg/L) exceeding the LOR and adopted assessment criteria.

10.4 Acid Sulfate Soil Assessment

10.4.1 Field Observations

Field acid sulfate soil (ASS) screening was conducted at boreholes advanced as part of the investigation with the summarised results presented in **Table B**, **Appendix A**. There were no indications (comprising visual or olfactory) of potential ASS materials within fill based (comprising dark brown/black clayey sand) soils. This is consistent with the observation that the materials were likely sourced from a land-borne excavation (owing to the presence of sandstone and concrete within the materials) and likely not from alluvial materials.

Moderate to strong reactions were observed within fill black sand and brown clayey gravelly sand and natural light brown/light grey/red sandstone materials with Ph_{ox} values in 3 samples being less than Ph4 and associated with significant drops from Ph_{KCl} to Ph_{ox} values.

10.4.2 Analytical Results

Detailed laboratory analysis reports and corresponding chain of custody documentation are provided in **Appendix L.** A summary of the results is provided below. Physical observations and the field test results were considered in selection of samples for Spocas laboratory analysis.

Six samples of natural material and four samples of fill material were assessed for the presence of ASS via the Spocas analysis method. The results from these samples as presented in **Table B**, **Appendix A** are summarised as follows:

- One sample of natural gravelly sand and three samples of fill black sand, dark brown/black clayey sand and brown clayey gravelly sand were reported to have peroxide oxidisable sulfur (S_{pos}%) values exceeding the assessment criteria (0.03%), comprising 0.05% S (BH12 5.9-6.0) 0.92% S (BH12 5.0-5.1), 0.4 % S (BH04 5.9-6.0) and 0.26 % (BH07 5.4-5.5); and
- The recorded TPA and TSA were all <2 mol H^+/t, with the exception of the following:
    - BH03 1.9-2.0 which reported TPA of 2.6 mol H^+/tonne, less than the adopted 18 mol H^+/tonne criteria;
    - BH12 5.0-5.1 with TPA and TSA of 88 mol H^+/tonne, exceeding the adopted criteria; and
    - BH12 6.0-6.1 with TPA and TSA of 41 mol H^+/tonne, also exceeding the criteria.

On the basis of the above, material represented by BH12 (5.0-5.1) and BH12 (5.9-6.0), being disturbed (fill) black sand and the brown clayey gravelly sand is considered to exceed the site assessment criteria and are consistent with potential ASS. The reported liming rate for neutralisation of these materials was reported to vary from 2.8 to 19 kg $CaCO_3$/tonne material.

In addition to the above, S_{pos}% values for BH04 (5.9-6.0) and BH07 (5.4-5.5) reported S_{pos}% of 0.4 % and 0.26 % respectively, exceeding the action criteria. Whilst the acid trail (TSA) values did not indicate the generation of acidic conditions, as per the ASSMAC (1998) guidance, these materials are also representative of PASS material.

11. Groundwater Assessment

Four groundwater monitoring wells (MW01, DBMW01, MW02 and MW05) were gauged and sampled on the 18 April 2023 with observations and field parameters recorded. The monitoring well locations are shown on **Figures 3** and **5**. Detailed laboratory reports and chain of custody documentation are provided in **Appendix L**.

11.1 Field Observations and Field Measured Parameters

A summary of groundwater conditions encountered during the sampling event is presented in **Table 11.1** and **Table 11.2** below.

Table 11.1: Groundwater Field Physiochemical Parameters

Well Reference	Date	Dissolved Oxygen (mg/L)	Ph (units)	Oxidation Reduction Potential (Mv) (vs Ag/AgCl)	Electrical Conductivity (EC) (µs/cm)	Temperature (°C)
MW01	18/04/2023	2.78	6.96	92.7	46 719	21.4
DBMW01	18/04/2023	3.41	6.88	108.1	42 612	20.2
MW02	18/04/2023	4.72	6.62	104.1	44 490	21.7
MW05	18/04/2023	0.91	6.97	49.7	1021	22.8

Review of the field parameters indicates that the groundwater is generally neutral, characterised by relatively low dissolved oxygen with the exception of MW05, which is further depleted of oxygen. The electrical conductivity (EC) values recorded during the sampling event supported by the total dissolved solids (TDS) reported by the laboratory indicates groundwater to be ranging from fresh (MW05) to marine saline (MW01, MW02 and DBMW01).

Given the proximity of the Site to Blackwattle Bay and the infilled nature of the site, it is anticipated that broadly, groundwater flow direction at the site will occur toward the Bay across the site, however there may be localised variability associated with the underlying sandstone bedrock formation, inconsistent permeability of the overlying soil/fill profile and the influence of the mass bridge foundation. In general, it is anticipated that the majority of groundwater seepage will occur in proximity to the fill-natural strata (residual soil/sandstone profile) in addition to influence of the seawater level at the west extent of the site.

There were no odours or visible sheens as associated with potential contamination in purged groundwater from all monitoring wells sampled as part of the investigation.

Table 11.2: Groundwater Field Observations

Well Reference	Relative Top of Casing (TOC) Elevation	Date	Standing Water Level (m AHD)	Standing Water Level (m b TOC)	Odour	Sheen	Light non-aqueous phase liquid (LNAPL)	Turbidity	Colour
MW01	2.77	18/04/2023	0.796	1.974	No odour	No sheen	None observed	Clear	Transparent
DBMW01	-	18/04/2023	-	1.598	No odour	No sheen	None observed	Turbid	Brown
MW02	4.21	18/04/2023	0.768	3.442	No odour	No sheen	None observed	Clear	Transparent
MW05	4.03	18/04/2023	0.747	3.283	No odour	No sheen	None observed	Turbid	Orange

11.2 Groundwater Analytical Results

The historical water sampling locations are shown on **Figure 3** with current sample locations on **Figure 5** and laboratory results are summarised in **Tables D1** and **D2** in **Appendix A**. Analytical results from the current sampling event in addition to JBS&G's (2015), E3C (2012a) and CDM (2012a) historical investigations are discussed in the following sections.

During the current investigation, JBS&G was able to locate existing wells MW01, MW02, MW05 and DBMW01 only, which were sampled as part of this investigation.

11.2.1 Heavy Metals

The reported heavy metal concentrations were below the adopted criteria as presented in **Tables D1** and **D2** with the following exceptions:

JBS&G 2023

- Copper was reported to be at concentrations exceeding the adopted ANZG Marine water 95% toxicant DGVs/ NEPM marine criterion (0.0013 mg/L) in three of the four samples at concentrations ranging between 0.002 mg/L (DBMW01 and MW02) and 0.004 mg/L (QCW01, parent sample MW01), all being within one order of magnitude of the adopted criterion;
- Lead was reported to be at concentrations exceeding the adopted ANZG/NEPM Marine Waters criterion (0.0044 mg/L) in two of the four samples at concentrations ranging between 0.005 mg/L (MW01 and QCW01, parent sample MW01) and 0.018 mg/L (MW02), exceeding the criterion by less than one order of magnitude; and
- Zinc was reported to be at concentrations exceeding the adopted ANZG Marine water 95% toxicant DGVs criteria (0.008 mg/L) in three of four samples at concentrations ranging between 0.012 mg/L (DBMW01) and 0.051 mg/L (QCW01, parent sample MW01), exceeding the criterion by less than one order of magnitude. The reported concentrations in two of the four samples also exceeded the adopted NEPM Marine Waters GILs criteria (0.015 mg/L) by less than one order of magnitude.

All other individual heavy metals concentrations were less than the adopted investigation levels.

JBS&G 2015

Zinc was reported to be at concentrations exceeding the adopted ANZG Marine water 95% toxicant DGVs criterion (0.008 mg/L) and the NEPM criterion (0.015 mg/L) in the sample collected from DBMW01 at a concentration of 0.026 mg/L.

E3C 2012a

- Copper was reported to be at a concentration exceeding the adopted ANZG Marine water 95% toxicant DGVs/NEPM criterion (0.0013 mg/L) in the sample collected from BH03 at a concentration of 0.046 mg/L; and
- Zinc was reported to be at a concentration exceeding the adopted ANZG Marine water criterion (0.008 mg/L) and the NEPM criterion (0.015 mg/L) in the sample collected from BH03 at a concentration of 0.068 mg/L.

All other individual heavy metals concentrations were less than the adopted investigation levels.

CDM 2012a

- Copper was reported at a concentration exceeding the adopted ANZG / NEPM criterion (0.0013 mg/L) in the sample collected from MW1 at a concentration of 0.004 mg/L;

- Lead was reported at a concentration exceeding the adopted ANZG / NEPM Marine criterion (0.0044 mg/L) in the sample collected from MW1 at a concentration of 0.006 mg/L; and
- Zinc was reported at a concentration exceeding the adopted ANZG Marine water criterion (0.008 mg/L) and the NEPM criterion (0.015 mg/L) in one sample collected from MW1 at a concentration of 0.16 mg/L and exceeding the adopted ANZG Marine water criterion (0.008 mg/L) in one sample collected from MW5 at a concentration of 0.009 mg/L.

All other individual heavy metals concentrations were less than the adopted investigation levels.

11.2.2 TRH and BTEX

TRH and BTEX concentrations were reported to be below the laboratory's limit of reporting (LOR) or less than the adopted health-based assessment criteria in all samples selected for analysis as part of JBS&G's investigation (2023) and historical investigations (JBS&G 2015, E3C 2012a, CDM 2012).

11.2.3 PAHs

The reported PAH concentrations were below the laboratory LOR and adopted site assessment criteria in all samples selected for analysis as part of JBS&G's investigation (2023) and historical investigations (JBS&G 2015, E3C 2012a, CDM 2012).

11.2.4 VOCs

All reported concentrations of VOCs were below the laboratory LOR and adopted criteria in all samples selected for analysis as part of JBS&G's investigations (2023 and 2015).

The scope of the historical groundwater investigations (E3C 2012a, CDM 2012) did not include analysis for VOCs so no results are reported.

11.2.5 PFAS

Concentrations of a range of individual PFAS compounds were reported at low levels at all sampling locations, with the following observations:

- Perfluorooctanesulfonic acid (PFOS) concentrations in all samples were reported to exceed the adopted ecological site assessment criteria (NEMP 2.0 Interim marine 99% PFAS value of 0.00000023 mg/L), with concentrations in the range of 0.000013 to 0.00032 mg/L. With the exception of the 0.00032 mg/L value for MW02, the results were less than the 95% threshold criterion (0.00013 mg/L).
- Perfluorooctanoic acid (PFOA) concentrations in all samples were reported to be less than the 99 % NEMP ecological criterion adopted for this assessment.
- All PFOS, PFOA and Perfluorohexanesulfonic acid (PFHxS) concentrations were reported to be less than the adopted NEMP 2.0 recreational (health) criterion.

The scope of the historical groundwater investigations (JBS&G 2015, E3C 2012a, CDM 2012) did not include analysis for PFAS so no results are reported.

12. Site Characterisation

Based on the decision-making process for evaluating land-use suitability detailed in EPA (2017) and outlined in **Section 7.1.5**, the decisions required to be made in order to satisfy the objectives of the assessment are discussed below.

12.1 Are there any unacceptable risks to likely current onsite receptors from soils?

Based on the documented CSM, current Site investigation activities in addition to historical investigation data (NAA 2010, RCA 2011, CDM 2012a and E3C 2012a) were relied upon to characterise site conditions including the potential presence of heavy metal, petroleum hydrocarbon (TRH/BTEX), PAH, OCP/PCB, VOCs, PFAS and asbestos impacts at the time. Adopting the public open space land use scenario (HIL-C) proposed for the site for the purposes of discussion, the outcomes of these characterisation activities identified a number of issues with regard to site soil conditions as discussed following.

Asbestos in Soil

The investigation works documented herein have identified the presence of friable asbestos (AF/FA) and bonded asbestos (ACM) impacts in one location BH01 (0.0-0.4) at concentrations which exceed the applicable health screening criterion. The presence of asbestos within soils at this location represents a potential risk to future human visitors and/or occupants of the site. In addition, trace levels of friable asbestos (AF/FA) in soil were reported in three samples (BH05 0.2-1.2, BH05 1.2-2.2 and BH09 0.0-0.3) at two other soil sampling locations, being present at concentrations below the adopted health based criteria. Given the potential for disturbance of this material during future development works (during which time the site will be a workplace), management of impacted material at this location will also be required with regard to occupational exposure risks.

Heavy Metals

The current investigation reported lead in soil in seven samples at five sampling locations (BH01, BH02, BH05, BH11 and BH16) exceeding the adopted health criteria (HIL-C) and exceeding the adopted ecological criteria in three samples at two sampling locations (BH01 and BH05). In addition, copper was reported in three samples at two sampling locations (BH02 and BH05) and zinc was reported in three samples at three sampling locations (BH02, BH05 and BH15) also exceeding the adopted ecological criteria. The current assessment results are consistent with historical identification of heavy metals in fill material at the site, inclusive of:

- E3C (2012a) – lead and arsenic in one sample (BH01) reported to exceed the adopted health criteria (HIL-C) and the adopted ecological criteria, respectively.
- CDM (2012a) – lead in two sampling locations (BH01 and BH02) exceeding the adopted health criteria (HIL-C) and the adopted ecological criteria and zinc in two sampling locations (BH01 and BH06) exceeding the adopted ecological criteria.

Petroleum Hydrocarbons

The current investigation reported TRH in the form of mid-heavy fraction hydrocarbons ($C_{>16}$-C_{34}) in seven samples at seven sampling locations (BH01, BH02, BH04, BH05, BH14, BH15, BH16) at concentrations exceeding the adopted ESL for urban residential and public open space coarse soils and in one location (BH05) exceeding the adopted management limits in residential and parkland (coarse soil). In addition, TRH in the form of F2 ($C_{>10}$-C_{16} less Naphthalene) was reported in two sampling locations (BH05 and BH16) at concentrations exceeding the adopted ESL for urban residential and public open space coarse soils.

These results are consistent with the previous investigation findings whereby reported TRH C_{10}-C_{36} was reported in multiple samples across the investigation areas exceeding the adopted EPA guideline criteria in force at the time.

PAHs

The current investigation reported PAHs in the form of B(a)P TEQ in eight samples at eight sampling locations (BH01, BH02, BH04, BH05, BH12, BH14, BH15 and BH16) exceeding the adopted health criteria (HIL-C). In addition, total PAHs and B(a)P were reported in one sampling locations (BH16) at concentrations exceeding the adopted health criteria (HIL-C) and adopted ESL for urban residential and public open space coarse soils, respectively.

These results are consistent with the outcomes of historical investigations that reported B(a)P TEQ and total PAHs in multiple samples across the investigated areas exceeding the adopted health criteria (HIL-C). In addition, B(a)P was reported in one sample (RCA 2011) and in four samples at three sampling locations (NAA 2010) at concentrations exceeding the adopted ESL for urban residential and public open space coarse soils.

No other soil contamination conditions were identified during the current investigation at the site that represent a potentially unacceptable risk to site users under the proposed landuse.

The presence of lead, TRH, B(a)P TEQ/PAH contamination and asbestos (AF/FA/ACM) in soil will require management/remediation actions to make the site suitable for the proposed public open space use. At this stage, the contamination impacts have been identified to be limited to fill material, with no reported contamination presented within representative natural soils/sandstone underlying the site.

The presence of asbestos within soil at the site will also require consideration prior to/during redevelopment to control potential workplace exposures associated with material handling. Notwithstanding, the areas of identified soil based impacts as discussed above will require remediation and/or management prior to the site being considered suitable for the proposed land uses.

In addition to the soil conditions, it is noted that there is the potential for a UST and associated infrastructure to remain within the courtyard area in the northern portion of the site. Whilst significant soil impact has not been identified as associated with this potential infrastructure, it remains a potential contamination source and as such, if present, will require decommissioning and removal during site preparation activities to ensure that no minor areas of inground impact occur within these areas of the site.

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

Contaminants were identified at the site at concentrations which exceeded applicable human health and ecological investigation levels. However, the impacts are considered to be attributable to site contamination rather than background sources.

Further, review of available desktop information has not identified any evidence of local or regional contamination which may substantially affect the site, or natural soil/geological characteristics that result in soil conditions exceeding the site soil criteria.

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

Four groundwater monitoring wells (MW01, MW02, MW05 and DBMW01) were assessed as part of the current investigation with DBMW01 assessed as part of the investigation conducted by JBS&G (2015), MW01 and MW05 assessed as part of the investigation conducted by CDM (2012a) and BH03 assessed as part of the investigation conducted by E3C (2012a). The samples were analysed for a range of identified potential contaminants of concern including heavy metals, PAHs, TRH, BTEX, VOCs and PFAS.

Groundwater with elevated levels of heavy metals (including copper, lead and zinc) were reported in five monitoring wells (MW01, MW02, MW05, BH03 and DBMW01) when compared to the adopted ecological investigation criteria, being generally within one order of magnitude of the adopted criteria. The reported concentrations are considered to most likely reflect urban background conditions within the site setting and likely not attributable to any current or previous activities at the site, albeit the potential presence of leachable lead impacted fill material at the site has been identified during this investigation.

Assessment of groundwater conditions at the site for PFAS compounds has identified detections of individual PFAS compounds including PFOS, PFOA and PFHxS in groundwater at all monitoring well locations.

PFOS concentrations were identified in all sampled groundwater locations which exceeded the adopted 99% interim marine (ecological) trigger value (0.00000023 mg/L) required to initially be considered. With the exception of the PFOS concentration at MW02 (0.00032 mg/L) the reported concentrations were below the less sensitive 95% interim marine trigger value (0.00013 mg/L). All reported PFOS concentrations were below the adopted recreational (health) value for PFOS of (0.002 mg/L), noting the groundwater underlying the majority of the site comprised marine (saline) conditions and as such, comparison to drinking water values is not required.

All PFOA concentrations were reported to be less than the 99% site assessment criterion for all samples. In addition, the PFOA and Perfluorohexanesulfonic acid (PFHxS) concentrations were reported to be less than the adopted NEMP 2.0 recreational (health) criterion. Based on the limited data set, it is recommended that prior to decisions with regard to requirements for the management of PFOS in groundwater, further site investigation/assessment of the potential source of PFOS in groundwater at this site be completed to support decision making.

MW05 reported TPH (CDM 2012a) and TRH (current investigation) concentrations above the laboratory LOR. There is currently limited guidance regarding threshold concentrations for TRH in receiving waters (applicable to Blackwattle Bay in this case). ANZG (2018) instructs that oil and petrochemicals should not be noticeable as a visible film on the water nor should they be detectable by odour. Given that no odours or sheen were observed within purged groundwater at MW05, it is likely that the reported TRH concentrations do not present an unacceptable aesthetic issue to receiving waters. Notwithstanding, should future construction activities involve dewatering of groundwater at this location, management of TRH in the dewater is likely to be required to facilitate off-site dispose of extracted/excess water.

12.4 Have potential acid sulfate soil conditions been identified at the site that may require management during future remediation/construction activities??

Assessment of the potential occurrence of ASS conditions at the site has identified several areas of subsurface soil/fill and natural material characteristic of ASS. These locations, comprising black sand and brown clayey gravelly sand at BH12 (**Figure 5**), dark brown/black clayey sand at BH07 and brown gravelly sand at BH04 were all located in proximity to the Blackwattle Bay site boundary. The material represented by the positive results generally ranged in depth from approximately 5.0 to 6.0 m bgs, being overlain by non-ASS fill material. As such, any works in proximity of the site foreshore boundary which may occur at depth below the water table should be completed under the oversight of an Acid Sulfate Soil Management Plan (ASSMP).

Natural profile soil/sandstone across the balance of the site has been characterised by collected data as non-PASS material. Based on the results of the investigation, assessment of fill materials situated above the groundwater table have not been identified as PASS and thus do not require specific management with regard to ASS during potential future construction activities. Given the age of the fill material at the site and the potential variability, whilst specific management of fill material at this point has not been identified as necessary, appropriate contingencies should be planned to enable implementation of environmental controls in the event that small areas of marine/alluvial soil (as in-situ natural material or placed fill material) are disturbed during site development that require management. These contingencies will be addressed in the ASSMP to be prepared for the site.

12.5 Are there any impacts of chemical mixtures?

Fill material contaminated with heavy metals, PAHs, TRH and asbestos has been identified at the site. It is anticipated that given the TRH impacts are within the non-volatile range, these are typically associated with the PAH compounds. Fill material impacted with these contaminants is common in the inner urban Sydney area and no evidence is available to indicate that this mix of contaminants requires additional consideration of the potential toxicant exposure when collocated, compared to be present in isolation. As such, no additional consideration of these conditions is required beyond those discussed in **Section 12.1**.

12.6 Are there any aesthetic issues at the site?

There were no unacceptable odours or staining associated with contamination observed within site soils during the current investigation that may pose an aesthetic issue at the site. In addition, no ACM fragments were observed on the ground surface that may present an aesthetic issue at the site.

It is noted that hydrocarbon odour was reported in surface to near surface fill material at one borehole (BH16) location. Should the soils be exposed during future construction activities, they may pose an aesthetic issue and as such will require appropriate management during ground disturbance activities that result in their disturbance.

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

The Site is predominantly covered in hardstand and considering the groundwater results there is a low risk that contaminants can migrate from the site through the generation of windblown dusts or surface water erosion.

Whilst there is no evidence of significant contaminant migration away from the site, as discussed in earlier sections above, the potential for contaminant migration from existing site contamination sources including the possible UST and as may be associated with contaminants in fill material and groundwater will require management.

12.8 Is a site management strategy required?

As identified by the outcomes of the site assessment, a site management strategy is required to address a number of conditions at the site, such that the site can be made suitable for the proposed development, including:

- The presence of AF/FA/ACM in soils, constituting an exceedance of the applicable land use suitability criterion;
- The presence of AF/FA in soils whereby during site ground disturbance activities including maintenance and/or redevelopment the potential for worker exposure and contaminant migration will be required to be managed such that the AF/FA identified in soils do not present an unacceptable risk either during, or upon completion of works;
- The presence of fill material contaminated with heavy metals, TRH and PAHs posing a potential health and ecological risk with respect to the proposed future land use;
- The potential presence of a UST and associated infrastructure, as a contaminant source, within the northern portion of the site;
- The presence of aesthetic issues comprising hydrocarbon odours in fill material at one soil sampling location;

- The presence of PFOS in groundwater at concentrations above the adopted assessment criteria which requires further consideration given the limited data set to facilitate decisions with regard to the potential need for risk management measures; and
- The presence of potential ASS which will require management during the development process.

In the short term, the presence of asbestos in/on soil at the site should be identified via inclusion of these conditions in the existing site Asbestos Register / AMP in accordance with WHS Regulations[31] such that potential occupational exposure scenarios may be appropriately addressed during maintenance of the site in its current state.

Development of a site remediation action plan (RAP) in conjunction with design of the proposed development will be required to address the contamination risks associated with the identified asbestos, heavy metals, TRH, PAH impacts in soil and PFAS in groundwater. In addition, an acid sulfate soil management plan (ASSMP) will be prepared in conjunction with the RAP to address management of ASS risks should works result in the disturbance of such soils at the site.

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[31] *Work Health and Safety Act 2011* and the *Work Health and Safety Regulation 2017*.

13. Conclusions and Recommendations

Based on the results of the data gaps assessment and subject to the limitations in **Section 14**, the following summarises the outcomes of the assessment:

- The investigation included the implementation of 15 soil sampling locations and sampling of four existing groundwater wells to facilitate analysis of selected representative soil and groundwater samples undertaken for a broad range of COPCs identified in the CSM including heavy metals, PAHs, TRH/BTEX, OCPs, PCBs, VOCs, PFAS and asbestos. With consideration to the adopted site assessment criteria, the following conditions were identified that will require to be managed from a health and/or ecological risk viewpoint with regard to the suitability of the site for the proposed land use:
    - The presence of AF/FA/ACM contaminated soils at one sampling location (BH01 0.0-0.4), that represents a potentially unacceptable risk to future site users under a long term land use exposure scenario, unless subject to remediation and/or management;
    - The presence of trace level AF/FA impacts in fill material at two sampling locations (BH05 and BH09). Whilst not currently constituting an exceedance of the applicable long term land use exposure site assessment criteria, management of these materials will be required to ensure workplace exposure hazards during and following development of the site to ensure that there are no unacceptable asbestos exposures to site workers, nor asbestos present on the site surface following redevelopment;
    - Fill material contaminated with lead and PAHs (carcinogenic and total PAHs) was distributed across the broader site with contaminant concentrations exceeding the adopted health based criteria posing an unacceptable risk to future site users under a under a long term land use exposure scenario, unless subject to remediation and/or management;
    - Fill material was also observed to be impacted with copper, lead, zinc, TRHs and B(a)P exceeding the adopted ecological based criteria broadly across the site and as such management of the fill material will be required also with this regard in future landscaped areas;
    - PFOS in groundwater concentrations were identified at the four current groundwater monitoring locations being reported at levels above the most sensitive 99 % criterion for ecological protection at all locations. PFOS concentrations in groundwater at one location was reported in exceedance of the less sensitive 95% ecological protection criterion. All PFAS compound concentrations were less than the adopted health based recreational exposure criterion. Given the limited data set, further assessment of the potential nature and extent of PFOS in groundwater in this portion of the site is recommended prior to final decisions with regard to management requirements.
    - In addition to the PFOS in groundwater, copper, lead and zinc in groundwater were also considered to be elevated with regard to the generic site assessment criteria. The concentrations are considered to most likely reflect urban background conditions within the site setting, however further consideration of contaminant migration to groundwater will be completed with consideration to the management of heavy metal contaminated fill material at the site (as discussed above).
- Alluvial/marine soils present at depth in proximity of the Blackwattle Bay site boundary have been assessed as PASS material. Given the potential for site development works to result in disturbance of such materials, an ASSMP will be required to be prepared to support the development proposal;

- The potential presence of a UST and associated fuel lines in the northern site portion will require further consideration. Whilst significant soil impact has not been identified as associated with this potential infrastructure during investigations to date, it remains a potential contamination source and as such, if present, will require decommissioning and removal during site preparation activities to ensure that no minor areas of inground impact occur within these areas of the site;
- In the short term, the presence of asbestos in soil at the site should be identified via inclusion of the conditions in the site Asbestos Register incorporated into the Asbestos Management Plan (AMP) in accordance with WHS Regulations such that potential occupational exposure scenarios may be appropriately addressed during maintenance of the site in its current state;
- No other potentially unacceptable risks to future site users from contamination conditions were identified at the site during this assessment;
- No evidence of background contamination of site soils was identified;
- No potential issues resulting from chemical mixtures were identified at the site;
- With consideration of the proposed land uses, and observations made during the investigation, aesthetic issues other than the presence of ACM within soil and the hydrocarbon odours at BH16 were not identified at the site; and
- It is considered that the site can be made suitable for the proposed public open space land use comprising public park and community facility subject to preparation and successful implementation of an appropriate remedial action plan (RAP) to address the areas of concern as outlined above.

Based on the conclusions of the investigation it is recommended that:

- Management of the identified asbestos and chemical contamination in fill material will be required in relation to development of the site, the requirements of which will be identified via preparation and implementation of a RAP to be prepared in conjunction with design of the site redevelopment;
- In the meantime, appropriate site management procedures should be implemented via update of the site AMP/asbestos register to ensure occupational exposure risks are appropriately managed during any/all activities that result in ground surface disturbance;
- Management of the identified PASS will require preparation and implementation of an ASSMP specific to the proposed development works; and
- During development of the site, a construction environmental management plan (CEMP) should be prepared (in conjunction with the RAP), which will incorporate an unexpected finds protocol (UFP) to address any unexpected contamination and/or ASS conditions as may be encountered during development of the site. The CEMP will also include detailed control measures for managing potential risks associated with disturbances of sediments during development works.

14. 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 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.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

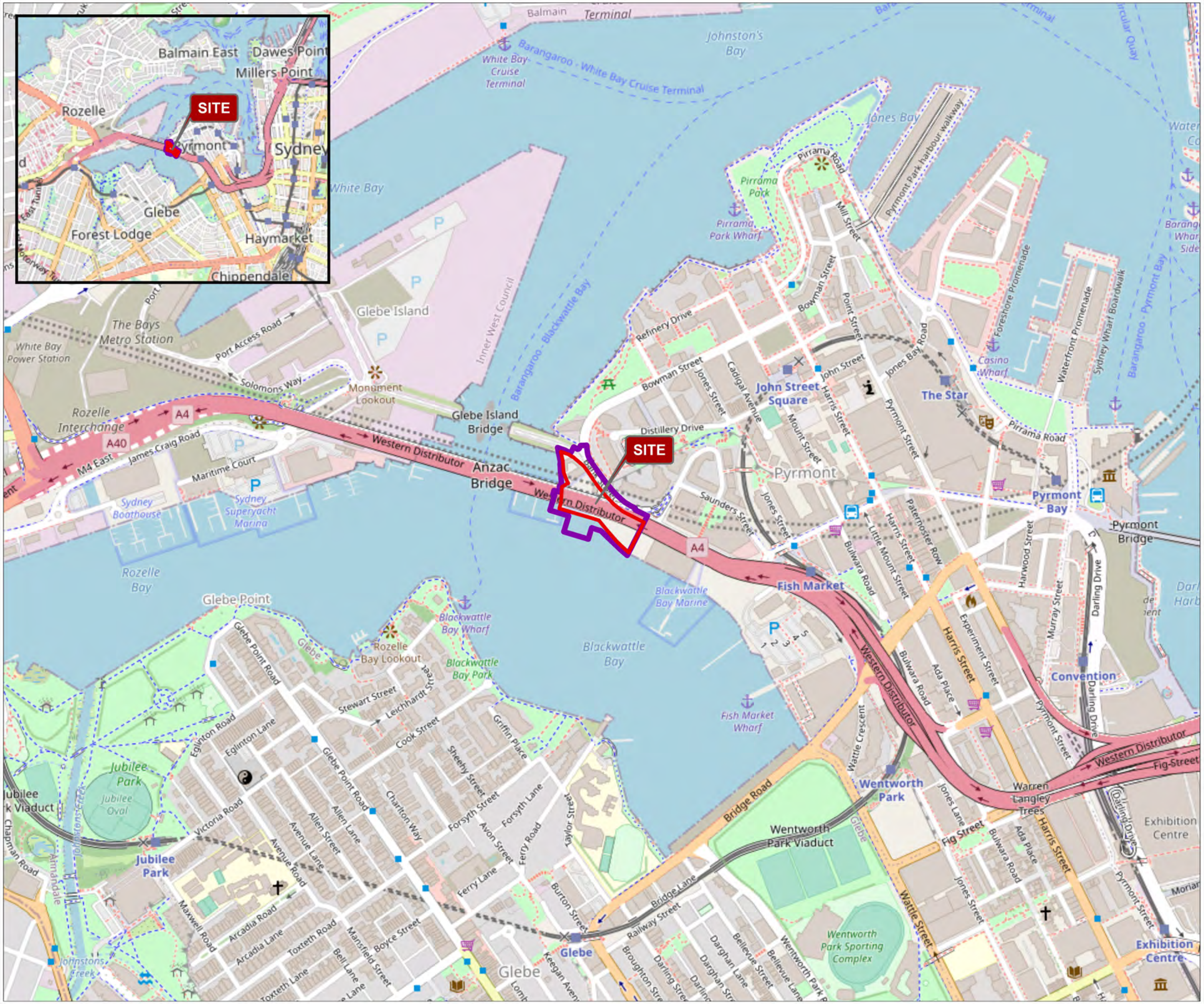
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the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

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground 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 subsurface 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.

Figures



Legend:

🟥 Site Area

🟪 Broader Site Area

JBS&G

Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 2	Date 26/10/2023
Drawn By: LJ	Checked By: MN

Scale 1:10,000

0 100 200

metres

Coord. Sys. GDA 1994 MGA Zone 56

Bank St, NSW

SITE LOCATION

FIGURE 1

File Name: 64669_BanksStPark_R02_Rev2

Reference: © OpenStreetMap (and) contributors, CC-BY-SA

Legend:
🟥 Site Area
🟪 Broader Site Area
☐ NSW Cadastre
▬ Building Footprint

JBS&G

Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 2
Date 26/10/2023

Drawn By: LJ
Checked By: MN

Scale 1:1,200

0 10 20
metres

Coord. Sys. GDA 1994 MGA Zone 56

Bank St, NSW

SITE LAYOUT

FIGURE 2A

File Name: 64669_BanksStPark_R02_Rev2
Reference: Nearmap www.nearmap.com 20230316

Legend:

🟥 Site Area

▬ Broader Site Area

☐ NSW Cadastre

▬ Impacted Material, CONSARA 2020a

▨ Extent of Marker Layer, CONSARA 2020a

Site Features

▬ Building Footprint

🟧 AST

🟨 Potential UST

🟩 Shipping Containers

🟩 Substation

🟩 Vent

🟦 Workshop

JBS&G

Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 2

Date 26/10/2023

Drawn By: LJ

Checked By: MN

Scale 1:1,200

0 10 20

metres

Coord. Sys. GDA 1994 MGA Zone 56

Bank St, NSW

SITE FEATURES

FIGURE 2B

File Name: 64669_BanksStPark_R02_Rev2

Reference: Nearmap www.nearmap.com 20230316

Legend:
- 🟥 Site Area
- ▬ Broader Site Area
- ☐ NSW Cadastre

Sample Locations - JBS&G (2015)
- ● Soil Sampling / Monitoring Well

Previous Sample Locations
- ● Sample Location - CDM (2012b)
- ● Sample Location - E3C (2012)
- 🟥 Sample Location - RCA (2011)
- 🟨 Sample Location - NAA (2010)

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Client: Infrastructure NSW	
Version: R02 Rev 2	Date 26/10/2023
Drawn By: LJ	Checked By: MN
Scale 1:1,200	

0 10 20
metres

Coord. Sys. GDA 1994 MGA Zone 56

Bank St, NSW

HISTORICAL SAMPLE LOCATIONS

FIGURE 3

File Name: 64669_BanksStPark_R02_Rev2
Reference: Nearmap www.nearmap.com 20230316

Legend

①	Glebe Island Bridge - potential pedestrian and cycle connection
②	Existing vegetation retained and supplemented
③	Stair access to Glebe Island Bridge
④	Widened verge
⑤	Amenities and storage in adaptively re-used building
⑥	Plaza
⑦	Loading zone on Bank Street
⑧	Seating and planting in existing building 'ruins'
⑨	New building with community facilities cafe kiosk and marina facilities
⑩	PV and planting on roof
⑪	Graded walkway access to plaza
⑫	Substation retained
⑬	Seating shelters amongst planting
⑭	Outdoor seating area to cafe
⑮	Bank Street with parallel parking and separated cycleway
⑯	Open lawn area
⑰	Primary pathway across park
⑱	Cycleway transition to street - to continue south as part of future works
⑲	Nature-based inclusive playspace for ages 2-12
⑳	Fitness equipment
㉑	Multi-purpose court
㉒	Edge seating and fence to court
㉓	Substation and bridge pylons
㉔	Marina
㉕	Potential future kayak storage / kiosk
㉖	Anzac Bridge pylon
㉗	Deck over dragon boat storage
㉘	Boardwalk
㉙	Kayak launch jetty
㉚	Dragon boat ramp
㉛	Sandstone blocks terracing into water to improve marine habitat
㉜	Split level promenade with trees and seating
㉝	Existing mature trees retained with embankment down to adjacent property
㉞	Future boardwalk and promenade connection (outside of scope)
㉟	Pedestrian link as part of future development (outside of scope)

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Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 2

Date 26/10/2023

Drawn By: LJ

Checked By: MN

Scale 1:1,400

0 10 20

metres

Coord. Sys. GDA 1994 MGA Zone 56

Bank St, NSW

CONCEPT PLAN

FIGURE 4

File Name: 64669_BanksStPark_R02_Rev2
Reference: Client Provided | Bank Street Park Design Report (OCULUS, 2023)

Legend:

🟥 Site Area

🟪 Broader Site Area

▭ NSW Cadastre

● Soil Sample Location

● Groundwater Sample Location

JBS&G

Job No: 64669	
Client: Infrastructure NSW	
Version: R02 Rev 2	Date 26/10/2023
Drawn By: LJ	Checked By: MN
Scale 1:1,200	

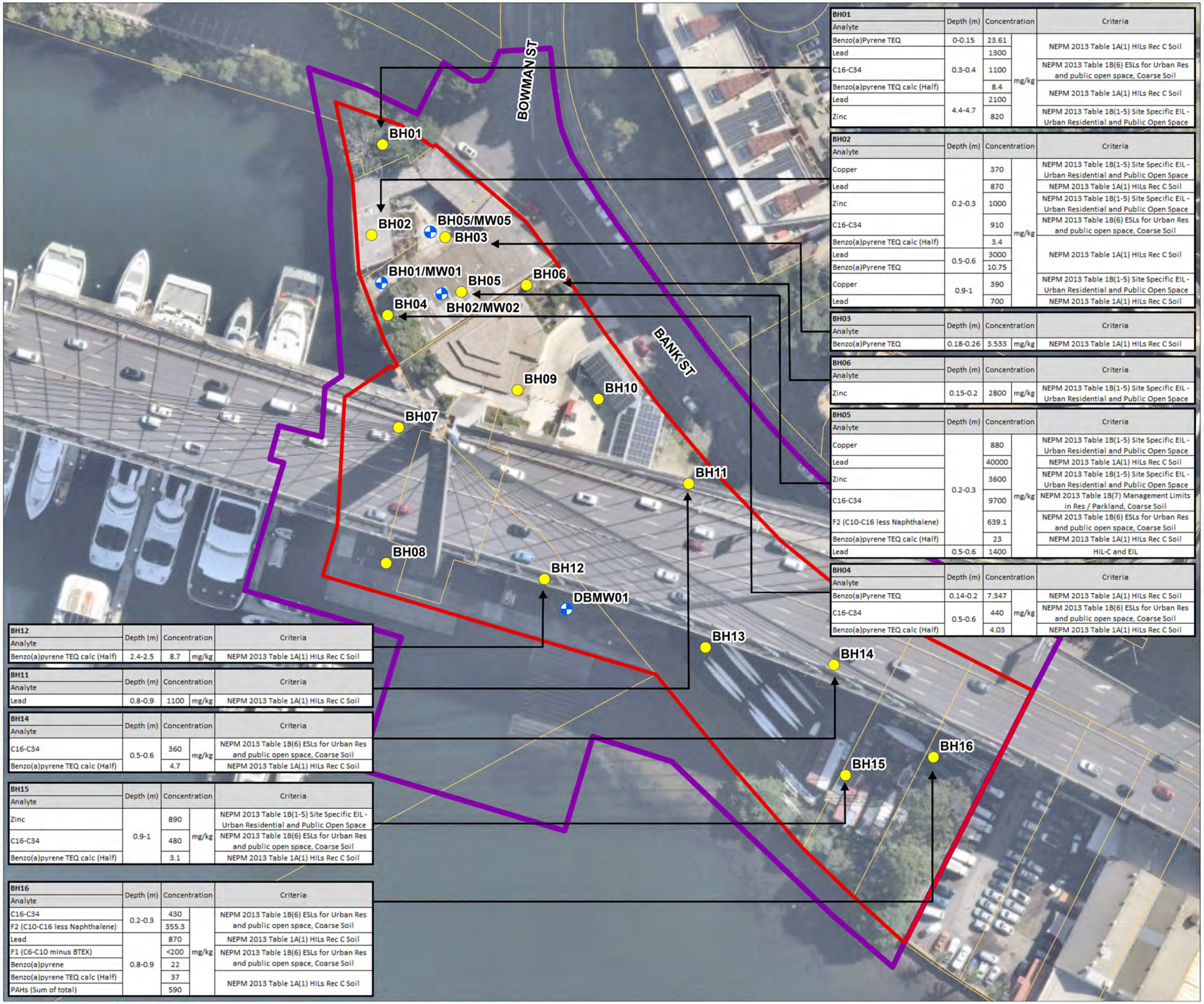
Coord. Sys. GDA 1994 MGA Zone 56

Bank St, NSW

SAMPLING LOCATIONS

FIGURE 5

File Name: 64669_BanksStPark_R02_Rev2
Reference: Nearmap www.nearmap.com 20230316



BH01 Analyte	Depth (m)	Concentration		Criteria
Benzo(a)Pyrene TEQ	0-0.15	23.61	mg/kg	NEPM 2013 Table 1A(1) HILs Rec C Soil
Lead	0.3-0.4	1300		
C16-C34		1100		NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil
Benzo(a)pyrene TEQ calc (Half)		8.4		NEPM 2013 Table 1A(1) HILs Rec C Soil
Lead	4.4-4.7	2100		
Zinc		820		NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space

BH02 Analyte	Depth (m)	Concentration		Criteria
Copper	0.2-0.3	370	mg/kg	NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space
Lead		870		NEPM 2013 Table 1A(1) HILs Rec C Soil
Zinc		1000		NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space
C16-C34		910		NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil
Benzo(a)pyrene TEQ calc (Half)		3.4		NEPM 2013 Table 1A(1) HILs Rec C Soil
Lead	0.5-0.6	3000		
Benzo(a)Pyrene TEQ		10.75		
Copper	0.9-1	390		NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space
Lead		700		NEPM 2013 Table 1A(1) HILs Rec C Soil

BH03 Analyte	Depth (m)	Concentration		Criteria
Benzo(a)Pyrene TEQ	0.18-0.26	3.533	mg/kg	NEPM 2013 Table 1A(1) HILs Rec C Soil

BH06 Analyte	Depth (m)	Concentration		Criteria
Zinc	0.15-0.2	2800	mg/kg	NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space

BH05 Analyte	Depth (m)	Concentration		Criteria
Copper	0.2-0.3	880	mg/kg	NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space
Lead		40000		NEPM 2013 Table 1A(1) HILs Rec C Soil
Zinc		3600		NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space
C16-C34		9700		NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil
F2 (C10-C16 less Naphthalene)		639.1		NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil
Benzo(a)pyrene TEQ calc (Half)		23		NEPM 2013 Table 1A(1) HILs Rec C Soil
Lead	0.5-0.6	1400		HIL-C and EIL

BH04 Analyte	Depth (m)	Concentration		Criteria
Benzo(a)Pyrene TEQ	0.14-0.2	7.347	mg/kg	NEPM 2013 Table 1A(1) HILs Rec C Soil
C16-C34	0.5-0.6	440		NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil
Benzo(a)pyrene TEQ calc (Half)		4.03		NEPM 2013 Table 1A(1) HILs Rec C Soil

BH12 Analyte	Depth (m)	Concentration		Criteria
Benzo(a)pyrene TEQ calc (Half)	2.4-2.5	8.7	mg/kg	NEPM 2013 Table 1A(1) HILs Rec C Soil

BH11 Analyte	Depth (m)	Concentration		Criteria
Lead	0.8-0.9	1100	mg/kg	NEPM 2013 Table 1A(1) HILs Rec C Soil

BH14 Analyte	Depth (m)	Concentration		Criteria
C16-C34	0.5-0.6	360	mg/kg	NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil
Benzo(a)pyrene TEQ calc (Half)		4.7		NEPM 2013 Table 1A(1) HILs Rec C Soil

BH15 Analyte	Depth (m)	Concentration		Criteria
Zinc	0.9-1	890	mg/kg	NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space
C16-C34		480		NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil
Benzo(a)pyrene TEQ calc (Half)		3.1		NEPM 2013 Table 1A(1) HILs Rec C Soil

BH16 Analyte	Depth (m)	Concentration		Criteria
C16-C34	0.2-0.3	430	mg/kg	NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil
F2 (C10-C16 less Naphthalene)		355.3		
Lead	0.8-0.9	870		NEPM 2013 Table 1A(1) HILs Rec C Soil
F1 (C6-C10 minus BTEX)		<200		NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil
Benzo(a)pyrene		22		
Benzo(a)pyrene TEQ calc (Half)		37		NEPM 2013 Table 1A(1) HILs Rec C Soil
PAHs (Sum of total)		590		

Legend:

🟥	Site Area
🟪	Broader Site Area
☐	NSW Cadastre
●	Soil Sample Location
●	Groundwater Sample Location

JBS&G

Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 2 | Date 26/10/2023

Drawn By: LJ | Checked By: MN

Scale 1:1,200

0 10 20
metres

Coord. Sys. GDA 1994 MGA Zone 56

Bank St, NSW

SOIL CHEMICAL EXCEEDANCES

FIGURE 6A

File Name: 64669_BanksStPark_R02_Rev2
Reference: Nearmap www.nearmap.com 20230316

BH01 Analyte	Depth (m)	Concentration (%w/w)	Criteria
Asbestos from ACM in soil	0.0-0.4	0.35	HSL-C
Asbestos from FA & AF in soil		0.0019	

BH05 Analyte	Depth (m)	Concentration (%w/w)	Criteria
Asbestos from FA & AF in soil	0.2-1.2	0.00016	AF/FA presence
Asbestos from FA 7 AF in soil	1.2-2.2	0.00050	AF/FA presence

BH09 Analyte	Depth (m)	Concentration (%w/w)	Criteria
Asbestos from FA & AF in soil	0.0-0.3	0.00043	AF/FA presence

Legend:
- 🟥 Site Area
- 🟪 Broader Site Area
- ▭ NSW Cadastre
- ● Soil Sample Location
- ⊕ Groundwater Sample Location

JBS&G

Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 2	Date 26/10/2023
Drawn By: LJ	Checked By: MN

Scale 1:1,200

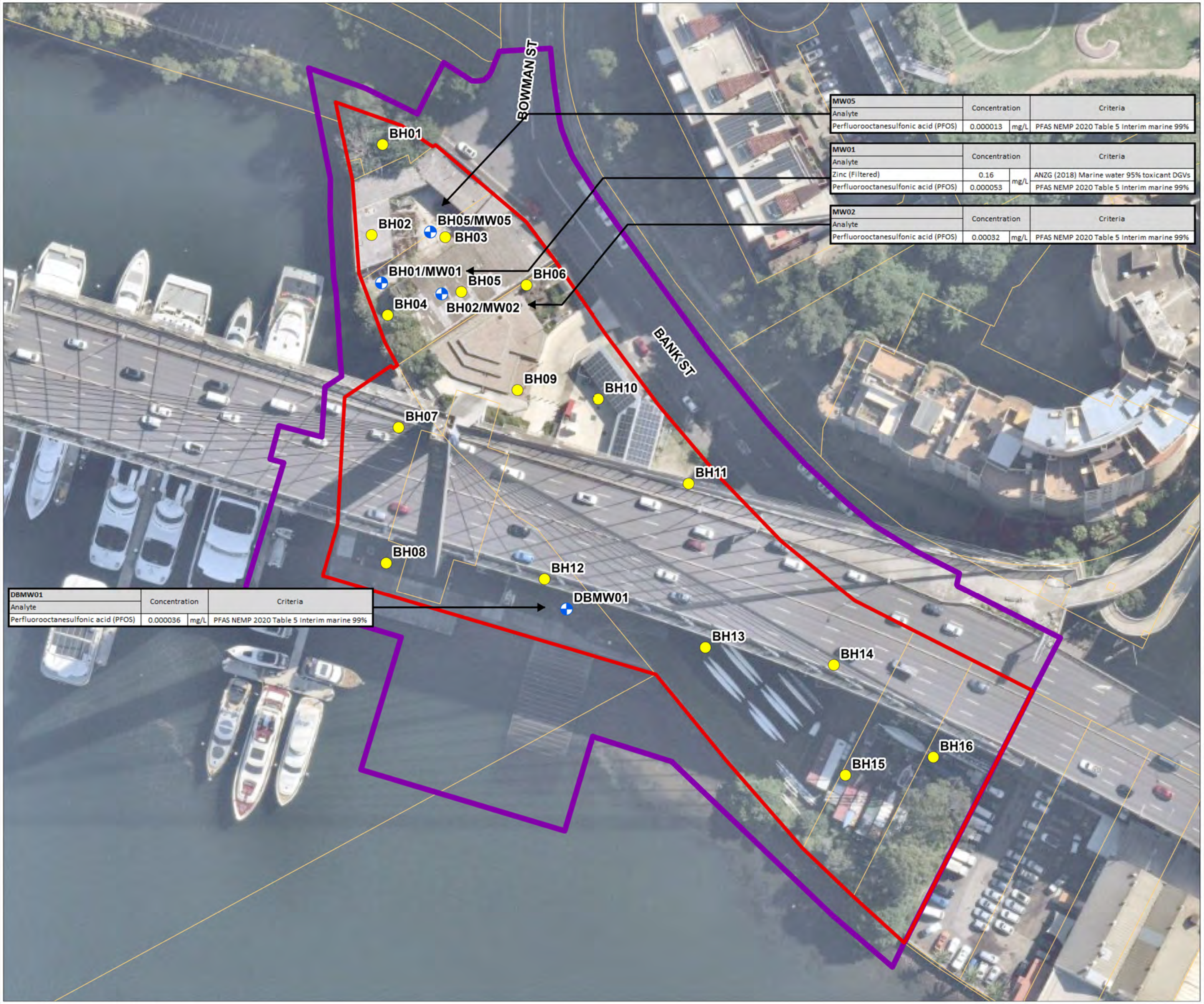
Coord. Sys. GDA 1994 MGA Zone 56

Bank St, NSW

SOIL ASBESTOS EXCEEDANCES

FIGURE 6B

File Name: 64669_BanksStPark_R02_Rev2
Reference: Nearmap www.nearmap.com 20230316



MW05	Concentration		Criteria
Analyte			
Perfluorooctanesulfonic acid (PFOS)	0.000013	mg/L	PFAS NEMP 2020 Table 5 Interim marine 99%

MW01	Concentration		Criteria
Analyte			
Zinc (Filtered)	0.16	mg/L	ANZG (2018) Marine water 95% toxicant DGVs
Perfluorooctanesulfonic acid (PFOS)	0.000053		PFAS NEMP 2020 Table 5 Interim marine 99%

MW02	Concentration		Criteria
Analyte			
Perfluorooctanesulfonic acid (PFOS)	0.00032	mg/L	PFAS NEMP 2020 Table 5 Interim marine 99%

DBMW01	Concentration		Criteria
Analyte			
Perfluorooctanesulfonic acid (PFOS)	0.000036	mg/L	PFAS NEMP 2020 Table 5 Interim marine 99%

Legend:
- 🟥 Site Area
- ▬ Broader Site Area
- ☐ NSW Cadastre
- ● Soil Sample Location
- ⊕ Groundwater Sample Location

Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 2 | Date 26/10/2023

Drawn By: LJ | Checked By: MN

Scale 1:1,200

0 10 20
metres

Coord. Sys. GDA 1994 MGA Zone 56

Bank St, NSW

GROUNDWATER EXCEEDANCES

FIGURE 7

File Name: 64669_BanksStPark_R02_Rev2
Reference: Nearmap www.nearmap.com 20230316

Appendix A – Summary Analytical Tables

Table A1: Soil Chemical Analytical Results

Project Number: 64669

Project Name: Bank St DSI 2023

						Metals & Metalloids								TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN						
						Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	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	Naphthalene_VOC
						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						2	0.4	5	5	5	0.1	5	5	20	20	50	50	50	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.5
NEPM 2013 Table 1A(1) HILs Rec C Soil						300[#1]	90	300[#2]	17000	600[#3]	80[#4]	1200	30000																			
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space						100[#11]		410	220	1100		250	720																			170
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil																					300[#16]	2800[#16]		180[#17]	120[#18]	50[#16]	85[#16]	70[#16]			105[#16]	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																			700[#19]	1000[#19]	2500	10000										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																
0-1m																								NL[#8]	NL[#9]	NL[#10]	NL[#10]	NL[#10]			NL[#10]	NL[#10]
1-2m																								NL[#8]	NL[#9]	NL[#10]	NL[#10]	NL[#10]			NL[#10]	NL[#10]
2-4m																								NL[#8]	NL[#9]	NL[#10]	NL[#10]	NL[#10]			NL[#10]	NL[#10]
>4m																								NL[#8]	NL[#9]	NL[#10]	NL[#10]	NL[#10]			NL[#10]	NL[#10]
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																
PFAS NEMP 2020 Table 2 Health Public open space																																
PFAS NEMP 2020 Table 3 Interim EDE All land uses																																
PFAS NEMP 2020 Table 3 Interim EIE All land uses																																
Field_ID	**Location_Code**	**Sample_Depth_Range**	**Sampled_Date_Time**	**Lab_Report_**	**Matreial Type**																											
BH01 0.0-0.1	BH01	0-0.1	13/04/2023	981107	Fill	13	0.6	16	92	550	0.5	13	430	<20	<20	95	88	183	<20	<50	150	120	270	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH01 0.3-0.4	BH01	0.3-0.4	13/04/2023	981107	Fill	12	1.5	28	150	1300	0.3	19	450	<20	66	710	560	1336	<20	110	1100	450	1660	<20	110	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH02 0.2-0.3	BH02	0.2-0.3	14/04/2023	981107	Fill	21	1	7.4	230	870	0.9	27	1000	<20	28	260	250	538	<20	<50	450	140	590	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
QA03 (duplicate)	BH02	0.2-0.3	14/04/2023	981107	Fill	12	0.6	6.7	360	570	0.9	22	690	<20	23	390	680	1093	<20	<50	910	570	1480	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
QC03 (triplicate)	BH02	0.2-0.3	14/04/2023	320926	Fill	11	0.8	8	370	430	0.9	22	550	<25	<50	210	190	390	<25	<50	340	<100	340	<25	<50	<0.2	<0.5	<1	<1	<2	<1	<1
BH02 0.9-1.0	BH02	0.9-1	14/04/2023	981107	Fill	22	0.8	13	390	700	0.9	28	690	<20	24	170	150	344	<20	<50	290	<100	290	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH03 0.1-0.2	BH03	0.1-0.2	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03 0.5-0.6	BH03	0.5-0.6	13/04/2023	981107	Fill	12	<0.4	10	180	410	0.8	26	450	<20	25	140	93	258	<20	<50	200	<100	200	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH03 0.9-1.0	BH03	0.9-1	13/04/2023	981107	Fill	2	<0.4	11	18	20	<0.1	<5	31	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH03 1.9-2.0	BH03	1.9-2	13/04/2023	981107	Natural	2.1	<0.4	15	<5	14	<0.1	<5	21	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH04 0.5-0.6	BH04	0.5-0.6	13/04/2023	981107	Fill	3	<0.4	11	57	40	<0.1	7.1	70	<20	<20	240	280	520	<20	<50	440	200	640	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	0.9
BH04 1.5-1.6	BH04	1.5-1.6	13/04/2023	981107	Fill	95	<0.4	15	90	390	0.2	74	170	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH05 0.2-0.3	BH05	0.2-0.3	14/04/2023	981107	Fill	65	1.5	18	880	16,000	24	9.9	2000	<20	200	3500	1900	5600	<20	320	5100	1800	7220	<20	319.3	<0.1	<0.1	<0.1	0.1	0.3	0.5	0.7
BH05 0.2-0.3[#22]	BH05	0.2-0.3	14/04/2023	984766	Fill	82	3.3	52	480	40,000	39	15	3600	<20	360	8000	2900	11260	<20	640	9700	1900	12240	<20	639.1	-	-	-	-	-	-	-
BH05 0.5-0.6	BH05	0.5-0.6	14/04/2023	995084	Fill	-	-	-	-	1,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 2.0-2.1	BH05	2-2.1	14/04/2023	981107	Fill	11	<0.4	13	85	290	0.2	17	210	<20	<20	93	71	164	<20	<50	140	<100	140	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH06 0.5-0.6	BH06	0.5-0.6	5/05/2023	987142	Fill	5	<0.4	17	16	40	<0.1	14	76	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH06 0-0.1	BH06	0-0.1	5/05/2023	987142	Fill	12	<0.4	22	68	43	0.5	10	160	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	0.2	<0.2	<0.3	<0.5
BH07 0.5-0.6	BH07	0.5-0.6	5/05/2023	987142	Fill	4.9	<0.4	9.7	24	92	0.2	7.4	110	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH07 0.9-1.0	BH07	0.9-1	5/05/2023	987142	Fill	8.5	<0.4	8.2	35	260	0.3	7.5	160	<20	<20	120	120	240	<20	<50	210	<100	210	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH07 2-2.1	BH07	2-2.1	5/05/2023	987142	Fill	12	<0.4	11	23	230	0.3	6.7	100	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH08 0.2-0.3	BH08	0.2-0.3	5/05/2023	987142	Fill	3.8	<0.4	17	29	32	<0.1	9.5	60	<20	<20	81	110	191	<20	<50	150	160	310	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH08 0.9-1.0	BH08	0.9-1	5/05/2023	987142	Fill	6.9	<0.4	9.9	20	93	0.2	6.6	77	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH08 4.0-4.1	BH08	4-4.1	5/05/2023	987142	Fill	6.6	<0.4	8.6	31	100	0.1	6.1	72	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH08 6.0-6.1	BH08	6-6.1	5/05/2023	991398	Natural	3.8	<0.4	79	18	35	<0.1	15	31	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH09 0-0.1	BH09	0-0.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	0.2	0.4	0.6	<0.5
BH09 0.2-0.3	BH09	0.2-0.3	5/05/2023	987142	Fill	3.1	<0.4	15	32	54	<0.1	8.8	74	<20	<20	<50	59	59	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	0.2	0.6	1.1	1.6	<0.5
BH11 0.2-0.3	BH11	0.2-0.3	13/04/2023	981107	Fill	6.3	<0.4	26	36	340	0.1	21	120	<20	<20	<50	61	61	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
QA01 (duplicate)	BH11	0.2-0.3	13/04/2023	981107	Fill	3	<0.4	14	25	25	<0.1	15	62	<20	<20	52	55	107	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
QC01 (triplicate)	BH11	0.2-0.3	13/04/2023	320926	Fill	<4	<0.4	13	25	20	<0.1	10	50	<25	<50	<100	<100	<50	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<1	<1
QAP01 (duplicate)	BH11	0.2-0.3	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCP01 (triplicate)	BH11	0.2-0.3	13/04/2023	320926	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11 0.8-0.9	BH11	0.8-0.9	13/04/2023	981107	Fill	28	<0.4	9	93	1,100	1.1	22	240	<20	24	200	150	374	<20	<50	290	160	450	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH11 3.0-3.1	BH11	3-3.1	13/04/2023	981107	Natural	-	-	-	-	-	-	-	-	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH12 0.2-0.3	BH12	0.2-0.3	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	-
BH12 0.5-0.6	BH12	0.5-0.6	5/05/2023	987142	Fill	6.5	<0.4	8.9	22	71	0.2	7.3	71	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH12 0.9-1	BH12	0.9-1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 1.4-1.5	BH12	1.4-1.5	5/05/2023	987142	Fill	2	<0.4	<5	14	33	<0.1	<5	31	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	0.2	2.4	3.7	6.1	<0.5
BH12 2.4-2.5	BH12	2.4-2.5	5/05/2023	987142	Fill	3.2	<0.4	9.5	8.2	59	0.2	<5	46	<20	<20	97	78	175	<20	<50	150	<100	150	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH12 5.9-6.0	BH12	5.9-6	5/05/2023	991398	Fill	18	<0.4	13	120	76	0.1	13	120	<20	<20	65	54	119	<20	<50	100	<100	100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5

Table A1: Soil Chemical Analytical Results
Project Number: 64669
Project Name: Bank St DSI 2023

						Metals & Metalloids								TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN						
						Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	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	Naphthalene_VOC
						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						2	0.4	5	5	5	0.1	5	5	20	20	50	50	50	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.5
NEPM 2013 Table 1A(1) HILs Rec C Soil						300[#1]	90	300[#2]	17000	600[#3]	80[#4]	1200	30000																			
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space						100[#11]		410	220	1100		250	720																			170
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil																					300[#16]	2800[#16]		180[#17]	120[#18]	50[#16]	85[#16]	70[#16]			105[#16]	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																			700[#19]	1000[#19]	2500	10000										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																
0-1m																								NL[#8]	NL[#9]	NL[#10]	NL[#10]	NL[#10]			NL[#10]	NL[#10]
1-2m																								NL[#8]	NL[#9]	NL[#10]	NL[#10]	NL[#10]			NL[#10]	NL[#10]
2-4m																								NL[#8]	NL[#9]	NL[#10]	NL[#10]	NL[#10]			NL[#10]	NL[#10]
>4m																								NL[#8]	NL[#9]	NL[#10]	NL[#10]	NL[#10]			NL[#10]	NL[#10]
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																
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Field_ID	**Location_Code**	**Sample_Depth_Range**	**Sampled_Date_Time**	**Lab_Report_**	**Matreial Type**																											
BH13 0.0-0.1	BH13	0-0.1	13/04/2023	981107	Fill	3.9	<0.4	10	22	85	<0.1	9	38	<20	<20	<50	76	76	<20	<50	<100	140	140	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH13 2.0-2.1	BH13	2-2.1	13/04/2023	981107	Fill	3.2	<0.4	14	<5	<5	<0.1	<5	11	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH14 0.5-0.6	BH14	0.5-0.6	13/04/2023	981107	Fill	<2	<0.4	9	9	25	<0.1	6.1	29	<20	<20	310	130	440	<20	<50	360	120	480	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH14 1.5-1.6	BH14	1.5-1.6	13/04/2023	981107	Fill	3.4	<0.4	10	6.2	10	<0.1	6.5	13	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH15 0.9-1.0	BH15	0.9-1	13/04/2023	981107	Fill	22	<0.4	9.8	83	150	0.1	7.6	890	<20	<20	230	340	570	<20	<50	480	340	820	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH15 2.4-2.5	BH15	2.4-2.5	13/04/2023	981107	Fill	7	<0.4	11	110	93	<0.1	20	340	<20	<20	95	55	150	<20	<50	120	<100	120	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
BH16 0.2-0.3	BH16	0.2-0.3	13/04/2023	981107	Fill	8.4	<0.4	15	20	41	<0.1	<5	45	<20	200	380	210	790	<20	360	430	310	1100	<20	355.3	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	4.7
BH16 0.8-0.9	BH16	0.8-0.9	13/04/2023	981107	Fill	37	<0.4	19	66	870	<0.1	10	150	<200	<20	<50	<50	<50	<200	<50	<100	<100	<100	<200	<50	<1	<1	<1	<1	<2	<3	66
BH16 1.9-2.0	BH16	1.9-2	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	<20	50	100	94	244	<20	87	140	170	397	<20	87	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5

Env Stds Comments

#1:Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).

#2:Trigger Value adopted from Chromium (VI)

#3:Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.

#4:Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.

#5:Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEQ calc by multiplying the conc of each carc. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing

#6:Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (should meet BaP TEQ HIL) & napthalene (should meet relevant HSL)

#7:PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of exposure to all PCBs (inc dioxin like PCBs) should be undertaken

#8:Derived soil HSL exceeds soil saturation concentraiton. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.

#9:Derived soil HSL exceeds soil saturation concentraiton. To obtain F2 subtract naphthalene from the >C10-C16 fraction

#10:Derived soil HSL exceeds soil saturation concentraiton

#11:Aged values apply to arsenic contamination present in soil > 2 years. Refer Schedule B5c for < 2 years.

#12:Trigger Value taken for Chromium (III), Clay Content of 1%

#13:Trigger Value taken for pH 4.5

#14:Trigger Value taken for CEC 5

#15:Trigger Value taken for pH 4 and CEC 5

#16:ESLs are of low reliability.

#17:ESLs are of moderate reliability. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.

#18:ESLs are of moderate reliability. To obtain F2 subtract napthalene from the >C10 - C16 fraction.

#19:Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions to obtain F1 & F2

#20:Recreational C includes public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and unpaved footpaths.

#21:Only applies where the FA and AF are able to be quantified by gravimetric procedures (refer Section 4.10). This screening level is not applicable to free fibres.

#22: Sample reanalysed for heavy metals, TRH and PAHs to confirm results.

Table A1: Soil Chemical Analytical Results
Project Number: 64669
Project Name: Bank St DSI 2023

						PAH																				
						Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (Zero)	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)
						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						0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Rec C Soil											3[#5]	3[#5]	3[#5]													300[#6]
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																							170			
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil										0.7[#16]																
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																										
0-1m																							NL[#10]			
1-2m																							NL[#10]			
2-4m																							NL[#10]			
>4m																							NL[#10]			
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																										
PFAS NEMP 2020 Table 2 Health Public open space																										
PFAS NEMP 2020 Table 3 Interim EDE All land uses																										
PFAS NEMP 2020 Table 3 Interim EIE All land uses																										
Field_ID	Location_Code	Sample_Depth_Range	Sampled_Date_Time	Lab_Report_	Matreial Type																					
BH01 0.0-0.1	BH01	0-0.1	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	1.1	1.1	2	1.7	1.5	0.8	-	<0.5	1.2	1.3	<0.5	2	<0.5	0.6	<0.5	1.3	2.5	12
BH01 0.3-0.4	BH01	0.3-0.4	13/04/2023	981107	Fill	<0.5	0.6	2.4	4.9	5.8	8.4	8.4	8.4	3.8	-	2.9	4.7	7.8	0.9	12	<0.5	2.5	<0.5	6.5	13	68
BH02 0.2-0.3	BH02	0.2-0.3	14/04/2023	981107	Fill	<0.5	<0.5	<0.5	1.3	1	1.9	1.7	1.4	1	-	1.1	1.4	1.8	<0.5	2.4	<0.5	<0.5	<0.5	0.7	2.9	14
QA03 (duplicate)	BH02	0.2-0.3	14/04/2023	981107	Fill	<0.5	<0.5	0.6	1.6	1.8	2.9	2.7	2.4	1.7	-	2	1.6	2.5	<0.5	3.1	<0.5	1.1	<0.5	1.5	3.6	21
QC03 (triplicate)	BH02	0.2-0.3	14/04/2023	320926	Fill	<0.1	0.2	0.3	2.1	2.5	3.4	3.4	3.4	-	3.2	1.3	-	1.4	0.2	2.4	<0.1	1.7	<0.1	0.9	2.5	19
BH02 0.9-1.0	BH02	0.9-1	14/04/2023	981107	Fill	<0.5	<0.5	<0.5	1	<0.5	1.3	0.8	<0.5	0.7	-	0.7	0.8	1.4	<0.5	1.8	<0.5	<0.5	<0.5	0.9	2	9.3
BH03 0.1-0.2	BH03	0.1-0.2	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03 0.5-0.6	BH03	0.5-0.6	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH03 0.9-1.0	BH03	0.9-1	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH03 1.9-2.0	BH03	1.9-2	13/04/2023	981107	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH04 0.5-0.6	BH04	0.5-0.6	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	1.9	3.1	4.6	4.3	4.1	2.4	-	3	3.3	3.3	<0.5	3.3	<0.5	1.5	<0.5	<0.5	4.8	27
BH04 1.5-1.6	BH04	1.5-1.6	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH05 0.2-0.3	BH05	0.2-0.3	14/04/2023	981107	Fill	0.6	<0.5	2.8	5.1	4.8	8.5	8.5	8.5	7	-	6.8	7.7	12	1.1	23	<0.5	4.5	2	20	21	120
BH05 0.2-0.3[#22]	BH05	0.2-0.3	14/04/2023	984766	Fill	<0.5	<0.5	4.3	13	9.3	23	23	23	20	-	17	18	29	7.1	57	<0.5	14	2	47	53	290
BH05 0.5-0.6	BH05	0.5-0.6	14/04/2023	995084	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 2.0-2.1	BH05	2-2.1	14/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH06 0.5-0.6	BH06	0.5-0.6	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH06 0-0.1	BH06	0-0.1	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH07 0.5-0.6	BH07	0.5-0.6	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH07 0.9-1.0	BH07	0.9-1	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	0.7	0.6	1.3	1.1	0.8	0.5	-	0.6	0.6	0.7	<0.5	1.3	<0.5	<0.5	<0.5	0.6	1.1	6.7
BH07 2-2.1	BH07	2-2.1	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH08 0.2-0.3	BH08	0.2-0.3	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	0.8	1.6
BH08 0.9-1.0	BH08	0.9-1	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	0.6	<0.5	1.2	<0.5	<0.5	<0.5	0.6	1.1	3.5
BH08 4.0-4.1	BH08	4-4.1	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH08 6.0-6.1	BH08	6-6.1	5/05/2023	991398	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	0.6	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	2
BH09 0-0.1	BH09	0-0.1	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH09 0.2-0.3	BH09	0.2-0.3	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH11 0.2-0.3	BH11	0.2-0.3	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
QA01 (duplicate)	BH11	0.2-0.3	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
QC01 (triplicate)	BH11	0.2-0.3	13/04/2023	320926	Fill	<0.1	<0.1	<0.1	0.1	0.1	<0.5	<0.5	<0.5	-	0.2	0.2	-	<0.1	<0.1	0.2	<0.1	0.1	<0.1	<0.1	0.2	1
QAP01 (duplicate)	BH11	0.2-0.3	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCP01 (triplicate)	BH11	0.2-0.3	13/04/2023	320926	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11 0.8-0.9	BH11	0.8-0.9	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	0.9	1	1.9	1.6	1.4	0.9	-	0.9	1.1	1.3	<0.5	3.1	<0.5	0.6	<0.5	1.3	2.7	14
BH11 3.0-3.1	BH11	3-3.1	13/04/2023	981107	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH12 0.2-0.3	BH12	0.2-0.3	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 0.5-0.6	BH12	0.5-0.6	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	0.5	1.1
BH12 0.9-1	BH12	0.9-1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 1.4-1.5	BH12	1.4-1.5	5/05/2023	987142	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH12 2.4-2.5	BH12	2.4-2.5	5/05/2023	987142	Fill	0.5	<0.5	2.8	5.5	5.1	8.7	8.7	8.7	4.9	-	5.7	5.1	8.4	1.5	16	<0.5	3.9	<0.5	5.3	15	80
BH12 5.9-6.0	BH12	5.9-6	5/05/2023	991398	Fill	<0.5	<0.5	<0.5	0.6	0.5	0.7	1	1.3	<0.5	-	0.9	0.7	1.1	<0.5	0.9	<0.5	0.5	<0.5	<0.5	1.2	6.4

	Organochlorine Pesticides																							
	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
	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	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
NEPM 2013 Table 1A(1) HILs Rec C Soil								10	70					400				20			10		400	30
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space												180												
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil																								
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																								
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PFAS NEMP 2020 Table 2 Health Public open space																								
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PFAS NEMP 2020 Table 3 Interim EIE All land uses																								
Field_ID																								
BH01 0.0-0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH01 0.3-0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	0.73	<0.5	0.73	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH02 0.2-0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
QA03 (duplicate)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
QC03 (triplicate)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	-
BH02 0.9-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03 0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03 0.5-0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH03 0.9-1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH03 1.9-2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04 0.5-0.6	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	3.4	4.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH04 1.5-1.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH05 0.2-0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH05 0.2-0.3[#22]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 2.0-2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06 0.5-0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH06 0-0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH07 0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07 0.9-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH07 2-2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH08 0.2-0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08 0.9-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH08 4.0-4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08 6.0-6.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 0.2-0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH11 0.2-0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
QA01 (duplicate)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
QC01 (triplicate)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	-
QAP01 (duplicate)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCP01 (triplicate)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11 0.8-0.9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH11 3.0-3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 0.2-0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 0.5-0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH12 0.9-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 1.4-1.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH12 2.4-2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 5.9-6.0																								

Table A1: Soil Chemical Analytical Results
Project Number: 64669
Project Name: Bank St DSI 2023

						PAH																				
						Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ calc (Zero)	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)
						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						0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Rec C Soil											3[#5]	3[#5]	3[#5]													300[#6]
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																							170			
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil										0.7[#16]																
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																										
0-1m																							NL[#10]			
1-2m																							NL[#10]			
2-4m																							NL[#10]			
>4m																							NL[#10]			
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																										
PFAS NEMP 2020 Table 2 Health Public open space																										
PFAS NEMP 2020 Table 3 Interim EDE All land uses																										
PFAS NEMP 2020 Table 3 Interim EIE All land uses																										
Field_ID	Location_Code	Sample_Depth_Range	Sampled_Date_Time	Lab_Report_	Matreial Type																					
BH13 0.0-0.1	BH13	0-0.1	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH13 2.0-2.1	BH13	2-2.1	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH14 0.5-0.6	BH14	0.5-0.6	13/04/2023	981107	Fill	1.5	<0.5	4.8	3.1	2.7	4.7	4.7	4.7	3.8	-	5.1	4.4	5.5	0.5	14	1.3	2.9	0.6	13	13	76
BH14 1.5-1.6	BH14	1.5-1.6	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH15 0.9-1.0	BH15	0.9-1	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	1.5	1.8	3.1	3.1	3.1	1.5	-	3.1	2.2	2.4	0.6	2.8	<0.5	1.7	<0.5	0.7	3.3	22
BH15 2.4-2.5	BH15	2.4-2.5	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<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
BH16 0.2-0.3	BH16	0.2-0.3	13/04/2023	981107	Fill	5.7	<0.5	2.4	1.2	0.8	1.8	1.6	1.3	1.5	-	1.4	1.5	1.9	<0.5	5	2.9	0.9	5.7	6.1	3.9	41
BH16 0.8-0.9	BH16	0.8-0.9	13/04/2023	981107	Fill	70	1.6	19	18	22	37	37	37	21	-	22	19	20	6.8	77	40	17	76	99	64	590
BH16 1.9-2.0	BH16	1.9-2	13/04/2023	981107	Fill	1.6	<0.5	0.7	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	0.6	<0.5	0.6	<0.5	1.5	0.8	<0.5	1.3	1.7	1.1	9.9

						Organochlorine Pesticides																							
						4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
						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						0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
NEPM 2013 Table 1A(1) HILs Rec C Soil													10	70					400				20			10		400	30
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																	180												
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil																													
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																													
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																													
0-1m																													
1-2m																													
2-4m																													
>4m																													
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																													
PFAS NEMP 2020 Table 2 Health Public open space																													
PFAS NEMP 2020 Table 3 Interim EDE All land uses																													
PFAS NEMP 2020 Table 3 Interim EIE All land uses																													
Field_ID	Location_Code	Sample_Depth_Range	Sampled_Date_Time	Lab_Report_	Matreial Type																								
BH13 0.0-0.1	BH13	0-0.1	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH13 2.0-2.1	BH13	2-2.1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14 0.5-0.6	BH14	0.5-0.6	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH14 1.5-1.6	BH14	1.5-1.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15 0.9-1.0	BH15	0.9-1	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH15 2.4-2.5	BH15	2.4-2.5	13/04/2023	981107	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
BH16 0.2-0.3	BH16	0.2-0.3	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH16 0.8-0.9	BH16	0.8-0.9	13/04/2023	981107	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
BH16 1.9-2.0	BH16	1.9-2	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

#1:Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).
#2:Trigger Value adopted from Chromium (VI)
#3:Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.
#4:Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.
#5:Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEQ calc by multiplying the conc of each carc. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing
#6:Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (should meet BaP TEQ HIL) & napthalene (should meet relevant HSL)
#7:PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of exposure to all PCBs (inc dioxin like PCBs) should be undertaken
#8:Derived soil HSL exceeds soil saturation concentraiton. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.
#9:Derived soil HSL exceeds soil saturation concentraiton. To obtain F2 subtract naphthalene from the >C10-C16 fraction
#10:Derived soil HSL exceeds soil saturation concentraiton
#11:Aged values apply to arsenic contamination present in soil > 2 years. Refer Schedule B5c for < 2 years.
#12:Trigger Value taken for Chromium (III), Clay Content of 1%
#13:Trigger Value taken for pH 4.5
#14:Trigger Value taken for CEC 5
#15:Trigger Value taken for pH 4 and CEC 5
#16:ESLs are of low reliability.
#17:ESLs are of moderate reliability. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.
#18:ESLs are of moderate reliability. To obtain F2 subtract napthalene from the >C10 - C16 fraction.
#19:Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions to obtain F1 & F2
#20:Recreational C includes public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and unpaved footpaths.
#21:Only applies where the FA and AF are able to be quantified by gravimetric procedures (refer Section 4.10). This screening level is not applicable to free fibres.
#22: Sample reanalysed for heavy metals, TRH and PAHs to confirm results.

Table A1: Soil Chemical Analytical Results
Project Number: 64669
Project Name: Bank St DSI 2023

						Chlorinated Alkanes																		Chlorinated Alkenes												Solvents	Polychlorinated Biphenyls							
						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	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	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
						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						0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	1	0.5	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	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1A(1) HILs Rec C Soil																																												1$^{\#7}$
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																																												
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil																																												
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																												
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																												
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PFAS NEMP 2020 Table 2 Health Public open space																																												
PFAS NEMP 2020 Table 3 Interim EDE All land uses																																												
PFAS NEMP 2020 Table 3 Interim EIE All land uses																																												
Field_ID	Location_Code	Sample_Depth_Range	Sampled_Date_Time	Lab_Report_	Matreial Type																																							
BH01 0.0-0.1	BH01	0-0.1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH01 0.3-0.4	BH01	0.3-0.4	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH02 0.2-0.3	BH02	0.2-0.3	14/04/2023	981107	Fill	<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	<1	<1	<1	<1	<1	<1	<1	<1
QA03 (duplicate)	BH02	0.2-0.3	14/04/2023	981107	Fill	<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	<1	<1	<1	<1	<1	<1	<1	<1
QC03 (triplicate)	BH02	0.2-0.3	14/04/2023	320926	Fill	<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	<1	<1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH02 0.9-1.0	BH02	0.9-1	14/04/2023	981107	Fill	<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	-	-	-	-	-	-	-	-
BH03 0.1-0.2	BH03	0.1-0.2	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03 0.5-0.6	BH03	0.5-0.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH03 0.9-1.0	BH03	0.9-1	13/04/2023	981107	Fill	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH03 1.9-2.0	BH03	1.9-2	13/04/2023	981107	Natural	<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	-	-	-	-	-	-	-	-
BH04 0.5-0.6	BH04	0.5-0.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH04 1.5-1.6	BH04	1.5-1.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH05 0.2-0.3	BH05	0.2-0.3	14/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH05 0.2-0.3$^{\#22}$	BH05	0.2-0.3	14/04/2023	984766	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 0.5-0.6	BH05	0.5-0.6	14/04/2023	995084	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 2.0-2.1	BH05	2-2.1	14/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06 0.5-0.6	BH06	0.5-0.6	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH06 0-0.1	BH06	0-0.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH07 0.5-0.6	BH07	0.5-0.6	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07 0.9-1.0	BH07	0.9-1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH07 2-2.1	BH07	2-2.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH08 0.2-0.3	BH08	0.2-0.3	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08 0.9-1.0	BH08	0.9-1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH08 4.0-4.1	BH08	4-4.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08 6.0-6.1	BH08	6-6.1	5/05/2023	991398	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 0-0.1	BH09	0-0.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 0.2-0.3	BH09	0.2-0.3	5/05/2023	987142	Fill	<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	<1	<1	<1	<1	<1	<1	<1	<1
BH11 0.2-0.3	BH11	0.2-0.3	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QA01 (duplicate)	BH11	0.2-0.3	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
QC01 (triplicate)	BH11	0.2-0.3	13/04/2023	320926	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QAP01 (duplicate)	BH11	0.2-0.3	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QCP01 (triplicate)	BH11	0.2-0.3	13/04/2023	320926	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11 0.8-0.9	BH11	0.8-0.9	13/04/2023	981107	Fill	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH11 3.0-3.1	BH11	3-3.1	13/04/2023	981107	Natural	<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	-	-	-	-	-	-	-	-
BH12 0.2-0.3	BH12	0.2-0.3	5/05/2023	987142	Fill	<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	-	-	-	-	-	-	-	-
BH12 0.5-0.6	BH12	0.5-0.6	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH12 0.9-1	BH12	0.9-1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 1.4-1.5	BH12	1.4-1.5	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH12 2.4-2.5	BH12	2.4-2.5	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 5.9-6.0	BH12	5.9-6	5/05/2023	991398	Fill																																							

Table A1: Soil Chemical Analytical Results
Project Number: 64669
Project Name: Bank St DSI 2023

						Chlorinated Alkanes																	
						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	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane
						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						0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Rec C Soil																							
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																							
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil																							
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																							
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																							
0-1m																							
1-2m																							
2-4m																							
>4m																							
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																							
PFAS NEMP 2020 Table 2 Health Public open space																							
PFAS NEMP 2020 Table 3 Interim EDE All land uses																							
PFAS NEMP 2020 Table 3 Interim EIE All land uses																							
Field_ID	**Location_Code**	**Sample_Depth_Range**	**Sampled_Date_Time**	**Lab_Report_**	**Matreial Type**																		
BH13 0.0-0.1	BH13	0-0.1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13 2.0-2.1	BH13	2-2.1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14 0.5-0.6	BH14	0.5-0.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14 1.5-1.6	BH14	1.5-1.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15 0.9-1.0	BH15	0.9-1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15 2.4-2.5	BH15	2.4-2.5	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16 0.2-0.3	BH16	0.2-0.3	13/04/2023	981107	Fill	<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
BH16 0.8-0.9	BH16	0.8-0.9	13/04/2023	981107	Fill	<5	<5	<5	<5	<5	<5	-	<5	<5	<5	-	<5	<5	<5	<5	<5	<5	<5
BH16 1.9-2.0	BH16	1.9-2	13/04/2023	981107	Fill	<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

	Chlorinated Alkenes												Solvents	Polychlorinated Biphenyls							
	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	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
	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	0.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1A(1) HILs Rec C Soil																					1[#7]
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																					
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil																					
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																					
0-1m																					
1-2m																					
2-4m																					
>4m																					
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																					
PFAS NEMP 2020 Table 2 Health Public open space																					
PFAS NEMP 2020 Table 3 Interim EDE All land uses																					
PFAS NEMP 2020 Table 3 Interim EIE All land uses																					
Field_ID																					
BH13 0.0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH13 2.0-2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14 0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH14 1.5-1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15 0.9-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1
BH15 2.4-2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH16 0.2-0.3	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1
BH16 0.8-0.9	<5	-	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1
BH16 1.9-2.0	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-

Env Stds Comments

#1:Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).
#2:Trigger Value adopted from Chromium (VI)
#3:Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.
#4:Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.
#5:Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEQ calc by multiplying the conc of each carc. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing
#6:Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (should meet BaP TEQ HIL) & napthalene (should meet relevant HSL)
#7:PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of exposure to all PCBs (inc dioxin like PCBs) should be undertaken
#8:Derived soil HSL exceeds soil saturation concentraiton. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.
#9:Derived soil HSL exceeds soil saturation concentraiton. To obtain F2 subtract naphthalene from the >C10-C16 fraction
#10:Derived soil HSL exceeds soil saturation concentraiton
#11:Aged values apply to arsenic contamination present in soil > 2 years. Refer Schedule B5c for < 2 years.
#12:Trigger Value taken for Chromium (III), Clay Content of 1%
#13:Trigger Value taken for pH 4.5
#14:Trigger Value taken for CEC 5
#15:Trigger Value taken for pH 4 and CEC 5
#16:ESLs are of low reliability.
#17:ESLs are of moderate reliability. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.
#18:ESLs are of moderate reliability. To obtain F2 subtract napthalene from the >C10 - C16 fraction.
#19:Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions to obtain F1 & F2
#20:Recreational C includes public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and unpaved footpaths.
#21:Only applies where the FA and AF are able to be quantified by gravimetric procedures (refer Section 4.10). This screening level is not applicable to free fibres.
#22: Sample reanalysed for heavy metals, TRH and PAHs to confirm results.

Table A1: Soil Chemical Analytical Results
Project Number: 64669
Project Name: Bank St DSI 2023

						PFAS																																		
						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)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	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 WA DWER PFAS (n=10)*	Sum of PFAS	Perfluorononanesulfonic acid ion
						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						0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	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	0.005
NEPM 2013 Table 1A(1) HILs Rec C Soil																																								
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																																								
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NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																								
PFAS NEMP 2020 Table 2 Health Public open space										10																	1		1						1					
PFAS NEMP 2020 Table 3 Interim EDE All land uses										10																			1											
PFAS NEMP 2020 Table 3 Interim EIE All land uses																													0.01											
Field_ID	Location_Code	Sample_Depth_Range	Sampled_Date_Time	Lab_Report_	Matreial Type																																			
BH01 0.0-0.1	BH01	0-0.1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01 0.3-0.4	BH01	0.3-0.4	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02 0.2-0.3	BH02	0.2-0.3	14/04/2023	981107	Fill	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	<0.005
QA03 (duplicate)	BH02	0.2-0.3	14/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03 (triplicate)	BH02	0.2-0.3	14/04/2023	320926	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02 0.9-1.0	BH02	0.9-1	14/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03 0.1-0.2	BH03	0.1-0.2	13/04/2023	981107	Fill	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	<0.005
BH03 0.5-0.6	BH03	0.5-0.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03 0.9-1.0	BH03	0.9-1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03 1.9-2.0	BH03	1.9-2	13/04/2023	981107	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04 0.5-0.6	BH04	0.5-0.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04 1.5-1.6	BH04	1.5-1.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 0.2-0.3	BH05	0.2-0.3	14/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 0.2-0.3[#22]	BH05	0.2-0.3	14/04/2023	984766	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 0.5-0.6	BH05	0.5-0.6	14/04/2023	995084	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05 2.0-2.1	BH05	2-2.1	14/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06 0.5-0.6	BH06	0.5-0.6	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06 0-0.1	BH06	0-0.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07 0.5-0.6	BH07	0.5-0.6	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07 0.9-1.0	BH07	0.9-1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07 2.2-2.1	BH07	2-2.1	5/05/2023	987142	Fill	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	<0.005
BH08 0.2-0.3	BH08	0.2-0.3	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08 0.9-1.0	BH08	0.9-1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08 4.0-4.1	BH08	4-4.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08 6.0-6.1	BH08	6-6.1	5/05/2023	991398	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 0-0.1	BH09	0-0.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09 0.2-0.3	BH09	0.2-0.3	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11 0.2-0.3	BH11	0.2-0.3	13/04/2023	981107	Fill	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	<0.005
QA01 (duplicate)	BH11	0.2-0.3	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01 (triplicate)	BH11	0.2-0.3	13/04/2023	320926	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QAP01 (duplicate)	BH11	0.2-0.3	13/04/2023	981107	Fill	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	<0.005
QCP01 (triplicate)	BH11	0.2-0.3	13/04/2023	320926	Fill	<0.0002	<0.0002	0.0004	0.0002	0.0007	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.0002	<0.0002	-	0.0001	0.0001	0.0008	<0.0001	0.0008	<0.0002	<0.0001	<0.0001	<0.0002	<0.0002	0.0016	-	0.0015	-	0.0032	-
BH11 0.8-0.9	BH11	0.8-0.9	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11 3.0-3.1	BH11	3-3.1	13/04/2023	981107	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 0.2-0.3	BH12	0.2-0.3	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 0.5-0.6	BH12	0.5-0.6	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 0.9-1	BH12	0.9-1	5/05/2023	987142	Fill	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	0.0085[#2]	<0.005	<0.005	<0.01	<0.005	<0.005	0.0085	0.0085	0.0085	<0.01	<0.05	<0.005
BH12 1.4-1.5	BH12	1.4-1.5	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 2.4-2.5	BH12	2.4-2.5	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12 5.9-6.0	BH12	5.9-6	5/05/2023	991398	Fill																																			

Table A1: Soil Chemical Analytical Results
Project Number: 64669
Project Name: Bank St DSI 2023

						PFAS																																		
						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)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	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 WA DWER PFAS (n=10)*	Sum of PFAS	Perfluorononanesulfonic acid ion
						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						0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	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	0.005
NEPM 2013 Table 1A(1) HILs Rec C Soil																																								
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																																								
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PFAS NEMP 2020 Table 2 Health Public open space										10																	1		1						1					
PFAS NEMP 2020 Table 3 Interim EDE All land uses										10																			1											
PFAS NEMP 2020 Table 3 Interim EIE All land uses																													0.01											
Field_ID	**Location_Code**	**Sample_Depth_Range**	**Sampled_Date_Time**	**Lab_Report_**	**Matreial Type**																																			
BH13 0.0-0.1	BH13	0-0.1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13 2.0-2.1	BH13	2-2.1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14 0.5-0.6	BH14	0.5-0.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14 1.5-1.6	BH14	1.5-1.6	13/04/2023	981107	Fill	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	<0.005
BH15 0.9-1.0	BH15	0.9-1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15 2.4-2.5	BH15	2.4-2.5	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16 0.2-0.3	BH16	0.2-0.3	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16 0.8-0.9	BH16	0.8-0.9	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16 1.9-2.0	BH16	1.9-2	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

#1:Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).

#2:Trigger Value adopted from Chromium (VI)

#3:Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.

#4:Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.

#5:Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEQ calc by multiplying the conc of each carc. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing

#6:Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (should meet BaP TEQ HIL) & napthalene (should meet relevant HSL)

#7:PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of exposure to all PCBs (inc dioxin like PCBs) should be undertaken

#8:Derived soil HSL exceeds soil saturation concentraiton. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.

#9:Derived soil HSL exceeds soil saturation concentraiton. To obtain F2 subtract naphthalene from the >C10-C16 fraction

#10:Derived soil HSL exceeds soil saturation concentraiton

#11:Aged values apply to arsenic contamination present in soil > 2 years. Refer Schedule B5c for < 2 years.

#12:Trigger Value taken for Chromium (III), Clay Content of 1%

#13:Trigger Value taken for pH 4.5

#14:Trigger Value taken for CEC 5

#15:Trigger Value taken for pH 4 and CEC 5

#16:ESLs are of low reliability.

#17:ESLs are of moderate reliability. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.

#18:ESLs are of moderate reliability. To obtain F2 subtract napthalene from the >C10 - C16 fraction.

#19:Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions to obtain F1 & F2

#20:Recreational C includes public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and unpaved footpaths.

#21:Only applies where the FA and AF are able to be quantified by gravimetric procedures (refer Section 4.10). This screening level is not applicable to free fibres.

#22: Sample reanalysed for heavy metals, TRH and PAHs to confirm results.

Table A1: Soil Chemical Analytical Results
Project Number: 64669
Project Name: Bank St DSI 2023

						MAH											Miscellaneous Hydrocarbons							Chlorinated Benzenes							Trihalomethanes				Organic Sulfur Compounds	Ionic Balance			Particle Size			Other		
						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	Hexachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Carbon disulfide	CEC	Conductivity (1:5 aqueous extract)	pH (aqueous extract)	% Clay*	<2mm Fraction	>2mm Fraction	Moisture Content (dried @ 103°C)	Analysed Material	Extraneous Material
						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	MEQ/100G	US/CM	pH Units	%	%	%	%	%	%
EQL						0.5	0.5	1	1	1	1	0.5	1	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	1	1	0.5	0.5	0.5	0.5	0.05	0.5	0.5	0.5	0.5	0.5	0.05	10	0.1	1	0.005	0.005	1	0.1	0.1
NEPM 2013 Table 1A(1) HILs Rec C Soil																														10														
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																																												
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil																																												
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																												
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																												
0-1m																																												
1-2m																																												
2-4m																																												
>4m																																												
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																												
PFAS NEMP 2020 Table 2 Health Public open space																																												
PFAS NEMP 2020 Table 3 Interim EDE All land uses																																												
PFAS NEMP 2020 Table 3 Interim EIE All land uses																																												
Field_ID	**Location_Code**	**Sample_Depth_Range**	**Sampled_Date_Time**	**Lab_Report_**	**Matreial Type**																																							
BH01 0.0-0.1	BH01	0-0.1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	12	130	7.8	<1	-	-	17	-	-
BH01 0.3-0.4	BH01	0.3-0.4	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	11	-	-
BH02 0.2-0.3	BH02	0.2-0.3	14/04/2023	981107	Fill	<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	-	-	-	-	-	-	17	-	-
QA03 (duplicate)	BH02	0.2-0.3	14/04/2023	981107	Fill	<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	-	-	-	-	-	-	9.3	-	-
QC03 (triplicate)	BH02	0.2-0.3	14/04/2023	320926	Fill	<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	-	-	-	-	-	-	-	-	-	-
BH02 0.9-1.0	BH02	0.9-1	14/04/2023	981107	Fill	<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	-	-	-	-	-	-	13	-	-
BH03 0.1-0.2	BH03	0.1-0.2	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-
BH03 0.5-0.6	BH03	0.5-0.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	15	-	-
BH03 0.9-1.0	BH03	0.9-1	13/04/2023	981107	Fill	<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	-	-	-	-	-	-	8.9	-	-
BH03 1.9-2.0	BH03	1.9-2	13/04/2023	981107	Natural	<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	-	-	-	-	69	<0.005	4.8	100	<0.1
BH04 0.5-0.6	BH04	0.5-0.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	7.4	-	-
BH04 1.5-1.6	BH04	1.5-1.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	2	140	7.5	<1	-	-	7.1	-	-
BH05 0.2-0.3	BH05	0.2-0.3	14/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	9.2	-	-
BH05 0.2-0.3[#22]	BH05	0.2-0.3	14/04/2023	984766	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-
BH05 0.5-0.6	BH05	0.5-0.6	14/04/2023	995084	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	-	-
BH05 2.0-2.1	BH05	2-2.1	14/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-
BH06 0.5-0.6	BH06	0.5-0.6	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	43	99	8.5	3.4	-	-	13	-	-
BH06 0-0.1	BH06	0-0.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	37	-	-
BH07 0.5-0.6	BH07	0.5-0.6	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.5	-	-
BH07 0.9-1.0	BH07	0.9-1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	8.9	-	-
BH07 2-2.1	BH07	2-2.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	18	-	-
BH08 0.2-0.3	BH08	0.2-0.3	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-
BH08 0.9-1.0	BH08	0.9-1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	11	-	-
BH08 4.0-4.1	BH08	4-4.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	2900	8.3	6.2	-	-	20	-	-
BH08 6.0-6.1	BH08	6-6.1	5/05/2023	991398	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-
BH09 0-0.1	BH09	0-0.1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-
BH09 0.2-0.3	BH09	0.2-0.3	5/05/2023	987142	Fill	<0.5	<0.5	-	-	-	-	<0.5	-	1.9	<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	-	-	-	-	-	-	10	-	-
BH11 0.2-0.3	BH11	0.2-0.3	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	21	690	8.6	<1	-	-	7.4	-	-
QA01 (duplicate)	BH11	0.2-0.3	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	4.5	-	-
QC01 (triplicate)	BH11	0.2-0.3	13/04/2023	320926	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QAP01 (duplicate)	BH11	0.2-0.3	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.3	-	-
QCP01 (triplicate)	BH11	0.2-0.3	13/04/2023	320926	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11 0.8-0.9	BH11	0.8-0.9	13/04/2023	981107	Fill	<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	-	-	-	-	-	-	9.6	-	-
BH11 3.0-3.1	BH11	3-3.1	13/04/2023	981107	Natural	<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	-	-	-	-	220	4.1	20	98	1.9
BH12 0.2-0.3	BH12	0.2-0.3	5/05/2023	987142	Fill	<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	-	-	-	-	-	-	7.8	-	-
BH12 0.5-0.6	BH12	0.5-0.6	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	7.7	-	-
BH12 0.9-1	BH12	0.9-1	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.5	-	-
BH12 1.4-1.5	BH12	1.4-1.5	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	5.8	-	-
BH12 2.4-2.5	BH12	2.4-2.5	5/05/2023	987142	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	-	-
BH12 5.9-6.0	BH12	5.9-6	5/05/2023	991398	Fill																																							

Table A1: Soil Chemical Analytical Results
Project Number: 64669
Project Name: Bank St DSI 2023

						MAH											Miscellaneous Hydrocarbons						
						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
						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						0.5	0.5	1	1	1	1	0.5	1	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5
NEPM 2013 Table 1A(1) HILs Rec C Soil																							
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																							
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil																							
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																							
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																							
0-1m																							
1-2m																							
2-4m																							
>4m																							
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																							
PFAS NEMP 2020 Table 2 Health Public open space																							
PFAS NEMP 2020 Table 3 Interim EDE All land uses																							
PFAS NEMP 2020 Table 3 Interim EIE All land uses																							
Field_ID	**Location_Code**	**Sample_Depth_Range**	**Sampled_Date_Time**	**Lab_Report_**	**Matreial Type**																		
BH13 0.0-0.1	BH13	0-0.1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13 2.0-2.1	BH13	2-2.1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14 0.5-0.6	BH14	0.5-0.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14 1.5-1.6	BH14	1.5-1.6	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15 0.9-1.0	BH15	0.9-1	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15 2.4-2.5	BH15	2.4-2.5	13/04/2023	981107	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16 0.2-0.3	BH16	0.2-0.3	13/04/2023	981107	Fill	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
BH16 0.8-0.9	BH16	0.8-0.9	13/04/2023	981107	Fill	<5	<5	-	-	-	-	<5	-	<5	<5	<5	<5	<5	-	<5	<5	<5	<5
BH16 1.9-2.0	BH16	1.9-2	13/04/2023	981107	Fill	<0.5	<0.5	-	-	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5

	Chlorinated Benzenes							Trihalomethanes				Organic Sulfur Compounds	Ionic Balance			Particle Size			Other		
	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	CEC	Conductivity (1:5 aqueous extract)	pH (aqueous extract)	% Clay*	<2mm Fraction	>2mm Fraction	Moisture Content (dried @ 103°C)	Analysed Material	Extraneous Material
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MEQ/100G	US/CM	pH Units	%	%	%	%	%	%
EQL	1	1	0.5	0.5	0.5	0.5	0.05	0.5	0.5	0.5	0.5	0.5	0.05	10	0.1	1	0.005	0.005	1	0.1	0.1
NEPM 2013 Table 1A(1) HILs Rec C Soil							10														
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																					
NEPM 2013 Table 1B(6) ESLs for Urban Res and public open space, Coarse Soil																					
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																					
0-1m																					
1-2m																					
2-4m																					
>4m																					
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																					
PFAS NEMP 2020 Table 2 Health Public open space																					
PFAS NEMP 2020 Table 3 Interim EDE All land uses																					
PFAS NEMP 2020 Table 3 Interim EIE All land uses																					
Field_ID																					
BH13 0.0-0.1	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	6.6	-	-
BH13 2.0-2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.1	-	-
BH14 0.5-0.6	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	4.2	-	-
BH14 1.5-1.6	-	-	-	-	-	-	-	-	-	-	-	-	2.9	120	7.9	<1	-	-	6.8	-	-
BH15 0.9-1.0	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	8.7	-	-
BH15 2.4-2.5	-	-	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-
BH16 0.2-0.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	8.8	-	-
BH16 0.8-0.9	-	-	<5	<5	<5	<5	<0.5	<5	<5	<5	<5	<5	-	-	-	-	-	-	2.3	-	-
BH16 1.9-2.0	-	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	2.2	-	-

Env Stds Comments

#1:Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).
#2:Trigger Value adopted from Chromium (VI)
#3:Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.
#4:Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.
#5:Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEQ calc by multiplying the conc of each carc. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing
#6:Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (should meet BaP TEQ HIL) & napthalene (should meet relevant HSL)
#7:PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of exposure to all PCBs (inc dioxin like PCBs) should be undertaken
#8:Derived soil HSL exceeds soil saturation concentraiton. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.
#9:Derived soil HSL exceeds soil saturation concentraiton. To obtain F2 subtract naphthalene from the >C10-C16 fraction
#10:Derived soil HSL exceeds soil saturation concentraiton
#11:Aged values apply to arsenic contamination present in soil > 2 years. Refer Schedule B5c for < 2 years.
#12:Trigger Value taken for Chromium (III), Clay Content of 1%
#13:Trigger Value taken for pH 4.5
#14:Trigger Value taken for CEC 5
#15:Trigger Value taken for pH 4 and CEC 5
#16:ESLs are of low reliability.
#17:ESLs are of moderate reliability. To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.
#18:ESLs are of moderate reliability. To obtain F2 subtract napthalene from the >C10 - C16 fraction.
#19:Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions to obtain F1 & F2
#20:Recreational C includes public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and unpaved footpaths.
#21:Only applies where the FA and AF are able to be quantified by gravimetric procedures (refer Section 4.10). This screening level is not applicable to free fibres.
#22: Sample reanalysed for heavy metals, TRH and PAHs to confirm results.

Table A2: Historical Soil Analytical Results

Project Number: 64669

Project Name: Bank Street DSI 2023

			Heavy Metals								TPH (NEPC 1999)					BTEX Compounds					
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	C6-C9	C10-C14	C15-C28	C29-C36	C10 -C36	Benzene	Toluene	Ethyl Benzene	Xylene (m & p)	Xylene (o)	Total Xylenes
			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
LOR / PQL / EQL			4	0.5	1	1	1	0.1	1	1	25	50	100	100	100	0.5	0.5	1	2	1	1
NEPM 2013 Table 1A(1) HILs Rec C Soil			300	90	300	17000	600	80	1200	30000											
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 0-1m																NL	NL	NL			NL
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 1-2m																NL	NL	NL			NL
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 2-4 m																NL	NL	NL			NL
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand >4																NL	NL	NL			NL
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space			100		410	220	1100		250	720											
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																					
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																					
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																					
EPA 1994											65				1000	1	1.4	3.1			14
Location	Depth (m)	Date																			
E3C (2012)																					
BH01	0.5-0.7	22/12/2011	<4	<0.5	7	84	24	<0.1	11	30	<25	<50	800	2400	3200	<0.2	<0.5	<1	<2	<1	<3
BH01	1.6-1.8	22/12/2011	150	1.7	11	120	880	1.1	13	490	<25	<50	370	140	510	<0.2	<0.5	<1	<2	<1	<3
BH02	1.2-1.4	22/12/2011	8	<0.5	27	91	49	0.2	11	73	<25	<50	<100	<100	NC	<0.2	<0.5	<1	<2	<1	<3
QA01 (Intralab BH02 (1.2-1.4))	1.2-1.4	22/12/2011	<4	<0.5	7	78	38	0.5	10	94	<25	<50	<100	<100	NC	<0.2	<0.5	<1	<2	<1	<3
BH02	2-2.2	22/12/2011	<4	<0.5	7	23	18	0.1	5	20	<25	<50	<100	<100	NC	<0.2	<0.5	<1	<2	<1	<3
BH03	0.4-0.6	22/12/2011	<4	<0.5	6	7	36	0.1	1	12	<25	<50	120	110	230	<0.2	<0.5	<1	<2	<1	<3
BH03	1.9-2.1	22/12/2011	<4	<0.5	15	7	14	<0.1	6	25	<25	<50	<100	<100	NC	<0.2	<0.5	<1	<2	<1	<3
CDM (2012a)																					
BH01	0-0.15	25/10/2012	6	<0.5	11	150	370	0.4	13	150	<25	<50	1300	1200	2500	<0.2	<0.5	<1	<2	<1	<3
BH01	4.4-4.7	25/10/2012	11	0.6	6	70	2100	0.4	16	820	<25	<50	<100	<100	<200	<0.2	<0.5	<1	<2	<1	<3
BH02	0.5-0.6	25/10/2012	14	0.7	9	110	3000	2.5	14	540	<25	<50	1500	550	2050	<0.2	<0.5	<1	<2	<1	<3
BH02	3.4-3.7	25/10/2012	<4	<0.5	9	14	15	<0.1	6	24	<25	<50	<100	<100	<200	<0.2	<0.5	<1	<2	<1	<3
BH03	0.18-0.26	25/10/2012	6	<0.5	5	190	86	0.2	17	120	<25	<50	190	990	1180	<0.2	<0.5	<1	<2	<1	<3
BH03	0.5-0.7	25/10/2012	4	<0.5	5	8	22	<0.1	4	13	<25	<50	<100	<100	<200	<0.2	<0.5	<1	<2	<1	<3
BH04	0.14-0.2	25/10/2012	14	<0.5	21	76	190	0.9	18	160	<25	<50	210	200	410	<0.2	<0.5	<1	<2	<1	<3
BH04	0.5-0.7	25/10/2012	10	<0.5	4	38	71	2.3	14	110	<25	<50	<100	<100	<200	<0.2	<0.5	<1	<2	<1	<3
BH05	1-1.1	25/10/2012	18	<0.5	14	83	500	0.2	24	330	<25	<50	<100	<100	<200	<0.2	<0.5	<1	<2	<1	<3
BH05	3-3.2	25/10/2012	<4	<0.5	6	<1	11	<0.1	<1	6	<25	<50	1600	<100	1600	<0.2	<0.5	<1	<2	<1	<3
BH05	3.5-3.8	25/10/2012	<4	<0.5	4	<1	8	<0.1	<1	6	<25	550	1800	<100	2350	<0.2	<0.5	<1	<2	<1	<3
BH06	0.15-0.2	25/10/2012	19	1.7	6	75	110	0.5	19	2800	<25	<50	<100	<100	<200	<0.2	<0.5	<1	<2	<1	<3
BH06	1.5-1.9	25/10/2012	<4	<0.5	7	<1	5	<0.1	<1	5	<25	<50	<100	<100	<200	<0.2	<0.5	<1	<2	<1	<3
BH07	0.3-0.4	25/10/2012	17	0.6	19	63	210	0.8	23	290	<25	<50	<100	<100	<200	<0.2	<0.5	<1	<2	<1	<3
RCA (2011)																					
LOR			*1*	*0.1*	*2*	*2*	*2*	*0.05*	*1*	*5*	*10*	*50*	*100*	*100*	*100*	*0.5*	*0.5*	*0.5*	*1*	*0.5*	*0.15*
TP1A	0.3-0.4	29/04/2011	1.7	0.4	4.7	46	19	< 0.05	6.2	15	< 10	< 50	180	1500	1700	< 0.5	< 0.5	< 0.5	< 1	< 0.5	<1.5
TP2A	0.1-0.2	29/04/2011	5.1	< 0.1	11	21	35	0.06	4.8	46	< 10	< 50	< 100	< 100	< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	<1.5
TP3A	0.2-0.3	29/04/2011	4.8	< 0.1	8.8	9.2	49	< 0.05	4.6	53	< 10	< 50	< 100	< 100	< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	<1.5
TP4A Soil	0.2-0.3	29/04/2011	3.3	< 0.1	40	11	29	< 0.05	25	35	< 10	< 50	< 100	< 100	< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	<1.5
TP5A	0.2-0.3	29/04/2011	3.2	0.1	7.4	15	31	< 0.05	9.1	57	< 10	< 50	140	110	250	< 0.5	< 0.5	< 0.5	< 1	< 0.5	<1.5
TP6A	0.2-0.3	29/04/2011	3.8	< 0.1	9.2	14	19	< 0.05	4	47	< 10	< 50	110	190	300	< 0.5	< 0.5	< 0.5	< 1	< 0.5	<1.5
TP7A	0.2-0.3	29/04/2011	5.4	0.1	6.1	20	43	< 0.05	8.9	80	< 10	< 50	< 100	140	140	< 0.5	< 0.5	< 0.5	< 1	< 0.5	<1.5
TP8A	0.2-0.3	29/04/2011	5.1	0.1	5.8	16	73	0.06	4.6	80	< 10	< 50	< 100	120	120	< 0.5	< 0.5	< 0.5	< 1	< 0.5	<1.5
TP11A	0.3-0.4	29/04/2011	3	< 0.1	6	16	42	0.13	5.9	88	< 10	< 50	< 100	< 100	< 100	< 0.5	< 0.5	< 0.5	< 1	< 0.5	<1.5
TP11B	0.7-0.8	29/04/2011	3.1	< 0.1	9.9	21	42	< 0.05	12	63	< 10	< 50	3000	2000	5000	< 0.5	< 0.5	< 0.5	< 1	< 0.5	<1.5
TP2A+TP6A (COMPOSITE)	0.1-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NAA (2010)																					
LOR			*4*	*<0.5*	*1*	*1*	*1*	*0.1*	*1*	*1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.5*	*0.5*	*1*	*-*	*-*	*1*
TP01	0.2	18/06/2010	<4	<0.5	8	9	23	<0.1	5	45	<25	<50	<100	<100	<100	<0.5	<0.5	<1.0	-	-	<1.0
TP02	0.5	18/06/2010	6	<0.5	7	54	96	0.2	9	91	<25	<50	<100	<100	<100	<0.5	<0.5	<1.0	-	-	<1.0
TP03	0.6	18/06/2010	8	<0.5	8	45	89	1.2	7	130	<25	<50	140	100	290	<0.5	<0.5	<1.0	-	-	<1.0
TP04	0.1	18/06/2010	<4	<0.5	23	13	110	<0.1	6	96	<25	<50	<100	<100	<100	<0.5	<0.5	<1.0	-	-	<1.0
TP05	0.4	18/06/2010	<4	<0.5	3	39	21	<0.1	8	51	<25	<50	480	580	1110	<0.5	<0.5	<1.0	-	-	<1.0
TP06	0.5	18/06/2010	13	<0.5	4	46	97	<0.1	11	92	<25	<50	330	260	640	<0.5	<0.5	<1.0	-	-	<1.0
TP07	0.3	18/06/2010	<4	<0.5	11	27	61	<0.1	11	100	<25	<50	520	470	1040	<0.5	<0.5	<1.0	-	-	<1.0
TP08	0.3	18/06/2010	<4	<0.5	3	16	39	<0.1	5	170	<25	<50	300	280	630	<0.5	<0.5	<1.0	-	-	<1.0
BR01 (TP06)	0.5	18/06/2010	6	<0.5	4	24	80	<0.1	7	55	<25	<50	330	280	660	<0.5	<0.5	<1.0	-	-	<1.0

Table A2: Historical Soil Analytical Results
Project Number: 64669
Project Name: Bank Street DSI 2023

			PAHs																	Phenol
			Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)&(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	-phthalene	Phenanthrene	Pyrene	Benzo(a)Pyrene TEQ	Total PAHs	Phenolics
			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
LOR / PQL / EQL			0.1	0.1	0.1	0.1	0.05	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1
NEPM 2013 Table 1A(1) HILs Rec C Soil																		3	300	
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 0-1m																				
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 1-2m																				
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 2-4 m																				
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand >4																				
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil							0.7													
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																				
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																				
EPA 1994																				
Location	Depth (m)	Date																		
E3C (2012)																				
BH01	0.5-0.7	22/12/2011	<1	1	1.5	6.7	9.9	14	6.9	6.6	<1	11	<1	6.6	<1	3.1	14	13.3	81.3	-
BH01	1.6-1.8	22/12/2011	0.4	1.9	3	8.5	7.3	11	3.8	6.2	0.7	18	1.3	4.3	0.3	11	15	10.5	92.7	-
BH02	1.2-1.4	22/12/2011	<0.1	<0.1	0.4	1.9	2.3	3.8	1.9	2	0.2	5.5	<0.1	1.9	<0.1	2	4.8	3.3	26.7	-
QA01 (Intralab BH02 (1.2-1.4))	1.2-1.4	22/12/2011	<0.1	<0.1	<0.1	<0.1	0.09	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.09	-
BH02	2-2.2	22/12/2011	<0.1	<0.1	<0.1	0.3	0.31	0.5	0.3	0.3	<0.1	0.8	<0.1	0.2	<0.1	0.3	0.7	0.5	3.71	-
BH03	0.4-0.6	22/12/2011	0.2	<0.1	1.2	7.5	8.8	14	7	7.3	0.9	18	0.1	7.7	<0.1	4.1	17	12.8	93.8	-
BH03	1.9-2.1	22/12/2011	<0.1	<0.1	<0.1	0.2	0.17	0.3	0.2	0.2	<0.1	0.5	<0.1	0.1	<0.1	0.2	0.5	0.3	2.37	-
CDM (2012a)																				
BH01	0-0.15	25/10/2012	4	0.4	6	13	17	23	8.6	12	1.8	29	2.8	10	0.8	19	29	23.6	176	-
BH01	4.4-4.7	25/10/2012	<0.1	<0.1	<0.1	0.3	0.72	1.2	1.1	0.3	0.1	0.4	<0.1	1.3	<0.1	0.2	0.4	1.1	6.02	-
BH02	0.5-0.6	25/10/2012	0.5	0.7	1.6	6.1	7.5	11	4.5	6	0.9	13	0.6	5.3	0.4	6.9	12	10.7	77	-
BH02	3.4-3.7	25/10/2012	<0.1	<0.1	<0.1	0.1	0.17	0.3	<0.1	0.1	<0.1	0.2	<0.1	0.1	<0.1	<0.1	0.2	0.3	1.17	-
BH03	0.18-0.26	25/10/2012	<0.1	0.2	0.3	1.6	2.4	3.8	1.5	1.8	0.4	2.5	<0.1	1.6	0.1	1	2.6	3.5	19.8	-
BH03	0.5-0.7	25/10/2012	<0.1	<0.1	<0.1	<0.1	0.06	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.06	-
BH04	0.14-0.2	25/10/2012	0.2	0.2	0.8	4.5	5.3	7.3	2.4	4.3	0.5	7.9	0.2	3	<0.1	2.9	8.6	7.3	48.1	-
BH04	0.5-0.7	25/10/2012	<0.1	<0.1	<0.1	0.1	0.13	0.2	<0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.2	0.2	0.2	1.13	-
BH05	1-1.1	25/10/2012	<0.1	<0.1	0.3	1.1	1.4	2.1	0.8	1	0.2	1.8	<0.1	1	<0.1	1	1.6	2.0	12.3	-
BH05	3-3.2	25/10/2012	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0	-
BH05	3.5-3.8	25/10/2012	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.1	0.1	-
BH06	0.15-0.2	25/10/2012	<0.1	<0.1	<0.1	0.3	0.35	0.6	0.3	0.3	<0.1	0.5	<0.1	0.4	<0.1	0.3	0.5	0.5	3.55	-
BH06	1.5-1.9	25/10/2012	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0	-
BH07	0.3-0.4	25/10/2012	<0.1	<0.1	<0.1	0.4	0.44	0.7	0.2	0.4	<0.1	0.7	<0.1	0.3	<0.1	0.4	0.8	0.6	4.34	-
RCA (2011)																				
LOR			*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*1*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*			
TP1A	0.3-0.4	29/04/2011	< 0.5	< 0.5	1.2	2.2	2.9	4.5	3	2.5	0.8	4.8	< 0.5	1.8	< 0.5	2.7	4.9	4.6	31.3	-
TP2A	0.1-0.2	29/04/2011	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	0	-
TP3A	0.2-0.3	29/04/2011	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	0	-
TP4A Soil	0.2-0.3	29/04/2011	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	0	-
TP5A	0.2-0.3	29/04/2011	0.8	< 0.5	2.6	5.2	3.7	7.1	3.2	5.4	1.2	19	0.8	3	< 0.5	12	15	6.5	79	-
TP6A	0.2-0.3	29/04/2011	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	0	-
TP7A	0.2-0.3	29/04/2011	< 0.5	< 0.5	< 0.5	1.1	1.3	2.4	1.8	1.4	0.6	2.7	< 0.5	1.5	< 0.5	0.8	2.3	2.4	15.9	-
TP8A	0.2-0.3	29/04/2011	< 0.5	< 0.5	< 0.5	1	1.2	2	1.3	1.1	0.6	2.1	< 0.5	1.2	< 0.5	< 0.5	1.9	2.2	12.4	-
TP11A	0.3-0.4	29/04/2011	< 0.5	< 0.5	< 0.5	< 0.5	0.5	< 1	0.6	0.5	< 0.5	1.2	< 0.5	0.5	< 0.5	< 0.5	1	0.9	4.3	-
TP11B	0.7-0.8	29/04/2011	9.6	1.4	40	150	120	220	110	130	41	490	7.8	96	1.1	170	450	210.0	2036.9	-
TP2A+TP6A (COMPOSITE)	0.1-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NAA (2010)																				
LOR			*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*		*0.1*	
TP01	0.2	18/06/2010	<0.1	<0.1	<0.1	0.2	0.2	0.4	0.2	0.2	<0.1	0.3	<0.1	0.2	<0.1	<0.1	0.3	0.3	2.7	-
TP02	0.5	18/06/2010	<0.1	<0.1	0.1	1	1.3	2.2	1	1	0.1	2.4	<0.1	1	<0.1	0.5	2.2	1.8	13.3	-
TP03	0.6	18/06/2010	0.2	0.1	1.3	6.1	7.5	11	4.6	5.6	0.5	17	0.2	4.6	<0.1	5.2	15	10.3	79	-
TP04	0.1	18/06/2010	<0.1	<0.1	<0.1	0.2	0.3	0.4	0.2	0.2	<0.1	0.4	<0.1	0.2	<0.1	0.2	0.4	0.4	3.1	-
TP05	0.4	18/06/2010	0.9	0.1	4	25	41	54	29	22	3	75	0.5	24	<0.1	18	66	54.8	362.6	-
TP06	0.5	18/06/2010	0.4	<0.1	3	14	22	30	15	15	1.8	47	0.4	14	<0.1	14	40	29.9	216.8	-
TP07	0.3	18/06/2010	2.4	0.1	8.5	24	34	47	21	24	3	69	2	20	0.3	36	63	46.6	333.3	-
TP08	0.3	18/06/2010	0.3	0.1	1.8	14	19	29	13	14	1.7	40	0.2	12	<0.1	7.1	37	26.5	189.3	-
BR01 (TP06)	0.5	18/06/2010	0.7	<0.1	2.8	14	21	30	16	15	2.4	46	0.4	14	<0.1	14	40	29.5	216.3	-

Table A2: Historical Soil Analytical Results
Project Number: 64669
Project Name: Bank Street DSI 2023

			Organochlorine Pesticides																						PCBs							
			Aldrin and Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	4,4-DDE	DDD	DDT	a-BHC	Aldrin	Dieldrin	b-BHC	Chlordane (trans)	d-BHC	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor epoxide	Methoxychlor	Hexachlorobenzene	OCPs (Total)	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	Total PCBs
			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
LOR / PQL / EQL			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1A(1) HILs Rec C Soil			10	70	400														20				400										1
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 0-1m																																	
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 1-2m																																	
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 2-4 m																																	
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand >4																																	
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space									180																								
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																	
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																	
EPA 1994																																	
Location	Depth (m)	Date																															
E3C (2012)																																	
BH01	0.5-0.7	22/12/2011	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
BH01	1.6-1.8	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	1.2-1.4	22/12/2011	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
QA01 (Intralab BH02 (1.2-1.4))	1.2-1.4	22/12/2011	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
BH02	2-2.2	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	0.4-0.6	22/12/2011	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
BH03	1.9-2.1	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDM (2012a)																																	
BH01	0-0.15	25/10/2012	2.5	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	1.4	1.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<3.5
BH01	4.4-4.7	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH02	0.5-0.6	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<3.5
BH02	3.4-3.7	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH03	0.18-0.26	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH03	0.5-0.7	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH04	0.14-0.2	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH04	0.5-0.7	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH05	1-1.1	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH05	3-3.2	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH05	3.5-3.8	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH06	0.15-0.2	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH06	1.5-1.9	25/10/2012	<0.2	<0.1	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7
BH07	0.3-0.4	25/10/2012	1.05	2	<0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.9	<0.1	2.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.9	<0.1	<0.1	-	<1	<1	<1	<1	<1	<1	<1	<7
RCA (2011)																																	
LOR				*0.05*		*0.05*	*0.05*	*0.05*	*0.2*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.2*	*0.05*		*0.5*		*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	
TP1A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
TP2A	0.1-0.2	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
TP3A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
TP4A Soil	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
TP5A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
TP6A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
TP7A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
TP8A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
TP11A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
TP11B	0.7-0.8	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-
TP2A+TP6A (COMPOSITE)	0.1-0.3	29/04/2011	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.05	-	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<3
NAA (2010)																																	
LOR			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-
TP01	0.2	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	0.6	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	0.1	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05	0.4	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	0.3	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08	0.3	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BR01 (TP06)	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A2: Historical Soil Analytical Results

Project Number: 64669

Project Name: Bank Street DSI 2023

			Asbestos	Volatile Orgar																								
			Asbestos Fibres	**1,1,2-trichloroethane**	**1,1-dichloroethane**	**1,1-dichloroethene**	**1,1-dichloropropene**	**1,2,3-trichloropropane**	**1,2-dibromo-3-chloropropane**	**1,2-dichloroethane**	**1,2-dichloropropane**	**1,3-dichloropropane**	**2,2-dichloropropane**	**Bromochloromethane**	**Bromodichloromethane**	**Bromoform**	**CarbonTetrachloride**	**Chlorodibromomethane**	**Chloroethane**	**Chloroform**	**Chloromethane**	**cis-1,2-dichloroethene**	**cis-1,3-dichloropropene**	**Dibromomethane**	**Hexachlorobutadiene**	**Trichloroethene**	**Tetrachloroethene**	**trans-1,2-dichloroethene**
				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
LOR / PQL / EQL			-	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
NEPM 2013 Table 1A(1) HILs Rec C Soil																												
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 0-1m																												
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 1-2m																												
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 2-4 m																												
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand >4																												
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																												
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																												
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																												
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																												
EPA 1994																												
Location	Depth (m)	Date																										
E3C (2012)																												
BH01	0.5-0.7	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01	1.6-1.8	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	1.2-1.4	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01 (Intralab BH02 (1.2-1.4))	1.2-1.4	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	2-2.2	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	0.4-0.6	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	1.9-2.1	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDM (2012a)																												
BH01	0-0.15	25/10/2012	No Asbestos Detected	<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
BH01	4.4-4.7	25/10/2012	-	<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
BH02	0.5-0.6	25/10/2012	-	<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
BH02	3.4-3.7	25/10/2012	-	<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
BH03	0.18-0.26	25/10/2012	No Asbestos Detected	<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
BH03	0.5-0.7	25/10/2012	-	<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
BH04	0.14-0.2	25/10/2012	No Asbestos Detected	<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
BH04	0.5-0.7	25/10/2012	-	<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
BH05	1-1.1	25/10/2012	-	<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
BH05	3-3.2	25/10/2012	-	<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
BH05	3.5-3.8	25/10/2012	-	<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
BH06	0.15-0.2	25/10/2012	No Asbestos Detected	<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
BH06	1.5-1.9	25/10/2012	-	<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
BH07	0.3-0.4	25/10/2012	-	<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
RCA (2011)																												
LOR																												
TP1A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP2A	0.1-0.2	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP3A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP4A Soil	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP5A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP6A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP7A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP8A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11B	0.7-0.8	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP2A+TP6A (COMPOSITE)	0.1-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NAA (2010)																												
LOR			-	*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*
TP01	0.2	18/06/2010	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TP02	0.5	18/06/2010	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	0.6	18/06/2010	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TP04	0.1	18/06/2010	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05	0.4	18/06/2010	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TP06	0.5	18/06/2010	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	0.3	18/06/2010	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TP08	0.3	18/06/2010	No Asbestos Detected	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BR01 (TP06)	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A2: Historical Soil Analytical Results
Project Number: 64669
Project Name: Bank Street DSI 2023

			ic Compounds																												
			trans-1,3-dichloropropene	VinylChloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Cyclohexane	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	1-'-phthylamine	2-'-phthylamine
			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
LOR / PQL / EQL			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	1	1	1
NEPM 2013 Table 1A(1) HILs Rec C Soil																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 0-1m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 1-2m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 2-4 m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand >4																															
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																															
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																															
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																															
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																															
EPA 1994																															
Location	Depth (m)	Date																													
E3C (2012)																															
BH01	0.5-0.7	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01	1.6-1.8	22/12/2011	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	1.2-1.4	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01 (Intralab BH02 (1.2-1.4))	1.2-1.4	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	2-2.2	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	0.4-0.6	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	1.9-2.1	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDM (2012a)																															
BH01	0-0.15	25/10/2012	<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	<10	<10	<10	<10
BH01	4.4-4.7	25/10/2012	<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	<1	<1	<1
BH02	0.5-0.6	25/10/2012	<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	<1	<1	<1
BH02	3.4-3.7	25/10/2012	<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	<1	<1	<1
BH03	0.18-0.26	25/10/2012	<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	<1	<1	<1
BH03	0.5-0.7	25/10/2012	<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	<1	<1	<1
BH04	0.14-0.2	25/10/2012	<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	<1	<1	<1
BH04	0.5-0.7	25/10/2012	<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	<1	<1	<1
BH05	1-1.1	25/10/2012	<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	<1	<1	<1
BH05	3-3.2	25/10/2012	<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	<1	<1	<1
BH05	3.5-3.8	25/10/2012	<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	<1	<1	<1
BH06	0.15-0.2	25/10/2012	<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	<1	<1	<1
BH06	1.5-1.9	25/10/2012	<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	<1	<1	<1
BH07	0.3-0.4	25/10/2012	<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	<1	<1	<1
RCA (2011)																															
LOR																															
TP1A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP2A	0.1-0.2	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP3A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP4A Soil	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP5A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP6A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP7A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP8A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11B	0.7-0.8	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP2A+TP6A (COMPOSITE)	0.1-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NAA (2010)																															
LOR			*1*	*1*	*0.5*	*0.5*	*1*	*2*	*1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP01	0.2	18/06/2010	<1.0	<1.0	<0.5	<0.5	<1.0	<2.0	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	0.6	18/06/2010	<1.0	<1.0	<0.5	<0.5	<1.0	<2.0	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	0.1	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05	0.4	18/06/2010	<1.0	<1.0	<0.5	<0.5	<1.0	<2.0	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	0.3	18/06/2010	<1.0	<1.0	<0.5	<0.5	<1.0	<2.0	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08	0.3	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BR01 (TP06)	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A2: Historical Soil Analytical Results
Project Number: 64669
Project Name: Bank Street DSI 2023

			Diphenylamine	2-nitroaniline	3-nitroaniline	4-chloroaniline	4-nitroaniline	2-methyl-5-nitroaniline	Aniline	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	1,2,4,5-tetrachlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Pentachlorobenzene	2,3,4,6-tetrachlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,6-dichlorophenol	2-chlorophenol	Pentachlorophenol	Dinoseb	1,3-Dinitrobenzene	2,6-dinitrotoluene	Nitrobenzene	Pentachloronitrobenzene
			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
LOR / PQL / EQL			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1
NEPM 2013 Table 1A(1) HILs Rec C Soil																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 0-1m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 1-2m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 2-4 m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand >4																															
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																															
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																															
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																															
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																															
EPA 1994																															
Location	Depth (m)	Date																													
E3C (2012)																															
BH01	0.5-0.7	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01	1.6-1.8	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	1.2-1.4	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01 (Intralab BH02 (1.2-1.4))	1.2-1.4	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	2-2.2	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	0.4-0.6	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	1.9-2.1	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDM (2012a)																															
BH01	0-0.15	25/10/2012	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	<10	<10	<10	<10	<10
BH01	4.4-4.7	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH02	0.5-0.6	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH02	3.4-3.7	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH03	0.18-0.26	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH03	0.5-0.7	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH04	0.14-0.2	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH04	0.5-0.7	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH05	1-1.1	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH05	3-3.2	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH05	3.5-3.8	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH06	0.15-0.2	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH06	1.5-1.9	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
BH07	0.3-0.4	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1
RCA (2011)																															
LOR																															
TP1A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP2A	0.1-0.2	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP3A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP4A Soil	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP5A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP6A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP7A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP8A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11B	0.7-0.8	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP2A+TP6A (COMPOSITE)	0.1-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NAA (2010)																															
LOR			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP01	0.2	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	0.6	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	0.1	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05	0.4	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	0.3	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08	0.3	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BR01 (TP06)	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A2: Historical Soil Analytical Results
Project Number: 64669
Project Name: Bank Street DSI 2023

			semi-Volatile Organic Compounds																												
			4,4-DDE	a-BHC	Aldrin	b-BHC	chlordane	Chlordane(trans)	d-BHC	DDD	DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	g-BHC (Lindane)	Heptachlor	HeptachlorEpoxide	Methoxychlor	EthylMethanesulfo'-te	Safrole	7,12-dimethylbenz(a)anthracene	2,4-dimethylphenol	2,4-dinitrophenol	2-chloro'-phthalene	2-methyl'-phthalene	2-methylphenol	2-nitrophenol	3-methylcholanthrene	4,6-Dinitro-2-methylphenol
			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
LOR / PQL / EQL			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	10
NEPM 2013 Table 1A(1) HILs Rec C Soil																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 0-1m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 1-2m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 2-4 m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand >4																															
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																															
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																															
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																															
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																															
EPA 1994																															
Location	Depth (m)	Date																													
E3C (2012)																															
BH01	0.5-0.7	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01	1.6-1.8	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	1.2-1.4	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01 (Intralab BH02 (1.2-1.4))	1.2-1.4	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	2-2.2	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	0.4-0.6	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	1.9-2.1	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDM (2012a)																															
BH01	0-0.15	25/10/2012	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	<10	<10	<10	<10	<10	<100
BH01	4.4-4.7	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH02	0.5-0.6	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH02	3.4-3.7	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH03	0.18-0.26	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH03	0.5-0.7	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH04	0.14-0.2	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH04	0.5-0.7	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH05	1-1.1	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH05	3-3.2	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH05	3.5-3.8	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH06	0.15-0.2	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH06	1.5-1.9	25/10/2012	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
BH07	0.3-0.4	25/10/2012	<1	<1	<1	<1	2	3	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<10	<1	<1	<1	<1	<1	<10
RCA (2011)																															
LOR																															
TP1A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP2A	0.1-0.2	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP3A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP4A Soil	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP5A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP6A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP7A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP8A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11B	0.7-0.8	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP2A+TP6A (COMPOSITE)	0.1-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NAA (2010)																															
LOR			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP01	0.2	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	0.6	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	0.1	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05	0.4	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	0.3	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08	0.3	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BR01 (TP06)	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A2: Historical Soil Analytical Results

Project Number: 64669

Project Name: Bank Street DSI 2023

			4-methylphenol	4-nitrophenol	Acetophenone	Phenol	Bis(2-ethylhexyl)phthalate	ButylBenzylPhthalate	Diethylphthalate	DimethylPhthalate	Di-n-butylPhthalate	Di-n-octylPhthalate	Isophorone	2-(acetylamino)fluorene	4-(dimethylamino)azobenzene	4-BromophenylPhenylEther	4-ChlorophenylPhenylEther	Azobenzene	BenzylAlcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Carbazole	Dibenzofuran	Hexachloropropene	Isosafrole	Methapyrilene	N-nitrosomorpholine	N-nitrosopiperidine	Phe'-cetin	Pentachloroethane
			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
LOR / PQL / EQL			2	10	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	1
NEPM 2013 Table 1A(1) HILs Rec C Soil																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 0-1m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 1-2m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand 2-4 m																															
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand >4																															
NEPM 2013 Table 1B(1-5) Site Specific EIL - Urban Residential and Public Open Space																															
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																															
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																															
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																															
EPA 1994																															
Location	Depth (m)	Date																													
E3C (2012)																															
BH01	0.5-0.7	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01	1.6-1.8	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	1.2-1.4	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01 (Intralab BH02 (1.2-1.4))	1.2-1.4	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	2-2.2	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	0.4-0.6	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	1.9-2.1	22/12/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDM (2012a)																															
BH01	0-0.15	25/10/2012	<20	<100	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
BH01	4.4-4.7	25/10/2012	<2	<10	<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	<1
BH02	0.5-0.6	25/10/2012	<2	<10	<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	<1
BH02	3.4-3.7	25/10/2012	<2	<10	<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	<1
BH03	0.18-0.26	25/10/2012	<2	<10	<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	<1
BH03	0.5-0.7	25/10/2012	<2	<10	<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	<1
BH04	0.14-0.2	25/10/2012	<2	<10	<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	<1
BH04	0.5-0.7	25/10/2012	<2	<10	<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	<1
BH05	1-1.1	25/10/2012	<2	<10	<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	<1
BH05	3-3.2	25/10/2012	<2	<10	<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	<1
BH05	3.5-3.8	25/10/2012	<2	<10	<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	<1
BH06	0.15-0.2	25/10/2012	<2	<10	<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	<1
BH06	1.5-1.9	25/10/2012	<2	<10	<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	<1
BH07	0.3-0.4	25/10/2012	<2	<10	<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	<1
RCA (2011)																															
LOR																															
TP1A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP2A	0.1-0.2	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP3A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP4A Soil	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP5A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP6A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP7A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP8A	0.2-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11A	0.3-0.4	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11B	0.7-0.8	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP2A+TP6A (COMPOSITE)	0.1-0.3	29/04/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NAA (2010)																															
LOR			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP01	0.2	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	0.6	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	0.1	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05	0.4	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	0.3	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08	0.3	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BR01 (TP06)	0.5	18/06/2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A3: Soil ASLP Leachate Results

Project Number: 64669

Project Name: Bank St DSI 2023

					Metals & Metalloids								PAH	Ionic Balance			
					Arsenic	**Cadmium**	**Chromium (III+VI)**	**Copper**	**Lead**	**Mercury**	**Nickel**	**Zinc**	**Benzo(a)pyrene**	**pH of Leaching Fluid**	**pH (after HCL)**	**pH (Final)**	**pH (Initial)**
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pH Units	pH Units	pH Units	pH Units
EQL					0.01	0.005	0.05	0.05	0.01	0.001	0.01	0.05	0.001	0.1	0.1	0.1	0.1
ANZG (2018) Marine water 95% toxicant DGVs						0.0055	0.0044	0.0013	0.0044	0.0004	0.07	0.008	0.0002				
Field_ID	**Location_Code**	**Sample_Depth_Range**	**Sampled_Date_Time**	**Lab_Report_Number**													
BH05_0.2-0.3	BH05	0.2-0.3	14/04/2023	984766	0.01	<0.005	<0.05	0.09	1.4	0.006	<0.01	0.42	<0.001	6.6	2.3	6.3	6.5
BH11_0.8-0.9	BH11	0.8-0.9	14/04/2023	984766	-	-	-	-	<0.01	-	-	-	<0.001	6.6	2.3	6.5	6.4
BH16_0.8-0.9	BH16	0.8-0.9	14/04/2023	984766	-	-	-	-	0.12	-	-	-	<0.001	6.6	2.3	6.6	7

Table B: Acid Sulfate Soil Results
Project Number: 64669
Project Name: Bank Street DSI 2023

Soil Sample ID	Field Screening				SPOCAS										Material Description*	Interpretation^
	pH$_i$	pH$_{ox15}$	pH drop	Reaction	pH$_{KCl}$	pH$_{ox}$	TAA (mol H+/tonne)	TPA (mol H$^+$/tonne)	TSA (mol H+/tonne)	S$_{KCl}$%	S$_{POS}$%	a-ANC$_E$ (mol H$^+$/tonne)	a-Net Acidity (mol H+/tonne)	Liming Rate (kgCaCO$_3$/t)		
ASSMAC (1998) Action Criteria (Coarse >1000 tonnes disturbed)								18	18		0.03					
ASSMAC (1998) Action Criteria (Coarse 1-1000 tonnes disturbed)								18	18		0.03					
ASSMAC (1998) Action Criteria (Medium >1000 tonnes disturbed)								18	18		0.03					
ASSMAC (1998) Action Criteria (Medium 1-1000 tonnes disturbed)								36	36		0.06					
ASS Characterisation (April-May 2023)																
BH03 1.9-2.0	6.20	4.8	1.40	No Reaction	5.5	5.1	6.9	2.6	<2	0.008	<0.005	-	<10	<1	Natural: Grey/Yellow/Brown Sandstone	No ASS
BH04 5.9-6.0	6.30	5.6	0.70	No Reaction	9.1	8.3	<2	<2	<2	0.053	**0.4**	270	<10	<1	Natural: Brown/Red Gravelly Sand	**PASS**
BH05 3.5-3.6	7.20	6	1.20	No Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Yellow/White Sandstone	No ASS
BH05 4.1-4.2	7.20	6.2	1.00	No Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Yellow/White Sandstone	No ASS
BH07 5.4-5.5	6.50	5.5	1.00	No Reaction	9.4	8.2	<2	<2	<2	0.091	**0.26**	970	<10	<1	Fill: Dark Brown/Black Clayey Sand	**PASS**
BH08 6.0-6.1	6.50	5.9	0.60	Slight Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Light Brown/Red Sandstone	No ASS
BH08 7.0-7.1	8.40	6.7	1.70	Slight Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Light Brown/Red Sandstone	No ASS
BH11 3.0-3.1	7.70	5.50	2.20	Slight Reaction	9.3	7.7	<2	<2	<2	0.034	0.018	97	<10	<1	Natural: Brown/Grey/Red Sandstone	No ASS
BH11 4.0-4.1	6.60	5.50	1.10	Slight Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Brown/Grey/Red Sandstone	No ASS
BH11 5.0-5.1	6.70	5.20	1.50	Slight Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Brown/Grey/Red Sandstone	No ASS
BH12 3.5-3.6	7.40	5.30	2.10	No Reaction	-	-	-	-	-	-	-	-	-	-	Fill: Brown Weathered Sandstone	No ASS
BH12 4.0-4.1	6.40	5.30	1.10	No Reaction	-	-	-	-	-	-	-	-	-	-	Fill: Brown Weathered Sandstone	No ASS
BH12 4.6-4.7	6.20	5.40	0.80	No Reaction	3.4	5.9	3.5	<2	<2	0.012	<0.005	-	<10	<1	Fill: Brown Weathered Sandstone	No ASS
BH12 5.0-5.1	8.40	1.40	7.00	Strong Reaction	8.8	3.8	<2	**88**	**88**	0.13	**0.92**	-	250	**19**	Fill: Black Sand	**PASS**
BH12 5.9-6.0	6.90	3.20	3.70	Moderate Reaction	6.7	4.1	<2	**41**	**41**	0.035	**0.05**	-	38	**2.8**	Fill: Brown Clayey Gravelly Sand	**PASS**
BH13 4.0-4.1	6.40	5.80	0.60	Slight Reaction	6.4	6	3.2	<2	<2	0.023	<0.005	-	<10	<1	Natural: Light Brown/Light Grey Weathered Sandstone	No ASS
BH13 5.0-5.1	6.80	6.10	0.70	No Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Light Brown/Light Grey Weathered Sandstone	No ASS
BH14 1.9-2.0	7.20	5.60	1.60	No Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Light Brown/Grey Sandy Silty Clay	No ASS
BH14 2.9-3.0	7.00	6.10	0.90	No Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Light Brown Weathered Sandstone	No ASS
BH14 3.4-3.5	7.50	6.5	1.00	Moderate Reaction	7.6	7	<2	<2	<2	0.022	0.007	57	<10	<1	Natural: Light Brown/Red Sandstone	No ASS
BH15 3.9-4.0	7.40	6.5	0.90	No Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Light Brown/Light Grey Clayey Sand	No ASS
BH15 4.5-4.6	7.40	6.5	0.90	No Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Light Brown/Light Grey Clayey Sand	No ASS
BH15 4.9-5.0	7.50	2.3	5.20	Strong Reaction	8.9	7.9	<2	<2	<2	0.056	0.016	150	<10	<1	Natural: Light Brown/Light Grey Sandstone	No ASS
BH15 5.4-5.5	7.80	6.6	1.20	Slight Reaction	-	-	-	-	-	-	-	-	-	-	Natural: Light Brown/Light Grey Sandstone	No ASS

Table C: Asbestos Results

Project Number: 64669

Project Name: Bank St DSI 2023

Health Screening Level Asbestos Concentration in Soil (% w/w)	
Category	**HSL C**
Bonded ACM in soils	**0.02**
FA and AF in soils	**0.001**
Asbetsos Presence	**Bold**

Sample Information			Field Asbestos Quantification					Laboratory Analysis				
Sample ID	Date	>7 mm ACM observed during screening?	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)	Asbestos from ACM in soil (%w/w)	Asbestos from FA in soil (%w/w)	Asbestos from AF in soil (%w/w)	Asbestos from FA & AF in soil (%w/w)
Data Gap Investigation												
BH01 0.0-0.4	13/04/2023	No	10	16250	0	0.0	0.000	**555**	**0.35**	**0**	**0.0019**	**0.0019**
BH02 0.2-1.0	14/04/2023	No	10	16250	0	0.0	0.000	692	0	0	0	0
QAB03	14/04/2023	-	-	-	-	-	-	660	0	0	0	0
QCB03	14/04/2023	-	-	-	-	-	-	719	0	0	0	0
BH03 0.1-1.1	13/04/2023	No	10	16250	0	0.0	0.000	709	0	0	0	0
BH03 1.1-1.5	13/04/2023	No	10	16250	0	0.0	0.000	710	0	0	0	0
BH03A 0.1-0.8	14/04/2023	No	10	16250	0	0.0	0.000	-	-	-	-	-
BH05 0.2-1.2	14/04/2023	No	10	16250	0	0.0	0.000	**627**	**0**	**0**	**0.00016**	**0.00016**
BH05 1.2-2.2	14/04/2023	No	10	16250	0	0.0	0.000	**769**	**0**	**0**	**0.0005**	**0.0005**
BH05 2.2-3.2	14/04/2023	No	10	16250	0	0.0	0.000	-	-	-	-	-
BH06-0.0-0.3	5/05/2023	No	10	16250	0	0.0	0.000	471	0	0	0	0
BH06-0.5-1.0	5/05/2023	No	10	16250	0	0.0	0.000	803	0	0	0	0
BH07-0.0-1.0	5/05/2023	No	10	16250	0	0.0	0.000	510	0	0	0	0
BH07-1.0-1.5	5/05/2023	No	10	16250	0	0.0	0.000	619	0	0	0	0
BH07-1.5-2.5	5/05/2023	No	10	16250	0	0.0	0.000	-	-	-	-	-
BH07-2.5-3.5	5/05/2023	No	10	16250	0	0.0	0.000	828	0	0	0	0
BH07-3.5-4.5	5/05/2023	No	10	16250	0	0.0	0.000	595	0	0	0	0
BH08-0.0-1.0	5/05/2023	No	10	16250	0	0.0	0.000	777	0	0	0	0
BH08-1.0-1.5	5/05/2023	No	10	16250	0	0.0	0.000	807	0	0	0	0
BH08-2.5-3.5	5/05/2023	No	10	16250	0	0.0	0.000	637	0	0	0	0
BH08-3.5-4.5	5/05/2023	No	10	16250	0	0.0	0.000	851	0	0	0	0
BH09-0.0-0.3	5/05/2023	No	10	16250	0	0.0	0.000	**938**	**0**	**0.00043**	**0**	**0.00043**
BH11 0.0-0.8	13/04/2023	No	10	16250	0	0.0	0.000	887	0	0	0	0
BH11 0.8-1.0	13/04/2023	No	10	16250	0	0.0	0.000	718	0	0	0	0
QAB01	13/04/2023	-	-	-	-	-	-	845	0	0	0	0
QCB01	13/04/2023	-	-	-	-	-	-	848	0	0	0	0
BH11 2.0-2.5	13/04/2023	No	10	16250	0	0.0	0.000	765	0	0	0	0
BH12-1.2-1.7	5/05/2023	No	10	16250	0	0.0	0.000	899	0	0	0	0
BH12-1.7-2.7	5/05/2023	No	10	16250	0	0.0	0.000	-	-	-	-	-
BH13 0.0-0.9	13/04/2023	No	10	16250	0	0.0	0.000	834	0	0	0	0
BH13 1.1-1.4	13/04/2023	No	10	16250	0	0.0	0.000	-	-	-	-	-
BH13 1.4-1.7	13/04/2023	No	10	16250	0	0.0	0.000	-	-	-	-	-
BH13 1.7-2.5	13/04/2023	No	10	16250	0	0.0	0.000	865	0	0	0	0
BH14 0.0-0.6	13/04/2023	No	10	16250	0	0.0	0.000	852	0	0	0	0
BH14 0.6-1.6	13/04/2023	No	10	16250	0	0.0	0.000	1028	0	0	0	0
BH15 0.0-1.0	13/04/2023	No	10	16250	0	0.0	0.000	851	0	0	0	0
BH15 1.0-1.5	13/04/2023	No	10	16250	0	0.0	0.000	-	-	-	-	-
BH15 1.5-2.5	13/04/2023	No	10	16250	0	0.0	0.000	-	-	-	-	-
BH15 2.5-3.5	13/04/2023	No	10	16250	0	0.0	0.000	1032	0	0	0	0
BH16 0.0-0.8	13/04/2023	No	10	16250	0	0.0	0.000	773	0	0	0	0
BH16 0.8-1.0	13/04/2023	No	10	16250	0	0.0	0.000	920	0	0	0	0

* Soil mass based on soil densities provided within CRC Care 2011: Technical Report 10
Soil Mass (g) = Soil Density (1.625 kg/L) * 10 L = 16.25 kg

** Mass Asbestos in ACM = 0.15 * Mass ACM (g) - per ASC NEPM

*** Asbestos from ACM in Soil = Mass Asbestos in ACM / Soil Mass - per ASC NEPM

**** Asbestos weight adjusted to include ACM detected in laboratory analytical sample

Table D1: Groundwater Analytical Results

Project Number: 64669

Project Name: Bank St DSI 2023

					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	Naphthalene_VOC
					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	0.01
ANZG (2018) Marine water 95% toxicant DGVs						0.0055[#9]	0.0044[#10]	0.0013[#11]	0.0044[#12]	0.0004[#13]	0.07[#13]	0.008[#14]													0.7[#15]	0.18[#16]	0.08[#16]		0.075[#17]		0.07[#18]
NEPM 2013 Table 1C GILs, Marine Waters						0.0007[#23]	0.0044[#24]	0.0013[#25]	0.0044[#25]	0.0001[#26]	0.007[#25]	0.015[#27]													0.5[#28]						0.05[#28]
PFAS NEMP 2020 Table 1 Health Recreational Water																															
PFAS NEMP 2020 Table 5 Interim marine 95%																															
PFAS NEMP 2020 Table 5 Interim marine 99%																															
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, 2m to <4m																							NL	NL	NL	NL	NL			NL	
Field_ID	**Location_Code**	**Well**	**Sampled_Date_Time**	**Lab_Report_Number**																											
DBMW01	DBMW01	DBMW01	14/04/2023	981895	<0.001	<0.0002	<0.001	0.002	<0.001	<0.0001	<0.001	0.012	<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	<0.01
MW01	MW01	MW01	13/04/2023	981895	0.001	<0.0002	<0.001	0.003	0.005	<0.0001	<0.001	0.031	<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	<0.01
QAW01	MW01	MW01	14/04/2023	981895	0.002	<0.0002	<0.001	0.003	0.004	<0.0001	<0.001	0.031	<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	<0.01
QCW01	MW01	MW01	18/04/2023	321252	0.001	<0.0001	0.001	0.004	0.005	<0.00005	0.001	0.051	<0.01	<0.05	<0.1	<0.1	<0.05	<0.01	<0.05	<0.1	<0.1	<0.05	<0.01	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	-	<0.001
MW02	MW02	MW02	13/04/2023	981895	<0.001	<0.0002	<0.001	0.002	0.018	<0.0001	<0.001	0.023	<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	<0.01
MW05	MW05	MW05	13/04/2023	981895	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	0.008	<0.02	0.13	0.4	0.1	0.63	<0.02	0.06	0.4	<0.1	0.46	<0.02	0.06	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.01

Table D1: Groundwater Analytical Results

Project Number: 64669

Project Name: Bank St DSI 2023

					PAH																		
					Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	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)
					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					0.00001	0.00001	0.00001	0.00001	0.00001	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
ANZG (2018) Marine water 95% toxicant DGVs							0.0004$^{\#19}$		0.0002$^{\#19}$								0.0014$^{\#19}$			0.07$^{\#18}$	0.002$^{\#19}$		
NEPM 2013 Table 1C GILs, Marine Waters																				0.05$^{\#28}$			
PFAS NEMP 2020 Table 1 Health Recreational Water																							
PFAS NEMP 2020 Table 5 Interim marine 95%																							
PFAS NEMP 2020 Table 5 Interim marine 99%																							
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, 2m to <4m																				NL			
Field_ID	**Location_Code**	**Well**	**Sampled_Date_Time**	**Lab_Report_Number**																			
DBMW01	DBMW01	DBMW01	14/04/2023	981895	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
MW01	MW01	MW01	13/04/2023	981895	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
QAW01	MW01	MW01	14/04/2023	981895	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
QCW01	MW01	MW01	18/04/2023	321252	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	-	<0.0002	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001
MW02	MW02	MW02	13/04/2023	981895	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
MW05	MW05	MW05	13/04/2023	981895	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	-	<0.00001	-	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001

Table D1: Groundwater Analytical Results

Project Number: 64669

Project Name: Bank St DSI 2023

	Chlorinated Alkanes																		Chlorinated Alkenes												Solvents
	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	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
	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	0.001	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	0.005	0.005	0.005	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		$0.27^{\#16}$	$0.4^{\#16}$	$1.9^{\#20}$				$1.9^{\#16}$	$0.9^{\#16}$	$1.1^{\#16}$			$0.24^{\#16}$				$4^{\#16}$		$0.7^{\#16}$							$0.07^{\#16}$			$0.33^{\#16}$	$0.1^{\#16}$	
NEPM 2013 Table 1C GILs, Marine Waters				1.9																											
PFAS NEMP 2020 Table 1 Health Recreational Water																															
PFAS NEMP 2020 Table 5 Interim marine 95%																															
PFAS NEMP 2020 Table 5 Interim marine 99%																															
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, 2m to <4m																															

Field_ID	Location_Code	Well	Sampled_Date_Time	Lab_Report_Number	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	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
DBMW01	DBMW01	DBMW01	14/04/2023	981895	<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	<0.005	<0.005	<0.005	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
MW01	MW01	MW01	13/04/2023	981895	<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	<0.005	<0.005	<0.005	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
QAW01	MW01	MW01	14/04/2023	981895	<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	<0.005	<0.005	<0.005	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
QCW01	MW01	MW01	18/04/2023	321252	<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	<0.01	-	<0.01	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	-
MW02	MW02	MW02	13/04/2023	981895	<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	<0.005	<0.005	<0.005	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
MW05	MW05	MW05	13/04/2023	981895	<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	<0.005	<0.005	<0.005	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005

Table D1: Groundwater Analytical Results

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Project Name: Bank St DSI 2023

					PFAS																	
					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)
					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					0.000005	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
ANZG (2018) Marine water 95% toxicant DGVs																						
NEPM 2013 Table 1C GILs, Marine Waters																						
PFAS NEMP 2020 Table 1 Health Recreational Water									0.01[#30]													
PFAS NEMP 2020 Table 5 Interim marine 95%									0.22													
PFAS NEMP 2020 Table 5 Interim marine 99%									0.019													
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, 2m to <4m																						
Field_ID	**Location_Code**	**Well**	**Sampled_Date_Time**	**Lab_Report_Number**																		
DBMW01	DBMW01	DBMW01	14/04/2023	981895	0.000014	0.00003	0.000032	0.000009[#1]	0.000008[#1]	0.000003	0.000009	0.000001	<0.000001	<0.000001	<0.000001	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
MW01	MW01	MW01	13/04/2023	981895	<0.000005	0.000006	0.000019	0.000005[#1]	0.000005[#1]	<0.000001	0.000003	<0.000001	<0.000001	<0.000001	<0.000001	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
QAW01	MW01	MW01	14/04/2023	981895	<0.000005	0.000007	0.000021	0.000006[#1]	0.000006[#1]	<0.000001	0.000003	0.000001	<0.000001	<0.000001	<0.000001	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
QCW01	MW01	MW01	18/04/2023	321252	0.000006	0.00001	0.000023	0.000008	0.000017	0.000001	0.000003	<0.000002	<0.000005	<0.00001	<0.00005	<0.00001	<0.00005	<0.0001	<0.00005	<0.0005	<0.000002	<0.000002
MW02	MW02	MW02	13/04/2023	981895	0.000012	0.000021	0.000073	0.000022[#1]	0.000022[#1]	0.000002	0.000009	0.000003	<0.000001	<0.000001	<0.000001	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005
MW05	MW05	MW05	13/04/2023	981895	0.000093	0.00012	0.0001	0.000072[#1]	0.00004[#1]	0.000008	0.000011	<0.000001	<0.000001	<0.000001	<0.000001	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005

Table D1: Groundwater Analytical Results

Project Number: 64669

Project Name: Bank St DSI 2023

Field_ID	Location_Code	Well	Sampled_Date_Time	Lab_Report_Number	Perfluoropropanesulfonic acid (PFPrS)	Perfluorobutanesulfonic acid (PFBS)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctanesulfonic acid (PFOS)	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 WA DWER PFAS (n=10)*	Sum of PFAS	Perfluorononanesulfonic acid ion
					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	UG/L	mg/L	mg/L
EQL					0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000005	0.000001	0.000001	0.000001	0.000001	0.000001	0.005	0.000005	0.000001
ANZG (2018) Marine water 95% toxicant DGVs																					
NEPM 2013 Table 1C GILs, Marine Waters																					
PFAS NEMP 2020 Table 1 Health Recreational Water								0.002[#30]		0.002[#30]						0.002[#30]					
PFAS NEMP 2020 Table 5 Interim marine 95%										0.00013											
PFAS NEMP 2020 Table 5 Interim marine 99%										0.00000023											
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, 2m to <4m																					
DBMW01	DBMW01	DBMW01	14/04/2023	981895	<0.000001	0.000006	0.000005[#1]	0.00006[#1]	0.000002[#1]	0.000036[#1]	<0.000001	<0.000001	<0.000005	<0.000001	<0.000001	0.000096	0.000104	0.000044	0.195	0.000215	<0.000001
MW01	MW01	MW01	13/04/2023	981895	0.000001	0.000008	0.000009[#1]	0.000095[#1]	0.000003[#1]	0.000047[#1]	<0.000001	<0.000001	<0.000005	<0.000001	<0.000001	0.000142	0.000147	0.000052	0.185	0.000201	<0.000001
QAW01	MW01	MW01	14/04/2023	981895	0.000001	0.000005	0.000006[#1]	0.00009[#1]	0.000002[#1]	0.000051[#1]	<0.000001	<0.000001	<0.000005	<0.000001	<0.000001	0.000141	0.000147	0.000057	0.186	0.000199	<0.000001
QCW01	MW01	MW01	18/04/2023	321252	-	0.000011	0.000012	0.000056	0.000003	0.000053	<0.000002	<0.000001	<0.000001	<0.000002	<0.000002	0.00011	-	0.000069	-	0.00021	-
MW02	MW02	MW02	13/04/2023	981895	0.000005	0.00002	0.000026[#1]	0.00048[#1]	0.000014[#1]	0.00032[#1]	<0.000001	<0.000001	<0.000005	<0.000001	<0.000001	0.0008	0.000822	0.000342	0.97	0.001029	<0.000001
MW05	MW05	MW05	13/04/2023	981895	<0.000001	0.000047	<0.000001	0.00002[#1]	0.000001[#1]	0.000013[#1]	<0.000001	<0.000001	0.000005	<0.000001	<0.000001	0.000033	0.000073	0.000053	0.51	0.00053	<0.000001

Table D1: Groundwater Analytical Results

Project Number: 64669

Project Name: Bank St DSI 2023

					MAH											Miscellaneous Hydrocarbons							Chlorinated Benzenes						Trihalomethanes				Organic Sulfur Compounds	Major Cations		Ionic Balance			Chlorinated Hydrocarbons	Other
					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	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Carbon disulfide	Calcium	Magnesium	Electrical Conductivity (Lab)	Hardness as CaCO3	pH_	Hexachlorobutadiene	TDS
					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	µS/cm	mg/L	pH Units	mg/L	mg/L
EQL					0.001	0.001	0.001	0.001	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	0.001	0.005	0.001	0.001	0.001	0.5	0.5	10	1	0.1	0.001	10
ANZG (2018) Marine water 95% toxicant DGVs															0.03[#16]									0.08[#21]				0.055[#16]		0.77[#22]										
NEPM 2013 Table 1C GILs, Marine Waters																								0.02[#26]																
PFAS NEMP 2020 Table 1 Health Recreational Water																																								
PFAS NEMP 2020 Table 5 Interim marine 95%																																								
PFAS NEMP 2020 Table 5 Interim marine 99%																																								
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, 2m to <4m																																								
Field_ID	**Location_Code**	**Well**	**Sampled_Date_Time**	**Lab_Report_Number**																																				
DBMW01	DBMW01	DBMW01	14/04/2023	981895	<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	<0.001	<0.005	<0.001	<0.001	<0.001	380	1100	40,000	5300	7.5	-	27,000
MW01	MW01	MW01	13/04/2023	981895	<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	<0.001	<0.005	<0.001	<0.001	<0.001	380	1100	45,000	5600	7.7	-	30,000
QAW01	MW01	MW01	14/04/2023	981895	<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	<0.001	<0.005	<0.001	<0.001	<0.001	-	-	-	-	-	-	-
QCW01	MW01	MW01	18/04/2023	321252	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	-	-	-	<0.001	-
MW02	MW02	MW02	13/04/2023	981895	<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	<0.001	<0.005	<0.001	<0.001	<0.001	380	1100	43,000	5500	7.8	-	32,000
MW05	MW05	MW05	13/04/2023	981895	<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	<0.001	<0.005	<0.001	<0.001	<0.001	54	18	850	210	6.5	-	600

Table D2: Historical Groundwater Analytical Results

Project Number: 64669

Project Name: Bank St DSI 2023

		Heavy Metals								TPHs (NEPC 1999)					TRHs (NEPC 2013)						BTEX					
		Arsenic (Total) (Filtered)	Cadmium (Filtered)	Chromium (Total) (Filtered)	Copper (Filtered)	Lead (Filtered)	Mercury (Inorganic) (Filtered)	Nickel (Filtered)	Zinc (Filtered)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	C6-C10 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)	>C10 - C16 less Naphthalene (F2)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene (Total)
		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	0.000	0.001	0.001	0.001	0.00005	0.001	0.001	0.010	0.050	0.100	0.100	0.100	0.010	0.050	0.100	0.100	0.010	0.050	0.001	0.001	0.001	0.002	0.001	0.003
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		
NEPM 2013 Table 1C GILs, Marine Waters			0.0007[#23]	0.0044[#24]	0.0013[#25]	0.0044[#25]	0.0001[#26]	0.007[#25]	0.015[#27]												0.5					
PFAS NEMP 2020 Table 1 Health Recreational Water																										
PFAS NEMP 2020 Table 5 Interim marine 99%																										
NEPM 2013 Table 1A(4) Rec HSL C GW for Vapour Intrusion, Sand, 2m to <4m																										
Sample ID	**Sample Date**																									
E3C (2012)																										
BH03	17/01/2012	<0.001	<0.0001	<0.001	0.046	<0.001	<0.00005	0.002	0.068	<0.01	<0.05	<0.1	<0.1	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.002	<0.001	-
CDM (2012)																										
MW1	11/06/2012	0.001	0.0001	<0.001	0.004	0.006	<0.00005	0.001	0.16	<0.01	<0.05	<0.1	<0.1	<0.2	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.002	<0.001	-
MW2	11/06/2012	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW5	11/06/2012	0.005	<0.0001	<0.001	<0.001	<0.001	<0.00005	<0.001	0.009	0.32	0.81	2.5	<0.1	3.31	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.002	<0.001	-
JBS&G (2015)																										
DBMW01	11/09/2015	<0.005	<0.0003	-	<0.005	<0.005	<0.0001	<0.005	0.026	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003

Table D2: Historical Groundwater Analytical Results

Project Number: 64669

Project Name: Bank St DSI 2023

Polycyclic Aromatic Hydrocarbons																			Chlorinated Alkanes																			
Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (WHO)	Benzo(b,j)fluoranthene	Benzo(b,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 (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	bromodichloromethane	Carbon tetrachloride	Chloroethane	Chloroform	Chloromethane	dibromochloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane
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	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
0.001	0.001	0.001	0.001	0.0000		0.001		0.001	0.001	0.001	0.001	0.001	0.001	0.001	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	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
		0.0004		0.0002								0.0014			0.07					0.27	0.4	1.9				1.9	0.9	1.1			0.24						4	
															0.05							1.9																
<0.001	<0.001	<0.001	<0.001	<0.001			<0.002	<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	-	-	<0.002	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<0.001	<0.001	<0.001	<0.001	<0.001	-	-	<0.002	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<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	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001

Table D2: Historical Groundwater Analytical Results

Project Number: 64669

Project Name: Bank St DSI 2023

Chlorinated Alkenes												Chlorinated Benzenes					Monocyclic Aromatic Hydrocarbons										Miscellaneous Hydrocarbons										Field Measurements					Miscellaneous Inorganics
1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	1,1-dichloropropene	2-chlorotoluene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	4-isopropyl toluene	Bromobenzene	Isopropylbenzene	n-butyl benzene	n-propyl benzene	sec-butyl benzene	Styrene	Tert-butyl benzene	1,2-dibromoethane	2-Butanone (MEK)	2-Propanone (Acetone)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Cyclohexane	Dibromomethane	Iodomethane	Carbon disulfide	Dissolved oxygen	Redox potential	pH	Conductivity	Temperature ©	pH
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	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ppm	mV		mS/cm	C	
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	0.001		0.001	0.001				0.001		0.001	0.001	1.000	0.001	0.001	0.001		0.001	0.001	0.001	-	-	-	-	-	0.1
0.07	0.7									0.33	0.1		0.08								0.03																					
													0.02																													
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.54	12.1	-	42.54	20.7	6.72
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.30	78	7.35	45237	19.2	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.69	-62.4	6.42	809	20.5	-
<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	-	<0.001	<0.001	-	-	-	<0.001	-	<0.001	<0.001	-	<0.001	<0.001	<0.001	-	<0.005	<0.001	<0.001	-	-	-	-	-	-

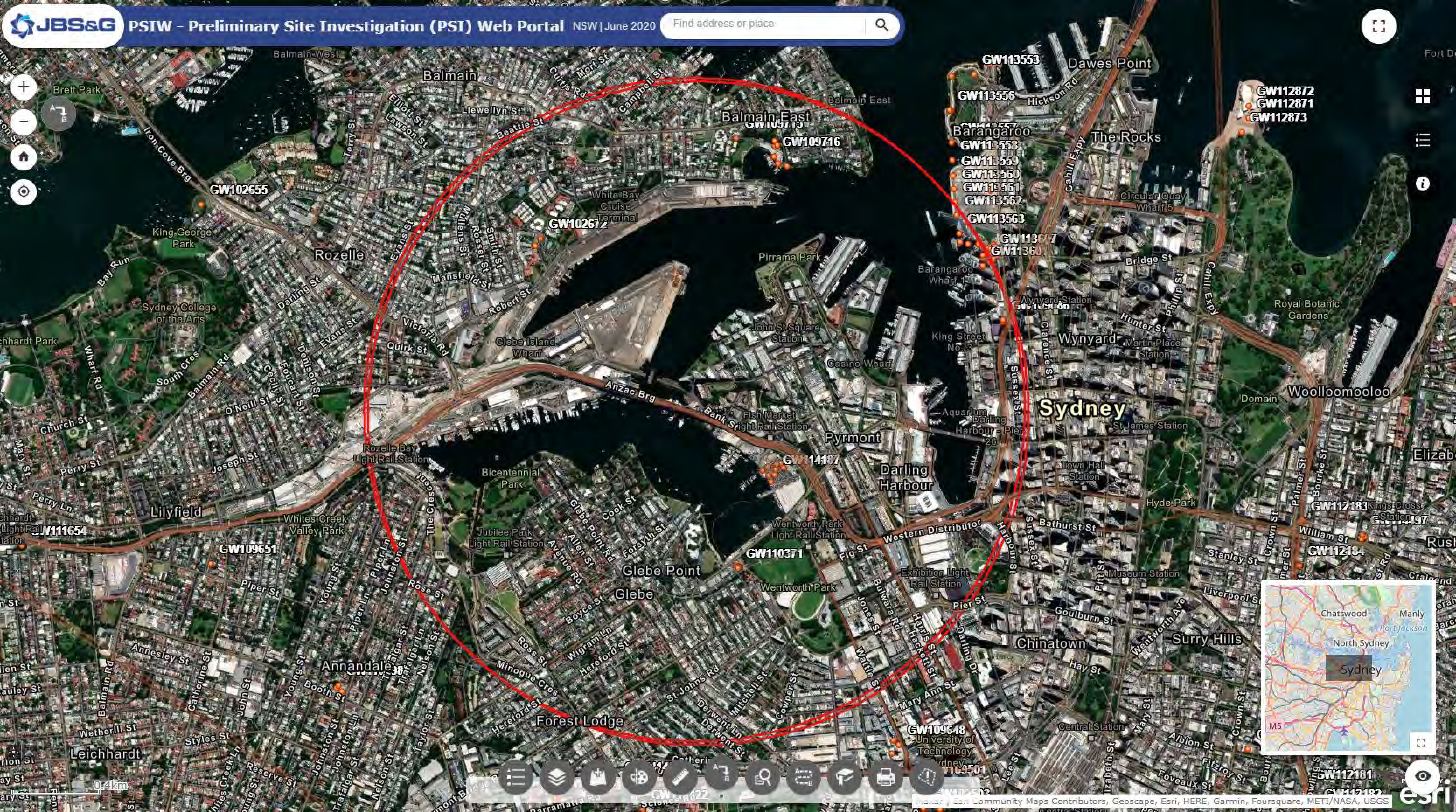
Table D2: Historical Groundwater Analytical Results

Project Number: 64669

Project Name: Bank St DSI 2023

Electrical Conductivity
(mS/cm)
0.001
-
-
-
-
-

Appendix B – Registered Groundwater Bores



JBS&G PSIW - Preliminary Site Investigation (PSI) Web Portal NSW | June 2020

WaterNSW
Work Summary

GW102671

Licence: **Licence Status:**

Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method: Auger
Owner Type:

Commenced Date: **Final Depth:** 4.80 m
Completion Date: 01/07/1993 **Drilled Depth:** 4.80 m

Contractor Name: JEFFERY & KATAUSKAS PTY LTD
Driller:
Assistant Driller:

Property: **Standing Water Level (m):**
GWMA: **Salinity Description:**
GW Zone: **Yield (L/s):**

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:		UNKNOWN	
Licensed:			

Region: 10 - Sydney South Coast **CMA Map:**
River Basin: - Unknown **Grid Zone:** **Scale:**
Area/District:

Elevation: 0.00 m (A.H.D.) **Northing:** 6251559.000 **Latitude:** 33°51'46.3"S
Elevation Source: Unknown **Easting:** 331651.000 **Longitude:** 151°10'48.2"E

GS Map: - **MGA Zone:** 56 **Coordinate Source:** GIS - Geogra

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	4.80	125			Auger
1		Annulus	(Unknown)	0.50	4.80				Ungraded
1	1	Casing	P.V.C.	0.00	4.80	50			Seated on Bottom, Screwed
1	1	Opening	Slots - Horizontal	1.00	4.00	50		0	PVC, A: 0.05mm

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.00	1.00	SANDY OIL	Invalid Code	
1.00	2.50	1.50	SOIL	Soil	
2.50	4.30	1.80	SANDY CLAY	Invalid Code	
4.30	4.80	0.50	SANDSTONE	Sandstone	

***** End of GW102671 *****

WaterNSW
Work Summary

GW109713

Licence:
Licence Status:

Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Well
Work Status:
Construct.Method: Other
Owner Type: Other Govt

Commenced Date:
Completion Date: 21/01/2004
Final Depth: 6.00 m
Drilled Depth: 6.00 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller: Unkown Unknown
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 2.521
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	PETERSHAM	1//812813
Licensed:			

Region: 10 - Sydney South Coast
CMA Map:
River Basin: - Unknown
Area/District:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6251951.000
Easting: 332750.000
Latitude: 33°51'34.2"S
Longitude: 151°11'31.2"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	6.00	100			Other
1		Annulus	Crushed Aggregate	0.00	0.00				Graded
1	1	Casing	Pvc Class 18	0.00	6.00	50			Screwed

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
6.00	6.00	0.00	Unknown	2.52					

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	2.60	2.60	FILL	Fill	
2.60	6.00	3.40	SANDSTONE,WEATHERED,MEDIUM TO COARSE GRAINED/SOME CLAY	Sandstone	

Remarks

21/01/2004: Gavel Pack:
Quantity: 2mm.

***** End of GW109713 *****

WaterNSW
Work Summary

GW115130

Licence: 10BL604652
Licence Status: ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Private

Commenced Date:
Completion Date: 11/04/2011
Final Depth: 10.00 m
Drilled Depth: 10.00 m

Contractor Name: Terratest
Driller: Unkown Unknown
Assistant Driller:

Property: WATER POLICE 4 Jubilee Place
BALMAIN 2041 NSW
GWMA: -
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	PETERSHAM	1//812813
Licensed:	CUMBERLAND	PETERSHAM	Whole Lot 1//812813

Region: 10 - Sydney South Coast
CMA Map:
River Basin: - Unknown
Area/District:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6252051.000
Easting: 332733.000
Latitude: 33°51'31.0"S
Longitude: 151°11'30.6"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	10.00	50			Unknown
1	1	Casing	Pvc Class 18	0.00	0.00	50			
1	1	Opening	Slots	0.00	0.00	50		0	PVC Class 18, A: 0.40mm

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.20	0.20	CONCRETE	Conglomerate	
0.20	1.60	1.40	FILL, GRAVELLY SAND	Fill	
1.60	3.40	1.80	WEATHERED SANDSTONE	Sandstone	
3.40	10.00	6.60	BEDROCK SANDSTONE	Bedrock	

Remarks

11/04/2011: Form A Remarks:
Coordinates provided by LAS.

***** End of GW115130 *****

WaterNSW
Work Summary

GW113562

Licence:

Licence Status:

Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Other Govt

Commenced Date:
Completion Date: 06/01/2011

Final Depth: 10.70 m
Drilled Depth: 10.70 m

Contractor Name: GROUNDTEK DRILLING
Driller: Kenneth John Kerney-ennis
Assistant Driller:

Property:
GWMA:
GW Zone:

Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST PHILIP	5//876514
Licensed:			

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:

CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown

Northing: 6251731.000
Easting: 333562.000

Latitude: 33°51'41.8"S
Longitude: 151°12'02.6"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Remarks

31/07/2014: Nat Carling, 31-July-2014; Added status, drill method, depth & updated owner type.

***** End of GW113562 *****

WaterNSW
Work Summary

GW113565

Licence:
Licence Status:

Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Other Govt

Commenced Date:
Completion Date: 06/01/2011
Final Depth: 4.00 m
Drilled Depth: 4.00 m

Contractor Name: GROUNDTEK DRILLING
Driller: Kenneth John Kerney-ennis
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST PHILIP	5//876514
Licensed:			

Region: 10 - Sydney South Coast
CMA Map:
River Basin: - Unknown
Area/District:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6251603.000
Easting: 333619.000
Latitude: 33°51'46.0"S
Longitude: 151°12'04.8"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Remarks

31/07/2014: Nat Carling, 31-July-2014; Added status, drill method, depth & updated owner type.

***** End of GW113565 *****

WaterNSW
Work Summary

GW109086

Licence:
Licence Status:

Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type: Other Govt

Commenced Date:
Completion Date: 22/07/2008
Final Depth: 5.68 m
Drilled Depth: 5.68 m

Contractor Name: CH2M HILL
Driller: Unkown Unknown
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST PHILIP	1//87659
Licensed:			

Region: 10 - Sydney South Coast
CMA Map:

River Basin: - Unknown
Area/District:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6251262.000
Easting: 333781.000
Latitude: 33°51'57.2"S
Longitude: 151°12'10.8"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	5.80	120			Unknown
1	1	Casing	P.V.C.	0.00	3.20	40			

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.50	0.50	FILL,MEDIUM TO COARSE	Fill	
0.50	1.00	0.50	FILL,SILTY SAND	Fill	
1.00	1.80	0.80	FILL,CLAYEY SAND FINE GRAINED	Fill	
1.80	2.00	0.20	FILL,GRAVELLY SAND	Fill	
2.00	3.20	1.20	FILL,SAND WITH SOME SILT	Fill	
3.20	3.80	0.60	FILL SILTY SAND	Fill	
3.80	4.50	0.70	FILL CLAY SILT SAND MIXTURE	Fill	
4.50	5.68	1.18	SAND,FINE TO MEDIUM GRAINED	Sand	

***** End of GW109086 *****

WaterNSW
Work Summary

GW111329

Licence:
Licence Status:

Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method: Auger - Solid
Owner Type: Other Govt

Commenced Date:
Completion Date: 20/07/2010
Final Depth: 6.00 m
Drilled Depth: 6.00 m

Contractor Name: SOILWICKS
Driller: Yoon Fook Chin
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST ANDREW	2//827434
Licensed:			

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6250560.000
Easting: 332704.000
Latitude: 33°52'19.3"S
Longitude: 151°11'28.5"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	6.00	100			Auger - Solid Flight
1		Annulus	Waterworn/Rounded	2.00	6.00				Graded
1	1	Casing	Steel Stainless 3	0.00	3.00	50			Screwed
1	1	Opening	Slots - Horizontal	3.00	6.00	50		0	Casing - Machine Slotted, Stainless Steel 304, Screwed

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.15	0.15	(UNKNOWN)	(Unknown)	
0.15	1.50	1.35	FILL,SILTY SAND	Fill	
1.50	6.00	4.50	SANDSTONE	Sandstone	

***** End of GW111329 *****

WaterNSW
Work Summary

GW114182

Licence:
Licence Status:

Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Other Govt

Commenced Date:
Completion Date: 04/07/2013
Final Depth: 11.55 m
Drilled Depth: 11.55 m

Contractor Name: Soil Check
Driller: Yoon Fook Chin
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST ANDREW	2//827434
Licensed:			

Region: 10 - Sydney South Coast
CMA Map:
River Basin: - Unknown
Area/District:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6250568.000
Easting: 332763.000
Latitude: 33°52'19.1"S
Longitude: 151°11'30.7"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Remarks

04/08/2014: Nat Carling, 4-Aug-2014; Added status, drill method, depth, updated work & owner type.

***** End of GW114182 *****

WaterNSW
Work Summary

GW114187

Licence:
Licence Status:

Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Other Govt

Commenced Date:
Completion Date: 04/07/2013
Final Depth: 6.00 m
Drilled Depth: 6.00 m

Contractor Name: (None)
Driller: Yoon Fook Chin
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST ANDREW	2//827434
Licensed:			

Region: 10 - Sydney South Coast
CMA Map:
River Basin: - Unknown
Area/District:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6250542.000
Easting: 332760.000
Latitude: 33°52'20.0"S
Longitude: 151°11'30.6"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Remarks

04/08/2014: Nat Carling, 4-Aug-2014; Added status, drill method, depth, updated work & owner type.

***** End of GW114187 *****

WaterNSW
Work Summary

GW110373

Licence:
Licence Status:

Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Well
Work Status:
Construct.Method: Auger
Owner Type: Private

Commenced Date:
Completion Date: 24/04/2001
Final Depth: 4.00 m
Drilled Depth: 4.00 m

Contractor Name: (None)
Driller: Unkown Unknown
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 0.600
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	PETERSHAM	//75702
Licensed:			

Region: 10 - Sydney South Coast
CMA Map:
River Basin: - Unknown
Area/District:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6250126.000
Easting: 332590.000
Latitude: 33°52'33.4"S
Longitude: 151°11'23.7"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	4.00	100			Auger
1		Annulus	Waterworn/Rounded	0.00	0.00				Graded
1	1	Casing	Pvc Class 18	0.00	0.50	50			Screwed
1	1	Opening	Slots	0.50	4.00	50		0	Casing - Machine Slotted, PVC Class 18, Screwed, A: 0.40mm

Water Bearing Zones

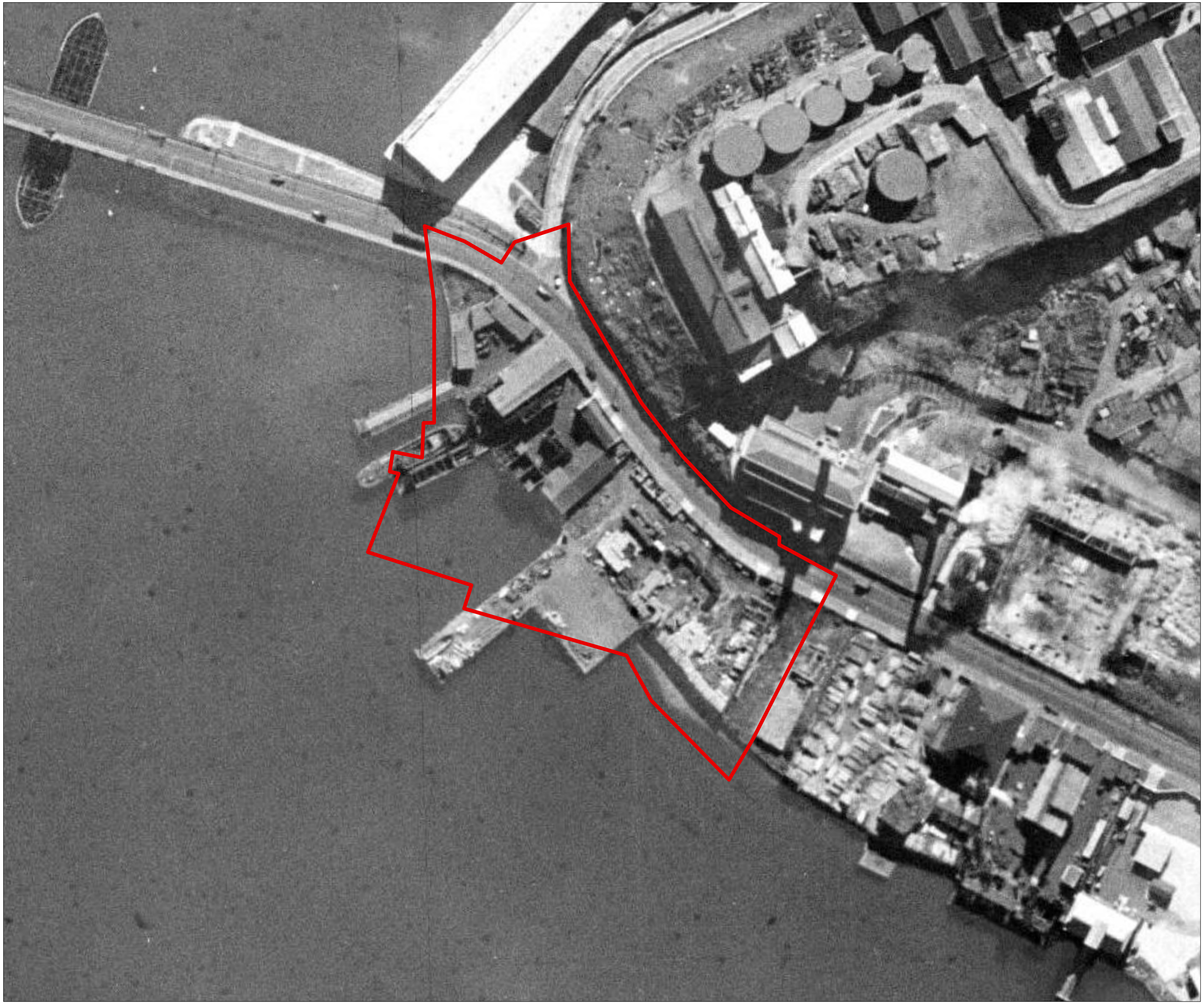
From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
0.60	4.00	3.40	Unknown	0.60					

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.60	1.60	FILL,SANDY CLAY	Fill	
1.60	3.40	1.80	SILT,SATURATED BLACK	Silt	
3.40	3.70	0.30	SILTY SAND	Silty Sandstone	
3.70	4.00	0.30	SANDY CLAY	Sandy Clay	

***** End of GW110373 *****

Appendix C – Historical Aerial Photographs



Legend:

🟥 Approximate Site Boundary

Job No: 64669

Client: Infrastructure NSW

Version: Aerials	Date 7/08/2023
Drawn By: LJ	Checked By: MN

Scale 1:2,000

Coord. Sys. GDA 1994 MGA Zone 56

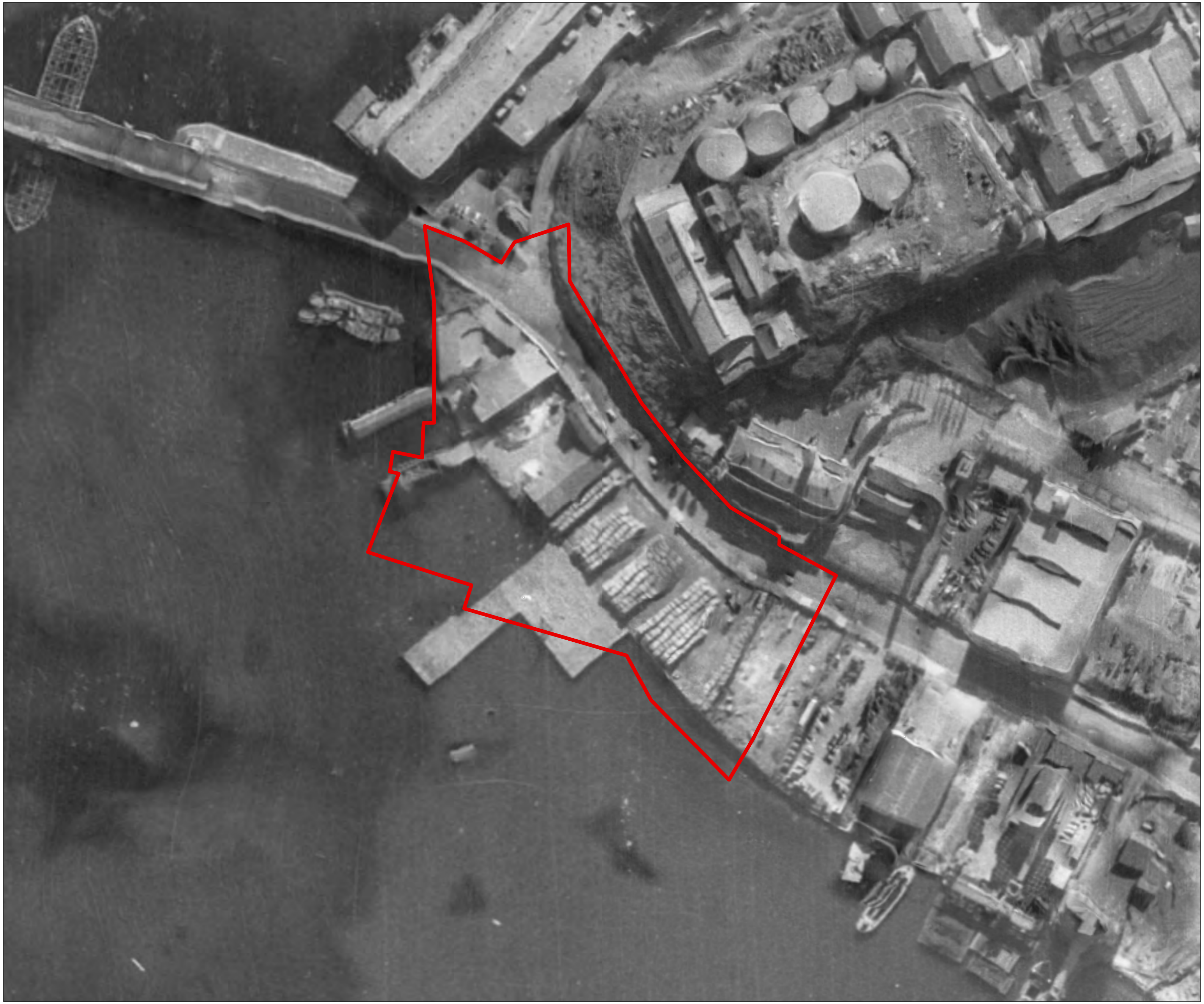
Banks St, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1943

AERIAL 1943

File Name: 64669_BanksStPark_Aerials

Reference: Reference: NSW Government |



Legend:

🟥 Approximate Site Boundary

Job No: 64669	
Client: Infrastructure NSW	
Version: Aerials	Date 7/08/2023
Drawn By: LJ	Checked By: MN
Scale 1:2,000	

Coord. Sys. GDA 1994 MGA Zone 56

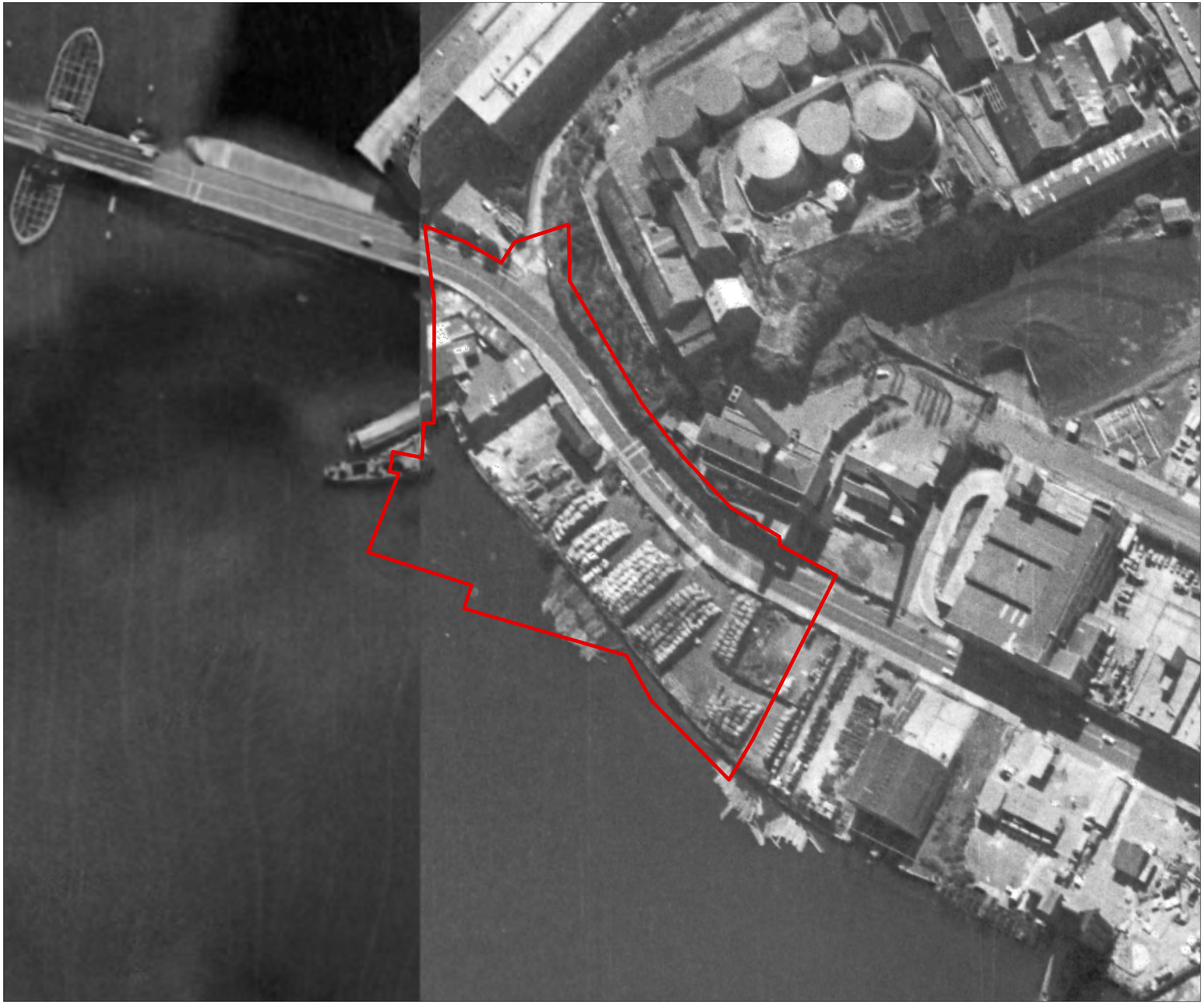
Banks St, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1955

AERIAL 1955

File Name: 64669_BanksStPark_Aerials

Reference: Reference: NSW Government | Copyright © Spatial Services 2023



Legend:
🟥 Approximate Site Boundary

Job No: 64669

Client: Infrastructure NSW

Version: Aerials	Date 7/08/2023
Drawn By: LJ	Checked By: MN

Scale 1:2,000

0 25 50
metres

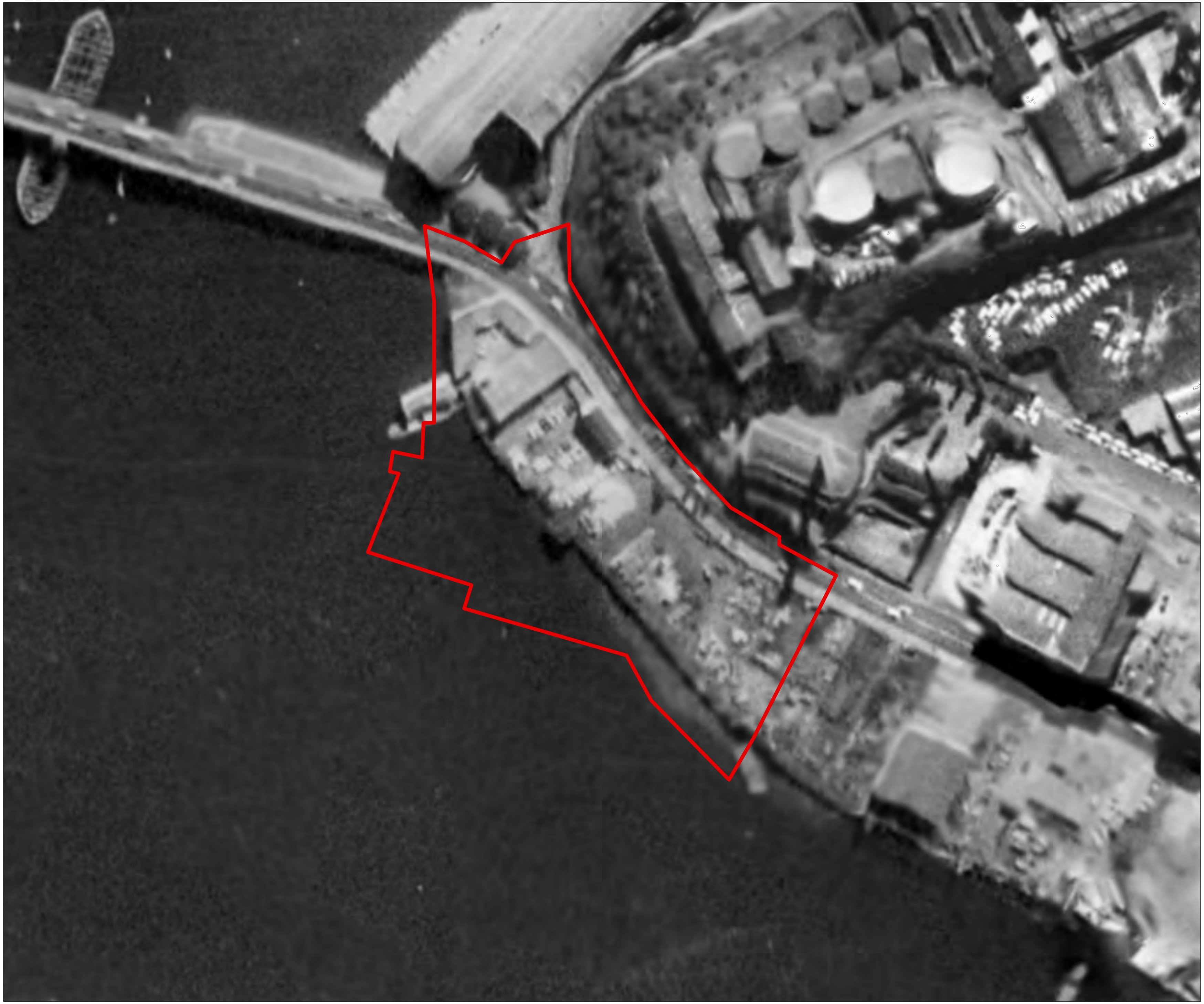
Coord. Sys. GDA 1994 MGA Zone 56

Banks St, NSW

HISTORICAL AERIAL PHOTOGRAPH
- 1965

AERIAL 1965

File Name: 64669_BanksStPark_Aerials
Reference: Reference: NSW Government | Copyright © Spatial Services 2023



Legend:

🟥 Approximate Site Boundary

Job No: 64669

Client: Infrastructure NSW

Version: Aerials	Date 7/08/2023
Drawn By: LJ	Checked By: MN

Scale 1:2,000

Coord. Sys. GDA 1994 MGA Zone 56

Banks St, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1975

AERIAL 1975

File Name: 64669_BanksStPark_Aerials

Reference: Reference: NSW Government | Copyright © Spatial Services 2023

Legend:

🟥 Approximate Site Boundary

Job No: 64669

Client: Infrastructure NSW

Version: Aerials	Date 7/08/2023
Drawn By: LJ	Checked By: MN

Scale 1:2,000

Coord. Sys. GDA 1994 MGA Zone 56

Banks St, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1986

AERIAL 1986

File Name: 64669_BanksStPark_Aerials

Reference: Reference: NSW Government |

Legend:

🟥 Approximate Site Boundary

Job No: 64669

Client: Infrastructure NSW

Version: Aerials	Date 7/08/2023
Drawn By: LJ	Checked By: MN

Scale 1:2,000

Coord. Sys. GDA 1994 MGA Zone 56

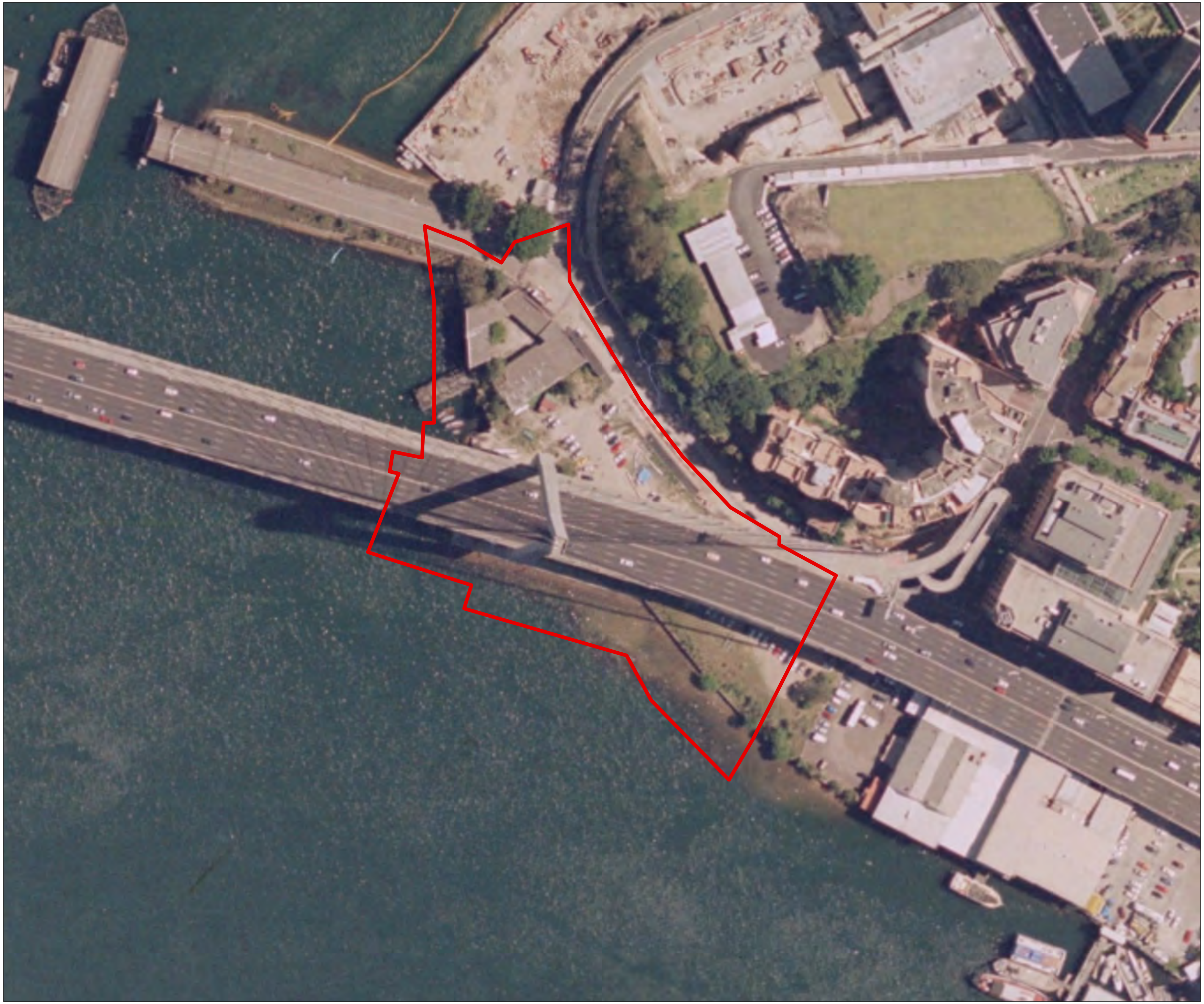
Banks St, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1998

AERIAL 1998

File Name: 64669_BanksStPark_Aerials

Reference: Reference: NSW Government | Copyright © Spatial Services 2023



Legend:

🟥 Approximate Site Boundary

JBS&G

Job No: 64669	
Client: Infrastructure NSW	
Version: Aerials	Date 7/08/2023
Drawn By: LJ	Checked By: MN
Scale 1:2,000	

0 25 50

metres

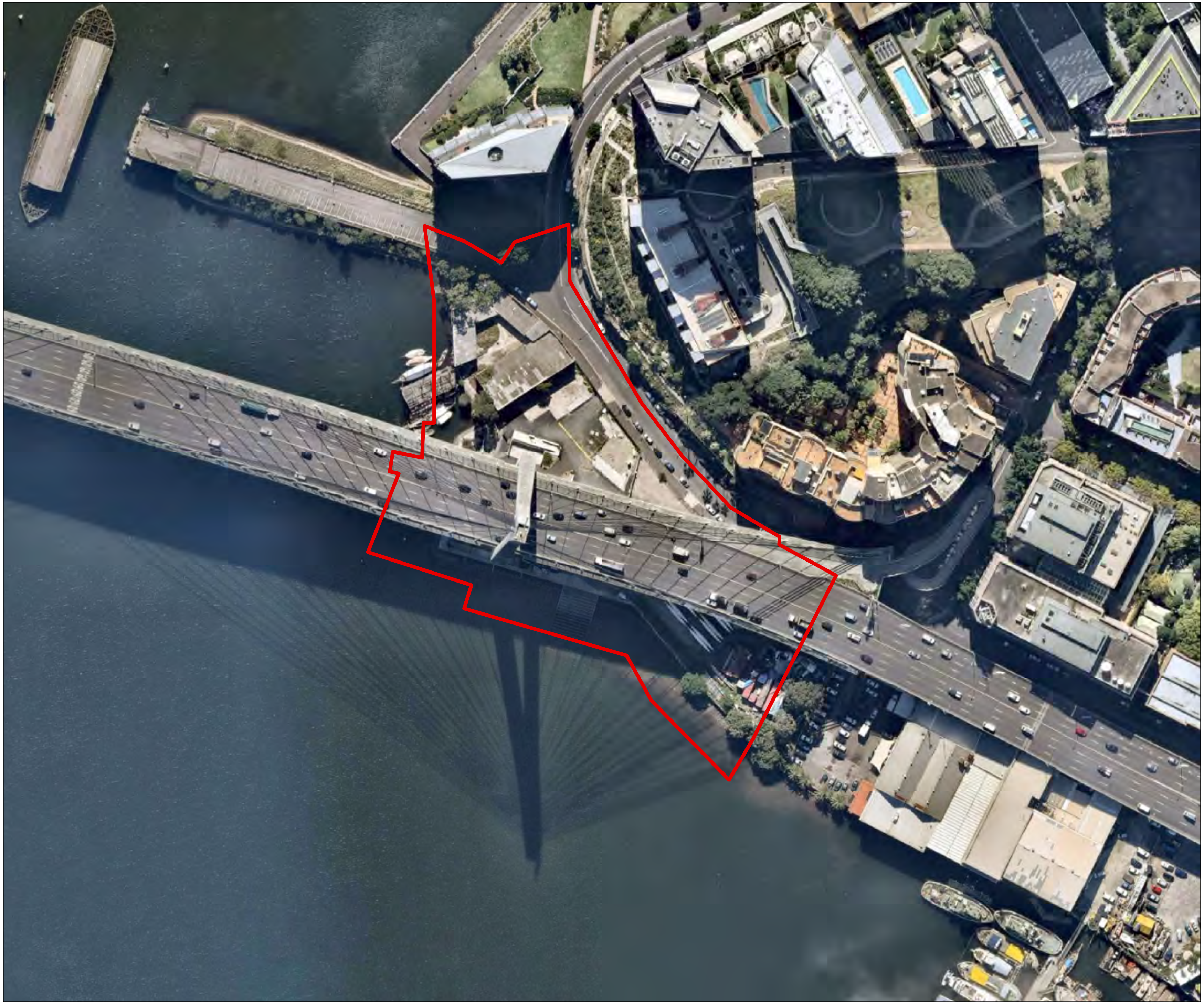
Coord. Sys. GDA 1994 MGA Zone 56

Banks St, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2005

AERIAL 2005

File Name: 64669_BanksStPark_Aerials



Legend:
🟥 Approximate Site Boundary

Job No: 64669

Client: Infrastructure NSW

Version: Aerials	Date 7/08/2023
Drawn By: LJ	Checked By: MN

Scale 1:2,000

Coord. Sys. GDA 1994 MGA Zone 56

Banks St, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2015

AERIAL 2015

File Name: 64669_BanksStPark_Aerials
Reference: Nearmap www.nearmap.com 20150428

Legend:

🟥 Approximate Site Boundary

JBS&G

Job No: 64669

Client: Infrastructure NSW

Version: Aerials	Date 7/08/2023
Drawn By: LJ	Checked By: MN

Scale 1:2,000

Coord. Sys. GDA 1994 MGA Zone 56

Banks St, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2023

AERIAL 2023

File Name: 64669_BanksStPark_Aerials
Reference: Nearmap www.nearmap.com 20230316

Appendix D – Historical Title Records

Cadastral Records Enquiry Report : Lot 1 DP 1089643

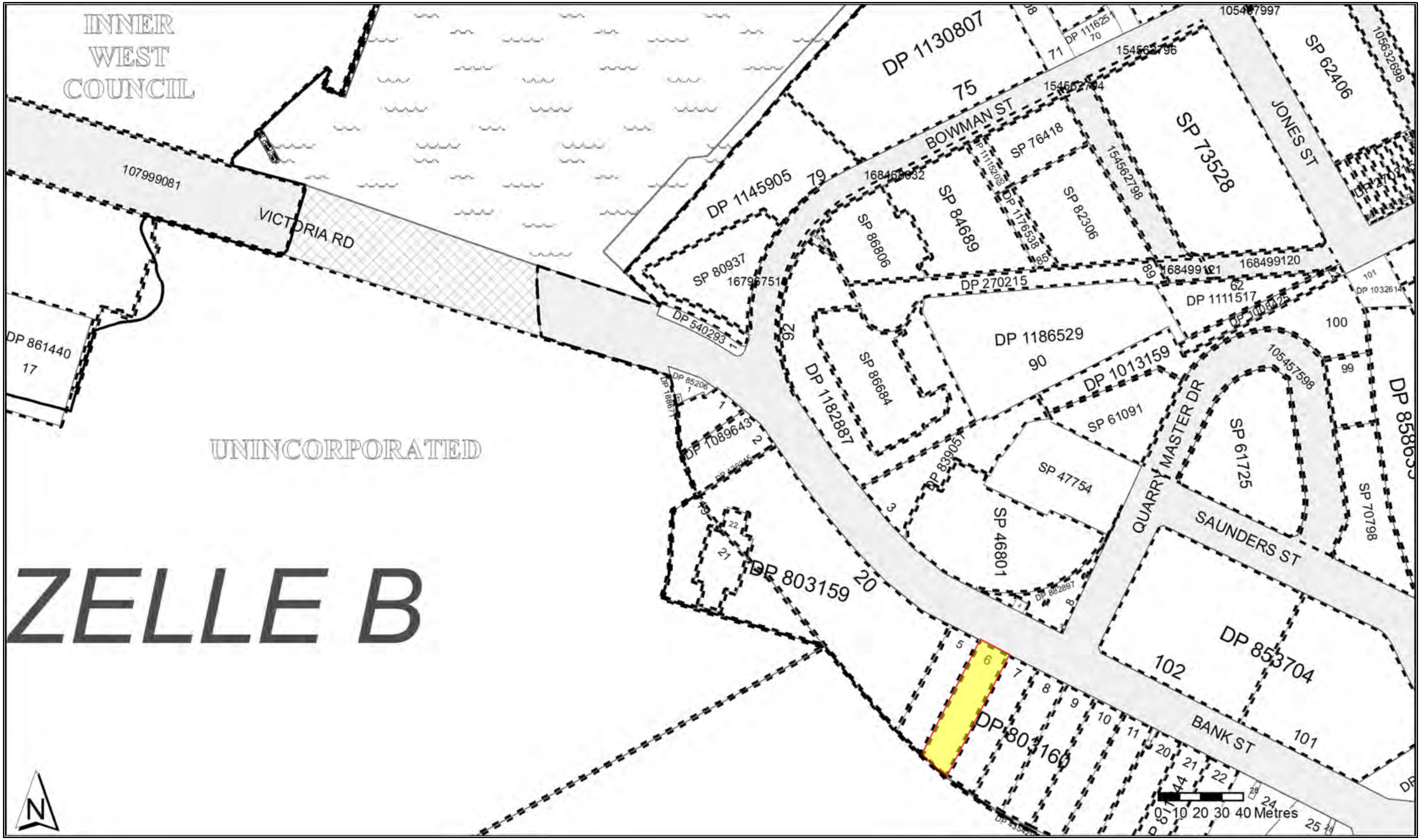
Ref : Bank Street Pyrmont

Locality : PYRMONT

Parish : ST ANDREW

LGA : SYDNEY

County : CUMBERLAND



Report Generated 8:10:18 AM, 6 April, 2023

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

PLAN FORM 2

Plan Drawing only to appear in this space

*OFFICE USE ONLY

DP 803160

Registered: 28·6·1990

C.A: ____________

Title System: TORRENS & OLD SYSTEM

Purpose: ACQUISITION (NOT A CURRENT PLAN AT REGN. SEE SEC. 327 A.A. L.G.A.

Ref. Map: SYDNEY Sh. 101 #

Last Plan: D. P. 3176 #

E 4 E O I O N

PLAN OF LAND TO BE ACQUIRED FOR THE PURPOSES OF THE STATE ROADS ACT, 1986.

Lengths are in metres. Reduction Ratio 1: 250

~~Mun./Shire~~ City: SYDNEY
Locality: PYRMONT
Parish: ST ANDREW
County: CUMBERLAND

This is sheet 1 of my plan in 4 sheets.
(Delete if inapplicable).

I, STEPHEN BENNETT
of ROADS AND TRAFFIC AUTHORITY., N.S.W.
a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan .... is accurate and has been made in accordance with the Survey Practice Regulations, 1933 and any special requirements of the Department of Lands, and was completed on
22. FEBRUARY 1990
Signature S Bennett 2-3-90
Surveyor registered under Surveyors Act, 1929, as amended.
Datum Line of Azimuth. "X"-"Y" (D.P. ________)
#Insert date of survey.
R.T.A. CONTROL PLAN 6003 412 CS 0004
R.T.A. F.B. No 7000 412 FP 0016, 18, 20, 0019 (FOL)

Plans used in preparation of survey/compilation.
D.P. 3176, D.P. 87618, D.P. 435429
D.P. 621917
S109-907 C.C. OF S. FBKS. 479, 831
C.C. OF S. SURVEY PLOT 2-48

L.M.W. 301

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

LOTS 12, 13 AND 14 ARE REQUIRED FOR CONTROLLED ACCESS ROAD UNDER DIVISION 2 PART 3 OF THE STATE ROADS ACT, 1986.

ACCESS WILL BE DENIED ACROSS THE BOUNDARIES OF LOTS 12, 13 AND 14 MARKED A-B-C-D-E AND G-H-J.

APPROVED.

D. Eccleston
CHIEF SURVEYOR
ROADS AND TRAFFIC AUTHORITY, N.S.W.

SIGNATURES, SEALS AND STATEMENTS of intention to dedicate public roads or to create reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

THE CONSENT OF THE COUNCIL OF THE CITY OF SOUTH SYDNEY TO THE DEFINITION OF BANK STREET FURNISHED

THE CONSENT OF THE MARITIME SERVICES BOARD TO THE DEFINITION OF BLACKWATTLE BAY FURNISHED

Crown Lands Office Approval

PLAN APPROVED ....
Authorised Officer
Land District ....
Paper No. ....
Field Book .... pages ....

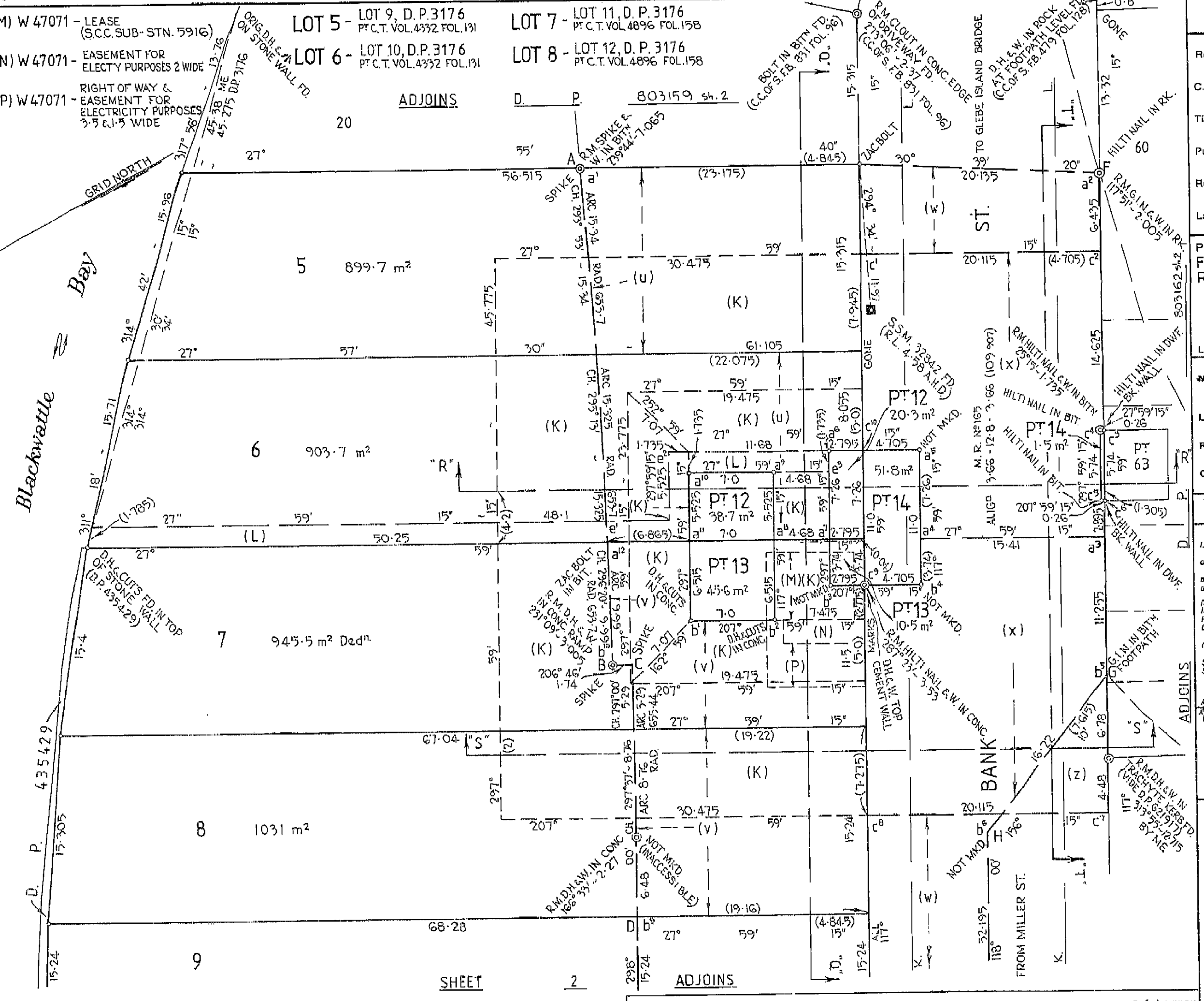
Council Clerk's Certificate

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 Part 3 Division 2 of the † Water Board Act 1987 and † Water Supply Authorities Act 1987
have been complied with by the applicant in relation to the proposed ....
(Insert "new road", "subdivision" or "consolidated lot") set out herein
Subdivision No. ....
Date ....
(Signature) ....
Council Clerk
Council File No. ....

*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 REFERENCE:
M.P.D.

(M) W 47071 – LEASE (S.C.C. SUB-STN. 5916)
(N) W 47071 – EASEMENT FOR ELECTY PURPOSES 2 WIDE
(P) W 47071 – RIGHT OF WAY & EASEMENT FOR ELECTRICITY PURPOSES 3·5 & 1·5 WIDE



(L) PROPOSED EASEMENT TO DRAIN WATER 1·735 WIDE UNLIMITED IN HEIGHT AND DEPTH EXCEPT FOR THE PART MARKED e¹-e²-a⁶-e³-a¹⁰-a¹¹-a¹²-e¹ WHICH IS A STRATUM UNLIMITED IN DEPTH LYING BELOW AN INCLINED PLANE IDENTIFIED ON SHEET 4.

(K) PROPOSED EASEMENT FOR FOOTINGS AND SUPPORT IS A STRATUM LIMITED IN HEIGHT TO HORIZONTAL AND INCLINED PLANES IDENTIFIED ON SHEET 4 AND IS UNLIMITED IN DEPTH.

LOTS 12, 13 AND 14 ARE REQUIRED FOR CONTROLLED ACCESS ROAD UNDER DIVISION 2 PART 3 OF THE STATE ROADS ACT, 1986.

ACCESS WILL BE DENIED ACROSS THE BOUNDARIES OF LOTS 12, 13 AND 14 MARKED A-B-C-D-E AND G-H-J.

INCLINED PLANES ARE DESIGNATED $a^1-a^2-c^3-c^4-c^5-c^6-a^3-a^4-a^5-a^6-a^7-a^8-a^9-a^{10}-a^{11}-a^{12}-a^1$. AND $a^{12}-a^{11}-b^1-b^2-a^8-a^7-b^3-b^4-a^4-a^3-b^5-b^6-b^7-b^8-b^9-b^{10}-a^{12}$.

HORIZONTAL PLANE IS DESIGNATED $c^1-c^2-c^3-c^4-c^5-c^6-c^7-c^8-c^9-b^4-a^5-c^{10}-c^1$.

LOTS 5 AND 6 ARE UNLIMITED IN HEIGHT AND DEPTH EXCEPT FOR THE PARTS DESIGNATED (U) WHICH ARE LIMITED TO A STRATUM UNLIMITED IN DEPTH LYING BELOW AN INCLINED PLANE IDENTIFIED ON SHEET 4 AS A BOUNDARY OF LOT 12.

LOTS 7 AND 8 ARE UNLIMITED IN HEIGHT AND DEPTH EXCEPT FOR THE PARTS DESIGNATED (V) WHICH ARE LIMITED TO A STRATUM UNLIMITED IN DEPTH LYING BELOW AN INCLINED PLANE IDENTIFIED ON SHEET 4 AS A BOUNDARY OF LOT 13.

THAT PART OF BANK STREET DESIGNATED (W) IS LIMITED TO STRATA UNLIMITED IN DEPTH LYING BELOW INCLINED PLANES IDENTIFIED ON SHEETS 3 AND 4 AS BOUNDARIES OF LOT 14.

THAT PART OF BANK STREET DESIGNATED (Z) IS LIMITED TO A STRATUM UNLIMITED IN HEIGHT LYING ABOVE A HORIZONTAL PLANE AT 2·00 A.H.D.

THAT PART OF BANK STREET DESIGNATED (X) IS A STRATUM LYING BETWEEN A HORIZONTAL PLANE AT 2·00 A.H.D AND INCLINED PLANES IDENTIFIED ON SHEETS 3 AND 4 AS BOUNDARIES OF LOT 14.

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 Table of mm 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390

R.T.A. FILE 412·12036

R.T.A. PLAN 5101 412 SS 0012

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

10 20 30 40 50 60 70 Table of mm 110 120 130 140

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 3rd July, 1990

PLAN FORM 3 To be used in conjunction with Plan Form 2

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

DP 803160

Registered: 28·6·1990

This is sheet 2 of my plan in 4 sheets dated 22 FEBRUARY 1990

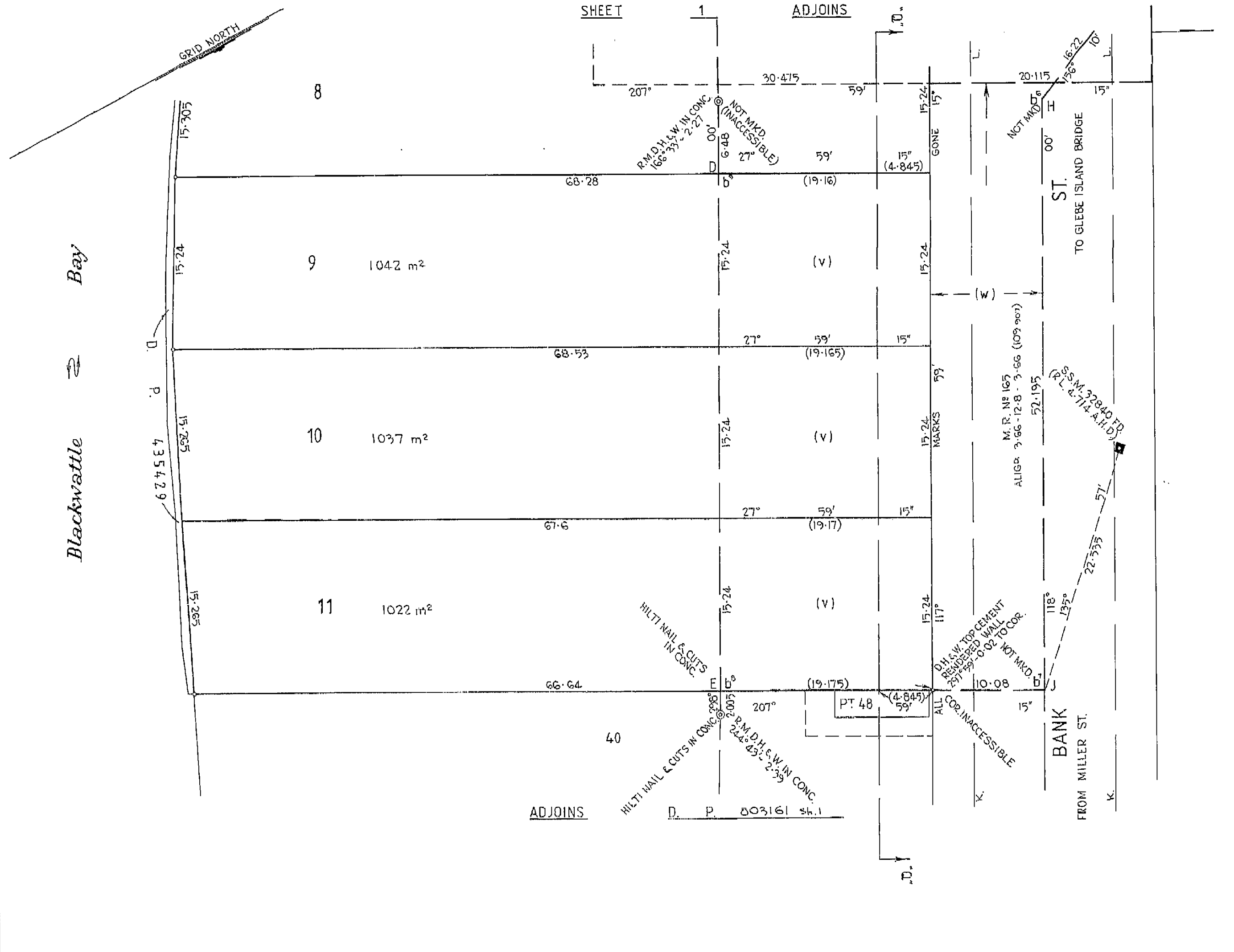
P Bennett 2-3-90
Surveyor registered under Surveyors Act 1929

This is sheet of the plan of sheets covered by my Certificate No. of

Council Clerk

For use where space is insufficient in any panel on Plan Form 2.

City : SYDNEY
Locality : PYRMONT
Parish : ST ANDREW
County : CUMBERLAND



LOT 9 - LOT 13, D. P. 3176
PT C.T. VOL.4896 FOL.158

LOT 10 - LOT 14, D. P. 3176
PT C.T. VOL.4896 FOL.158

LOT 11 - LOT 15, D. P. 3176
PT C.T. VOL.4896 FOL.158

LOTS 9, 10 AND 11 ARE UNLIMITED IN HEIGHT AND DEPTH EXCEPT FOR THE PARTS DESIGNATED (V) WHICH ARE LIMITED TO A STRATUM UNLIMITED IN DEPTH LYING BELOW AN INCLINED PLANE IDENTIFIED ON SHEET 4 AS A BOUNDARY OF LOT 13.

THAT PART OF BANK STREET DESIGNATED (W) IS LIMITED TO A STRATUM UNLIMITED IN DEPTH LYING BELOW AN INCLINED PLANE IDENTIFIED ON SHEETS 3 AND 4 AS A BOUNDARY OF LOT 14.

INCLINED PLANE IS DESIGNATED $a^{12}-a^{11}-b^{1}-b^{2}-a^{8}-a^{7}-b^{3}-b^{4}-a^{4}-a^{3}-b^{5}-b^{6}-b^{7}-b^{8}-b^{9}-b^{10}-a^{12}$

LOTS 12, 13 AND 14 ARE REQUIRED FOR CONTROLLED ACCESS ROAD UNDER DIVISION 2 PART 3 OF THE STATE ROADS ACT, 1986.

ACCESS WILL BE DENIED ACROSS THE BOUNDARIES OF LOTS 12, 13 AND 14 MARKED A-B-C-D-E AND G-H-J.

Reduction Ratio 1: 250

Plan Drawing only to appear in this space

R.T.A. FILE 412·12036

R.T.A. PLAN 5101 412 SS 0012
SURVEYOR'S REFERENCE:

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 3rd July, 1990

10 20 30 40 50 60 70 Table of mm 110 120 130 140

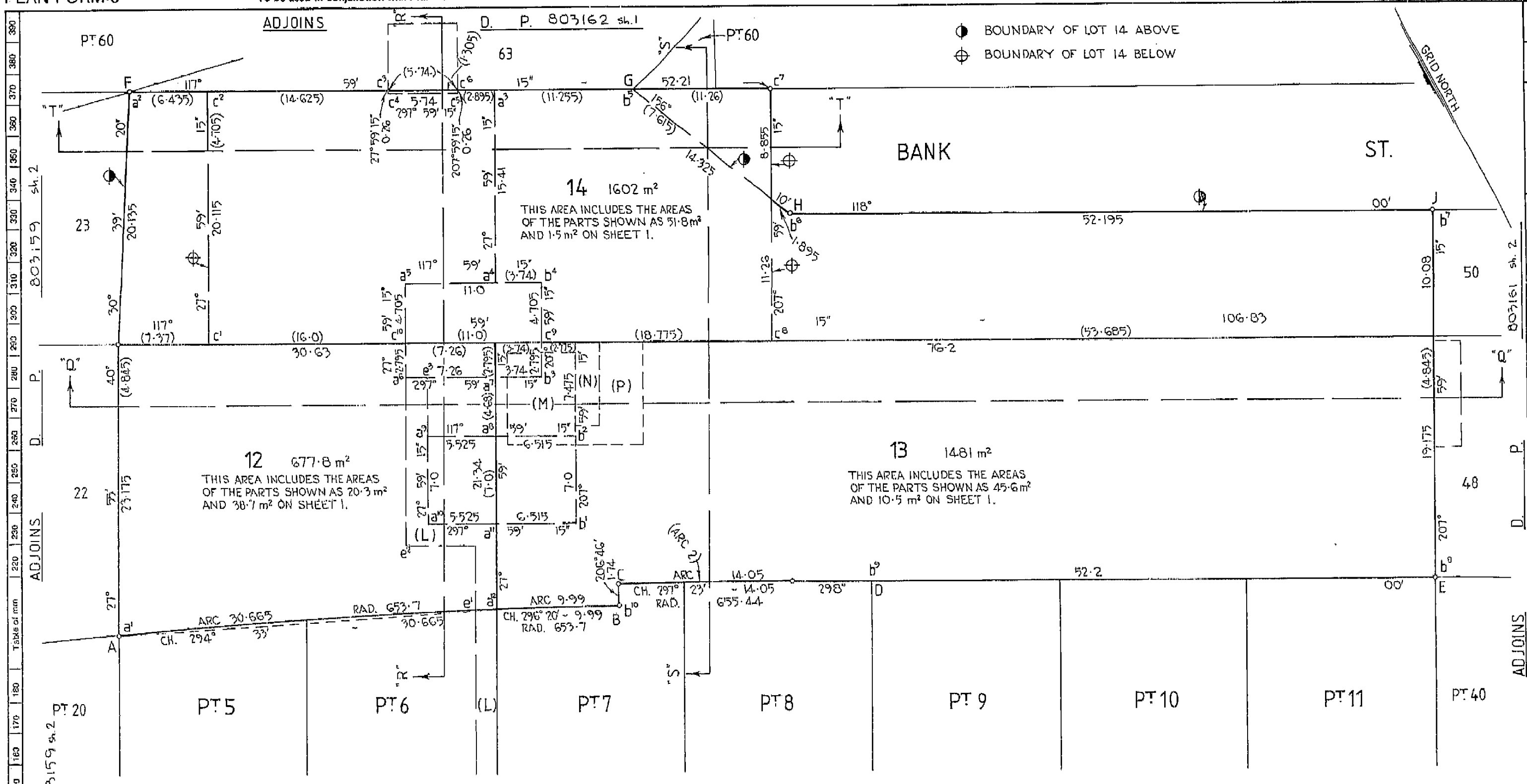
2

PLAN FORM 3

To be used in conjunction with Plan Form 2

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY



(L) PROPOSED EASEMENT TO DRAIN WATER 1·735 WIDE UNLIMITED IN HEIGHT AND DEPTH EXCEPT FOR THE PART MARKED e¹-e²-a⁶-e³-a¹⁰-a¹¹-a¹²-e¹ WHICH IS A STRATUM UNLIMITED IN DEPTH LYING BELOW AN INCLINED PLANE IDENTIFIED ON SHEET 4.

(M) W 47071 - LEASE (S.C.C. SUB. STN. 5916)

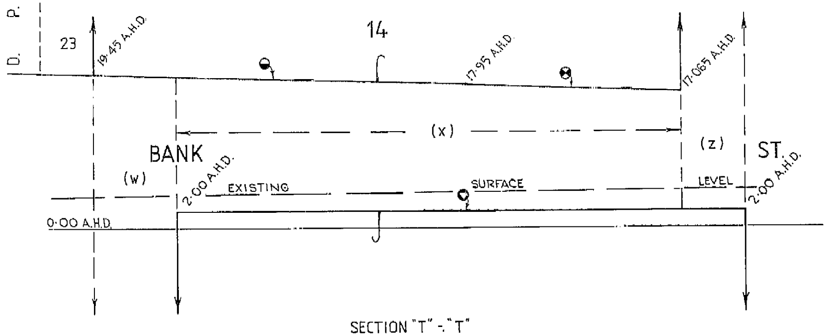
(N) W 47071 - EASEMENT FOR ELECTRICITY PURPOSES 2 WIDE

(P) W 47071 - RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES 3·5 & 1·5 WIDE

◓ INCLINED PLANE DESIGNATED a¹-a²-c³-c⁴-c⁵-c⁶-a³-a⁴-a⁵-a⁶-a⁷-a⁸-a⁹-a¹⁰-a¹¹-a¹²-a¹.

⊖ INCLINED PLANE DESIGNATED a¹²-a¹¹-b¹-b²-a⁸-a⁷-b³-b⁴-a⁴-a³-b⁵-b⁶-b⁷-b⁸-b⁹-b¹⁰-a¹².

⊕ HORIZONTAL PLANE DESIGNATED c¹-c²-c³-c⁴-c⁵-c⁶-c⁷-c⁸-c⁹-b⁴-a⁵-c¹⁰-c¹.



SECTION "T" - "T"
HORIZONTAL RATIO 1:250
VERTICAL RATIO 1:400

LOT 12 IS A STRATUM LIMITED IN DEPTH TO AN INCLINED PLANE IDENTIFIED ON SHEET 4 IS UNLIMITED IN HEIGHT AND INCLUSIVE OF THOSE PARTS CONTAINING AREAS OF 38·7 m² AND 20·3 m² SHOWN ON SHEET 1 WHICH ARE UNLIMITED IN HEIGHT AND DEPTH.

LOT 13 IS A STRATUM LIMITED IN DEPTH TO AN INCLINED PLANE IDENTIFIED ON SHEET 4 IS UNLIMITED IN HEIGHT AND INCLUSIVE OF THOSE PARTS CONTAINING AREAS OF 45·6 m² AND 10·5 m² SHOWN ON SHEET 1 WHICH ARE UNLIMITED IN HEIGHT AND DEPTH.

LOT 14 IS STRATA UNLIMITED IN HEIGHT AND DEPTH EXCLUSIVE OF THAT PART OF BANK STREET DESCRIBED ON SHEETS 1 AND 2.

LOTS 12, 13 AND 14 ARE REQUIRED FOR CONTROLLED ACCESS ROAD UNDER DIVISION 2 PART 3 OF THE STATE ROADS ACT, 1986.

ACCESS WILL BE DENIED ACROSS THE BOUNDARIES OF LOTS 12, 13 AND 14 MARKED A-a-C-D-E AND G-H-J.

DP 803160

Registered: 28·6·1990

This is sheet 3 of my plan in 4 sheets dated 22 FEBRUARY 1990

S Bennett 2-3-90
Surveyor registered under Surveyors Act 1929

This is sheet of the plan of sheets covered by my Certificate No. of

Council Clerk

For use where space is insufficient in any panel on Plan Form 2.

City : SYDNEY
Locality : PYRMONT
Parish : ST ANDREW
County : CUMBERLAND

Reduction Ratio 1: 250

R.T.A. FILE 412·12038

R.T.A. PLAN 5101 412 SS 0012
SURVEYOR'S REFERENCE:

Plan Drawing only to appear in this space

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 3rd July, 1990

10	20	30	40	50	60	70 Table of mm	110	120	130	140

3

PLAN FORM 3

To be used in conjunction with Plan Form 2

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

'OFFICE USE ONLY

DP 803160

Registered: 28·6·1990

This is sheet 4 *of my plan in* 4 *sheets* .
dated 22 FEBRUARY 1990

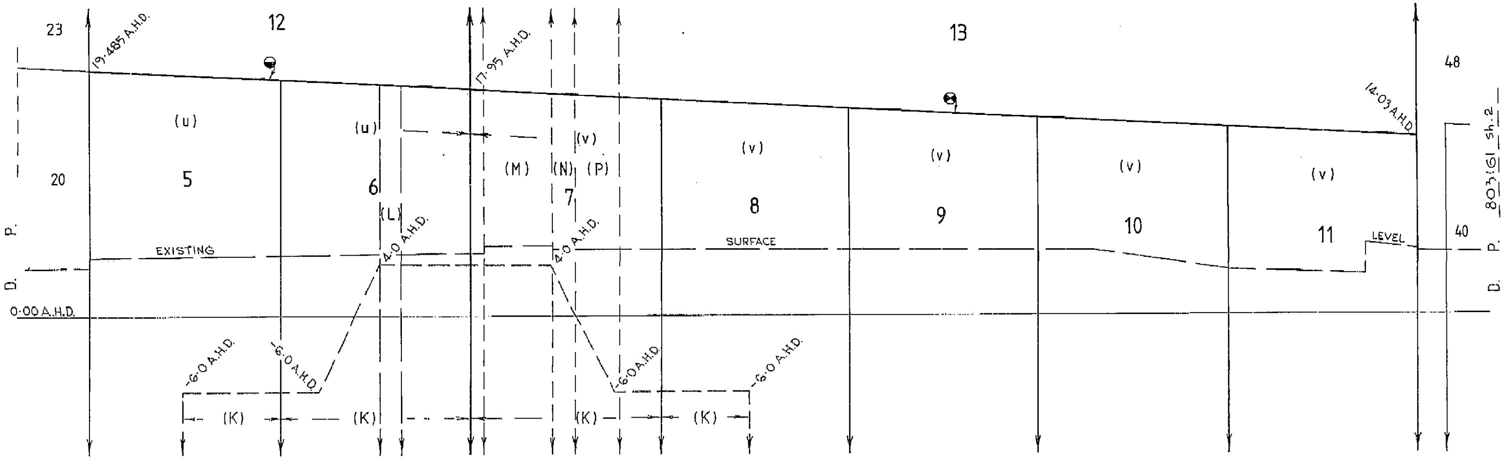
J Bennett 2-3-90
Surveyor registered under Surveyors Act 1929

This is sheet of the plan of
sheets covered by my Certificate No.
of

Council Clerk

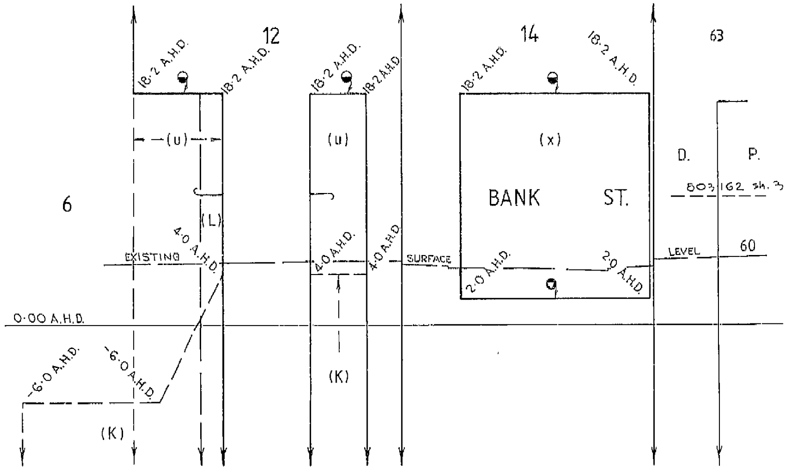
For use where space is insufficient in any panel on Plan Form 2.

City : SYDNEY
Locality: PYRMONT
Parish : S^T ANDREW
County : CUMBERLAND

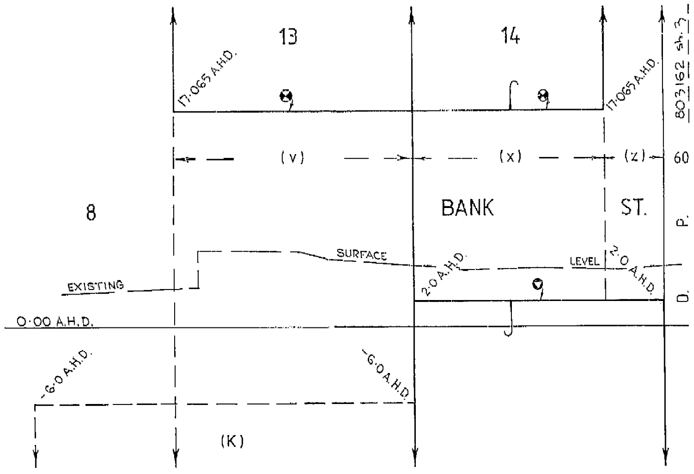


SECTION "Q" - "Q"

◒	INCLINED PLANE DESIGNATED $a^1-a^2-c^3-c^4-c^5-c^6-a^3-a^4-a^5-a^6-a^7-a^8-a^9-a^{10}-a^{11}-a^{12}-a^1$ ON SHEETS 1 & 3.
⊗	INCLINED PLANE DESIGNATED $a^{12}-a^{11}-b^1-b^2-a^8-a^7-b^3-b^4-a^4-a^3-b^5-b^6-b^7-b^8-b^9-b^{10}-a^{12}$ ON SHEETS 1, 2 & 3.
▽	HORIZONTAL PLANE DESIGNATED $c^1-c^2-c^3-c^4-c^5-c^6-c^7-c^8-c^9-b^4-a^5-c^{10}-c^1$ ON SHEETS 1 & 3.



SECTION "R" - "R"



SECTION "S" - "S"

Reduction Ratio 1: 250

R.T.A. FILE 412·12036

Plan Drawing only to appear in this space

R.T.A. PLAN 5101 412 SS 0012
SURVEYOR'S REFERENCE:

10 20 30 40 50 60 70 Table of mm 110 120 130 140

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. ' 3rd July, 1990

4

PLAN FORM 2

← Plan Drawing only to appear in this space →

*OFFICE USE ONLY

Signatures, seals and statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements, restrictions on the u of land or positive covenants.

EXECUTED FOR THE ROADS AND TRAFFIC AUTHORITY, N.S.W. BY ITS DELEGATE PAUL GREGORY PURSUANT TO DELEGATION BOOK 4008 NO.809 AND BOOK 4117 NO.182.

MANAGER, PROPERTY ASSETS

[D] E530716 - RIGHT OF FOOTWAY VARIABLE WIDTH IS A STRATUM LYING BETWEEN HORIZONTAL PLANES AT 10 A.H.D. & 0 A.H.D. D.P.645890
[E] V601448 - LEASE TO ENERGY AUSTRALIA SUBSTATION SITE NO. 168
[F] V601448 - EASEMENT FOR ELECTRICITY PURPOSES 6·095,5·615 WIDE AND VARIABLE WIDTH
[G] V601448 - RIGHT OF CARRIAGEWAY 5·615 WIDE AND VARIABLE WIDTH
[H] E530716 - EASEMENT FOR FOOTINGS AND SUPPORT IS A STRATUM UNLIMITED IN DEPTH LYING BELOW A HORIZONTAL PLANE AT -6 A.H.D. - D.P.809309
[I] D.P.648686 EASEMENT TO DRAIN WATER 1·1 AND 1·5 WIDE IS A STRATUM LYING BETWEEN HORIZONTAL PLANES AT 7 A.H.D. AND 3·54 A.H.D.
[J] D.P.839057 EASEMENT TO DRAIN WATER 2 WIDE LIMITED IN HEIGHT TO 5 A.H.D.
[K] D.P.839057 EASEMENT FOR LETTERBOXES 1·3 WIDE
[L] D.P.839057 RIGHT OF FOOTWAY LIMITED IN STRATUM BETWEEN HORIZONTAL PLANES AT 12·8 A.H.D. AND 16 A.H.D.

LOT 8 IS A STRATUM UNLIMITED IN HEIGHT AND DEPTH EXCEPT FOR THOSE PARTS DESIGNATED (U) AND (V) WHICH ARE LIMITED TO STRATUM UNLIMITED IN DEPTH LYING BELOW A HORIZONTAL AND AN INCLINED PLANE RESPECTIVELY AS IDENTIFIED ON SHEET 3 AS BOUNDARIES OF LOTS 4 AND 5 ABOVE.

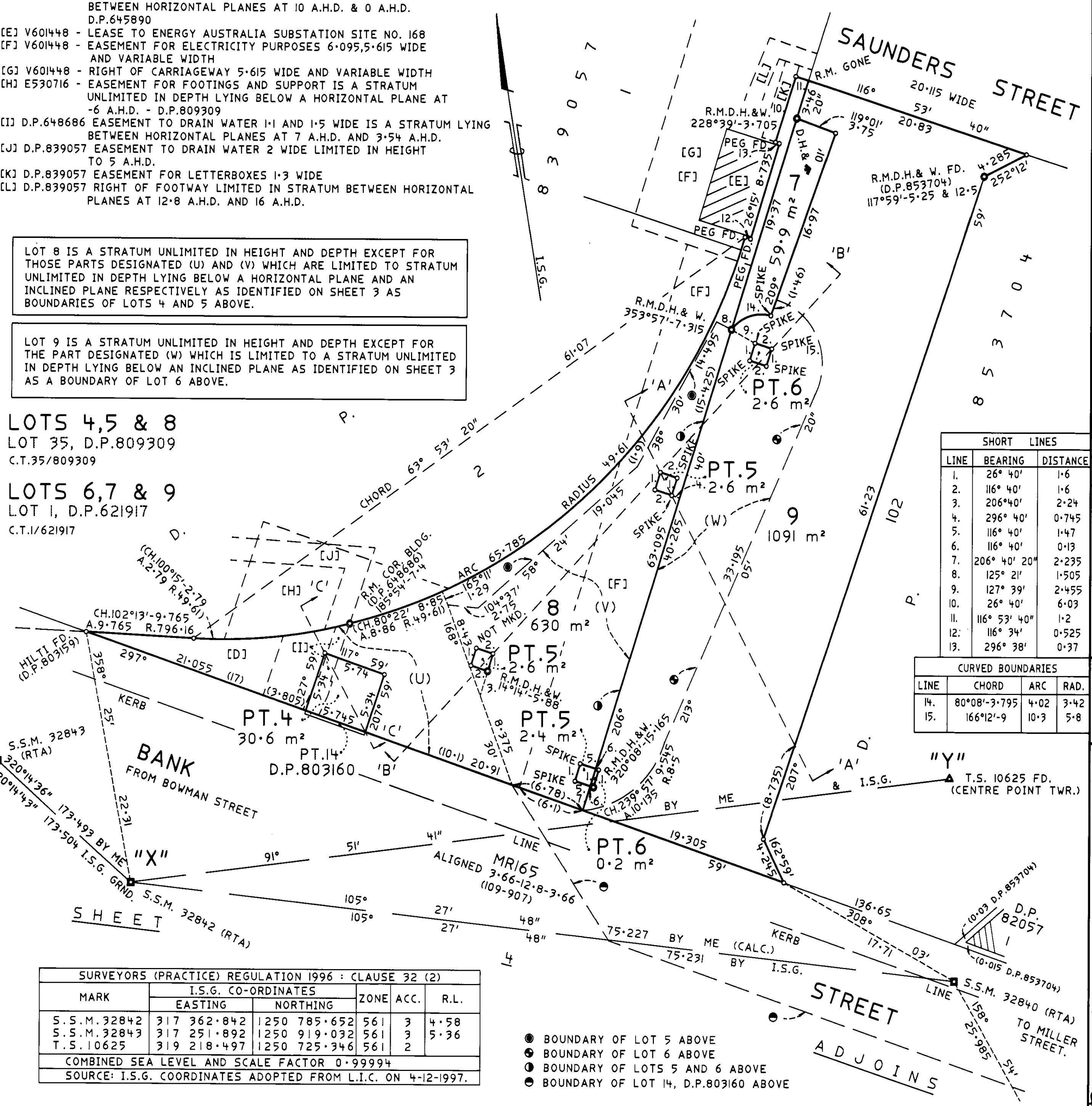
LOT 9 IS A STRATUM UNLIMITED IN HEIGHT AND DEPTH EXCEPT FOR THE PART DESIGNATED (W) WHICH IS LIMITED TO A STRATUM UNLIMITED IN DEPTH LYING BELOW AN INCLINED PLANE AS IDENTIFIED ON SHEET 3 AS A BOUNDARY OF LOT 6 ABOVE.

LOTS 4,5 & 8

LOT 35, D.P.809309
C.T.35/809309

LOTS 6,7 & 9

LOT 1, D.P.621917
C.T.1/621917



● BOUNDARY OF LOT 5 ABOVE
● BOUNDARY OF LOT 6 ABOVE
◑ BOUNDARY OF LOTS 5 AND 6 ABOVE
● BOUNDARY OF LOT 14, D.P.803160 ABOVE

SHORT LINES		
LINE	BEARING	DISTANCE
1.	26° 40'	1·6
2.	116° 40'	1·6
3.	206°40'	2·24
4.	296° 40'	0·745
5.	116° 40'	1·47
6.	116° 40'	0·13
7.	206° 40' 20"	2·235
8.	125° 21'	1·505
9.	127° 39'	2·455
10.	26° 40'	6·03
11.	116° 53' 40"	1·2
12.	116° 34'	0·525
13.	296° 38'	0·37

CURVED BOUNDARIES			
LINE	CHORD	ARC	RAD.
14.	80°08'-3·795	4·02	3·42
15.	166°12'-9	10·3	5·8

SURVEYORS (PRACTICE) REGULATION 1996 : CLAUSE 32 (2)					
MARK	I.S.G. CO-ORDINATES		ZONE	ACC.	R.L.
	EASTING	NORTHING			
S.S.M.32842	317 362·842	1250 785·652	561	3	4·58
S.S.M.32843	317 251·892	1250 919·032	561	3	5·36
T.S.10625	319 218·497	1250 725·346	561	2	
COMBINED SEA LEVEL AND SCALE FACTOR 0·99994					
SOURCE: I.S.G. COORDINATES ADOPTED FROM L.I.C. ON 4-12-1997.					

Crown Lands Office Approval

LAN APPROVED ....
Authorised Officer
Land District ....
Paper No. ....
Field Book .... pages ....

Council Certificate

ereby certify that -
(a) the requirements of the Local Government Act, 1993 (other than the requirements for the registration of plans), and
(b) the requirements of † Part 3 Division 2 of the Water Board Act 1987, or † Part 5 Division 7 of the Hunter Water Board (Corporatisation) Act 1991
e been complied with by the applicant in relation to the proposed
.... set out herein
division No. ....
e ....
nature) ....
General Manager
ncil File No. ....

s part of certificate to be deleted where the application is only 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 er Board and the Hunter Water Corporation Ltd.
rt "new road", "subdivision" or "consolidated lot"
te if inapplicable.

DP 882897 *

S

Registered: R 27.1.1999 *

C.A.:

Title System: TORRENS

Purpose: ROADS ACT, 1993

Ref.Map: CITY OF SYDNEY SHT 101# ~~U 0915-34~~

Last Plan: DP 809309

PLAN OF LAND TO BE ACQUIRED FOR THE PURPOSES OF THE ROADS ACT, 1993.

Lengths are in metres. Reduction Ratio 1:250

L.G.A.: SYDNEY CITY
Suburb: PYRMONT
Parish: ST. ANDREW
County: CUMBERLAND

This is sheet 1 of my plan in 4 sheets. (Delete if inapplicable).

I, MICHAEL J. RUTLIDGE
of ROADS & TRAFFIC AUTHORITY, N.S.W.
a surveyor registered under the Surveyors Act 1929, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveyors (Practice) Regulation 1996 and was completed on
5-6-1997
Signature MJ Rutlidge
Surveyor registered under the Surveyors Act 1929. 6-2-98
Datum Line : "X" - "Y"
Zone : Suburban
F.BK.0165 412 FP 0003,0004(F) WA67

Plans used in preparation of survey ~~/ compilation~~
D.P.645890, D.P.648686, D.P.803160, D.P.803162, D.P.809309, D.P.811844, D.P.853704.

'NOT WITHIN P.S.A.'

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

LOT 4 IS REQUIRED FOR FREEWAY UNDER SECTION 48 OF THE ROADS ACT, 1993.

ACCESS WILL BE RESTRICTED ACROSS THE BOUNDARIES OF LOT 4 MARKED A-B-C.

LOT 5 BEING PATHWAY AND LOT 8 ARE TO BE DEDICATED AS PUBLIC ROAD UNDER SECTION 10 OF THE ROADS ACT, 1993.

LOT 6 AND 7 BEING PATHWAY AND LOT 9 ARE TO BE DEDICATED AS PUBLIC ROAD IN ACCORDANCE WITH SECTION 12 OF THE GROWTH CENTRES (DEVELOPMENT CORPORATIONS) ACT, 1974.

APPROVED:
6.02.98
for GENERAL MANAGER, GEOMATICS
R.T.A. TECHNOLOGY
ROADS AND TRAFFIC AUTHORITY

10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | Table of mm | 210 | 220 | 230 | 240 | 250 | 260 | 270 | 280 | 290 | 300 | 310 | 320 | 330 | 340 | 350 | 360 | 370 | 380 | 390

URVEYOR'S REFERENCE: SPV0146 CHECKLIST

WARNING : CREASING OR FOLDING WILL LEAD TO REJECTION

R.T.A. FILE :412·12036

R.T.A. PLAN: 0165 412 SS 0669

WARNING : CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

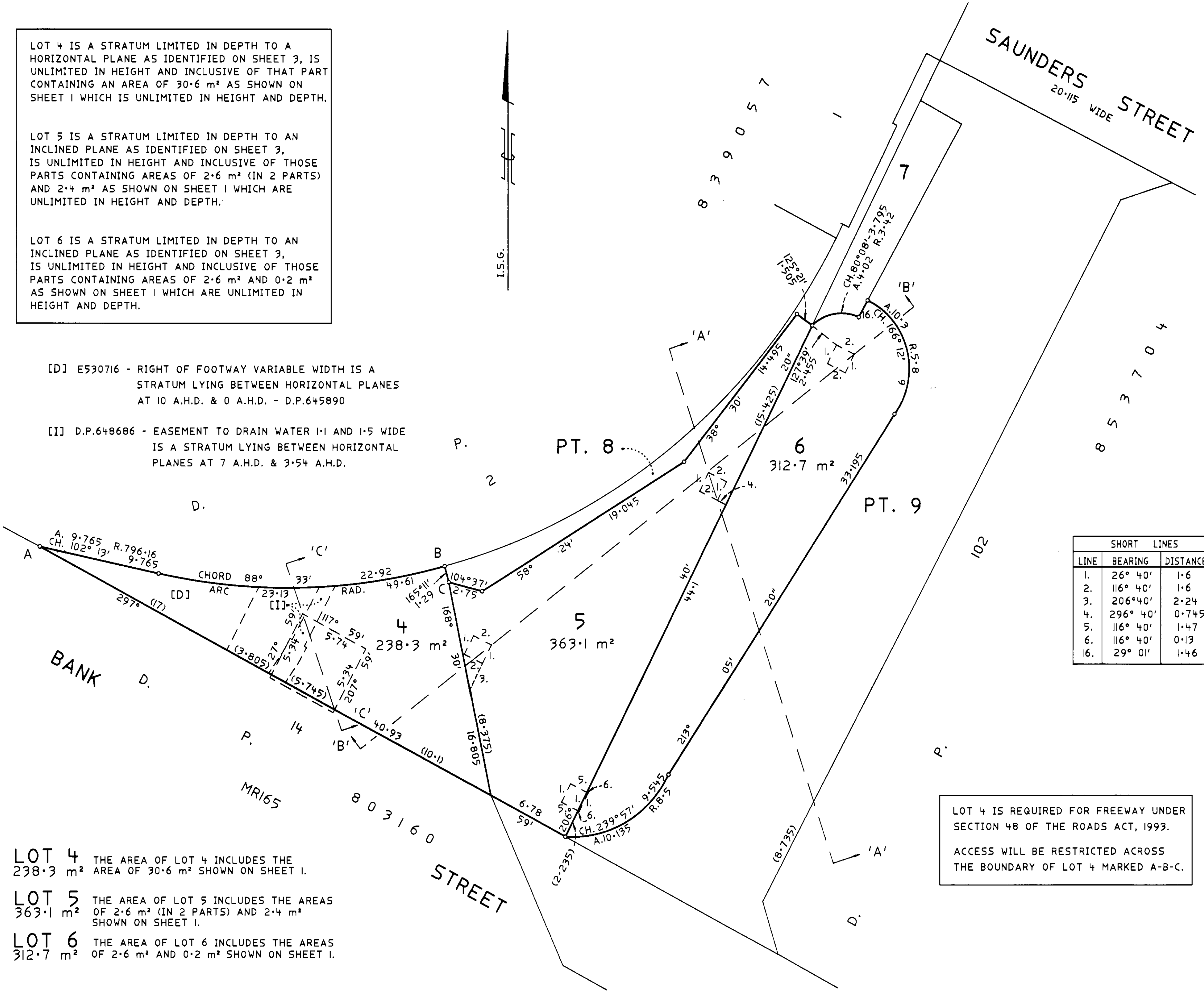
LOT 4 IS A STRATUM LIMITED IN DEPTH TO A HORIZONTAL PLANE AS IDENTIFIED ON SHEET 3, IS UNLIMITED IN HEIGHT AND INCLUSIVE OF THAT PART CONTAINING AN AREA OF 30·6 m² AS SHOWN ON SHEET 1 WHICH IS UNLIMITED IN HEIGHT AND DEPTH.

LOT 5 IS A STRATUM LIMITED IN DEPTH TO AN INCLINED PLANE AS IDENTIFIED ON SHEET 3, IS UNLIMITED IN HEIGHT AND INCLUSIVE OF THOSE PARTS CONTAINING AREAS OF 2·6 m² (IN 2 PARTS) AND 2·4 m² AS SHOWN ON SHEET 1 WHICH ARE UNLIMITED IN HEIGHT AND DEPTH.

LOT 6 IS A STRATUM LIMITED IN DEPTH TO AN INCLINED PLANE AS IDENTIFIED ON SHEET 3, IS UNLIMITED IN HEIGHT AND INCLUSIVE OF THOSE PARTS CONTAINING AREAS OF 2·6 m² AND 0·2 m² AS SHOWN ON SHEET 1 WHICH ARE UNLIMITED IN HEIGHT AND DEPTH.

[D] E530716 - RIGHT OF FOOTWAY VARIABLE WIDTH IS A STRATUM LYING BETWEEN HORIZONTAL PLANES AT 10 A.H.D. & 0 A.H.D. - D.P.645890

[I] D.P.648686 - EASEMENT TO DRAIN WATER 1·1 AND 1·5 WIDE IS A STRATUM LYING BETWEEN HORIZONTAL PLANES AT 7 A.H.D. & 3·54 A.H.D.



SHORT LINES		
LINE	BEARING	DISTANCE
1.	26° 40'	1·6
2.	116° 40'	1·6
3.	206°40'	2·24
4.	296° 40'	0·745
5.	116° 40'	1·47
6.	116° 40'	0·13
16.	29° 01'	1·46

LOT 4 IS REQUIRED FOR FREEWAY UNDER SECTION 48 OF THE ROADS ACT, 1993.

ACCESS WILL BE RESTRICTED ACROSS THE BOUNDARY OF LOT 4 MARKED A-B-C.

LOT 4 THE AREA OF LOT 4 INCLUDES THE
238·3 m² AREA OF 30·6 m² SHOWN ON SHEET 1.

LOT 5 THE AREA OF LOT 5 INCLUDES THE AREAS
363·1 m² OF 2·6 m² (IN 2 PARTS) AND 2·4 m² SHOWN ON SHEET 1.

LOT 6 THE AREA OF LOT 6 INCLUDES THE AREAS
312·7 m² OF 2·6 m² AND 0·2 m² SHOWN ON SHEET 1.

DP 882897 *

Registered: R 27· 1· 1999 *

This is sheet 2 of my plan in 4 sheets
dated 5-6-1997.

Signature M.J. Rutlidge
Surveyor registered under Surveyors Act, 1929. 6.2.98

This is sheet of the plan of
sheets covered by my certificate No.
of

General Manager

L.G.A.: SYDNEY CITY
Suburb: PYRMONT
Parish: ST. ANDREW
County: CUMBERLAND

For use where space is insufficient in any panel on Plan Form 2.

Lengths are in metres. Reduction Ratio 1:200

Plan Drawing only to appear in this space

R.T.A. FILE : 412·12036

R.T.A. PLAN : 0165 412 SS 0669

To be used in conjunction with Plan Form 2

WARNING : CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

DP 882897

Registered: 27-1-1999

This is sheet 3 of my plan in 4 sheets dated 5-6-1997.

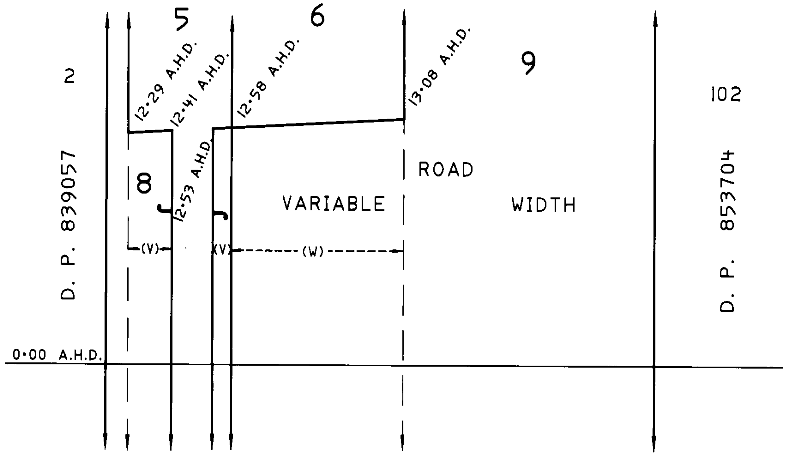
Signature M.J. Ruttledge 6.2.98
Surveyor registered under Surveyors Act, 1929.

This is sheet of the plan of
sheets covered by my certificate No.
of

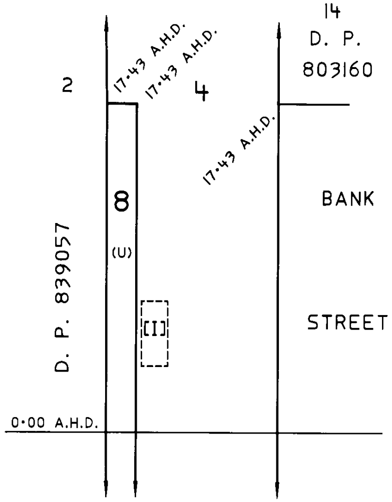
General Manager

L.G.A.:	SYDNEY CITY
Suburb:	PYRMONT
Parish:	ST. ANDREW
County:	CUMBERLAND

For use where space is insufficient in any panel on Plan Form 2.



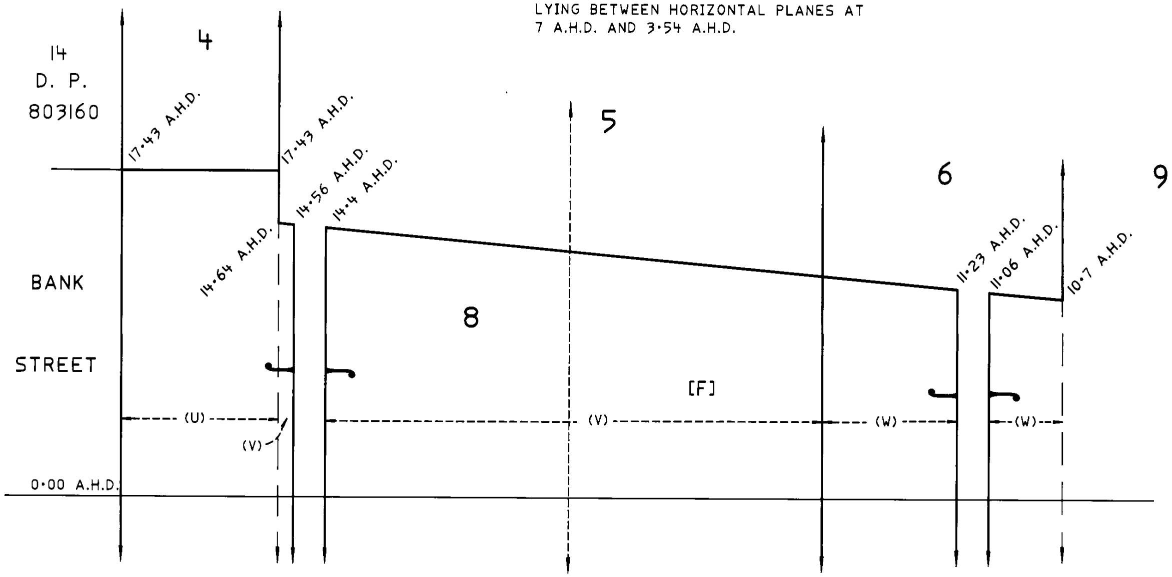
SECTION "A"-"A"
REDUCTION RATIO
HOR. 1:200 VERT. 1:200



SECTION "C"-"C"
REDUCTION RATIO
HOR. 1:200 VERT. 1:200

[F] V601448 - EASEMENT FOR ELECTRICITY PURPOSES
6·095 WIDE AND VARIABLE

[I] EASEMENT TO DRAIN WATER 1·1 WIDE IS A STRATUM
LYING BETWEEN HORIZONTAL PLANES AT
7 A.H.D. AND 3·54 A.H.D.



SECTION "B"-"B"
REDUCTION RATIO
HOR. 1:200 VERT. 1:200

Lengths are in metres. Reduction Ratio : AS SHOWN

Plan Drawing only to appear in this space

R.T.A. PLAN : 412·12036

R.T.A. FILE : 0165 412 SS 0669

DP 882897 *

Registere[illegible] 27.1.1999 *

This is sheet 4 of my plan in 4 sheets
dated 5-6-1997.

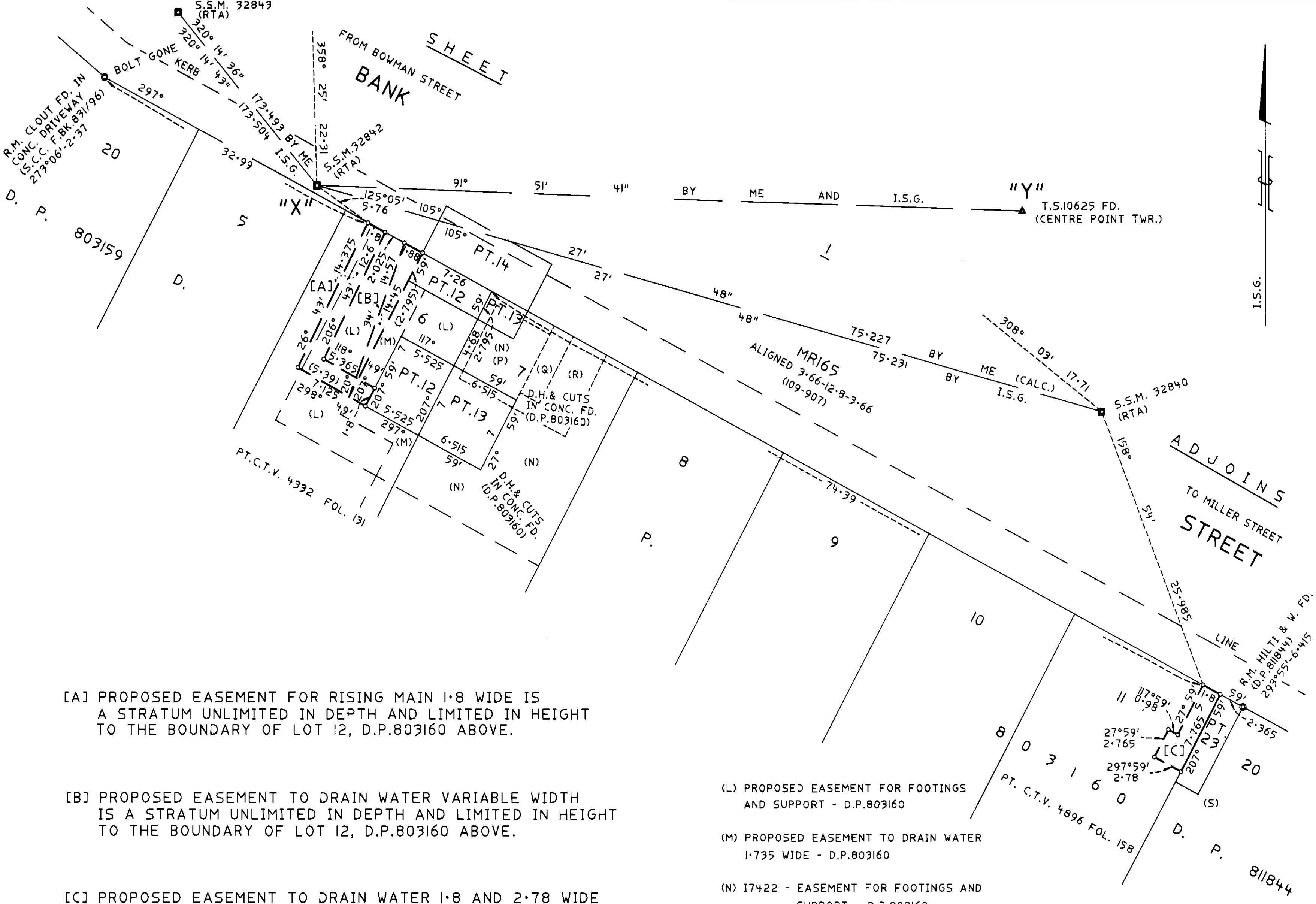
Signature M.J. Rutlidge
Surveyor registered under Surveyors Act, 1929. 6.2.98

This is sheet of the plan of
sheets covered by my certificate No.
of

General Manager

L.G.A.: SYDNEY CITY
Suburb: PYRMONT
Parish: ST. ANDREW
County: CUMBERLAND

For use where space is insufficient in any panel on Plan Form 2.



[A] PROPOSED EASEMENT FOR RISING MAIN 1·8 WIDE IS A STRATUM UNLIMITED IN DEPTH AND LIMITED IN HEIGHT TO THE BOUNDARY OF LOT 12, D.P.803160 ABOVE.

[B] PROPOSED EASEMENT TO DRAIN WATER VARIABLE WIDTH IS A STRATUM UNLIMITED IN DEPTH AND LIMITED IN HEIGHT TO THE BOUNDARY OF LOT 12, D.P.803160 ABOVE.

[C] PROPOSED EASEMENT TO DRAIN WATER 1·8 AND 2·78 WIDE IS A STRATUM UNLIMITED IN DEPTH AND LIMITED IN HEIGHT TO THE BOUNDARY OF LOT 13, D.P.803160 ABOVE.

(L) PROPOSED EASEMENT FOR FOOTINGS AND SUPPORT - D.P.803160

(M) PROPOSED EASEMENT TO DRAIN WATER 1·735 WIDE - D.P.803160

(N) I7422 - EASEMENT FOR FOOTINGS AND SUPPORT - D.P.803160

(P) W47071 - LEASE TO ENERGY AUSTRALIA SUB-STATION 5916

(Q) W47071 - EASEMENT FOR ELECTRICITY PURPOSES 2 WIDE

(R) W47071 - RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES 3·5 WIDE AND 1·5 WIDE

(S) E895918 - EASEMENT FOR FOOTINGS AND SUPPORT D.P.811844

Lengths are in metres. Reduction Ratio 1:250

R.T.A. FILE : 412·12036

R.T.A. PLAN :0165 412 SS 0669

PLAN FORM 2

Plan Drawing only to appear in this space

SIGNATURES AND SEALS ONLY

[E] PROPOSED EASEMENT FOR ELECTRICITY PURPOSES 3 & 4·265 WIDE LIMITED IN HEIGHT TO A STRATUM AS IDENTIFIED ON D.P.s 803159 & 803160.

[F] PROPOSED EASEMENT TO DRAIN WATER 1·735 WIDE & VAR.WIDTH IS UNLIMITED IN HEIGHT AND DEPTH EXCEPT FOR THAT PART DESIGNATED (T) WHICH IS LIMITED IN HEIGHT TO A STRATUM AS IDENTIFIED ON D.P.803160.

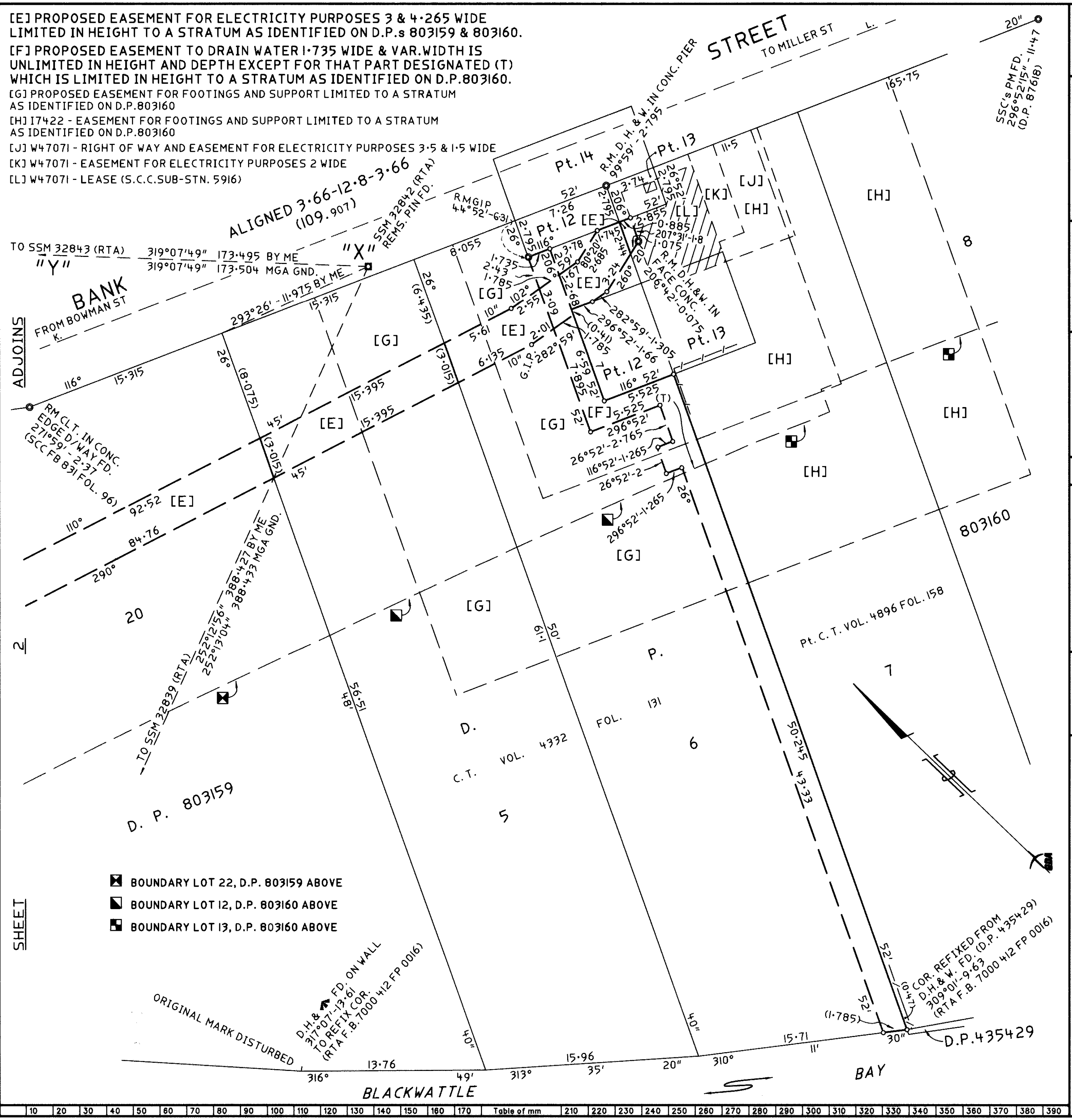
[G] PROPOSED EASEMENT FOR FOOTINGS AND SUPPORT LIMITED TO A STRATUM AS IDENTIFIED ON D.P.803160

[H] I7422 - EASEMENT FOR FOOTINGS AND SUPPORT LIMITED TO A STRATUM AS IDENTIFIED ON D.P.803160

[J] W47071 - RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES 3·5 & 1·5 WIDE

[K] W47071 - EASEMENT FOR ELECTRICITY PURPOSES 2 WIDE

[L] W47071 - LEASE (S.C.C.SUB-STN. 5916)



☒ BOUNDARY LOT 22, D.P. 803159 ABOVE

◩ BOUNDARY LOT 12, D.P. 803160 ABOVE

▚ BOUNDARY LOT 13, D.P. 803160 ABOVE

DP1041963

Registered: *MC* *11·7·2002* *

Title System: *TORRENS*

Purpose: *PROPOSED EASEMENT*

Ref.Map: SYDNEY SHT. 101

Last Plan: *D.P. 803159, D.P. 803160.*

PLAN OF PROPOSED EASEMENTS WITHIN LOTS 5,6 & 7, D.P.803160, LOTS 19 & 20, D.P.803159 AND LAND IN VOL.5018 FOL.1 FOR THE PURPOSES OF THE ROADS ACT, 1993.

Lengths are in metres. Reduction Ratio 1:200

L.G.A.: SYDNEY CITY
Suburb: PYRMONT
Parish: ST. ANDREW
County: CUMBERLAND

This is sheet 1 of my plan in 2 sheets.
(Delete if inapplicable).

I, ALAN R HAWDON
of ROADS & TRAFFIC AUTHORITY, N.S.W.
a surveyor registered under the Surveyors Act 1929, certify that the survey represented in this plan is accurate, has been made in accordance with the Surveyors (Practice) Regulation 2001 and was completed on: 16-5-2001
The survey relates to ....
(specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey)

Signature: A. Hawdon *Dated* 27.5.02
Surveyor registered under the Surveyors Act 1929.

Datum Line: "X" - "Y"
Type: Urban/~~Rural~~

Plans used in preparation of survey /~~compilation~~
D.P.s 803159 & 803160

F.B. 0165 412 FP 0012/13(F) JFDK228

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

APPROVED:
28 05 02
MANAGER, SURVEY SERVICES
OPERATIONS
ROADS AND TRAFFIC AUTHORITY

* OFFICE USE ONLY

AMENDED AT LTO ON 10.7.2002 BY T. GALLAGHER

Crown Lands Office Approval

PLAN APPROVED: ....
Authorised Officer
Land District: ....
Paper No.: ....
Field Book No.: .... *pages* ....

Subdivision Certificate

I certify that the provisions of s.109J of the Environmental Planning and Assessment Act 1979 have been satisfied in relation to the proposed .... *set out herein*
(Insert 'subdivision' or 'new road')

....
** Authorised Person/General Manager/Accredited Certifier..*

Consent Authority: ....
Date of endorsement: ....
Accreditation No.: ....
Subdivision Certificate No.: ....
File No.: ....

When the plan is to be lodged electronically in the Land Titles Office, it should include a signature in an electronic or digital format approved by the Registrar-General.

** Delete whichever is inapplicable*

SURVEYOR'S REFERENCE: 004742 CHECKLIST

WARNING : CREASING OR FOLDING WILL LEAD TO REJECTION

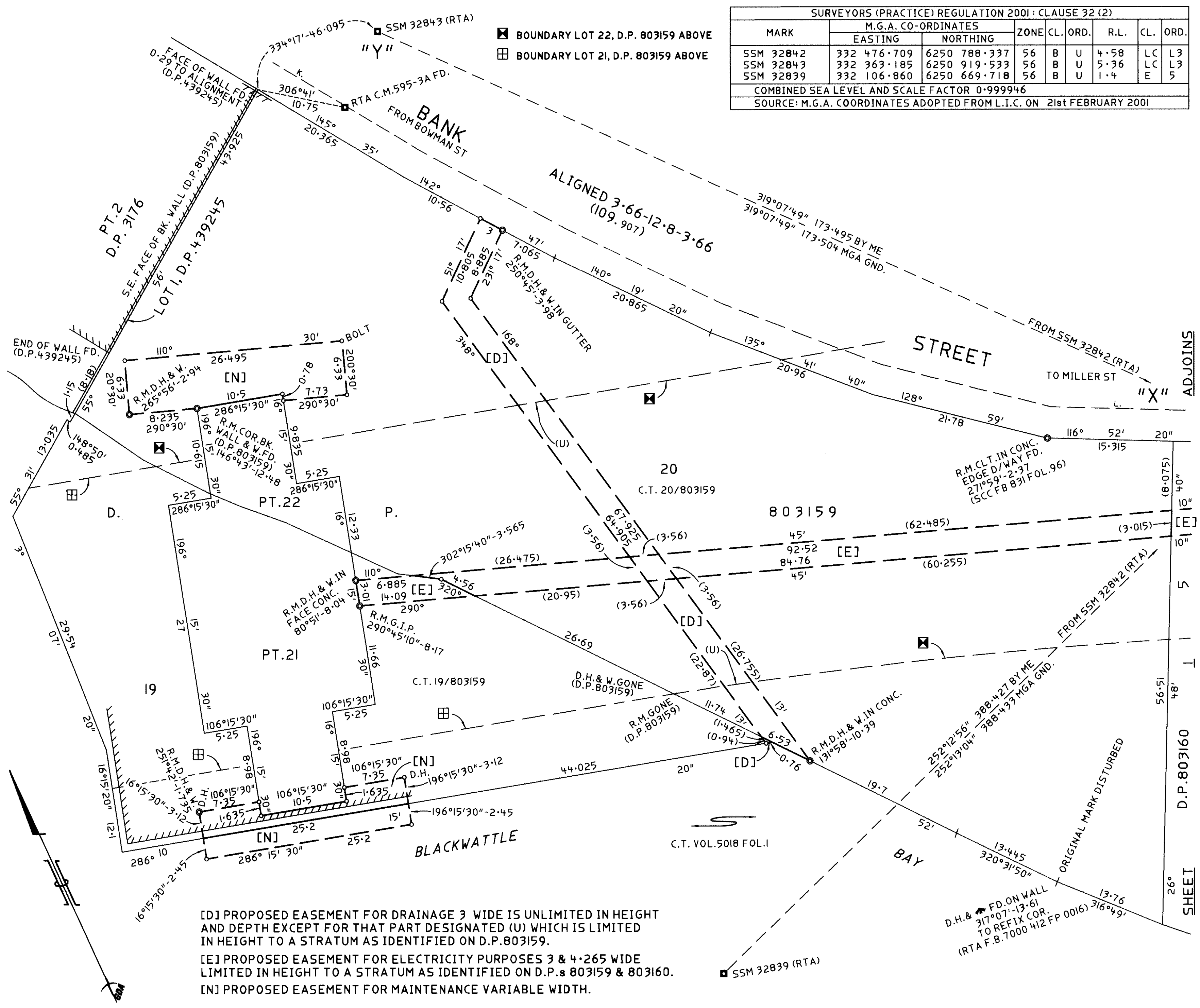
R.T.A. FILE : 412.12036

R.T.A. PLAN: 0165 412 SS 0691

PLAN FORM 3

To be used in conjunction with Plan Form 2

WARNING : CREASING OR FOLDING WILL LEAD TO REJECTION



☒ BOUNDARY LOT 22, D.P. 803159 ABOVE

⊞ BOUNDARY LOT 21, D.P. 803159 ABOVE

SURVEYORS (PRACTICE) REGULATION 2001 : CLAUSE 32 (2)								
MARK	M.G.A. CO-ORDINATES		ZONE	CL.	ORD.	R.L.	CL.	ORD.
	EASTING	NORTHING						
SSM 32842	332 476·709	6250 788·337	56	B	U	4·58	LC	L3
SSM 32843	332 363·185	6250 919·533	56	B	U	5·36	LC	L3
SSM 32839	332 106·860	6250 669·718	56	B	U	1·4	E	5
COMBINED SEA LEVEL AND SCALE FACTOR 0·999946								
SOURCE: M.G.A. COORDINATES ADOPTED FROM L.I.C. ON 21st FEBRUARY 2001								

[D] PROPOSED EASEMENT FOR DRAINAGE 3 WIDE IS UNLIMITED IN HEIGHT AND DEPTH EXCEPT FOR THAT PART DESIGNATED (U) WHICH IS LIMITED IN HEIGHT TO A STRATUM AS IDENTIFIED ON D.P.803159.

[E] PROPOSED EASEMENT FOR ELECTRICITY PURPOSES 3 & 4·265 WIDE LIMITED IN HEIGHT TO A STRATUM AS IDENTIFIED ON D.P.s 803159 & 803160.

[N] PROPOSED EASEMENT FOR MAINTENANCE VARIABLE WIDTH.

DP1041963

Registered: *tc* 11·7·2002 *

This is sheet 2 *of my plan in* 2 *sheets*
dated 16-5-2001

Signature: A. Hawden *Dated* 27.5.02
Surveyor registered under Surveyors Act, 1929.

This is sheet of the plan of sheets
covered by Subdivision Certificate No.: ....
of ....

*Authorised Person/General Manager/Accredited Certifier..
*Delete whichever is inapplicable

L.G.A.: SYDNEY CITY
Suburb: PYRMONT
Parish: ST. ANDREW
County: CUMBERLAND

For use where space is insufficient in any panel on Plan Form 2.

Lengths are in metres. Reduction Ratio 1:300

* OFFICE USE ONLY

Plan Drawing only to appear in this space

R.T.A. FILE : 412.12036

R.T.A. PLAN : 0165 412 SS 0691

Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
6/4/2023 8:07AM

FOLIO: 6/803160

First Title(s): VOL 929 FOL 237   VOL 1097 FOL 15
OLD SYSTEM
Prior Title(s): VOL 4332 FOL 131

Recorded	Number	Type of Instrument	C.T. Issue
2/7/1990	DP803160	DEPOSITED PLAN	LOT RECORDED FOLIO NOT CREATED
7/3/2003	9420339	TRANSFER	FOLIO CREATED EDITION 1
13/6/2012	AH42487	DEPARTMENTAL DEALING	
27/4/2022	AR790860	CHANGE OF NAME	EDITION 2

*** END OF SEARCH ***

Form: 01TE
Release: 1.1
www.lpi.nsw.gov.au

TRANSFER
INCLUDING EASEME

New South Wales
Real Property Act 1900

9420339N

PRIVACY NOTE: this information is legally required and will b

STAMP DUTY

Office of State Revenue use only

NEW SOUTH WALES DUTY
28-02-2003 0001302409-002
SECTION OTHR LEGN-ORIGINAL
NO DUTY PAYABLE

(A) **TORRENS TITLE**

19/803159; 20/803159; PT C T VOL 4332 Fol 131 BEING LOTS 5 & 6 DP 803160

(B) **TENEMENTS**

Servient	Dominant
19 & 20/803159; 5 & 6/803160	ROADS AND TRAFFIC AUTHORITY OF NSW

(C) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODE
	Waterways Authority Maritime Assets Division PO BOX 11 Millers Point NSW 2000 Reference:	TE

(D) **TRANSFEROR**

ROADS AND TRAFFIC AUTHORITY OF NEW SOUTH WALES

The transferor—

(E) 1. acknowledges receipt of the consideration of $ 1.00

2. transfers to the transferee an estate in fee simple and

(F) 3. RESERVES an easement as set out in Schedule 2.

(G) Encumbrances (if applicable):

(H) **TRANSFEREE**

WATERWAYS AUTHORITY

(I) **TENANCY:**

DATE 27th February 2003

(J) I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness: Robert Scott

Name of witness: ROBERT SCOTT
Address of witness: ROADS AND TRAFFIC AUTHORITY OF NSW

Certified correct for the purposes of the Real Property Act 1900 by the authorised officer named below.

Signature of authorised officer:

Authorised officer's name: PAUL GREGORY
Authority of officer: MANAGER PROPERTY ASSETS
Signing on behalf of: RTA

EXECUTED BY MANAGER, PROPERTY ASSETS PURSUANT TO DELEGATION BOOK 4238 NO. 360.

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness: Robert Murphy
Address of witness: 207 Kent St
Sydney

Certified correct for the purposes of the Real Property Act 1900 by the authorised officer named below.

Signature of authorised officer: Matthew Taylor

SIGNED by me ~~Zenon Michniewicz~~
as Delegate of THE WATERWAYS AUTHORITY
and I hereby certify that I have
no notice as to revocation of
such delegation

Authorised officer's name:
Authority of officer:
Signing on behalf of:

All handwriting must be in block capitals.

LAND AND PROPERTY INFORMATION NSW

NOS RECEIVED

(K) SCHEDULE 2

Reserve of easements:

The Transferor RESERVES:

1 An "Easement to Drain Water 1.735 wide" as shown by the letter (L) on Deposited Plan 803160.
Terms of Easement:
As specified in Schedule 4A Part 3 of the Conveyancing Act, 1919.

2. An "Easement for Footings and Support" as shown by letter (K) on Deposited Plan 803160.
Terms of Easement:
An easement for footings and support, to enter and use, to any extent necessary at any time, with or without vehicles, tools, machinery, appliances and scaffolding the part of Lots 5 & 6 Deposited Plan 803160, shown on that plan as 'proposed easement for footings and support' for the purpose of constructing, reconstructing, repairing, maintaining, supporting and inspecting any structure on, or any part of Lot 12, Deposited Plan 803160.

3. An "Easement to Drain Water variable width" as shown by the letter (B) on Deposited Plan 882897.
Terms of Easement:
As specified in Schedule 4A Part 3 of the Conveyancing Act, 1919.

4. An "Easement for Water Supply" shown as "Easement for Rising Main 1.8 wide" and identified by letter (A) on Deposited Plan 882897.
Terms of Easement:
As specified in Schedule 4A Part 10 of the Conveyancing Act, 1919.

5. An "Easement for Electricity Purposes 3 and 4.265 wide" as shown by the letter (E) on Deposited Plan 1041963.
Terms of Easement:
As specified in Schedule 4A Part 8 of the Conveyancing Act, 1919.

6. An "Easement to Drain Water 1.735 wide" and variable width as shown by letter (F) on Deposited Plan 1041963.
Terms of Easement:
As specified in Schedule 4A Part 3 of the Conveyancing Act, 1919.

(K) SCHEDULE 2 Continued:

Reserve of easements:

The Transferor RESERVES:

7. An "Easement to Drain Water" shown as "Easement for Drainage 3 wide" and identified by letter (D) on Deposited Plan 1041963.
Terms of Easement
As specified in Schedule 4A Part 3 of the Conveyancing Act, 1919.

8. An "Easement for Maintenance variable width" as shown by letter (N) on Deposited Plan 1041963.
Terms of Easement:
The body having the benefit of this easement may:

i).

(a) at the expiration of at least one weeks notice served on the owner or occupier of Lots 19 & 20 Deposited Plan 803159, use the said lots for the purpose of carrying out necessary work on any structure used by that body which cannot otherwise reasonably be carried out; and

(b) do anything reasonably necessary for that purpose, including:

entering onto Lots 19 & 20 Deposited Plan 803159, and

taking anything onto Lots 19 & 20 Deposited Plan 803159.

ii).

In exercising those powers, the body having benefit of this easement must:

(a) ensure all work on area shown by letter (N) on Deposited Plan 1041963 is done property and carried out as quickly as is practicable; and

(b) cause as little inconvenience as is practicable to the owner and any occupier of Lots 19 & 20 Deposited Plan 803159; and

(c) cause as little damage as is practicable to Lots 19 & 20 Deposited Plan 803159 and any improvement on it; and

(d) restore Lots 19 & 20 Deposited Plan 803159 as near as practicable to its former condition; and

(K) SCHEDULE 2 Continued:

Reserve of easements:

The Transferor RESERVES:

(e) make good any collateral damage.

RP88/ANNEX

REGISTRATION DIRECTION ANNEXURE

9420339

Use this side only for **First and Second Schedule directions**

DO NOT USE BOTH SIDES OF THIS FORM

FIRST SCHEDULE DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	DETAILS
4332-131	PROP	WATERWAYS AUTHORITY OF LOTS 5 & 6 IN DP803160 AND ROADS
		AND TRAFFIC AUTHORITY OF NEW SOUTH WALES OF THE RESIDUE
		BEING LOT 12 IN DP803160
19-20/803159	S	WATERWAYS AUTHORITY

SECOND SCHEDULE DIRECTIONS

			DEALING NUMBER	DETAILS
4332-131	ON	AA		THE PART BEING LOT 12 IN DP803160 IS
				REQUIRED FOR ROAD PURPOSES
4332-131	ON	ZZ		NEW FOLIOS CREATED FOR LOTS 5, 6 & 12 IN
				DP803160

Title Search

```
NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH
-----------------------------------------------------


FOLIO: 6/803160
------

          SEARCH DATE       TIME              EDITION NO    DATE
          -----------       ----              ----------    ----
          6/4/2023         8:07 AM                 2       27/4/2022


LAND
----
LOT 6 IN DEPOSITED PLAN 803160
   AT PYRMONT
   LOCAL GOVERNMENT AREA SYDNEY
   PARISH OF ST ANDREW   COUNTY OF CUMBERLAND
   TITLE DIAGRAM DP803160

FIRST SCHEDULE
--------------
TRANSPORT FOR NSW                                        (CN AR790860)

SECOND SCHEDULE (9 NOTIFICATIONS)
---------------
1   RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2   LAND EXCLUDES MINERALS WITHIN THE 8385 SQUARE METRE GRANT (VOL
    1097 FOL 15)
3   THE LAND ABOVE DESCRIBED IS LIMITED IN STRATUM IN THE MANNER
    DESCRIBED IN THE TITLE DIAGRAM
4   9420339    EASEMENT TO DRAIN WATER 1.735 WIDE AFFECTING THE
               PART DESIGNATED (L) IN DP803160
5   9420339    EASEMENT FOR FOOTINGS AND SUPPORT AFFECTING THE
               PART DESIGNATED (K) IN DP803160
6   9420339    EASEMENT TO DRAIN WATER VARIABLE WIDTH AFFECTING
               THE PART DESIGNATED (B) IN DP882897
7   9420339    EASEMENT FOR WATER SUPPLY SHOWN AS "EASEMENT FOR
               RISING MAIN 1.8 WIDE" AFFECTING THE PART DESIGNATED
               (A) IN DP882897
8   9420339    EASEMENT FOR ELECTRICITY PURPOSES 3 AND 4.265 WIDE
               AFFECTING THE PART DESIGNATED (E) IN DP1041963
9   9420339    EASEMENT TO DRAIN WATER 1.735 WIDE AFFECTING THE
               PART DESIGNATED (F) IN DP1041963

NOTATIONS
---------

UNREGISTERED DEALINGS: NIL

        ***  END OF SEARCH  ***



Bank Street Pyrmont                         PRINTED ON 6/4/2023
```

Cadastral Records Enquiry Report : Lot 1 DP 1089643

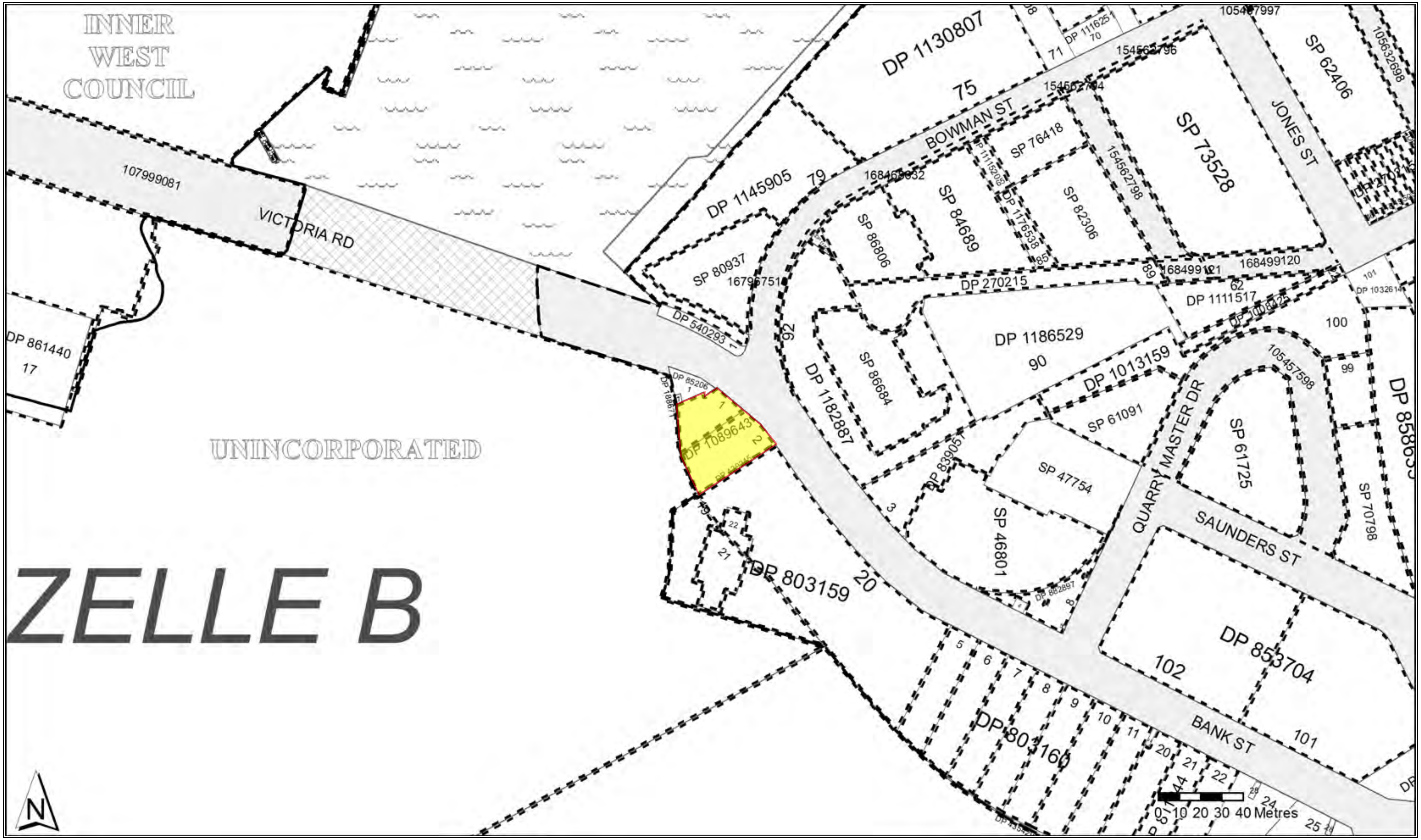
Ref : Bank Street Pyrmont

Locality : PYRMONT

Parish : ST ANDREW

LGA : SYDNEY

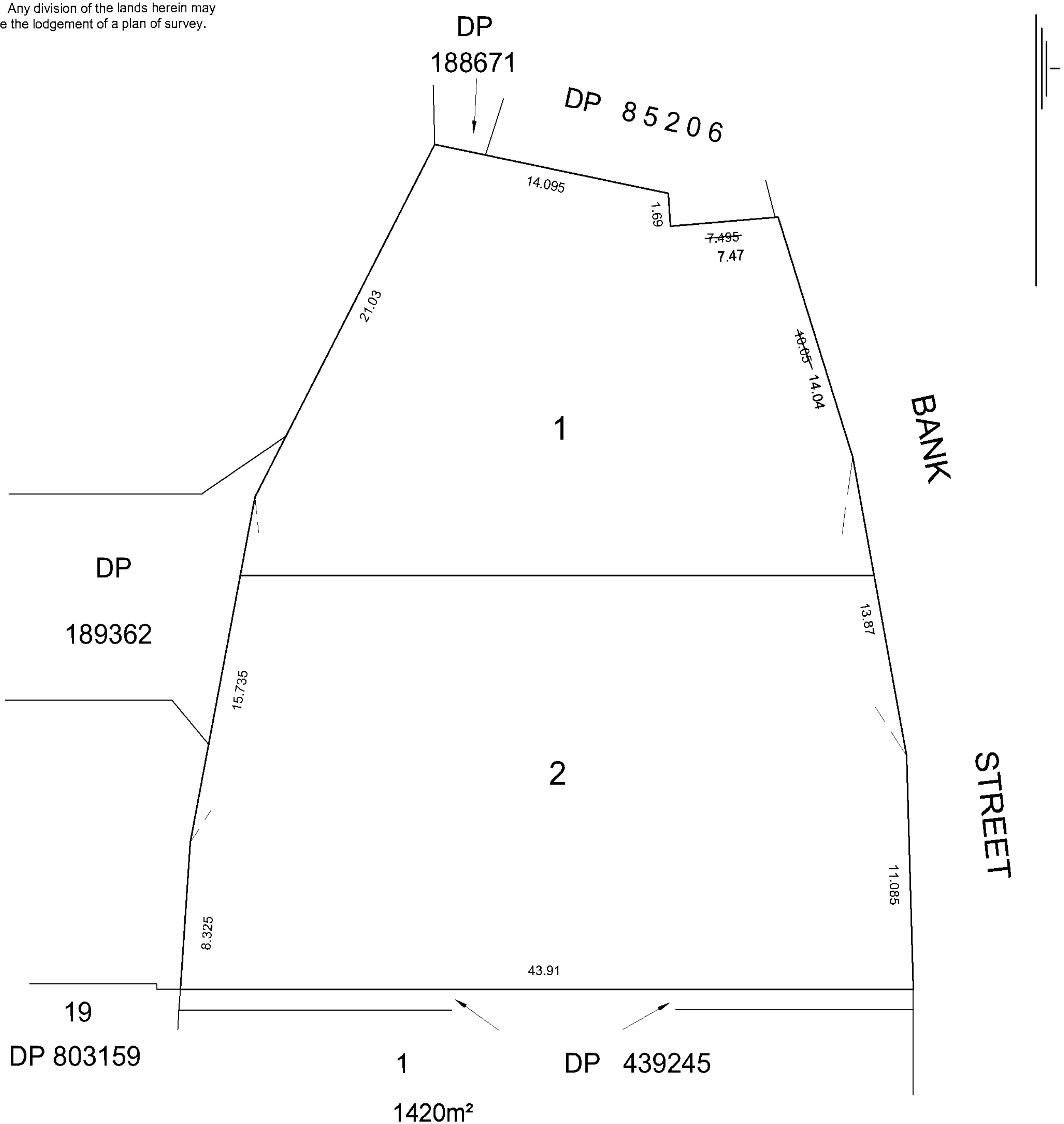
County : CUMBERLAND



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

e-departmental

Full dimensions and/or area(s) are not available for all lots. Any division of the lands herein may necessitate the lodgement of a plan of survey.



$1420\mathrm{m}^2$

TOTAL AREA FOR LOTS 1 & 2: ~~$1324\ \mathrm{m}^2$~~

DP 1089643

Registered : 14.10.2005

Title System : TORRENS

Purpose : DEPARTMENTAL

Ref. Map : SYDNEY SHT 101

Last Plan : DP 3176

PLAN OF PART OF LOTS 1 & 2 IN

DP 3176 COMPRISED IN

VOL. 15060 FOL. 206

Lengths are in metres. Reduction Ratio - NTS
LPI Ref. : TCB 47

Sheet 1 of 1 sheet

L.G.A. : SYDNEY

LOCALITY : PYRMONT

PARISH : ST ANDREW

COUNTY : CUMBERLAND

LOT	PRIOR IDENTITY
1	PT LOT 1
2	PT LOT 2

THIS PLAN HAS BEEN PREPARED TO PROVIDE AN UNIQUE IDENTITY FOR THE LAND IN THE CERTIFICATE OF TITLE REFERRED TO ABOVE.

IT IS NOT A CURRENT PLAN IN THE TERMS OF 7A OF THE CONVEYANCING ACT, 1919.

AMENDMENT TO DISTANCES FOR LOT 1 SEE 2022-860 15.9.2022

AREA AMENDED SEE 2023-245 6.3.2023.

G 270913

G270913

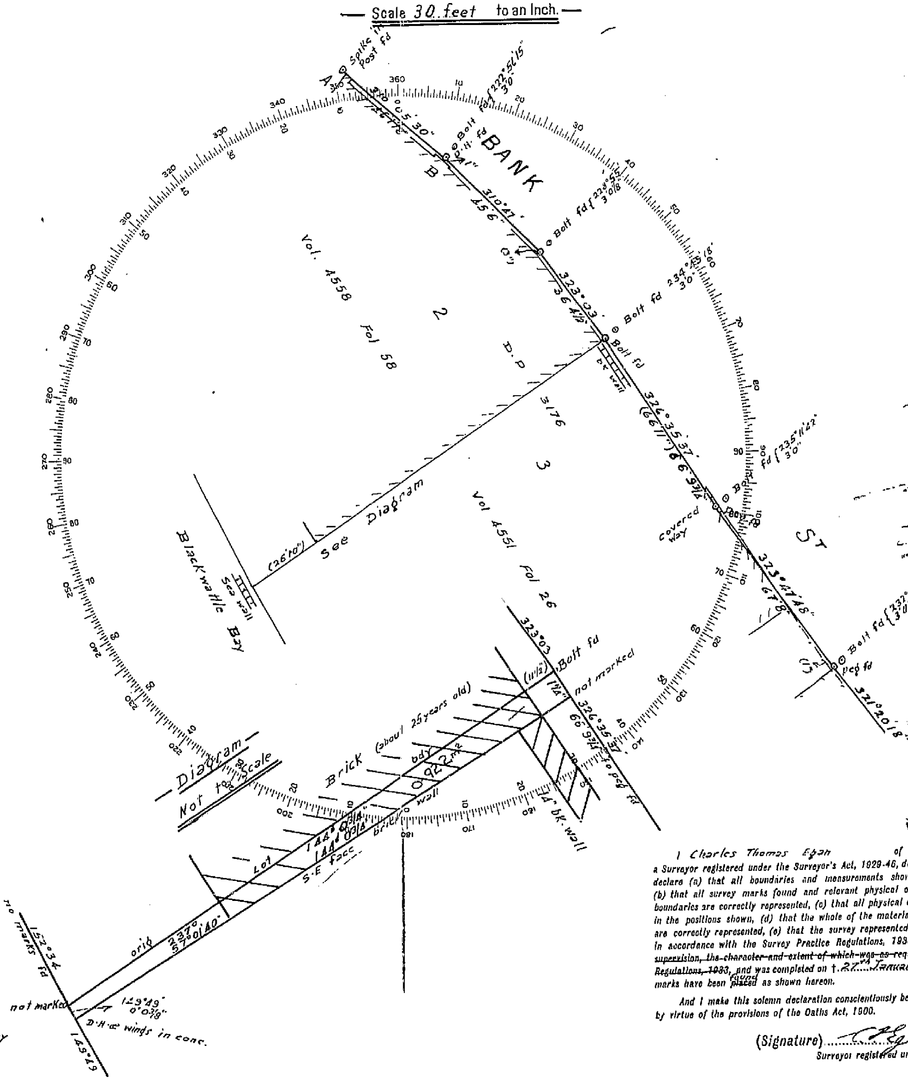
F.P. 439245

Plan Form No 6A (for transfers, leases, etc)

Municipality of
Shire of
City of Sydney

PLAN

for rectification of boundary between land in
C.s of T. Vol 4551 Fol 26 & Vol. 4558 Fol. 58
Parish of St Andrew County of Cumberland
Scale 30 feet to an Inch.



This margin to be left free from notation

Approved by Council and covered by Council Clerks Certificate

No................of..............................

....
Council Clerk

Subscribed and declared before me at Sydney
this 28th day of January A.D. 1955
J.R.P. Forsyth J.P. Justice of Peace

Datum Line of Azimuth AB

I Charles Thomas Egan of Sydney a Surveyor registered under the Surveyor's Act, 1929-46, do hereby solemnly and sincerely declare (a) that all boundaries and measurements shown on this plan are correct, (b) that all survey marks found and relevant physical objects on or adjacent to the boundaries are correctly represented, (c) that all physical objects indicated actually exist in the positions shown, (d) that the whole of the material facts in relation to the land are correctly represented, (e) that the survey represented in this plan has been made in accordance with the Survey Practice Regulations, 1933 *(1) by me ~~(2) under my supervision, the character and extent of which was as required by the Survey Practice Regulations, 1933~~, and was completed on †27th January 1955 and the reference marks have been ~~placed~~ found as shown hereon.

And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the Oaths Act, 1900.

(Signature) C. Egan
Surveyor registered under the Surveyors Act, 1929-46.

*Strike out either (1) or (2). †insert date of Survey.

30683 (L)

The Common Seal of Keener Company Pty Limited was hereunto affixed by John Frederick Harris, George Harris and Douglas Neville Clayton, Directors in the presence of Secretary

Signatures of parties to be made in this margin.

The Common Seal of [illegible] Pty Limited was hereunto affixed by [illegible]

This is the plan marked "A" referred to in Agreement of 8th February 1955
Dated 8th February 1955

30683

CONVERSION TABLE ADDED IN DEPARTMENT OF LANDS

DP 4.39245

FEET	INCHES	METRES
-	0 3/8	0.010
-	1	0.025
-	1 1/4	0.032
-	3	0.076
-	11 1/2	0.292
1	6	0.457
1	8	0.508
3	-	0.914
3	0 1/8	0.918
6	10 3/4	2.102
25	-	7.620
26	10	8.179
36	4 1/2	11.087
45	6	13.868
52	-	15.850
66	-	20.117
66	9 3/4	20.364
66	10 3/4	20.390
66	11	20.396
67	8	20.625
144	0 3/4	43.910
237	-	72.238
363	6 5/8	110.811
455	6	138.836

AMENDMENTS AND/OR ADDITIONS NOTED ON PLAN IN REGISTRAR GENERAL'S OFFICE

10	20	30	40	50	60	70	80	90	100	110	120	130	140

Table of mm

I, Bruce Richard Davies, Under Secretary for Lands and 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 day.

2nd August, 1983

1

CT15060-206

CERTIFICATE OF TITLE

NEW SOUTH WALES

REAL PROPERTY ACT, 1900

Vol. 15060 Fol. 206

First Titles Old System (part)
Vol. 929 Fol. 237
Vol. 1097 Fol. 15

Prior Title Vol. 7012 Fol. 136

CANCELLED
SEE AUTO FOLIO

EDITION ISSUED 14 6 1983

15060 Fol. 206

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.

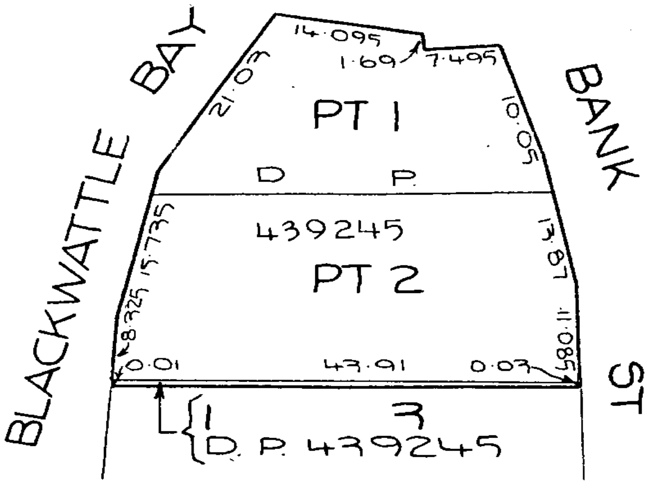
Registrar General.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

(Page 1) Vol. .... Fol. ....

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



AREA: 1416 m²

T 565226

S

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

LAND REFERRED TO

Lot 1 in Deposited Plan 439245 and the part of Lots 1 and 2 in Deposited Plan 3176 shown in the plan hereon at Pyrmont in the City of Sydney Parish of St. Andrew County of Cumberland.

FIRST SCHEDULE

~~HENDRIKUS JELIS HOLSTER in 4/7 share and JAKOB MEYER in 3/7 share, as Tenants in Common~~.

SECOND SCHEDULE

1. Land excludes minerals within the grant of 8385 square metres and is subject to reservations and conditions in favour of the Crown - see Crown grants.

L.O. 1066 D. West, Government Printer

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	Registrar General
~~Hendrikus Jelis Holster by Transfer T700075. Registered 30-8-1983.~~	
Ann Louise Forrester by Transmission AB57798. Registered 2-11-2004.	

SECOND SCHEDULE (continued)

PARTICULARS	Registrar General	CANCELLATION
~~T700076 Mortgage to Jakob Meyer and Gisela Meyer as joint tenants. Registered 30-8-1983.~~		Y062268
~~Y869844 Lease to Claude Neon Finance Pty Limited. Of the premises comprising the roof area of the workshop and coolrooms of the building on the South Eastern boundary of the property known as 1 Bank Street, Pyrmont. Expires 31-5-1995. Registered 13-3-1990~~		AB57798 2-11-2004

FOLIO CANCELLED NEW FOLIO IS AC15060 — 206
NO FURTHER DEALINGS TO BE REGISTERED

NOTATIONS AND UNREGISTERED DEALINGS

T700075 T
—76 M
Y62268 Dm ⓐ
Y869844 L
AB57798 TA

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

6/4/2023 8:08AM

FOLIO: AUTO CONSOL 15060-206

Recorded	Number	Type of Instrument	C.T. Issue
14/10/2005	AB840346	CONSOL HISTORY RECORD CREATED FOR AUTO CONSOL 15060-206	
		PARCELS IN CONSOL ARE: 1/439245, 1-2/1089643.	
8/10/2007	AD391776	REQUEST	
8/10/2007	AD426396	REQUEST	EDITION 1
15/10/2007	AD490730	DEPARTMENTAL DEALING	
9/9/2016	AK740977	TRANSFER WITHOUT MONETARY CONSIDERATION	EDITION 2
20/2/2018	AN126398	APPLICATION TO RECORD A NEW REGISTERED PROPRIETOR	EDITION 3
8/10/2019	AP579060	APPLICATION TO RECORD A NEW REGISTERED PROPRIETOR	EDITION 4
5/4/2023	DP1293358	DEPOSITED PLAN	EDITION 5

*** END OF SEARCH ***

Bank Street Pyrmont PRINTED ON 6/4/2023

Received: 06/04/2023 08:08:09

Form: 11R
Release: 2.1
www.lands.nsw.gov.au

REQUEST

New South Wales
Real Property Act 1900

AD391776V

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

(A) **STAMP DUTY**

If applicable. Office of State Revenue use only

Crown Instrument not liable to Stamp Duty
Section 308 Duties Act 1997 No 123
I. V. KNIGHT Crown Solicitor
Per

(B) **FOLIO OF THE REGISTER**

Auto Consol 15060-206

(C) **REGISTERED DEALING**

Number	Folio of the Register

(D) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and LLPN if any	CODE
813E	Crown Solicitor's Office DX 19 SYDNEY Ph:(02) 9224 5067 Reference: 200600772 JAD 123589U	R

(E) **APPLICANT**

SYDNEY HARBOUR FORESHORE AUTHORITY

(F) **NATURE OF REQUEST**

Application for recording of PROPOSED ACQUISITION NOTICE

s17 Land Acquisition (Just Terms Compensation) Act 1991

ø read as S11

(G) **TEXT OF REQUEST**

The Applicant gives notice pursuant to s17 of the Land Acquisition (Just Terms Compensation) Act 1991 that the land described above and all interests therein are the subject of a proposed acquisition. The proposed acquisition notice is attached as Annexure "A".

DATE 29 August 2007

(H)

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

I. V. KNIGHT
Crown Solicitor
Per

Signature: Jodi Deneny

Signatory's name: JODI ANN DENENY
Signatory's capacity: SOLICITOR FOR THE APPLICANT

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.
0702

FORM 1

ANNEXURE A

SECTION 11

Proposed Acquisition Notice

TO: Ann Louise Forrester

1. The Sydney Harbour Foreshore Authority requires the whole of your interest in the land located at 1 – 3 Bank Street, Pyrmont, for a public purpose. A full description and title details of the land are in the attached schedule.

2. The Sydney Harbour Foreshore Authority intends to compulsorily acquire this land by Acquisition Notice published in the Government Gazette. This Notice will appear in the Government Gazette not less than 90 days after the giving of this Notice or such shorter period as is agreed in writing between the parties under section 13(2) of the *Land Acquisition (Just Terms Compensation) Act 1991*.

3. This Acquisition Notice will extinguish your interest in the subject land so described, and will convert that interest into a claim for compensation. This Acquisition Notice will vest the land in the Sydney Harbour Foreshore Authority. Section 55 of the *Land Acquisition (Just Terms Compensation) Act 1991* states the following matters to be considered in the determination of the compensation due to you namely:

   (a) the market value of the land on the date of its acquisition;

   (b) any special value of the land to the person on the date of its acquisition;

   (c) any loss attributable to severance;

   (d) any loss attributable to disturbance;

   (e) solatium;

   (f) any increase or decrease in the value of any other land of the person at the date of acquisition which adjoins or is severed from the acquired land by reason of the carrying out of, or the proposal to carry out, the public purpose for which the land was acquired.

4. To assist in the determination of compensation payable you are requested to fill in the attached Claim for Compensation form and return it to the address shown on the attached Claim form not later than 60 days after giving of this Notice.

5. If you do not return the Notice of Claim the Valuer-General will value your interest without the benefit of your assistance.

6. When the land is compulsorily acquired you will receive an offer of compensation generally within 30 days of the date of the publication of the Acquisition Notice in the Government Gazette.

7. If you accept the offer, payment will generally be made to you within 28 days of your acceptance and receipt by the Sydney Harbour Foreshore Authority of completed documents, including an appropriate Deed of Release and Indemnity and the Claim for Compensation Form.

8. If you refuse to accept the offer your have a right to object to the Land and Environment Court.

9. The issue of this notice does not exclude the possibility of agreement with you for acquisition of the land by negotiated purchase. In this regard you should contact:

Ms Diana Talty
Executive Director Major Projects
Sydney Harbour Foreshore Authority
Level 6, 66 Harrington St
The Rocks NSW 2000
Ph: 9240-8574

SCHEDULE

The fee simple of all that piece and parcel of land situated at the Parish of St. Andrew, county of Cumberland, being Lot 1 in Deposited Plan 439245 and Lots 1 and 2 in Deposited Plan 1089643 and described in Auto-Consol 15060-206.

X RDLang

Dr Robert Lang

Chief Executive Officer

SYDNEY HARBOUR FORESHORE AUTHORITY

Level 6, 66 Harrington Street, The Rocks 2000

DATE X 6/8/07

Jodi Denehy

Form: 11R
Release: 2.1
www.lands.nsw.gov.au

REQUEST

New South Wales
Real Property Act 1900

AD426396S

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

(A) **STAMP DUTY**

If applicable. Office of State Revenue use only

Crown Instrument not liable to Stamp Duty
Section 308 Duties Act 1997 No 123
I V KNIGHT Crown Solicitor
Per Jodi Deneh

(B) **FOLIO OF THE REGISTER**

Auto Consol 15060-206

(C) **REGISTERED DEALING**

Number
Folio of the Register

(D) **LODGED BY**

Document Collection Box 813E	Name, Address or DX, Telephone, and LLPN if any Crown Solicitor's Office DX 19 SYDNEY Ph: (02) 9224 5067 Reference: 200600772 JAD 123589U	CODE R

(E) **APPLICANT**

SYDNEY HARBOUR FORESHORE AUTHORITY

(F) **NATURE OF REQUEST**

Issue of Certificate of Title

(G) **TEXT OF REQUEST**

The Applicant requests the Registrar General to issue a Certificate of Title for Auto Consol 15060-206 in the name of Sydney Harbour Foreshore Authority. A copy of the Notice of Compulsory Acquisition is attached and marked Annexure "A".

DATE 10 September 2007

(H)

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature: I V. KNIGHT Crown Solicitor Per Jodi Deneh

Signatory's name: JODI DENEHY
Signatory's capacity: SOLICITOR FOR THE APPLICANT

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.
0702

RP
Set - GRN

DEPARTMENT OF LANDS
LAND AND PROPERTY INFORMATION DIVISION

CT - 813E

Dated at Sydney, this 17th day of August 2007.

CHRIS OXENBOULD, A.O.,
Chief Executive, Maritime Authority of NSW
a duly authorised delegate
of the Minister for Ports and Waterways

SCHEDULE

1. All that piece or parcel of Crown land situated in the Bega Valley Shire Local Government Area, Parish of Kiah, County of Auckland being Lots 6 and 8 in Deposited Plan 1066187.
2. All that piece or parcel of land situated in the Bega Valley Shire Local Government Area, Parish of Kiah, County of Auckland being Lots 3, 4, 5, 7, 9 and 10 in Deposited Plan 1066187 (which is said to be in the possession of South East Fibre Exports Pty Limited).

But excluding the interests in land created by the following registered dealings:

- 7965442
- 9031133
- 9903911
- T410735
- J874075

PORTS AND MARITIME ADMINISTRATION ACT 1995 (NSW)

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land for the Purposes of the Ports and Maritime Administration Act 1995 (NSW)

THE Minister for Ports and Waterways by his delegate declares, with the approval of Her Excellency the Governor, that the land described in the schedule below is acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for the purposes of the Ports and Maritime Administration Act 1995 (NSW).

Dated at Sydney, this 17th day of August 2007.

CHRIS OXENBOULD, A.O.,
Chief Executive, Maritime Authority of NSW
a duly authorised delegate
of the Minister for Ports and Waterways

SCHEDULE

All that piece or parcel of Crown land situated in the Bega Valley Shire Local Government Area, Parish of Kiah, County of Auckland being Lot 101 in Deposited Plan 1095252 having an area of 16.84 square hectares or thereabouts excluding interests in land created by dealings registered on title numbered 7965442, 9031131 and 9903911.

RURAL FIRES ACT 1997

Local Bush Fire Danger Period Variation

PURSUANT to section 82 of the Rural Fires Act 1997, as amended, the Commissioner of the NSW Rural Fire Service, following consultation with the local stakeholders, declares the following Local Bush Fire Danger Period Variation:

Area of Variation:

Muswellbrook Shire Council
Singleton Shire Council

The Local Bush Fire Danger period has been extended for the period 17 September until 30 September 2007.

During this period permits pursuant to section 87 of the Rural Fires Act 1997, as amended, will be required for the lighting of fire for the purposes of land clearance or firebreaks.

DOMINIC LANE, A.F.S.M.,
Acting Assistant Commissioner,
Acting Executive Director,
Operations and Regional Management

SYDNEY HARBOUR FORESHORE AUTHORITY ACT 1998

Land Acquisition (Just Terms Compensation) Act 1991

Notice of Compulsory Acquisition of Land for the Purposes of the Act

THE Sydney Harbour Foreshore Authority declares, with the approval of Her Excellency the Governor, that the land described in the schedule below is acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 for the purposes of the Sydney Harbour Foreshore Authority Act 1998.

Dated at Sydney, this 28th day of August 2007.

R. D. LANG,
Sydney Harbour Foreshore Authority

SCHEDULE

All that piece of land situated at the Parish of St. Andrew, County of Cumberland, being Lot 1 in Deposited Plan 439245 and Lots 1 and 2 in Deposited Plan 1089643 and described in Auto Consol 15060-206.

Page 2 of 2

(6)

Form: 01T
Release: 6·1

TRANSFER
New South Wales
Real Property Act 1900

AK740977S

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Office of State Revenue use only

Office of State Revenue
~~NSW Treasury~~
Client No: 120350770 3608
Duty: EXEMPT Trans No: 8823424-001.
Asst details: S.308

(A) **TORRENS TITLE** Folio Identifiers 4/1063454, 5/1063454, 6/1063454, 10/1166179, 1/81836 and Auto Consol 15060-206

(B) **LODGED BY**

Document Collection Box **813E**	Name, Address or DX, Telephone, and Customer Account Number if any Lea Armstrong LLPN: 123589U Crown Solicitor's Office DX 19 SYDNEY Reference: 201503116 CEA D2016/412376	**CODES** **T** **TW**

(C) **TRANSFEROR** SYDNEY HARBOUR FORESHORE AUTHORITY (ABN 51 437 725 177)

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 1.00 and as regards

(E) **ESTATE** the abovementioned land transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** LANDCOM (ABN 79 268 260 688)

(I) **TENANCY:**

DATE 26 August 2016

(J) I certify that I am an eligible witness and that an authorised officer of the transferor signed this dealing in my presence. [See note* below].

Signature of witness:

Name of witness: Michelle McMillan
Address of witness: 66 Harrington St
The Rocks.

Certified correct for the purposes of the Real Property Act 1900 by the authorised officer named below.

Signature of authorised officer:

Authorised officer's name: Sam Romaniuk
Authority of officer: A/CEO
Signing on behalf of: Sydney Harbour Foreshore Authority

I certify I am an eligible witness and that the transferee signed this dealing in my presence.
[See note* below]

Signature of witness:

Name of witness:
Address of witness:

Certified correct for the purposes of the Real Property Act 1900 by the transferee.

Signature of transferee: For execution by Transferee, see page 2

(K) The transferee certifies that the eNOS data relevant to this dealing has been submitted and stored under
eNOS ID No. Full name: Signature:

* *s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

OFF NBI

THIS IS ANNEXURE "A" TO TRANSFER BETWEEN SYDNEY HARBOUR FORESHORE AUTHORITY AS TRANSFEROR AND LANDCOM AS TRANSFEREE

DATED: 26 August 2016

EXECUTION BY THE TRANSFEREE:

SIGNED, SEALED and DELIVERED for and on behalf of
LANDCOM
by its Attorneys pursuant to Power of Attorney Book 4695 No. 858 ,
who declare that the Attorneys have no notice of the revocation of such Power of Attorney, in the presence of:)

Nokes
(signature witness)

Simone Elizabeth Nokes
(print name of witness)

level 12, 19 Martin Place
Sydney NSW 2000
(print address of witness)

(signature of attorney)

NATHAN PENBERTHY
(print name)

(signature of attorney)

PAUL HEDGE
(print name)

Form: 04RP
Release: 4·3

APPLICATION TO RECORD NEW REGISTERED PROPRIETOI

New South Wales
Section 46C Real Property Act 1900
Section 12(4) Trustee Act 1925

AN126398L

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Revenue NSW use only

(A) **TORRENS TITLE** (See Annexure A)

(B) **REGISTERED DEALING** Number | Torrens Title

(C) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODE
1W	UrbanGrowth NSW Development Corporation Level 12, 19 Martin Place SYDNEY NSW 2000 +61 2 9841 8600 Reference: Kirsten Matthews	RP

(D) **APPLICANT** UrbanGrowth NSW Development Corporation

(E) **PRESENT REG'D PROPRIETOR** Landcom

(F) **NEW REG'D PROPRIETOR** UrbanGrowth NSW Development Corporation

(G) **COMPLETE FOR APPLICATION UNDER SECTION 46C REAL PROPERTY ACT 1900**

In regard to the above land , the applicant requests the Registrar General to record the new registered proprietor on the above folio of the Register, the land having vested in the new registered proprietor pursuant to—
UrbanGrowth NSW Development Corporation (Transfer of Assets, Rights and Liabilities) Order 2017 (see Annexure B)

(H) **COMPLETE FOR APPLICATION UNDER SECTION 12(4) TRUSTEE ACT 1925**

In regard to the above SELECT >>> >>> , the applicant requests the Registrar General to record the new registered proprietor on the folio of the Register consequent on—

DATE

(I) I certify that I am an eligible witness and that an authorised officer of the applicant signed this dealing in my presence. [See note* below].

Signature of witness:

Name of witness:
Address of witness:
OLIVIA WILSON
L12 MLC CENTRE
19 MARTIN PLACE

Certified correct for the purposes of the Real Property Act 1900 by the authorised officer named below.

Signature of authorised officer: BMann

Authorised officer's name: Barry Mann
Authority of officer: Chief Executive Officer
Signing on behalf of: UrbanGrowth (see Annexure C)

(J) *This section is to be completed where a notice of sale is required and the relevant data has been forwarded through eNOS.*
The applicant certifies that the eNOS data relevant to this dealing has been submitted and stored under
eNOS ID No. Full name: Signature:

---

* *s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

ALL HANDWRITING MUST BE IN BLOCK CAPITALS

Annexure A to APPLICATION TO RECORD NEW REGISTERED PROPRIETOR

Parties:

UrbanGrowth NSW Development Corporation

Dated: ____________________

3/258200
5/258200
6/258200
4/1063454
5/1063454
6/1063454
10/1166179
1/81836
Auto-Consol 15060-206
3/808447

Signature of witness:

Name of witness: OLIVIA WILSON

Signature of authorised officer: BJMann.

Name of authorised officer: Barry Mann

Annexure **B** to APPLICATION TO RECORD NEW REGISTERED PROPRIETOR

Parties:

UrbanGrowth NSW Development Corporation

Dated: ____________________

made by Gladys Berejiklian MP, Premier, in pursuance of clause 26 of Schedule 6 to the Growth Centres (Development Corporations) Act 1974.

Signature of witness:

Name of witness: OLIVIA WILSON

Signature of authorised officer: BJMann.

Name of authorised officer: Barry Mann

Annexure C to APPLICATION TO RECORD NEW REGISTERED PROPRIETOR

Parties:

UrbanGrowth NSW Development Corporation

Dated: ____________________

NSW Development Corporation

Signature of witness:

Name of witness: OLIVIA WILSON

Signature of authorised officer: BJMann

Name of authorised officer: Barry Mann

```
NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH
-----------------------------------------------------


FOLIO: AUTO CONSOL 15060-206
------

          SEARCH DATE       TIME             EDITION NO    DATE
          -----------       ----             ----------    ----
          6/4/2023         8:07 AM               5       5/4/2023


LAND
----
LAND DESCRIBED IN SCHEDULE OF PARCELS
   AT PYRMONT
   LOCAL GOVERNMENT AREA SYDNEY
   PARISH OF ST ANDREW   COUNTY OF CUMBERLAND
   TITLE DIAGRAM SEE SCHEDULE OF PARCELS

FIRST SCHEDULE
--------------
INFRASTRUCTURE NSW                                      (RP AP579060)

SECOND SCHEDULE (1 NOTIFICATION)
---------------
1   LAND EXCLUDES MINERALS WITHIN THE 8385 SQUARE METRES GRANT - SEE
    CROWN GRANT

NOTATIONS
---------
DP1293358 PLAN OF ACQUISITION FOR RAILWAY PURPOSES (SUBSURFACE
    STRATUM)

UNREGISTERED DEALINGS: NIL

SCHEDULE OF PARCELS                     TITLE DIAGRAM
-------------------                     -------------
LOT 1 IN DP439245                       DP439245
LOTS 1-2 IN DP1089643                   DP1089643.

        ***  END OF SEARCH  ***
```

Received: 06/04/2023 08:07:14

Appendix E – Council Planning Certificates

CITY OF SYDNEY

City of Sydney
Town Hall House
456 Kent Street
Sydney NSW 2000

+61 2 9265 9333
council@cityofsydney.nsw.gov.au
GPO Box 1591 Sydney NSW 2001
cityofsydney.nsw.gov.au

JBS&G AUSTRALIA PTY LTD
1/50 Margaret St
SYDNEY NSW 2000

PLANNING CERTIFICATE

Under Section 10.7 of the Environmental Planning and Assessment Act, 1979

Applicant:	JBS&G AUSTRALIA PTY LTD
Your reference:	
Address of property:	1-3 Bank Street , PYRMONT NSW 2009
Owner:	INFRASTRUCTURE NSW
Description of land:	Lot 1 DP 1089643, Lot 2 DP 1089643, Lot 1 DP 439245
Certificate No.:	202332045
Certificate Date:	22/03/23
Receipt No:	0215170
Fee:	$80.00
Paid:	22/03/23

Title information and description of land are provided from data supplied by the Valuer General and shown where available.

Issuing Officer
per **Monica Barone**
Chief Executive Officer

CERTIFICATE ENQUIRIES:
Ph: 9265 9333

PLANNING CERTIFICATE UNDER SECTION 10.7 (2) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

MATTERS AFFECTING THE LAND AS PRESCRIBED BY SCHEDULE 2 - ENVIRONMENTAL PLANNING & ASSESSMENT REGULATION 2021, CLAUSES (1) - (2).

DEVELOPMENT CONTROLS

The following information must be read in conjunction with and subject to all other provisions of the environmental planning instruments specified in this certificate.

ZONING

Zone RE1 Public Recreation (Sydney Local Environmental Plan 2012)

1 Objectives of zone

- To enable land to be used for public open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.
- To provide links between open space areas.
- To retain and promote access by members of the public to are as in the public domain including recreation facilities and waterways and other natural features.

2 Permitted without consent

Environmental protection works

3 Permitted with consent

Boat launching ramps; Boat sheds; Centre-based child care facilities; Charter and tourism boating facilities; Community facilities; Electricity generating works; Emergency services facilities; Environmental facilities; Food and drink premises; Horticulture; Information and education facilities; Jetties; Kiosks; Marinas; Markets; Recreation areas; Recreation facilities (indoor); Recreation facilities (major);Recreation facilities (outdoor); Registered clubs; Research stations; Respite day care centres; Roads; Roadside stalls; Signage; Water recreation structures; Water recycling facilities; Water supply systems

4 Prohibited

Any development not specified in item 2 or 3

PROPOSED ZONING

Employment Zones Reform Implementation

On 26 April 2023, Business and Industrial zones will be replaced by Employment zones within standard instrument local environmental plans. The Department of Planning and Environment exhibited in May 2022 details of how each Local Environmental Plan that includes a Business or Industrial zone will be amended to include Employment zones. The exhibition detail can be viewed on the Planning Portal.

Draft Zone RE1 Public Recreation - Planning Proposal (Sydney Local Environmental Plan 2012)

1 Objectives of zone

- To enable land to be used for public open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.
- To provide links between open space areas.
- To retain and promote access by members of the public to are as in the public domain including recreation facilities and waterways and other natural features.
- To protect sun access to publicly accessible land.

2 Permitted without consent

Environmental protection works

3 Permitted with consent

Boat launching ramps; Boat sheds; Centre-based child care facilities; Charter and tourism boating facilities; Community facilities; Electricity generating works; Emergency services facilities; Environmental facilities; Food and drink premises; Horticulture; Information and education facilities; Jetties; Kiosks; Marinas; Markets; Recreation areas; Recreation facilities (indoor); Recreation facilities (major);Recreation facilities (outdoor); Registered clubs; Research stations; Respite day care centres; Roads; Roadside stalls; Signage; Water recreation structures; Water recycling facilities; Water supply systems

4 Prohibited

Any development not specified in item 2 or 3

LOCAL PLANNING CONTROLS

Sydney Harbour Foreshores and Waterways Area Development Control Plan 2005 (commenced 28.09.2005) – This DCP applies to all development proposals within the Foreshores and Waterways Area identified in SREP (Sydney Harbour Catchment) 2005 (refer to the Foreshores and Waterways Area map)

Sydney Local Environmental Plan 2012 (as amended) – Published 14 December 2012 NSW Legislation Website.

Sydney Development Control Plan 2012 (as amended) - (commenced 14.12.2012)

Planning Proposal – Performance Standards for Net Zero Energy Buildings

The objective of this planning proposal is to reduce energy consumption and the associated greenhouse gas emissions of office, shopping centre and hotel developments, as well as improve the resilience of these developments to the impacts of climate change. The intended outcome will be to facilitate net zero energy development by 2026 for development subject of this planning proposal. This will occur through amendments to the following: • Sydney Local Environmental Plan 2012 • Sydney Local Environmental Plan (Green Square Town Centre) 2013 • Sydney Local Environmental Plan (Green Square Town Centre – Stage 2) 2013.

Draft B Development Control Plan Performance Standards for Net Zero Energy Buildings 2021:

The purpose of this draft Development Control Plan (DCP) is to amend various development control plans applying to the City of Sydney local government area by inserting provisions that set out energy performance standards for net zero energy buildings

Planning Proposal: Affordable Housing Program Update 2022:

This Planning Proposal is to amend the Sydney Local Environmental Plan 2012 (Sydney LEP 2012), the Sydney Local Environmental Plan (Green Square Town Centre) 2013, and Sydney Local Environmental Plan (Green Square Town Centre – Stage 2) 2013 (the Green Square Town Centre LEPs). Generally, the intended outcome of this planning proposal is to increase the amount of affordable housing in the City of Sydney local government area.

HERITAGE

State Heritage Register (Amendment To Heritage Act, 1977 Gazetted 2/4/99)

This property may be identified as being of state heritage significance, and entered on the State Heritage Register.

To confirm whether the site is listed under the Heritage Act 1977 a Section 167 Certificate should be obtained from the NSW Heritage Office by contacting the NSW Heritage office on (02) 9873 8500 for an application from or by downloading the application form from

www.heritage.nsw.gov.au

STATE PLANNING INSTRUMENTS

Full copies of State Environmental Planning Policies are available online at www.planning.nsw.gov.au.

State Environmental Planning Policy No. 19 – Bushland in Urban Areas

This is a policy to protect and preserve bushland within certain urban areas, as part of the natural heritage or for recreational, educational and scientific purposes. This policy is designed to protect bushland in public open space zones and reservations, and to ensure that bush preservation is given a high priority when local environmental plans for urban development are prepared.

State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development

This policy aims to improve the design quality of flats of three or more storeys with four or more self contained dwellings. The policy sets out a series of design principles for local councils to consider when assessing development proposals for residential flat development. The policy also creates a role for an independent design review panel and requires the involvement of a qualified designer in the design and approval process.

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

Aims to ensure consistency in the implementation of the BASIX scheme throughout the State.

This Policy achieves its aim by overriding provisions of other environmental planning instruments and development control plans that would otherwise add to, subtract from or modify any obligations arising under the BASIX scheme.

State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007

This Policy aims to ensure that suitable provision is made for ensuring the safety of persons using temporary structures or places of public entertainment.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

This Policy Streamlines assessment processes for development that complies with specified development standards. The policy provides exempt and complying development codes that have State-wide application, identifying, in the General Exempt Development Code, types of development that are of minimal environmental impact that may be carried out without the need for development consent; and, in the General Housing Code, types of complying development that may be carried out in accordance with a complying development certificate as defined in the Environmental Planning and Assessment Act 1979.

State Environmental Planning Policy (Urban Renewal) 2010

The aims of this Policy are as follows:

(a) to establish the process for assessing and identifying sites as urban renewal precincts,

(b) to facilitate the orderly and economic development and redevelopment of sites in and around urban renewal precincts,

(c) to facilitate delivery of the objectives of any applicable government State, regional or metropolitan strategies connected with the renewal of urban areas that are accessible by public transport.

State Environmental Planning Policy (Housing) 2021

The principles of this Policy are as follows:

(a) enabling the development of diverse housing types, including purpose-built rental housing,

(b) encouraging the development of housing that will meet the needs of more vulnerable members of the community, including very low to moderate income households, seniors and people with a disability,

(c) ensuring new housing development provides residents with a reasonable level of amenity,

(d) promoting the planning and delivery of housing in locations where it will make good use of existing and planned infrastructure and services,

(e) minimising adverse climate and environmental impacts of new housing development,

(f) reinforcing the importance of designing housing in a way that reflects and enhances its locality,

(g) supporting short-term rental accommodation as a home-sharing activity and contributor to local economies, while managing the social and environmental impacts from this use,

(h) mitigating the loss of existing affordable rental housing.

State Environmental Planning Policy (Planning Systems) 2021

- identifies State or regionally significant development, State significant Infrastructure, and critical State significant infrastructure.
- provides for consideration of development delivery plans by local Aboriginal land councils in planning assessment.
- allows the Planning Secretary to elect to be the concurrence authority for certain development that requires concurrence under nominated State environmental planning policies.

State Environmental Planning Policy (Biodiversity and Conservation) 2021

This SEPP contains:

- planning rules and controls for the clearing of native vegetation in NSW on land zoned for urban and environmental purposes that is not linked to a development application.
- the land use planning and assessment framework for koala habitat.
- provisions which establish a consistent and co-ordinated approach to environmental planning and assessment along the River Murray.
- provisions seeking to protect and preserve bushland within public open space zones and reservations.
- provisions which aim to prohibit canal estate development.
- provisions to support the water quality objectives for the Sydney drinking water catchment.

- provisions to protect the environment of the Hawkesbury-Nepean River system.
- provisions to manage and improve environmental outcomes for Sydney Harbour and its tributaries.
- provisions to manage and promote integrated catchment management policies along the Georges River and its tributaries.
- provisions which seek to protect, conserve and manage the World Heritage listed Willandra Lakes property.

State Environmental Planning Policy (Resilience and Hazards) 2021

This SEPP contains planning provisions:

- for land use planning within the coastal zone, in a manner consistent with the objects of the Coastal Management Act 2016.
- to manage hazardous and offensive development.
- which provides a state-wide planning framework for the remediation of contaminated land and to minimise the risk of harm.

State Environmental Planning Policy (Transport and Infrastructure) 2021

This SEPP contains planning provisions:

- for infrastructure in NSW, such as hospitals, roads, railways, emergency services, water supply and electricity delivery.
- for child-care centres, schools, TAFEs and Universities.
- planning controls and reserves land for the protection of three corridors (North South Rail Line, South West Rail Link extension and Western Sydney Freight Line).
- the land use planning and assessment framework for appropriate development at Port Kembla, Port Botany and Port of Newcastle.

State Environmental Planning Policy (Industry and Employment) 2021

This SEPP contains planning provisions:

- applying to employment land in western Sydney.
- for advertising and signage in NSW.

State Environmental Planning Policy (Resources and Energy) 2021

This SEPP contains planning provisions:

- for the assessment and development of mining, petroleum production and extractive material resource proposals in NSW.
- which aim to facilitate the development of extractive resources in proximity to the population of the Sydney Metropolitan Area by identifying land which contains extractive material of regional significance.

State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021

This SEPP contains planning provisions for precinct planning, which is a form of strategic planning applied to a specified geographic area. The precincts in this SEPP are located in the Eastern Harbour City. This city is based the strategic planning vision of the 'three cities' regions identified in the Greater Sydney Region Plan – A Metropolis of Three Cities.

OTHER MATTERS AFFECTING THE LAND AS PRESCRIBED BY SCHEDULE 2 - E. P. & A. REGULATION, 2021. SECTIONS (2A) - (22)

(2A) Zoning and land use under *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*

This SEPP does not apply to the land.

(3) Contribution plans

The following Contributions Plans apply to properties within the City of Sydney local government area. Contributions plans marked **YES** may apply to this property:

▪ Central Sydney Development Contributions Plan 2020 – in operation 26th November 2021	**NO**
▪ City of Sydney Development Contributions Plan 2015 – in operation 1st July 2016	**YES**
▪ Redfern Waterloo Authority Affordable Housing Contributions Plan – in operation 16th May 2007	**NO**

Note: An affordable housing contribution may be payable as part of a development application or planning proposal under The City of Sydney Affordable Housing Program (Program) – in operation 1st July 2021.

(4) Complying Development

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

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

(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 restriction applies to the land, but it may not apply to all of the land, and that 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.

Note: Note: ***If any restrictions apply to this land, or to part of this land, which may preclude the carrying out of complying development. Council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.***

Clause 1.12 does not apply to the land in the City of Sydney LGA

Clause 1.12 does not apply to the land in the City of Sydney LGA

Housing Code, Commercial and Industrial (New Buildings and Additions) Code and Low Rise Housing Diversity Code

Complying development **may not** be carried out on the land under the Housing Code, the Commercial and Industrial (New Buildings and Additions) and the Low Rise Housing Diversity Code if because of the provisions of clause 1.17A, 1.18(1)(c3) & 1.19 (Land-based requirements for exempt and complying development) any of the following statements are **YES.**

▪ Clause 1.19(5)d. Land that is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997. (Applies only to the Commercial and Industrial (New Buildings and Additions) Code.	NO
▪ Clause 1.17A(d). Has been identified as a property that comprises, or on which there is, an item that is listed on the State Heritage Register under the *Heritage Act 1977* or that is subject to an interim heritage order under the *Heritage Act 1977*.	NO
▪ Clause 1.17A(d) & 1.18(1)(c3). Has been identified as a property that comprises, or on which there is, a heritage item or draft heritage item.	**NO**
▪ Clause 1.17A(c). Has been identified as being within a wilderness area (identified under the *Wilderness Act 1987*.	**NO**
▪ Clause 1.17A(e) & 1.19(1)e or 1.19(5)f. Has been identified as land that is within an environmentally sensitive area or by an environmental planning instrument as being within a buffer area, a river front area, an ecologically sensitive area, environmentally sensitive land or a protected area	**NO**
▪ Clause 1.19(1)a.or 1.19(5)a Has been identified as being within a heritage conservation area or a draft heritage conservation area.	**NO**
▪ Clause 1.19(1)b or 1.19(5)b. Has been identified as being land that is reserved for a public purpose in an environmental planning instrument.	**NO**
▪ Clause 1.19(1)c or 1.19(5)c. Has been identified as being on an Acid Sulfate Soils Map as being Class 1 or Class 2.	**YES**
▪ Clause 1.19(1)d or 1.19(5)e. Has been identified as land that is subject to a biobanking agreement under part 7A of the threatened Species Conservation Act 1995 or a property vegetation plan under the Native Vegetation Act 2003.	**NO**
▪ Clause 1.19(1)f or 1.19(5)g. Has been identified by an environmental planning instrument, a development control plan or a policy adopted by the Council as being or affected by a coastline hazard, a coastal hazard or a coastal erosion hazard.	**NO**
▪ Clause 1.19(1)g or 1.19(5)h. Has been identified as being land in a foreshore area.	**YES**
▪ Clause 1.19(1)h. Has been identified as land that is in the 25 ANEF contour or a higher ANEF contour. (Applies to the Housing Code & Low Rise Housing Diversity Code)	**NO**
▪ Clause 1.19(1)j or 1.19(5)i. Has been identified as unsewered land within a drinking water catchment.	**NO**
▪ Clause 1.19(1)i. Has been identified as land that is declared to be a special area under the Sydney Water Catchment Management Act 1998.	**NO**

Housing Alterations Code

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

Commercial and Industrial Alterations Code

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

Subdivisions Code

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

Rural Housing Code

The Rural Housing Code does not apply to this Local Government Area.

General Development Code

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

Demolition Code

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

(5) Exempt Development

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

(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 restriction applies to the land, but it may not apply to all of the land, and that 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 exempt development codes are varied, under that Policy, clause 1.12, in relation to the land.

Note: ***If any restrictions apply to this land, or to part of this land, which may preclude the carrying out of exempt development. Council does not have sufficient information to ascertain the extent to which exempt development may or may not be carried out on the land.***

Clause 1.12 does not apply to the land in the City of Sydney LGA

All Exempt and Complying Development Codes

Exempt development under each of the exempt development codes **may** be carried out on the land.

(6) Affected building notices and building product rectification orders

(1)

(a) The land to which the certificate relates is not subject to any affected building notice of which Council is aware.

(b) The land to which the certificate relates is not subject to any building product rectification order of which Council is aware and has not been fully complied with.

(c) The land to which the certificate relates is not subject to any notice of intention to make a building product rectification order of which Council is aware and is outstanding.

(2) In this clause:

affected building notice has the same meaning as in Part 4 of the Building Products (Safety) Act 2017.

building product rectification order has the same meaning as in the Building Products (Safety) Act 2017.

(7) Land reserved for acquisition

No environmental planning instrument, or proposed environmental planning instrument applying to the land, 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/or Road Realignment affected by (a) Division 2 of Part 3 of the Roads act 1993 or (c) any resolution of council or other authority.

This land **is not** affected by road widening and/or road realignment under section 25 of the Roads Act, 1993 and/or resolution of Council or any other authority.

(8) Road Widening and/or Road Realignment Affected by (b) any environmental planning instrument.

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

(9) Flood related development controls information.

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

Property is within the flood planning area	**YES**
Property is outside the flood planning area	**NO**
Property is within a buffer zone	**NO**

(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.

Property is between the flood planning area and probable maximum flood.	**YES**
Property is outside the flood planning area and probable maximum flood	**NO**
Property is within a buffer zone	**NO**

(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 authorities policies on hazard risk restrictions:

(a) The land **is not** affected by a policy adopted by the Council that that restricts the development of the land because of the likelihood of land slip, bushfire, flooding, tidal inundation, subsidence, acid sulphate soils or any other risk; and

(b) The land **is not** affected by a policy adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to on planning certificate issued by Council, that restricts the development of the land because of the likelihood of land slip, bushfire, flooding, tidal inundation, subsidence, acid sulphate soils or any other risk.

(11) Bush fire prone land

The land has not been identified as Bush fire prone land.

(12) Loose-fill asbestos insulation

Not Applicable.

(13) Mine Subsidence District

This land has not been proclaimed to be a mine subsidence district within the meaning of section 15 of the mine subsidence compensation act, 2017.

(14) Paper subdivision information

Not Applicable.

(15) Property vegetation plans

Not Applicable.

(16) Biodiversity stewardship sites

Not Applicable.

(17) Biodiversity certified land

The land has not been certified as biodiversity certified land.

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

Council has not been notified of an order which as been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land.

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

In relation to a coastal council: The owner (or any previous owner) of the land has not consented in writing to the land being subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

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.

(20) Western Sydney Aerotropolis

Not Applicable.

(21) Development consent conditions for seniors housing

State Environmental Planning Policy (Housing) 2021, Chapter 3, Part 5 *does not* apply to the land *to which the certificate relates.*

(22) Site compatibility certificates and development conditions for affordable rental housing

(1) The land to which the certificate relates is not subject to a current site compatibility certificate under *State Environmental Planning Policy (Housing) 2021*, and is not subject to a former site compatibility certificate, of which the council is aware, in relation to proposed development on the land.

(2) *State Environmental Planning Policy (Housing) 2021*, Chapter 2, Part 2, Division 1 or 5 does not apply to the land which the certificate relates.

(3) The land to which the certificate relates is not subject to any conditions of development consent in relation to land of a kind referred to in *State Environmental Planning Policy (Affordable Rental Housing) 2009*, clause 17(1) or 38(1).

(4) In this section:

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

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) The land to which the certificate relates **is not** declared to be **significantly contaminated land** within the meaning of that act as at the date when the certificate is issued.

(b) The land to which the certificate relates **is not** subject to a **management order** within the meaning of that act as at the date when the certificate is issued.

(c) The land to which the certificate relates **is not** the subject of an **approved voluntary management proposal** within the meaning of that act at the date the certificate is issued.

(d) The land to which the certificate relates **is not** the subject of an **ongoing maintenance order** within the meaning of that act as at the date when the certificate is issued.

(e) As at the date when the certificate is issued, Council **has not** identified that a **site audit statement** within the meaning of that act has been received in respect of the land the subject of the certificate.

PLANNING CERTIFICATE SECTION 10.7 (2) INFORMATION:

Information provided in accordance with planning certificate section 10.7 (2) has been taken from council's records and advice from other authorities but council disclaims all liability for any omission or inaccuracy in the information. Specific inquiry should be made where doubt exists.

PLANNING CERTIFICATE UNDER SECTION 10.7 (5) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

PLANNING CERTIFICATE SECTION 10.7 (5) ADVICE is current as at 12:00 noon two working days prior to the date of issue of this certificate. The following matters have been considered & details provided where information exists: easements in favour of council; parking permit scheme; heritage floor space restrictions; low-rental residential building; foreshore building line; tree preservation order.

Contaminated Land Potential:

Council records do not have sufficient information about the uses (including previous uses) of the land which is the subject of this section 10.7 certificate to confirm that the land has not been used for a purpose which would be likely to have contaminated the land. Parties should make their own enquiries as to whether the land may be contaminated.

Hazard Risk Restriction:

Some City of Sydney Local Environmental Plans incorporate Acid Sulfate soil maps.

Development on the land identified in those maps should have regard to the acid sulfate soil clause within the relevant Local Environmental Plan.

Construction Noise and View Loss Advice:

Intending purchasers are advised that the subject property may be affected by construction noise and loss or diminution of views as a result of surrounding development.

Outstanding Notice & Order information

In relation to this property, there **is not** an outstanding Order or Notice of Intention to issue an Order relating to Fire Safety (being an Order or Notice of Intention to issue an Order under Part 2 of Schedule 5 of the Environmental Planning and Assessment Act, 1979). Further information about the Order or Notice of Intention to issue an Order may be obtained by applying for a certificate under clause 41 of Schedule 5 of the Environmental Planning and Assessment Act and Section 735A of the Local Government Act.In relation to this property, there **is not** an outstanding Order or Notice of

Intention to issue an Order (being an Order or Notice of Intention to issue an Order of a type other than relating to fire safety). Further information about the Order or Notice of Intention to issue an Order may be obtained by applying for a certificate under clause 41 of Schedule 5 of the Environmental Planning and Assessment Act and Section 735A of the Local Government Act.**Sydney Harbour Foreshore Authority Act 1998**

The provisions of the Sydney Harbour Foreshore Authority Act 1998 apply to the subject land.

For more information, contact the Property Officer at Sydney Harbour Foreshore Authority on telephone (02) 9240 8500.

Neighbourhood Parking Policy

The City of Sydney co-ordinates a Resident Permit Parking Scheme and a Visitor Permit Parking scheme. This property may be restricted from participating in either scheme. Eligibility may change after the date of this certificate, as parking supply and other traffic demands change. For more information contact Council's call centre on 9265 9333.

The Minister is the Consent Authority

The Minister is the consent authority where the capital has an investment value of more than $10 million. State Environmental Planning Policy (Major Projects).

ADVICE FROM OTHER BODIES

Sydney Ports Corporation Advice

Some land in the City of Sydney located in the vicinity of the White Bay, Glebe Island and Darling Harbour ports may be affected by noise from port operations.

Advice provided in accordance with planning certificate section 10.7 (5) is supplied in good faith. Council accepts no liability for the validity of the advice given. (see section 10.7 (6) of the Environmental Planning and Assessment Act, 1979).

Planning certificate section 10.7 (2), local planning controls are available are available online at www.cityofsydney.nsw.gov.au

General Enquiries:
Telephone: 02 9265 9333

Town Hall House
Level 2
Town Hall House
456 Kent Street
Sydney

8am – 6pm Monday - Friday

State planning controls are available online at www.legislation.nsw.gov.au

Where planning certificate section 10.7 (5) matters are supplied, complete details are available by writing to:

Chief Executive Officer
City of Sydney
G.P.O. Box 1591
Sydney NSW 2000

End of Document

CITY OF SYDNEY

City of Sydney
Town Hall House
456 Kent Street
Sydney NSW 2000

+61 2 9265 9333
council@cityofsydney.nsw.gov.au
GPO Box 1591 Sydney NSW 2001
cityofsydney.nsw.gov.au

JBS&G AUSTRALIA PTY LTD
1/50 Margaret St
SYDNEY NSW 2000

PLANNING CERTIFICATE

Under Section 10.7 of the Environmental Planning and Assessment Act, 1979

Applicant:	JBS&G AUSTRALIA PTY LTD
Your reference:	
Address of property:	17-19 Bank Street , PYRMONT NSW 2009
Owner:	TRANSPORT FOR NSW
Description of land:	Lot 5 DP 803160, Lot 6 DP 803160
Certificate No.:	202332043
Certificate Date:	22/03/23
Receipt No:	0215170
Fee:	$80.00
Paid:	22/03/23

Title information and description of land are provided from data supplied by the Valuer General and shown where available.

Issuing Officer
per **Monica Barone**
Chief Executive Officer

CERTIFICATE ENQUIRIES:
Ph: 9265 9333

PLANNING CERTIFICATE UNDER SECTION 10.7 (2) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

MATTERS AFFECTING THE LAND AS PRESCRIBED BY SCHEDULE 2 - ENVIRONMENTAL PLANNING & ASSESSMENT REGULATION 2021, CLAUSES (1) - (2).

DEVELOPMENT CONTROLS

The following information must be read in conjunction with and subject to all other provisions of the environmental planning instruments specified in this certificate.

ZONING

Zone RE1 Public Recreation (Sydney Local Environmental Plan 2012)

1 Objectives of zone

- To enable land to be used for public open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.
- To provide links between open space areas.
- To retain and promote access by members of the public to are as in the public domain including recreation facilities and waterways and other natural features.

2 Permitted without consent

Environmental protection works

3 Permitted with consent

Boat launching ramps; Boat sheds; Centre-based child care facilities; Charter and tourism boating facilities; Community facilities; Electricity generating works; Emergency services facilities; Environmental facilities; Food and drink premises; Horticulture; Information and education facilities; Jetties; Kiosks; Marinas; Markets; Recreation areas; Recreation facilities (indoor); Recreation facilities (major);Recreation facilities (outdoor); Registered clubs; Research stations; Respite day care centres; Roads; Roadside stalls; Signage; Water recreation structures; Water recycling facilities; Water supply systems

4 Prohibited

Any development not specified in item 2 or 3

PROPOSED ZONING

Employment Zones Reform Implementation

On 26 April 2023, Business and Industrial zones will be replaced by Employment zones within standard instrument local environmental plans. The Department of Planning and Environment exhibited in May 2022 details of how each Local Environmental Plan that includes a Business or Industrial zone will be amended to include Employment zones. The exhibition detail can be viewed on the Planning Portal.

Draft Zone RE1 Public Recreation - Planning Proposal (Sydney Local Environmental Plan 2012)

1 Objectives of zone

- To enable land to be used for public open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.
- To provide links between open space areas.
- To retain and promote access by members of the public to are as in the public domain including recreation facilities and waterways and other natural features.
- To protect sun access to publicly accessible land.

2 Permitted without consent

Environmental protection works

3 Permitted with consent

Boat launching ramps; Boat sheds; Centre-based child care facilities; Charter and tourism boating facilities; Community facilities; Electricity generating works; Emergency services facilities; Environmental facilities; Food and drink premises; Horticulture; Information and education facilities; Jetties; Kiosks; Marinas; Markets; Recreation areas; Recreation facilities (indoor); Recreation facilities (major);Recreation facilities (outdoor); Registered clubs; Research stations; Respite day care centres; Roads; Roadside stalls; Signage; Water recreation structures; Water recycling facilities; Water supply systems

4 Prohibited

Any development not specified in item 2 or 3

LOCAL PLANNING CONTROLS

Sydney Harbour Foreshores and Waterways Area Development Control Plan 2005 (commenced 28.09.2005) – This DCP applies to all development proposals within the Foreshores and Waterways Area identified in SREP (Sydney Harbour Catchment) 2005 (refer to the Foreshores and Waterways Area map)

Sydney Local Environmental Plan 2012 (as amended) – Published 14 December 2012 NSW Legislation Website.

Sydney Development Control Plan 2012 (as amended) - (commenced 14.12.2012)

Planning Proposal – Performance Standards for Net Zero Energy Buildings

The objective of this planning proposal is to reduce energy consumption and the associated greenhouse gas emissions of office, shopping centre and hotel developments, as well as improve the resilience of these developments to the impacts of climate change. The intended outcome will be to facilitate net zero energy development by 2026 for development subject of this planning proposal. This will occur through amendments to the following: • Sydney Local Environmental Plan 2012 • Sydney Local Environmental Plan (Green Square Town Centre) 2013 • Sydney Local Environmental Plan (Green Square Town Centre – Stage 2) 2013.

Draft B Development Control Plan Performance Standards for Net Zero Energy Buildings 2021:

The purpose of this draft Development Control Plan (DCP) is to amend various development control plans applying to the City of Sydney local government area by inserting provisions that set out energy performance standards for net zero energy buildings

Planning Proposal: Affordable Housing Program Update 2022:

This Planning Proposal is to amend the Sydney Local Environmental Plan 2012 (Sydney LEP 2012), the Sydney Local Environmental Plan (Green Square Town Centre) 2013, and Sydney Local Environmental Plan (Green Square Town Centre – Stage 2) 2013 (the Green Square Town Centre LEPs). Generally, the intended outcome of this planning proposal is to increase the amount of affordable housing in the City of Sydney local government area.

HERITAGE

State Heritage Register (Amendment To Heritage Act, 1977 Gazetted 2/4/99)

This property may be identified as being of state heritage significance, and entered on the State Heritage Register.

To confirm whether the site is listed under the Heritage Act 1977 a Section 167 Certificate should be obtained from the NSW Heritage Office by contacting the NSW Heritage office on (02) 9873 8500 for an application from or by downloading the application form from

www.heritage.nsw.gov.au

STATE PLANNING INSTRUMENTS

Full copies of State Environmental Planning Policies are available online at www.planning.nsw.gov.au.

State Environmental Planning Policy No. 19 – Bushland in Urban Areas

This is a policy to protect and preserve bushland within certain urban areas, as part of the natural heritage or for recreational, educational and scientific purposes. This policy is designed to protect bushland in public open space zones and reservations, and to ensure that bush preservation is given a high priority when local environmental plans for urban development are prepared.

State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development

This policy aims to improve the design quality of flats of three or more storeys with four or more self contained dwellings. The policy sets out a series of design principles for local councils to consider when assessing development proposals for residential flat development. The policy also creates a role for an independent design review panel and requires the involvement of a qualified designer in the design and approval process.

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

Aims to ensure consistency in the implementation of the BASIX scheme throughout the State.

This Policy achieves its aim by overriding provisions of other environmental planning instruments and development control plans that would otherwise add to, subtract from or modify any obligations arising under the BASIX scheme.

State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007

This Policy aims to ensure that suitable provision is made for ensuring the safety of persons using temporary structures or places of public entertainment.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

This Policy Streamlines assessment processes for development that complies with specified development standards. The policy provides exempt and complying development codes that have State-wide application, identifying, in the General Exempt Development Code, types of development that are of minimal environmental impact that may be carried out without the need for development consent; and, in the General Housing Code, types of complying development that may be carried out in accordance with a complying development certificate as defined in the Environmental Planning and Assessment Act 1979.

State Environmental Planning Policy (Urban Renewal) 2010

The aims of this Policy are as follows:

(a) to establish the process for assessing and identifying sites as urban renewal precincts,

(b) to facilitate the orderly and economic development and redevelopment of sites in and around urban renewal precincts,

(c) to facilitate delivery of the objectives of any applicable government State, regional or metropolitan strategies connected with the renewal of urban areas that are accessible by public transport.

State Environmental Planning Policy (Housing) 2021

The principles of this Policy are as follows:

(a) enabling the development of diverse housing types, including purpose-built rental housing,

(b) encouraging the development of housing that will meet the needs of more vulnerable members of the community, including very low to moderate income households, seniors and people with a disability,

(c) ensuring new housing development provides residents with a reasonable level of amenity,

(d) promoting the planning and delivery of housing in locations where it will make good use of existing and planned infrastructure and services,

(e) minimising adverse climate and environmental impacts of new housing development,

(f) reinforcing the importance of designing housing in a way that reflects and enhances its locality,

(g) supporting short-term rental accommodation as a home-sharing activity and contributor to local economies, while managing the social and environmental impacts from this use,

(h) mitigating the loss of existing affordable rental housing.

State Environmental Planning Policy (Planning Systems) 2021

- identifies State or regionally significant development, State significant Infrastructure, and critical State significant infrastructure.
- provides for consideration of development delivery plans by local Aboriginal land councils in planning assessment.
- allows the Planning Secretary to elect to be the concurrence authority for certain development that requires concurrence under nominated State environmental planning policies.

State Environmental Planning Policy (Biodiversity and Conservation) 2021

This SEPP contains:

- planning rules and controls for the clearing of native vegetation in NSW on land zoned for urban and environmental purposes that is not linked to a development application.
- the land use planning and assessment framework for koala habitat.
- provisions which establish a consistent and co-ordinated approach to environmental planning and assessment along the River Murray.
- provisions seeking to protect and preserve bushland within public open space zones and reservations.
- provisions which aim to prohibit canal estate development.
- provisions to support the water quality objectives for the Sydney drinking water catchment.

- provisions to protect the environment of the Hawkesbury-Nepean River system.
- provisions to manage and improve environmental outcomes for Sydney Harbour and its tributaries.
- provisions to manage and promote integrated catchment management policies along the Georges River and its tributaries.
- provisions which seek to protect, conserve and manage the World Heritage listed Willandra Lakes property.

State Environmental Planning Policy (Resilience and Hazards) 2021

This SEPP contains planning provisions:

- for land use planning within the coastal zone, in a manner consistent with the objects of the Coastal Management Act 2016.
- to manage hazardous and offensive development.
- which provides a state-wide planning framework for the remediation of contaminated land and to minimise the risk of harm.

State Environmental Planning Policy (Transport and Infrastructure) 2021

This SEPP contains planning provisions:

- for infrastructure in NSW, such as hospitals, roads, railways, emergency services, water supply and electricity delivery.
- for child-care centres, schools, TAFEs and Universities.
- planning controls and reserves land for the protection of three corridors (North South Rail Line, South West Rail Link extension and Western Sydney Freight Line).
- the land use planning and assessment framework for appropriate development at Port Kembla, Port Botany and Port of Newcastle.

State Environmental Planning Policy (Industry and Employment) 2021

This SEPP contains planning provisions:

- applying to employment land in western Sydney.
- for advertising and signage in NSW.

State Environmental Planning Policy (Resources and Energy) 2021

This SEPP contains planning provisions:

- for the assessment and development of mining, petroleum production and extractive material resource proposals in NSW.
- which aim to facilitate the development of extractive resources in proximity to the population of the Sydney Metropolitan Area by identifying land which contains extractive material of regional significance.

State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021

This SEPP contains planning provisions for precinct planning, which is a form of strategic planning applied to a specified geographic area. The precincts in this SEPP are located in the Eastern Harbour City. This city is based the strategic planning vision of the 'three cities' regions identified in the Greater Sydney Region Plan – A Metropolis of Three Cities.

OTHER MATTERS AFFECTING THE LAND AS PRESCRIBED BY SCHEDULE 2 - E. P. & A. REGULATION, 2021. SECTIONS (2A) - (22)

(2A) Zoning and land use under *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*

This SEPP does not apply to the land.

(3) Contribution plans

The following Contributions Plans apply to properties within the City of Sydney local government area. Contributions plans marked **YES** may apply to this property:

▪ Central Sydney Development Contributions Plan 2020 – in operation 26th November 2021	**NO**
▪ City of Sydney Development Contributions Plan 2015 – in operation 1st July 2016	**YES**
▪ Redfern Waterloo Authority Affordable Housing Contributions Plan – in operation 16th May 2007	**NO**

Note: An affordable housing contribution may be payable as part of a development application or planning proposal under The City of Sydney Affordable Housing Program (Program) – in operation 1st July 2021.

(4) Complying Development

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

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

(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 restriction applies to the land, but it may not apply to all of the land, and that 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.

Note: Note: ***If any restrictions apply to this land, or to part of this land, which may preclude the carrying out of complying development. Council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.***

Clause 1.12 does not apply to the land in the City of Sydney LGA

Clause 1.12 does not apply to the land in the City of Sydney LGA

Housing Code, Commercial and Industrial (New Buildings and Additions) Code and Low Rise Housing Diversity Code

Complying development **may not** be carried out on the land under the Housing Code, the Commercial and Industrial (New Buildings and Additions) and the Low Rise Housing Diversity Code if because of the provisions of clause 1.17A, 1.18(1)(c3) & 1.19 (Land-based requirements for exempt and complying development) any of the following statements are **YES.**

▪ Clause 1.19(5)d. Land that is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997. (Applies only to the Commercial and Industrial (New Buildings and Additions) Code.	NO
▪ Clause 1.17A(d). Has been identified as a property that comprises, or on which there is, an item that is listed on the State Heritage Register under the *Heritage Act 1977* or that is subject to an interim heritage order under the *Heritage Act 1977*.	NO
▪ Clause 1.17A(d) & 1.18(1)(c3). Has been identified as a property that comprises, or on which there is, a heritage item or draft heritage item.	**NO**
▪ Clause 1.17A(c). Has been identified as being within a wilderness area (identified under the *Wilderness Act 1987*.	**NO**
▪ Clause 1.17A(e) & 1.19(1)e or 1.19(5)f. Has been identified as land that is within an environmentally sensitive area or by an environmental planning instrument as being within a buffer area, a river front area, an ecologically sensitive area, environmentally sensitive land or a protected area	**NO**
▪ Clause 1.19(1)a.or 1.19(5)a Has been identified as being within a heritage conservation area or a draft heritage conservation area.	**NO**
▪ Clause 1.19(1)b or 1.19(5)b. Has been identified as being land that is reserved for a public purpose in an environmental planning instrument.	**NO**
▪ Clause 1.19(1)c or 1.19(5)c. Has been identified as being on an Acid Sulfate Soils Map as being Class 1 or Class 2.	**YES**
▪ Clause 1.19(1)d or 1.19(5)e. Has been identified as land that is subject to a biobanking agreement under part 7A of the threatened Species Conservation Act 1995 or a property vegetation plan under the Native Vegetation Act 2003.	**NO**
▪ Clause 1.19(1)f or 1.19(5)g. Has been identified by an environmental planning instrument, a development control plan or a policy adopted by the Council as being or affected by a coastline hazard, a coastal hazard or a coastal erosion hazard.	**NO**
▪ Clause 1.19(1)g or 1.19(5)h. Has been identified as being land in a foreshore area.	**YES**
▪ Clause 1.19(1)h. Has been identified as land that is in the 25 ANEF contour or a higher ANEF contour. (Applies to the Housing Code & Low Rise Housing Diversity Code)	**NO**
▪ Clause 1.19(1)j or 1.19(5)i. Has been identified as unsewered land within a drinking water catchment.	**NO**
▪ Clause 1.19(1)i. Has been identified as land that is declared to be a special area under the Sydney Water Catchment Management Act 1998.	**NO**

Housing Alterations Code

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

Commercial and Industrial Alterations Code

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

Subdivisions Code

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

Rural Housing Code

The Rural Housing Code does not apply to this Local Government Area.

General Development Code

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

Demolition Code

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

(5) Exempt Development

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

(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 restriction applies to the land, but it may not apply to all of the land, and that 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 exempt development codes are varied, under that Policy, clause 1.12, in relation to the land.

Note: ***If any restrictions apply to this land, or to part of this land, which may preclude the carrying out of exempt development. Council does not have sufficient information to ascertain the extent to which exempt development may or may not be carried out on the land.***

Clause 1.12 does not apply to the land in the City of Sydney LGA

All Exempt and Complying Development Codes

Exempt development under each of the exempt development codes **may** be carried out on the land.

(6) Affected building notices and building product rectification orders

(1)

(a) The land to which the certificate relates is not subject to any affected building notice of which Council is aware.

(b) The land to which the certificate relates is not subject to any building product rectification order of which Council is aware and has not been fully complied with.

(c) The land to which the certificate relates is not subject to any notice of intention to make a building product rectification order of which Council is aware and is outstanding.

(2) In this clause:

affected building notice has the same meaning as in Part 4 of the Building Products (Safety) Act 2017.

building product rectification order has the same meaning as in the Building Products (Safety) Act 2017.

(7) Land reserved for acquisition

No environmental planning instrument, or proposed environmental planning instrument applying to the land, 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/or Road Realignment affected by (a) Division 2 of Part 3 of the Roads act 1993 or (c) any resolution of council or other authority.

This land **is not** affected by road widening and/or road realignment under section 25 of the Roads Act, 1993 and/or resolution of Council or any other authority.

(8) Road Widening and/or Road Realignment Affected by (b) any environmental planning instrument.

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

(9) Flood related development controls information.

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

Property is within the flood planning area	**YES**
Property is outside the flood planning area	**NO**
Property is within a buffer zone	**NO**

(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.

Property is between the flood planning area and probable maximum flood.	**YES**
Property is outside the flood planning area and probable maximum flood	**NO**
Property is within a buffer zone	**NO**

(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 authorities policies on hazard risk restrictions:

(a) The land **is not** affected by a policy adopted by the Council that that restricts the development of the land because of the likelihood of land slip, bushfire, flooding, tidal inundation, subsidence, acid sulphate soils or any other risk; and

(b) The land **is not** affected by a policy adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to on planning certificate issued by Council, that restricts the development of the land because of the likelihood of land slip, bushfire, flooding, tidal inundation, subsidence, acid sulphate soils or any other risk.

(11) Bush fire prone land

The land has not been identified as Bush fire prone land.

(12) Loose-fill asbestos insulation

Not Applicable.

(13) Mine Subsidence District

This land has not been proclaimed to be a mine subsidence district within the meaning of section 15 of the mine subsidence compensation act, 2017.

(14) Paper subdivision information

Not Applicable.

(15) Property vegetation plans

Not Applicable.

(16) Biodiversity stewardship sites

Not Applicable.

(17) Biodiversity certified land

The land has not been certified as biodiversity certified land.

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

Council has not been notified of an order which as been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land.

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

In relation to a coastal council: The owner (or any previous owner) of the land has not consented in writing to the land being subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

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.

(20) Western Sydney Aerotropolis

Not Applicable.

(21) Development consent conditions for seniors housing

State Environmental Planning Policy (Housing) 2021, Chapter 3, Part 5 *does not* apply to the land *to which the certificate relates.*

(22) Site compatibility certificates and development conditions for affordable rental housing

(1) The land to which the certificate relates is not subject to a current site compatibility certificate under *State Environmental Planning Policy (Housing) 2021*, and is not subject to a former site compatibility certificate, of which the council is aware, in relation to proposed development on the land.

(2) *State Environmental Planning Policy (Housing) 2021*, Chapter 2, Part 2, Division 1 or 5 does not apply to the land which the certificate relates.

(3) The land to which the certificate relates is not subject to any conditions of development consent in relation to land of a kind referred to in *State Environmental Planning Policy (Affordable Rental Housing) 2009*, clause 17(1) or 38(1).

(4) In this section:

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

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) The land to which the certificate relates **is not** declared to be **significantly contaminated land** within the meaning of that act as at the date when the certificate is issued.

(b) The land to which the certificate relates **is not** subject to a **management order** within the meaning of that act as at the date when the certificate is issued.

(c) The land to which the certificate relates **is not** the subject of an **approved voluntary management proposal** within the meaning of that act at the date the certificate is issued.

(d) The land to which the certificate relates **is not** the subject of an **ongoing maintenance order** within the meaning of that act as at the date when the certificate is issued.

(e) As at the date when the certificate is issued, Council **has not** identified that a **site audit statement** within the meaning of that act has been received in respect of the land the subject of the certificate.

PLANNING CERTIFICATE SECTION 10.7 (2) INFORMATION:

Information provided in accordance with planning certificate section 10.7 (2) has been taken from council's records and advice from other authorities but council disclaims all liability for any omission or inaccuracy in the information. Specific inquiry should be made where doubt exists.

PLANNING CERTIFICATE UNDER SECTION 10.7 (5) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

PLANNING CERTIFICATE SECTION 10.7 (5) ADVICE is current as at 12:00 noon two working days prior to the date of issue of this certificate. The following matters have been considered & details provided where information exists: easements in favour of council; parking permit scheme; heritage floor space restrictions; low-rental residential building; foreshore building line; tree preservation order.

Contaminated Land Potential:

Council records do not have sufficient information about the uses (including previous uses) of the land which is the subject of this section 10.7 certificate to confirm that the land has not been used for a purpose which would be likely to have contaminated the land. Parties should make their own enquiries as to whether the land may be contaminated.

Hazard Risk Restriction:

Some City of Sydney Local Environmental Plans incorporate Acid Sulfate soil maps.

Development on the land identified in those maps should have regard to the acid sulfate soil clause within the relevant Local Environmental Plan.

Construction Noise and View Loss Advice:

Intending purchasers are advised that the subject property may be affected by construction noise and loss or diminution of views as a result of surrounding development.

Outstanding Notice & Order information

In relation to this property, there **is not** an outstanding Order or Notice of Intention to issue an Order relating to Fire Safety (being an Order or Notice of Intention to issue an Order under Part 2 of Schedule 5 of the Environmental Planning and Assessment Act, 1979). Further information about the Order or Notice of Intention to issue an Order may be obtained by applying for a certificate under clause 41 of Schedule 5 of the Environmental Planning and Assessment Act and Section 735A of the Local Government Act.In relation to this property, there **is not** an outstanding Order or Notice of

Intention to issue an Order (being an Order or Notice of Intention to issue an Order of a type other than relating to fire safety). Further information about the Order or Notice of Intention to issue an Order may be obtained by applying for a certificate under clause 41 of Schedule 5 of the Environmental Planning and Assessment Act and Section 735A of the Local Government Act.

Sydney Harbour Foreshore Authority Act 1998

The provisions of the Sydney Harbour Foreshore Authority Act 1998 apply to the subject land.

For more information, contact the Property Officer at Sydney Harbour Foreshore Authority on telephone (02) 9240 8500.

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Chief Executive Officer
City of Sydney
G.P.O. Box 1591
Sydney NSW 2000

End of Document

Appendix F – EPA Records

Background

A strategy to systematically prioritise, assess and respond to notifications under Section 60 of the ***Contaminated Land Management Act 1997*** (CLM Act) has been developed by the EPA. This strategy acknowledges the EPA's obligations to make information available to the public under ***Government Information (Public Access) Act 2009***.

When a site is notified to the EPA, it may be accompanied by detailed site reports where the owner has been proactive in addressing the contamination and its source. However, often there is minimal information on the nature or extent of the contamination.

After receiving a report, the first step is to confirm that the report does not relate to a pollution incident. The Protection of the Environment Operations Act 1997 (POEO Act) deals with pollution incidents, waste stockpiling or dumping. The EPA also has an incident management process to manage significant incidents (https://www.epa.nsw.gov.au/reporting-and-incidents/incident-management).

In many cases, the information indicates the contamination is securely immobilised within the site, such as under a building or carpark, and is not currently causing any significant risks for the community or environment. Such sites may still need to be cleaned up, but this can be done in conjunction with any subsequent building or redevelopment of the land. These sites do not require intervention under the CLM Act, and are dealt with through the planning and development consent process. In these cases, the EPA informs the local council or other planning authority, so that the information can be recorded and considered at the appropriate time (https://www.epa.nsw.gov.au/your-environment/contaminated-land/managing-contaminated-land/role-of-planning-authorities).

Where indications are that the contamination could cause actual harm to the environment or an unacceptable offsite impact (i.e. the land is 'significantly contaminated'), the EPA would apply the regulatory provisions of the CLM Act to have the responsible polluter and/or landowner investigate and remediate the site. If the reported contamination could present an immediate or long-term threat to human health NSW Health will be consulted. SafeWork NSW and Water NSW can also be consulted if there appear to be occupational health and safety risks or an impact on groundwater quality.

As such, the sites notified to the EPA and presented in the list of contaminated sites notified to the EPA are at various stages of the assessment and remediation process. Understanding the nature of the underlying contamination, its implications and implementing a remediation program where required, can take a considerable period of time. The list provides an indication, in relation to each nominated site, as to the management status of that particular site. Further detailed information may be available from the EPA or the person who notified the site.

The following questions and answers may assist those interested in this issue.

Frequently asked questions

Why does my land appear on the list of notified sites?

Your land may appear on the list because:

- the site owner and/or the polluter has notified the EPA under section 60 of the CLM Act
- the EPA has been notified via other means and is satisfied that the site is or was contaminated.

If a site is on the list, it does not necessarily mean the contamination is significant enough to regulate under the CLM Act.

Does the list contain all contaminated sites in NSW?

No. The list only contains contaminated sites that EPA is aware of. If a site is not on the list, it does not necessarily mean the site is not contaminated.

The EPA relies on responsible parties and the public to notify contaminated sites.

How are notified contaminated sites managed by the EPA?

There are different ways the EPA can manage notified contaminated sites. Options include:

- regulation under the CLM Act, POEO Act, or both
- notifying the relevant planning authority for management under the planning and development process
- managing the site under the Protection of the Environment Operation (Underground Petroleum Storage Systems) Regulation 2014.

There are specific cases where contamination is managed under a tailored program operated by another agency (for example, the Resources & Geoscience's Legacy Mines Program).

What should I do if I am a potential buyer of a site that appears on the list?

You should seek advice from the seller to understand the contamination issue. You may need to seek independent contamination or legal advice.

The information provided in the list is indicative only and a starting point for your own assessment. Land contamination from past site uses is common, mainly in urban environments. If the site is properly remediated or managed, it may not affect the intended future use of the site.

Who can I contact if I need more information about a site?

You can contact the Environment Line at any time by calling 131 555 or by emailing info@environment.nsw.gov.au.

List of NSW Contaminated Sites Notified to the EPA

Disclaimer

The EPA has taken all reasonable care to ensure that the information in the list of contaminated sites notified to the EPA (the list) is complete and correct. The EPA does not, however, warrant or represent that the list is free from errors or omissions or that it is exhaustive.

The EPA may, without notice, change any or all of the information in the list at any time.

You should obtain independent advice before you make any decision based on the information in the list.

The list is made available on the understanding that the EPA, its servants and agents, to the extent permitted by law, accept no responsibility for any damage, cost, loss or expense incurred by you as a result of:

1. any information in the list; or
2. any error, omission or misrepresentation in the list; or
3. any malfunction or failure to function of the list;
4. without limiting (2) or (3) above, any delay, failure or error in recording, displaying or updating information.

Site Status	Explanation
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or *Protection of the Environment Operations Act 1997* .
Under Preliminary Investigation Order	The EPA has issued a Preliminary Investigation Order under s10 of the *Contaminated Land Management Act 1997* , to obtain additional information needed to complete the assessment.
Regulation under CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the *Contaminated Land Management Act 1997* is not required.

Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the *Contaminated Land Management Act 1997* . A regulatory approach is being finalised.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record.
Contamination currently regulated under POEO Act	Contamination is currently regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA as the appropriate regulatory authority reasonably suspects that a pollution incident is occurring/ has occurred and that it requires regulation under the POEO Act. The EPA may use environment protection notices, such as clean up notices, to require clean up action to be taken. Such regulatory notices are available on the POEO public register.
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the *Environmental Planning and Assessment Act 1979* (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the *Contaminated Land Management Act 1997* (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the *Protection of the Environment Operations Act 1997* (POEO Act).

Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the *Environmental Planning and Assessment Act 1979* (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record.

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
PYRMONT	Former Council Works Depot (Fig and Wattle Depot)	14-26 Wattle STREET	Other Industry	Regulation under CLM Act not required	-33.8752655	151.1942645
QUAKERS HILL	7-Eleven (former Mobil) Service Station	83 Lalor ROAD	Service Station	Regulation under CLM Act not required	-33.72759077	150.8966764
QUAKERS HILL	BP Branded Parkway (Former Caltex) Service Station Quakers Hill	450 Quakers Hill PARKWAY	Service Station	Regulation under CLM Act not required	-33.72998613	150.9023617
QUEANBEYAN	Former Mobil Service Station	153 Uriarra ROAD	Service Station	Regulation under CLM Act not required	-35.34425514	149.2148687
QUEANBEYAN	Bill Lilley Automotive	169 Crawford STREET	Service Station	Regulation under CLM Act not required	-35.35138121	149.232486
QUEANBEYAN	Woolworths Queanbeyan Service Station	196 Crawford (Cnr Morisset St) STREET	Service Station	Regulation under CLM Act not required	-35.35163055	149.2335759
QUEANBEYAN	Caltex Queanbeyan Service Station	88 Macquoid (also known as Bungendore Rd) STREET	Service Station	Regulation under CLM Act not required	-35.34930535	149.2438607
QUEANBEYAN	Former Mobil Emoleum Depot	109-111 High STREET	Other Petroleum	Regulation under CLM Act not required	-35.3396115	149.237556
QUEANBEYAN	Former Caltex Depot	20-30 Railway STREET	Other Petroleum	Regulation under CLM Act not required	-35.34218326	149.2253753
QUEANBEYAN	95 Crawford St, Queanbeyan	95 Crawford STREET	Chemical Industry	Under assessment	-35.34707	149.229088
QUEANBEYAN EAST	BP-Branded Service Station Queanbeyan	50 Yass ROAD	Service Station	Regulation under CLM Act not required	-35.34126641	149.2445103
QUEANBEYAN WEST	Caltex Service Station	Lanyon Dr Cnr Mccrae St (1 Suraci Place) STREET	Service Station	Regulation under CLM Act not required	-35.36372923	149.2067531
QUIRINDI	Former Mobil Depot Quirindi	4-6 Cross STREET	Other Petroleum	Regulation under CLM Act not required	-31.49903355	150.681972
QUIRINDI	Tamarang ServiCentre Quirindi	113-117 Station (also known as 119-121 Nowland) STREET	Service Station	Under assessment	-31.50179204	150.6814611
QUIRINDI	Caltex Service Station, Quirindi	199-201 George STREET	Service Station	Regulation under CLM Act not required	-31.5068778	150.6805874

Home Public registers Contaminated land record of notices

Search results

Your search for:Suburb: PYRMONT

Matched 7 notices relating to 1 site.

Search Again

Refine Search

Suburb	Address	Site Name	Notices related to this site
PYRMONT	Pyrmont ROAD	Pyrmont Power Station	7 former

Page 1 of 1

22 March 2023

For business and industry ^

For local government ^

Contact us

131 555 (tel:131555)

Online (https://www.epa.nsw.gov.au/about-us/contact-us/feedback)

info@epa.nsw.gov.au (mailto:info@epa.nsw.gov.au)

EPA Office Locations (https://www.epa.nsw.gov.au/about-us/contact-us/locations)

Accessibility (https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/help-index)
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(https://www.youtube.com/channel/UCS5jrgAE

CERTIFIED MAIL

The Director-General
Pacific Power
GPO Box 5257
SYDNEY NSW 2001

Our Reference: Section 35 Notice #379/3063

Your Reference:

ENVIRONMENTALLY HAZARDOUS CHEMICALS ACT, 1985
NOTICE UNDER SECTION 35

WHEREAS:-

A. Pacific Power (Pacific Power is the registered business name of The Electricity Commission of New South Wales) is the occupier and owner of premises located at Lot 122 DP 828957, Pyrmont Street, Pyrmont, NSW 2009, known as Pyrmont Power Station.

B. The premises have been or are being used for or in connection with the carrying on of a prescribed activity, namely an act of manufacturing, processing, keeping, distributing, conveying, using, selling or disposing of a chemical waste or any act relating to such act.

C. The premises have been deemed to be contaminated by reason of their being environmentally degraded.

D. A Section 35 Notice was served on the Electricity Commission of New South Wales as the occupier of the site on 3 May 1989 ("Notice 1").

E. The State Pollution Control Commission (SPCC) as the predecessor to the Environment Protection Authority NSW (EPA) granted approval on 27 June 1989 ("Notice 2") to the Electricity Commission of NSW to remove asbestos as specified in the Electricity Commission of NSW Specification and Contract No.3974.

F. The SPCC granted approval on 17 April 1990 ("Notice 3") to the Electricity Commission of NSW to remove and to dispose of asbestos from the stacks as specified.

G. The SPCC granted approval on 27 April 1990 ("Notice 4") to the Electricity Commission of NSW to remove drums and vessels containing chemicals and chemical wastes.

H. The SPCC granted approval on 13 February 1991 ("Notice 5") to the Electricity Commission to carry out asbestos dust monitoring as specified.

I. The EPA granted approval on 11 January 1994 ("Notice 6") to Pacific Power to carry out a program of validation sampling as specified.

H. On 3 May 1994, the EPA received a report entitled "Site Assessment Report, Soil Conditions Former Pyrmont Power Station, for Pacific Power", by Dames & Moore Pty Ltd, dated 2 May 1994, and is advised by means of this report that "surface and subsurface soils on the site conform with the basic validation criteria", and "the concentrations of the potential contaminants in soils are within acceptable limits for medium density residential housing purposes", and that the Dames & Moore's conclusion assumes that:

- any development of the site would necessitate either excavation or backfilling of the water-filled sumps currently onsite;

- any contaminated sediments currently contained within sumps would be removed offsite or appropriately sealed during the course of the development; and

- the small amount of potentially PAH contaminated soil in the south east corner of the site will be appropriately handled when the sewerage line is decommissioned.

TAKE NOTE THAT:-

1. The EPA is satisfied that Pacific Power has carried out the studies, remedial action and validation work in relation to the Premises (the "Work") in accordance with all the requirements of the EPA in relation to proposals and documents submitted to the EPA by Pacific Power.

2. The EPA is satisfied that the Works have been performed in conformity with the EPA policy for, and consistently with the standards currently applied by the EPA in relation to, the investigation and remediation of contaminated sites, being:

   - the Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites published in January 1992 by the Australian and New Zealand Environment and Conservation Council (ANZECC) and the National Health and Medical Research Council (NH&MRC).

3. In accordance with the powers vested in the EPA by the provisions of Section 35 of the Environmentally Hazardous Chemicals Act, 1995:-

   - The EPA hereby revokes the previous Notices 1, 2, 3, 4, 5_and 6 issued under Section 35 of the Environmentally Hazardous Chemicals Act, 1985 on the understanding that the potentially PAH-s contaminated soil as stated in (H) will be removed when the sewer main is decommissioned.

4. Notwithstanding this advice, should there be evidence of any significant or harmful effects arising from any contamination remaining on the site, the assessment evidenced by this notice does not derogate from any powers the EPA may have under any legislation .in relation to the premises.

5. Insofar as the Notice is be upon information made available to the EPA by Pacific Power or its agent, the EPA does not accept any responsibility for the completeness of that information, nor does it accept any responsibility for any contamination that may exist in the area or that may be identified or occur subsequent issue of this Notice.

6. Any purchaser/user of the whole or part of the premises must satisfy themselves that the area is safe for use and is suitable for the purpose to which it is to be put.

7. This Notice does not derogate from any other environmental or planning legislation.

Separate approvals must be obtained, as required, from relevant statutory agencies.

NEIL SHEPHERD
Director-General

(signed) 13/5/94

ERROL SAMUEL

Director, Hazardous Substances
(by authorisation)

CC: Regional Manager, Inner Sydney
The Town Clerk, Sydney City Council
Register of Section 35 Notices

CERTIFIED MAIL

The Director-General
Pacific Power
GPO Box 5257
SYDNEY NSW 2001

Our Reference: Section 35 Notice #379/3063

Your Reference:

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NEIL SHEPHERD
Director-General

(signed) 13/5/94

ERROL SAMUEL

Director, Hazardous Substances
(by authorisation)

CC: Regional Manager, Inner Sydney
The Town Clerk, Sydney City Council
Register of Section 35 Notices

Home Public registers POEO Public Register Licences, applications and notices search

Notice summary

Search Again Return to Previous Page

Summary of Notice No: 3085775606

Organisation: Environmental Investigations Australia Pty Ltd
Location: N\A
LGA: N\A
Catchment: N\A
Issue date: 02 Jan 2015
Notice status: Issued
Complied with date:
Penalty Notice
Offence date: 06 Aug 2012
Legislation: Protection of the Environment Operations Act 1997 - 144AA(1)
Offence short title: Cause/permit/supply false misleading information regarding other waste - Corporation

For business and industry ^

For local government ^

Contact us

131 555 (tel:131555)

Online (https://www.epa.nsw.gov.au/about-us/contact-us/feedback)

info@epa.nsw.gov.au (mailto:info@epa.nsw.gov.au)

EPA Office Locations (https://www.epa.nsw.gov.au/about-us/contact-us/locations)

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(https://www.youtube.com/channel/UCS5jrgAE

HYMIX AUSTRALIA PTY LIMITED,
ACN/ARBN 35 000 582 221,
PO BOX 610,
PARRAMATTA NSW 2124
STANDARD POST

Attention: Mr. BRETT WILLIAM LOVETT

Notice Number 1009061
File Number 501113

Date: 21-Jun-2001

NOTICE OF VARIATION OF LICENCE 1253

Section 58 of the Protection of the Environment Operations Act 1997

BACKGROUND

(a) HYMIX AUSTRALIA PTY LIMITED t/as ("the licensee") is the holder of environment protection licence 1253 for Scheduled Activity - Premises Based ("the licence") under the Protection of the Environment Operations Act 1997 ("the POEO Act").

(b) In the Annual Return submitted to the EPA for the reporting period from 30 April 2000 to 30 April 2001, the licensee requested an amendment to the licence premises details.

VARIATION OF LICENCE 1253

1) By this notice the EPA varies licence 1253 as set out in the Appendix. *(for licenses with a lot of changes and where the whole licence document will be in the appendix:* The Appendix is a copy of the licence marked with the variations that are made to it by this notice. *(for licences with a small number of changes where only the conditions will be printed:* The Appendix is a copy of the

provisions of the licence which are varied by this notice, marked with the variations that are made to them.

2) The variations to the licence are indicated in the following way:

- if a strike through mark appears through any word or other text (eg. ~~Solids or~~) this indicates that the word or other text is deleted from the licence by this notice; and
- if a double underline appears under any word or other text (eg. must be treated) this indicates that the word or other text is added to the licence by this notice.

3) Except, as provided by s84(2) of the POEO Act, the variations to the licence by this notice begin to operate at the expiry of the period of 21 days from when you get notice of the variations, unless another date is specified in this notice.

Note: Section 84(2) provides that a variation to a licence does not operate until

- the expiry of the period of 21 days after notice of the decision to vary the licence is given to the licensee, or
- if an appeal against the decision is lodged, until the Land and Environment Court determines the appeal, or
- the licensee notifies the EPA in writing that no appeal is to be made against the decision to vary the licence,

whichever first occurs.

(This notice is issued under section 58(5) of the Protection of the Environment Operations Act 1997.)

. . . .

Mr Tim Gilbert

Principal Officer Sydney Industry

Licence Conversion

(by Delegation)

INFORMATION ABOUT THIS NOTICE:

- Section 287 of the Act enables appeals to be made in connection with decisions about a licence application within 21 days after notice of the decision is given to the applicant.

Environment Protection Authority

Environment Protection Licence

Section 55 Protection of the Environment Operations Act 1997

- **Licence number: 1253**
- **File number: 501113**
- **Licence Anniversary Date: 30-April**
- **Review date not later than 01-Jul-2002**

Information about this licence

Dictionary

The licence contains a dictionary, which defines terms used in the licence. It is found at the end of the licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- Ensure persons associated with you comply with this licence, as set out in section 64 of the Act.
- Control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act).
- Report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Transfer of licence

Transfer of the licence to another person may be requested by the licensee using the form for this purpose available from the EPA.

Variation of licence conditions

Variations to the conditions of this licence may be requested by the licensee using the form for this purpose available from the EPA. The EPA may also vary a licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 3 years after the issue of the licence, as set out in Part 3.6 of the Act. You will receive advance notice of the licence review. For licences held immediately before 1 July 1999, the first review will take place before 1 July 2002.

Fees and annual return to be sent to the EPA

The licence requires you to forward to the EPA an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints).

The Annual Return must be submitted within 60 days after the end of each reporting period. Where a licence is transferred, surrendered or revoked, a special reporting period applies.

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

Usually the licence fee period is the same as the reporting period.

See condition R1 and the accompanying form regarding the Annual Return requirements.

The EPA publication "A Guide to Licensing" contains information about how to calculate your licence fees.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications
- licence conditions and variations
- statements of compliance

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

Licence anniversary date

30-April

This licence is issued to

HYMIX AUSTRALIA PTY LIMITED
PO BOX 610
PARRAMATTA NSW 2124

subject to the conditions which follow:

1 Administrative conditions

A1 What the licence authorises and regulates

A1.1 Not applicable.

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity
Concrete Works

Fee Based Activity	Scale
Concrete Batching (30)	> 50000 - m3 produced

A1.3 Not applicable.

A2 Premises to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
HYMIX CONCRETE
41-45 BANK STREET
PYRMONT
NSW
2009
LOT100 ~~DP836204~~DP836209

A3 Other activities

A3.1 Not applicable.

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

(a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998 and

(b)the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to air and water and applications to land

P1 Location of monitoring/discharge points and areas

P1.1 Not applicable.

P1.2 Not applicable.

P1.3 Not applicable.

3 Limit conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Load limits

L2.1 Not applicable.

L2.2 Not applicable.

L3 Concentration limits

L3.1 Not applicable.

L3.2 Not applicable.

L3.3 Not applicable.

L4 Volume and mass limits

L4.1 Not applicable.

L5 Waste

L5.1 Not applicable.

L6 Noise Limits

L6.1 Not applicable.

4 Operating conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:
(a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
(b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
(a) must be maintained in a proper and efficient condition; and
(b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

5 Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:
(a) in a legible form, or in a form that can readily be reduced to a legible form;
(b) kept for at least 4 years after the monitoring or event to which they relate took place; and
(c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:

(a) the date(s) on which the sample was taken;
(b) the time(s) at which the sample was collected;
(c) the point at which the sample was taken; and
(d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 Not applicable.

M3 Testing methods - concentration limits

M3.1 Not applicable.

M3.2 Not applicable.

M4 Recording of pollution complaints

M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M4.2 The record must include details of the following:
- (a) the date and time of the complaint;
- (b) the method by which the complaint was made;
- (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- (d) the nature of the complaint;
- (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- (f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M5.3 Conditions M5.1 and M5.2 do not apply until 3 months after:
- (a) the date of the issue of this licence or
- (b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.

M6 Requirement to monitor volume or mass

M6.1 Not applicable.

6 Reporting conditions

R1 Annual return documents

What documents must an Annual Return contain?

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
(a) a Statement of Compliance; and
(b) a Monitoring and Complaints Summary.
A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee,
(a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
(b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on
(a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
(b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

Deadline for Annual Return

R1.5 The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

Notification where actual load can not be calculated

R1.6 Not applicable.

Licensee must retain copy of Annual Return

R1.7 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
(a) the licence holder; or
(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R1.9 A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.

R2 Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
(a) where this licence applies to premises, an event has occurred at the premises; or
(b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
(a) the cause, time and duration of the event;
(b) the type, volume and concentration of every pollutant discharged as a result of the event;

(c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; and
(d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
(e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
(f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
(g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

G1 Copy of licence kept at the premises

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

Pollution studies and reduction programs

U1.1 Not applicable.

Special conditions

E1.1 Not applicable.

Dictionary

General Dictionary

In this licence, unless the contrary is indicated, the terms below have the following meanings:

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
BOD	Means biochemical oxygen demand
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations

classification	(General) Regulation 1998.
flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
industrial waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
inert waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
reprocessing of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

treatment of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TSP	Means total suspended particles
TSS	Means total suspended solids
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste code	Means the waste codes listed in Appendix 5 of the EPA document A Guide to Licensing Part B.
waste type	Means Group A, Group B, Group C, inert, solid, industrial or hazardous waste

Mr Tim Gilbert

Principal Officer Sydney Industry

(By Delegation)

Date of this edition - 02-May-2001

End Notes

1	Licence varied by format and/or typographical corrections, issued on 31-Mar-2001, which came into effect on 31-Mar-2001.
2	Licence transferred through application 140391, approved on 02-May-2001, which came into effect on 30-Apr-2001.

Environment Protection Authority

Environment Protection Licence

Section 55 Protection of the Environment Operations Act 1997

- **Licence number: 11718**
- **File number: 502210**
- **Licence Anniversary Date: 23-August**
- **Review date not later than 23-Aug-2005**

Licence Type
Premises

Licensee
BOVIS LEND LEASE PTY LIMITED
L1, 19 HARRIS STREET
PYRMONT NSW 2009

Licensed Premises
LEND LEASE DEVELOPMENT
BOWMAN STREET
PYRMONT NSW 2009

Fee Based Activity	**Scale**
Crushing, Grinding or Separating Works (32)	0 - 30000 T processed

EPA Region
Sydney Region
Level 7, 79 George Street
PARRAMATTA NSW 2150
Phone: 02 9995 5000
Fax: 02 9995 6900
PO Box 668 PARRAMATTA
NSW 2124

Information about this licence

Dictionary

The licence contains a dictionary, which defines terms used in the licence. It is found at the end of the licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- Ensure persons associated with you comply with this licence, as set out in section 64 of the Act.
- Control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act).
- Report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Transfer of licence

Transfer of the licence to another person may be requested by the licensee using the form for this purpose available from the EPA.

Variation of licence conditions

Variations to the conditions of this licence may be requested by the licensee using the form for this purpose available from the EPA. The EPA may also vary a licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 3 years after the issue of the licence, as set out in Part 3.6 of the Act. You will receive advance notice of the licence review. For licences held immediately before 1 July 1999, the first review will take place before 1 July 2002.

Fees and annual return to be sent to the EPA

The licence requires you to forward to the EPA an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints).

The Annual Return must be submitted within 60 days after the end of each reporting period. Where a licence is transferred, surrendered or revoked, a special reporting period applies.

For each licence fee period you must pay:
- an administrative fee; and
- a load-based fee (if applicable).

Usually the licence fee period is the same as the reporting period.

See condition R1 and the accompanying form regarding the Annual Return requirements.

The EPA publication "A Guide to Licensing" contains information about how to calculate your licence fees.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications
- licence conditions and variations
- statements of compliance

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

Licence anniversary date

23-August

This licence is issued to

BOVIS LEND LEASE PTY LIMITED
L1, 19 HARRIS STREET
PYRMONT NSW 2009

subject to the conditions which follow:

1 Administrative conditions

A1 What the licence authorises and regulates

A1.1 Not applicable.

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity
Crushing, Grinding or Separating Works

Fee Based Activity	Scale
Crushing, Grinding or Separating Works (32)	0 - 30000 T processed

A1.3 Not applicable.

A2 Premises to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
LEND LEASE DEVELOPMENT
BOWMAN STREET
PYRMONT
NSW
2009
LOT 4, DP270215

A3 Other activities

A3.1 Not applicable.

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

(a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and

(b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to air and water and applications to land

P1 Location of monitoring/discharge points and areas

P1.1 Not applicable.

P1.2 Not applicable.

P1.3 Not applicable.

3 Limit conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Load limits

L2.1 Not applicable.

L2.2 Not applicable.

L3 Concentration limits

L3.1 Not applicable.

L3.2 Not applicable.

L3.3 Not applicable.

L4 Volume and mass limits

L4.1 Not applicable.

L5 Waste

L5.1 Not applicable.

L6 Noise Limits

L6.1 Noise from the premises must not exceed:

(a) an $L_{A10\ (15\ minute)}$ noise emission criterion of 55 dB(A) (7am to 6pm) Monday to Friday and 7am to 1pm Saturday ; and

(b) an $L_{A10\ (15\ minute)}$ noise emission criterion of 45 dB(A) during the evening (6pm to 10pm) Monday to Friday; and

(c) at all other times, an $L_{A10\ (15\ minutes)}$ noise emission criterion of 40 dB(A),

except as expressly provided by this licence.

L6.2 Noise from the premises is to be measured or computed at one (1) metre within the boundary of any residential property to determine compliance with condition L6.1. 5dB(A) must be added if the noise is tonal or impulsive in character.

4 Operating conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:
(a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
(b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
(a) must be maintained in a proper and efficient condition; and
(b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

5 Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:
(a) in a legible form, or in a form that can readily be reduced to a legible form;
(b) kept for at least 4 years after the monitoring or event to which they relate took place; and
(c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:

(a) the date(s) on which the sample was taken;
(b) the time(s) at which the sample was collected;
(c) the point at which the sample was taken; and
(d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 Not applicable.

M3 Testing methods - concentration limits

M3.1 Not applicable.

M3.2 Not applicable.

M4 Recording of pollution complaints

M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M4.2 The record must include details of the following:
(a) the date and time of the complaint;
(b) the method by which the complaint was made;
(c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
(d) the nature of the complaint;
(e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
(f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M5.3 Conditions M5.1 and M5.2 do not apply until 3 months after:
(a) the date of the issue of this licence or
(b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.

M6 Requirement to monitor volume or mass

M6.1 Not applicable.

6 Reporting conditions

R1 Annual return documents

What documents must an Annual Return contain?

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
(a) a Statement of Compliance; and
(b) a Monitoring and Complaints Summary.
A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee,
(a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
(b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on

(a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or

(b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

Deadline for Annual Return

R1.5 The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

Notification where actual load can not be calculated

R1.6 Not applicable.

Licensee must retain copy of Annual Return

R1.7 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
(a) the licence holder; or
(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R1.9 A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.

R2 Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:

(a) where this licence applies to premises, an event has occurred at the premises; or
(b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,

and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
(a) the cause, time and duration of the event;
(b) the type, volume and concentration of every pollutant discharged as a result of the event;
(c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; and
(d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
(e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
(f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
(g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

G1 Copy of licence kept at the premises

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

Pollution studies and reduction programs

U1.1 Not applicable.

Special conditions

E1.1 Not applicable.

Dictionary

General Dictionary

In this licence, unless the contrary is indicated, the terms below have the following meanings:

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
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environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991

EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 1998.
flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
industrial waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
inert waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
reprocessing of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997

solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
treatment of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TSP	Means total suspended particles
TSS	Means total suspended solids
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste code	Means the waste codes listed in Appendix 5 of the EPA document A Guide to Licensing Part B.
waste type	Means Group A, Group B, Group C, inert, solid, industrial or hazardous waste

Mr Kieran Horkan

Principal Officer

(By Delegation)

Date of this edition - 05-Feb-2004

End Notes

1	This licence was surrendered subject to conditions by notice 1033852 on 04-Feb-2004.

×

Attention: NSW Caretaker Period has commenced

The caretaker period for the NSW Election commenced on 3 March 2023.

Accordingly, no ministerial press releases or related information issued by the Government from this date will be available in this website. For copies of recently issued ministerial press releases of information on the election policies of any political party, as they relate to the department/agency or its portfolio area, please go directly to the website of the relevant political party.

nsw epa

Home > Your environment > Contaminated land > **PFAS investigation program**

The NSW Government PFAS Investigation Program

View a map of the sites in NSW that may be contaminated with PFAS, learn how to reduce your exposure to these dangerous chemicals, and read about our investigation of the issue.

The EPA is leading an investigation program to assess the legacy of PFAS use across NSW. With the assistance of the NSW PFAS Technical Advisory Group, which includes NSW Health, Department of Primary Industries and the Office of Environment and Heritage, we provide impacted residents with tailored, precautionary dietary advice to help them reduce any exposure to PFAS.

Current investigations are focused on sites where it is likely that large quantities of PFAS have been used. The EPA is currently investigating PFAS at these sites:

Map view List view

Clear filters ☐ **Only show sites within current map view** Showing 0 of 50 sites

	Organisation	Address	Status
	filter by organisation	pyrmont	☑ PFAS investigation site

Sampling and analysis

The EPA is collecting samples of soils and/or waters for analysis for PFAS. The EPA is also looking for exposure pathways that may increase people's contact with the chemicals, such as bore and surface water usage.

If significant levels are detected and human or ecological exposure is likely, a more detailed assessment will be undertaken.

The EPA will work with the occupiers and owners of these sites, or the responsible parties, to clean-up the site, where necessary.

Timeframes for the investigation

The initial investigations can take approximately six months, with further testing undertaken where required.

Test findings are made available throughout the investigations.

More information is available on the NSW EPA PFAS investigation process page.

Release of draft PFAS National Environmental Management Plan version 3

The PFAS National Environmental Management Plan (PFAS NEMP) provides a practical basis for nationally consistent environmental guidelines and standards for investigating, assessing and managing PFAS waste and contamination.

The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) has now released the draft PFAS NEMP version 3.0 (NEMP 3.0).

NEMP 3.0 builds on previous versions and includes additional guidance on the following priority areas:

- Theme 1: PFAS family – international approaches to grouping of PFASs.
- Theme 2: Environmental data and monitoring - guidance on ambient monitoring data collection and land use classifications to enable comparability.
- Theme 3: Water-risk-based criteria and guidance for beneficial reuse of biosolids.
- Theme 4: Soil - guidance and standards around PFAS behaviour in soil, including leaching and associated ecological and human health guidance. It finalises and reviews two guideline values

already in the NEMP and proposes two new guideline values for soil and one for wildlife diet.

- Theme 5: Resource recovery and waste - guidance on management of risks associated with PFAS in resource recovery products.
- Theme 6: Site specific guidance - guidance on principles and approaches to remediation and management; guidance on construction water; and guidance on estuarine, coastal and marine sediment.

Have your say on NEMP 3.0

You can provide feedback on NEMP 3.0 by lodging a submission online, or by attending a public consultation session.

You feedback will help to ensure that NEMP 3.0 is fit for purpose in continuing to provide useful and nationally consistent guidance and standards on PFAS contamination.

All feedback received will be considered by the National Chemicals Working Group before NEMP 3.0 is finalised. An ancillary document summarising the feedback and the responses made is expected to be published by DCCEEW.

Online consultation

Online public consultation is currently underway and will be available until **4pm AEDT 20 December 2022**.

You can find more information about submitting feedback online on the DCCEEW page .

NSW consultation session

We will publish more information about our public consultation session on this page when it becomes available.

Working with our stakeholders

The NSW Government is committed to working closely with all relevant government agencies, to closely monitor the progress of investigations, and to keep local communities informed. Government agencies include local councils, NSW Department of Primary Industries, NSW Health, NSW Food Authority, and where necessary the Commonwealth Department of Defence, and Commonwealth Department of Health.

In NSW the polluter pays for and manages any clean-up required. Although the NSW Government cannot regulate Defence sites, it has outlined expectations that Defence will carry out investigations in a timely manner that is consistent with the EPA's requirements and processes.

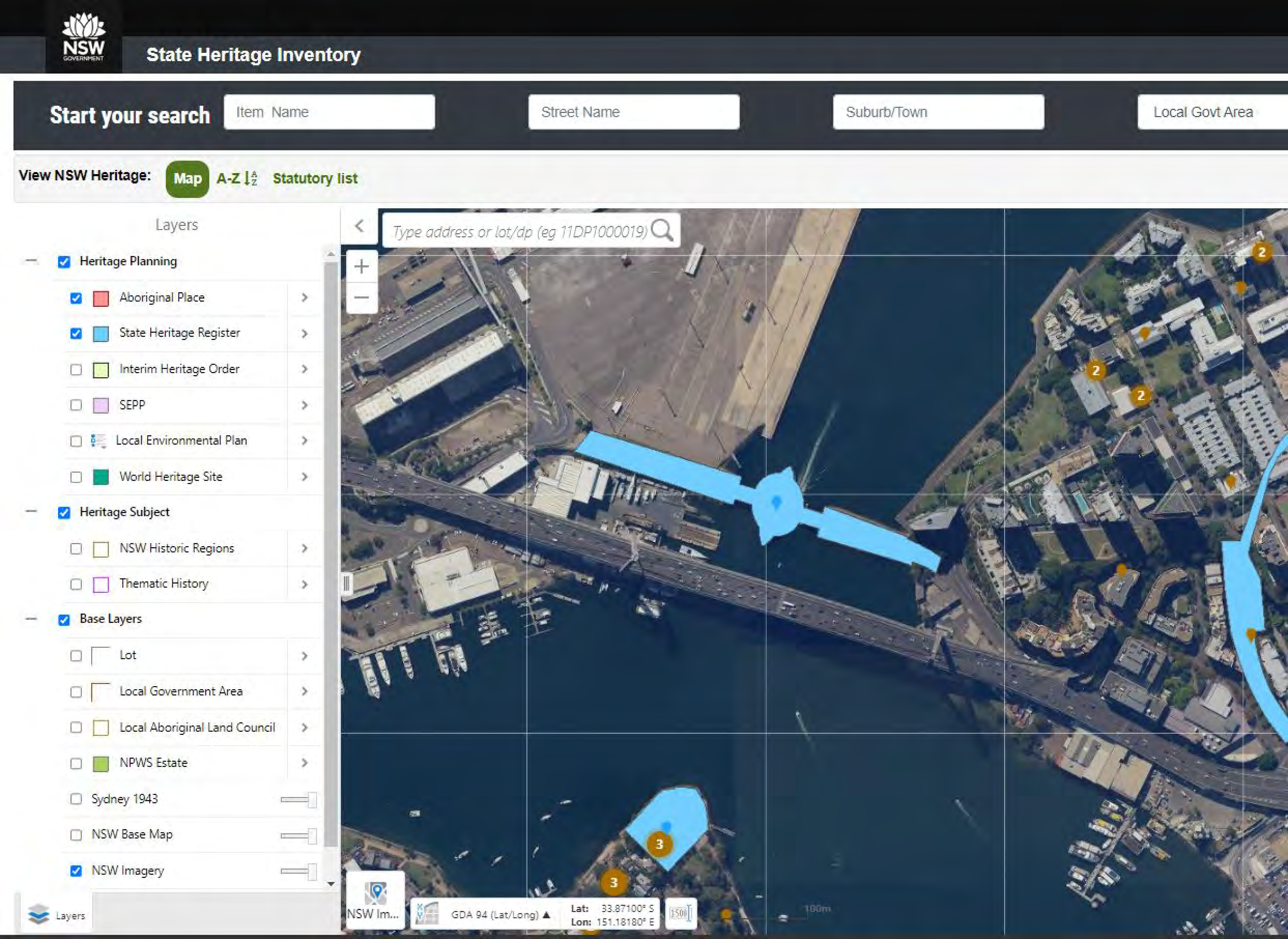
More information

- PFAS investigation program fact sheet (PDF 213KB)
- PFAS investigation program FAQs page
- NSW Department of Health
- For specific health inquiries call the NSW Department of Health on **1300 066 055**
- If you have any questions about the EPA's PFAS investigation program, please call the Environment Line on **131 555** or emailinfo@environment.nsw.gov.au

Page last updated 23 September 2022

Please consider the environment before printing.

Appendix G – Australian and NSW Heritage Register



Layers

- ☑ Heritage Planning
  - ☑ 🟥 Aboriginal Place
  - ☑ 🟦 State Heritage Register
  - ☐ Interim Heritage Order
  - ☐ SEPP
  - ☐ Local Environmental Plan
  - ☐ 🟩 World Heritage Site
- ☑ Heritage Subject
  - ☐ NSW Historic Regions
  - ☐ Thematic History
- ☑ Base Layers
  - ☐ Lot
  - ☐ Local Government Area
  - ☐ Local Aboriginal Land Council
  - ☐ 🟩 NPWS Estate
  - ☐ Sydney 1943
  - ☐ NSW Base Map
  - ☑ NSW Imagery

Layers

GDA 94 (Lat/Long) ▲

Lat: 33.87100° S
Lon: 151.18180° E

Place Details

Send Feedback

Glebe Island Bridge, Bank St, Pyrmont, NSW, Australia

Photographs	
List	Register of the National Estate (Non-statutory archive)
Class	Historic
Legal Status	Registered (18/04/1989)
Place ID	15949
Place File No	1/12/022/0072

Statement of Significance

The bridge is a significant technical accomplishment, being large for its period of construction. It is similar to but smaller than the nearby Pyrmont Bridge across Darling Harbour, opened in June 1902. The Glebe Island Bridge was opened in 1903. Both Pyrmont and Glebe Island are large swing bridges, powered by electricity. Concerning Pyrmont, Allan said that, at the time of its opening: this bridge was said to be provided with the fastest and most up to date swing span in the world. The Glebe Island Bridge has swing spans of 29.1m and 29.1m, compared with Pyrmont, two at 34m. These spans have not been surpassed in Australia for a swing bridge and were not exceeded by any movable span until the first Tasman Bridge at Hobart (1943, 54.6m).

Official Values Not Available

Description

The bridge carries a 12.2m wide roadway and two 1.5m footways. Its spans are 24.7m, 29.1m, 29.1m and 24.7m. The 24.7m spans are deck type Allan timber trusses. The two 29.1m swing spans rotate about a central vertical axis, being supported in the open position on a large diameter circular nest of rollers. These spans have deck type metal trusses of Pratt geometry, with a curved lower chord providing a larger depth at the central pier. The foundations are on piles and are finished in stone.

History Not Available

Condition and Integrity

1986: the bridge is in use and is believed to be in good condition and in its original form.
1995: bridge closed and in open position.

Location

Banks Street and former Victoria Road between Pyrmont and Rozelle.

Bibliography

C O'CONNOR, "REGISTER OF AUSTRALIAN HISTORIC BRIDGES" 1983.
C O'CONNOR, "SPANNING TWO CENTURIES" UQP 1985.
D J FRASER, "MOVABLE SPAN BRIDGES IN NEW SOUTH WALES PRIOR TO 1915" IE AUST, MULTI-DISCIPLINARY ENG TRANS (1985), PP 71-81.
"MOVABLE BRIDGES ON MAIN ROADS IN NEW SOUTH WALES" MAIN ROADS, VOL 19 NO 2, DECEMBER 1953, PP 36-40.
P ALLAN, "HIGHWAY BRIDGE CONSTRUCTION - THE PRACTICE IN NEW SOUTH WALES" INDUSTRIAL AUSTRALIAN AND MINING STANDARD, PART V, 11 SEPTEMBER 1924, PP 394-396; PART VI, 11 SEPTEMBER 1924, PP 432-436.
R A J TOMPSON, "THE UNDER-PINNING OF THE GLEBE ISLAND BRIDGE" MAIN ROADS, VOL 7 NO 2, PP 64.

Report Produced Wed Mar 22 14:00:21 2023

Place Details

Send Feedback

Harbour Queen, Bank St, Pyrmont, NSW, Australia

Photographs	None
List	Register of the National Estate (Non-statutory archive)
Class	Historic
Legal Status	Rejected Place
Place ID	17948
Place File No	1/12/036/0623

Statement of Significance

This floating hall, on a former ferry wharf, has historic associations with the most heavily patronised public transport route in Sydney prior to the opening of Sydney Harbour Bridge (Criterion A.4). The conversion of the wharf to a dance hall in 1936 was innovative (Criterion F.1). The hall was one of the original attractions of Luna Park, but has been extensively altered, to its detriment. As it is no longer moored at Luna Park, it is not part of that place and does not contribute to the National Estate significance of the Luna Park Precinct.

Official Values Not Available

Description

History:
The history of this floating hall has three phases. In the first, from about 1920 to 1932, it was a pontoon wharf associated with the early train/tram/ferry traffic interchange at Lavender Bay. In the second, it was a floating but moored dance hall designed by Samuel Lipson, called the Palais de Danse, from about 1935 to 1980. In the third phase, the most recent and short lived, it was the Sydney Harbour Queen, a function centre decorated externally in a superficial imitation of a side wheel paddle steamer.
Description:
The Harbour Queen is a floating pontoon with a timber framed building built on top of it. It was permanently fixed to the foreshore at Luna Park with steel tubes. Inside the building there is a large dance floor with a bar along one side and a stage at one end. The roof over the dance floor is supported on decorated scissor trusses. In 1990 it was relocated to Pyrmont.

History Not Available

Condition and Integrity

In 1982 an unsympathetic renovation turning the Palais de Danse into the Harbour Queen was carried out. This only added a false facade and it is believed that the original building is still underneath. In 1990 the Harbour Queen was moved to Pyrmont and in 1994 it was moved to a mooring off Bank Street, Blackwattle Bay, Pyrmont. (July 1995)

Location

Off Bank Street, Blackwattle Bay, Pyrmont.

Bibliography

MARSHALL,S. 'LUNA PARK - JUST FOR FUN'. 1982 & 1995.
SHARP,M., MARSHALL,S. & YOUNG,W. 'LUNA PARK FACE AND TOWERS'. (COPY HELD BY SAM MARSHALL).
LUNA PARK CONSERVATION PLAN by Godden Mackay, 1992.
LUNA PARK/LAVENDER BAY HERITAGE STUDY by Godden Mackay, 1991.

Report Produced Wed Mar 22 14:01:12 2023

Place Details

Send Feedback

Glebe Island Dyke Exposures, Victoria Rd, Rozelle, NSW, Australia

Photographs	None
List	Register of the National Estate (Non-statutory archive)
Class	Natural
Legal Status	Indicative Place
Place ID	101882
Place File No	1/12/022/0096

Nominator's Statement of Significance

The Great Sydney Dyke, although extensive with a length exceeding 10km, has only been sampled in the subsurface as part of geotechnical investigations for engineering projects. The exposures at Glebe Island provide a rare opportunity to examine the dyke at surface.

Official Values Not Available

Description

The Great Sydney Dyke has been traced discontinuously across the suburbs from the coast to Rozelle. The only exposure of the dyke not covered by urbanisation is at Glebe Island. Here it is visible on both sides of Victoria Road. The southern exposure has largely been weathered to a clay slope.

The best exposure is on the northern side of the road at AMG 31575085; the exposure here is about 7m high.

The dyke in the railway cutting is 5.1 to 5.95m wide, is essentially vertical and has a strike of between 115 degrees (True) to 120 degrees (True). The dyke appears to be formed by three different stages.

The dyke is also visible in a 2m high cutting just north of the above exposure, AMG 9130-31535087.

The exposures provide excellent examples of differential weathering that has taken place within the outer bounding surfaces and internal sections of the dyke. The lithological spectrum of weathering varies from silty clay to residual "corestones" of relatively fresh basalt.

History Not Available

Condition and Integrity

Exposed in road and railway cuttings some of which have weathered to a non-descript clayey slope.

Location

About 0.5ha, near Victoria Road on Glebe Island, Rozelle, at AMG points: 9130-31575085 and 31535087.

Bibliography Not Available

Report Produced Wed Mar 22 14:19:26 2023

Search Results

11 results found.

CSR Cooperage Building (former) Bowman St	Pyrmont, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
CSR Gate House (former) Bowman St	Pyrmont, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
CSR Laboratory B Building (former) Bowman St	Pyrmont, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
CSR Main Office Building (former) Bowman St	Pyrmont, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
CSR Store House (former) Bowman St	Pyrmont, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
CSR Tablet House (former) Bowman St	Pyrmont, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Pyrmont Arms Hotel (former) 42-44 Harris St	Pyrmont, NSW, Australia	(Rejected Place) Register of the National Estate (Non-statutory archive)
Pyrmont Point	Pyrmont, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Pyrmont Point Carriageway Dividing Fence Bowman St	Pyrmont, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Terrace Houses 120-138 Bowman St	Pyrmont, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Terrace Houses 83 Point St	Pyrmont, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Report Produced: Wed Mar 22 14:02:19 2023

Appendix H – Dangerous Goods Search

Milad Noujaim

From: Licensing <licensing@safework.nsw.gov.au>
Sent: Tuesday, 2 May 2023 1:49 PM
To: Milad Noujaim
Subject: SafeWork NSW: 00822430 –Site Search application – Result not found [ref:_00D281hl6J._500Mn4AeoI:ref]

Security Classification: Sensitive Personal
Please do not amend the subject line of this email

Dear Milad

Re: Site Search for Schedule 11 Hazardous Chemicals on premises Application – Result not found

I refer to your application for a Site Search for Schedule 11 Hazardous Chemicals on premises, received by SafeWork NSW on 30/03/2023 for the following site: 1-3 Bank Street, Pyrmont NSW.

A search of the records held by SafeWork NSW has not located any records pertaining to the above-mentioned premises.

If you have any further information or if you have any questions, please use one of the following options, quoting the SafeWork NSW enquiry reference number: 00822430

- Email: licensing@safework.nsw.gov.au
- Phone: 13 10 50

Kind regards

Kim Brearley
Licensing Representative
SafeWork NSW | Better Regulation Division
Department of Customer Service
p- 13 10 50
e- licensing@safework.nsw.gov.au | www.customerservice.nsw.gov.au
Level 3, 32 Mann Street, Gosford, NSW 2250

NSW GOVERNMENT | Customer Service

We are always looking for ways that we can improve our services. You may be contacted by email in the next few weeks to complete a short survey and provide us with your feedback on what we did well and where we can improve. If you do not wish to participate in our surveys, please email us at: licensingQA@customerservice.nsw.gov.au and we will ensure that you are not contacted.

ref:_00D281hl6J._500Mn4AeoI:ref

Appendix I – Photographic Log

LOT 1 DP85206 VEGETATED AREA

NORTHERN PORTION BUILDINGS AND REMNANTS OF COAL LOADERS

REMNANTS OF COAL LOADERS ABOVE THE SUSPECTED UST AND ASSOCIATED VENTS RUNNING ALONG THE BUILDING WALL

EMPTY DRUM IN BUILDING B

Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 0	Date: 23/05/2023
Drawn By: MN	Checked By: JR

Not to Scale

Coord. Sys n/a

Bank Street Park Activation

1-19 Bank Street, Pyrmont, NSW

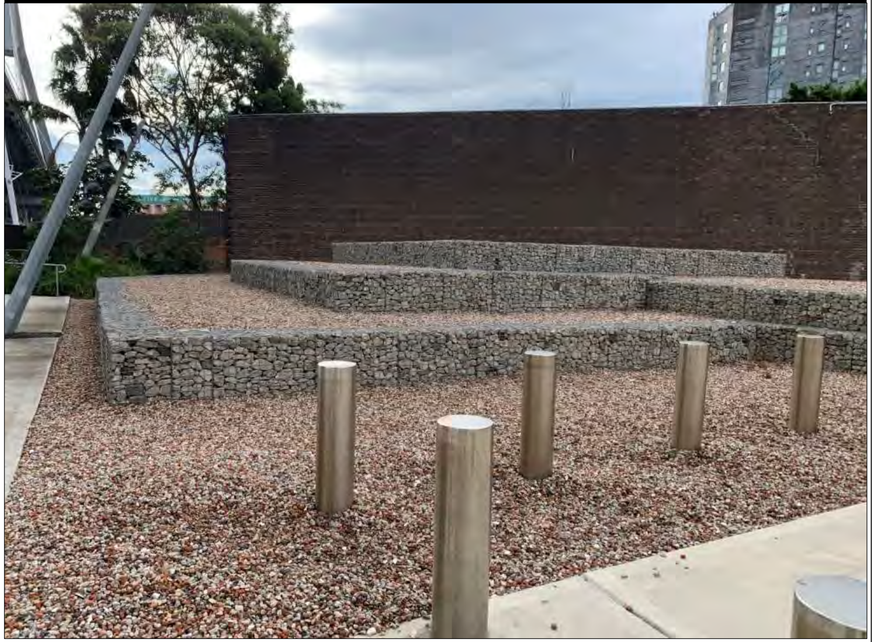
Sampling Analysis and Quality Plan

APPENDIX I: PHOTO LOG

BLACKWATTLE BAY MARINA ACCESS DRIVEWAY

SUBSTATION ALONG BANK STREET

GRAVEL FEATURE WITHIN THE MARINA



BLACKWATTLE BAY MARINA OFFICE BUILDING

Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 0	Date: 23/05/2023
Drawn By: MN	Checked By: JR

Not to Scale

Coord. Sys n/a

Bank Street Park Activation

1-19 Bank Street, Pyrmont, NSW

Sampling Analysis and Quality Plan

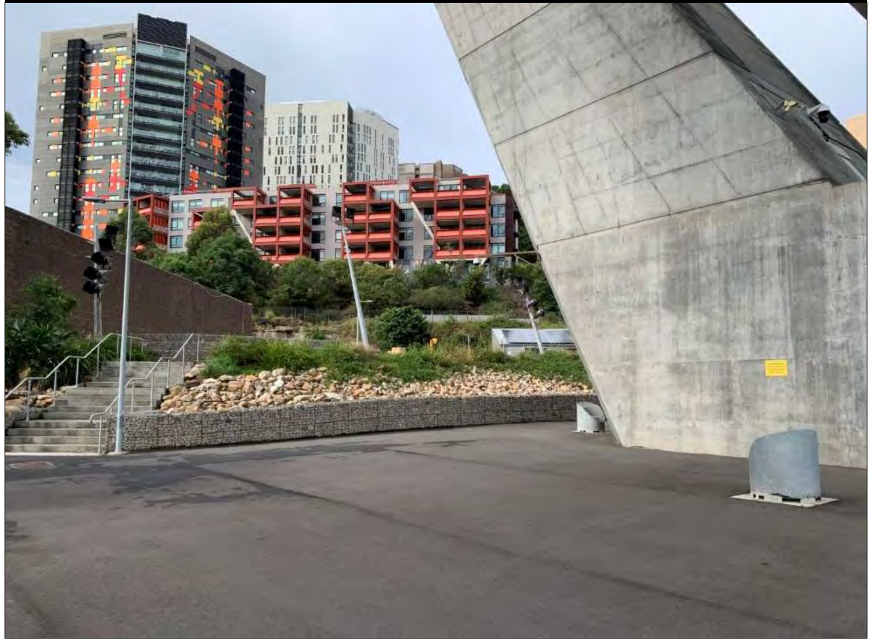
APPENDIX I: PHOTO LOG

WATER/SEWAGE PUMP SYSTEM ADJACENT TO THE MARINA OFFICE

STORAGE CONTAINERS IN THE SOUTHERN PORTION OF THE MARINA

WORKSHOP AREA IN THE SOUTHERN PORTION OF THE MARINA

ANZAC BRIDGE PYLON



Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 0	Date: 23/05/2023
Drawn By: MN	Checked By: JR

Not to Scale

Coord. Sys n/a

Bank Street Park Activation

1-19 Bank Street, Pyrmont, NSW

Sampling Analysis and Quality Plan

APPENDIX I: PHOTO LOG

LOTS 5-6 DP803160 AND PART LOT 20 DP803159 IN THE CENTRAL AND SOUTHEASTERN PORTION - FACING NORTH

SHIPPING CONTAINERS IN THE SOUTHEASTERN PORTION OF THE SITE

DRAGON BOATS STORED ONSITE

MATERIAL STORED ONSITE

Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 0	Date: 23/00/2023
Drawn By: MN	Checked By: JR

Not to Scale

Coord. Sys n/a

Bank Street Park Activation

1-19 Bank Street, Pyrmont, NSW

Sampling Analysis and Quality Plan

APPENDIX I: PHOTO LOG

PUSH TUBES FROM BH11

PUSH TUBE SAMPLES

BH01 FILL MATERIAL

ONSITE ACID SULFATE SOIL FIELD SCREENING

JBS&G

Job No: 64669	
Client: Infrastructure NSW	
Version: R02 Rev 0	Date: 23/00/2023
Drawn By: MN	Checked By: JR
Not to Scale	
Coord. Sys n/a	

Bank Street Park Activation

1-19 Bank Street, Pyrmont, NSW

Sampling Analysis and Quality Plan

APPENDIX I: PHOTO LOG

ELECTRIC EASEMENT SURVEYING

ASH WITHIN BH13

BH07 PUSH TUBE SAMPLES

CONCRETE FRAGMENTS AT THE BASE OF BH07

Job No: 64669

Client: Infrastructure NSW

Version: R02 Rev 0	Date: 23/00/2023
Drawn By: MN	Checked By: JR

Not to Scale

Coord. Sys n/a

Bank Street Park Activation

1-19 Bank Street, Pyrmont, NSW

Sampling Analysis and Quality Plan

APPENDIX I: PHOTO LOG

Appendix J – Calibration and Decontamination Documents

Field Equipment Calibration and Decontamination

PROJECT NAME: Bank St, Pyrmont	**PROJECT NO:** 64669
FIELDWORK DATES: 13 & 14/4/23	**SAMPLERS:** MN / EA
TYPE OF INVESTIGATION: Soil [illegible]	**PROJECT MANAGER:** MN

CALIBRATION SUMMARY

EQUIPMENT: PID

CALIBRATION STANDARD: 100 ppm isobutylene

DATE	TIME	READING (ppm)	COMMENTS
13/4/23	8:05	0	Zero Cal
	8:06	100.6	100 ppm isobutylene
	8:07	100.2	bump test
14/4/23	8:10	0	Zero Cal
	8:11	100.2	100 ppm isobutylene
	8:12	99.9	bump test

DECONTAMINATION SUMMARY

EQUIPMENT: HA, SFA,

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?	Y	[✓ N]	NA
	If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y	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 nitrile gloves used for each sample

JBS&G

Field Equipment Calibration and Decontamination

PROJECT NAME: Bank St, Pyrmont	**PROJECT NO:** 64669
FIELDWORK DATES: 18/4/23	**SAMPLERS:** MN / EF
TYPE OF INVESTIGATION: GME	**PROJECT MANAGER:** MN

CALIBRATION SUMMARY

EQUIPMENT: WQM, IP => Attached

CALIBRATION STANDARD:

DATE	TIME	READING (ppm)	COMMENTS

DECONTAMINATION SUMMARY

EQUIPMENT: 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?	Y	[✓ N]	NA
	If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y	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 nitrile gloves used for each sample.
& new tubing for each well

13/04/2023

Multi Parameter Water Meter

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Instrument **YSI Quatro Pro Plus**
Serial No. **18J104341**

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 7.00		pH 7.00		393774	pH 6.89
2. pH 4.00		pH 4.00		399527	pH 3.98
3. ORP		235.9 mV		398884 / 400204	235.9 mV
4. SPC		2760 uS/cm		396172	2761 uS/cm
5. D.O		0%		391223	0.0%
6. Temp		22.5°C		MultiTherm	22.7 °C

Calibrated by: **Alex Buist**

Calibration date: **13/04/2023**

Next calibration due: **13/05/2023**

Oil / Water Interface Meter

Instrument **Interface Meter (30M)**
Serial No. **312505**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: **Dom Ta**

Calibration date: **14/04/2023**

Next calibration due: **13/06/2023**

Field Equipment Calibration and Decontamination

PROJECT NAME: Bank St	**PROJECT NO:** 64669
FIELDWORK DATES: 5/5/23	**SAMPLERS:** MN/EA
TYPE OF INVESTIGATION:	**PROJECT MANAGER:** MN

CALIBRATION SUMMARY

EQUIPMENT: PID

CALIBRATION STANDARD: 100 ppm Isobutylene

DATE	TIME	READING (ppm)	COMMENTS
5/5/23	7.00	0	Zero
		100	Cal
		97.0	Bump.

DECONTAMINATION SUMMARY

EQUIPMENT: Auger

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?	Y	[✓ N]	NA
	If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y	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 nitrile gloves at each sample location.

Appendix K – Borelogs

SOIL BOREHOLE BH01

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY
DRILLING DATE 13-Apr-23
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 MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA			▨	Fill	Fill - Silty SAND, dark brown, heterogeneous, damp, medium sand loose, with inclusions of sandstone	DP	BH01_0.00-0.10 BH01_0.30-0.40	1.2 1.2	10L AQ at 0.0-0.4 m. Asbestos sample collected at 0.0-0.4 m. No asbestos, odour or staining observed.
		0.5			Termination Depth at: 0.40 m.				End of hole @ 0.4.Refusal on potential concrete or sandstone
		1							
		1.5							
		2							
		2.5							
		3							
		3.5							
		4							
		4.5							
		5							
		5.5							
		6							
		6.5							
		7							

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SOIL BOREHOLE BH02

PROJECT NUMBER 64669	**DRILLING COMPANY**	**EASTING** N/A
PROJECT NAME Bank St DSI April 2023	**DRILLING DATE** 14-Apr-23	**NORTHING** N/A
CLIENT	**DRILL RIG** N/A	**COORD SYS** GDA94_MGA_zone_54
ADDRESS Banks St, Pyrmont, NSW	**DRILLING METHOD** Hand Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC			⁖	Concrete	Fill - CONCRETE				
HA		0.5 1	▩	Fill	Fill - Silty gravelly SAND, dark brown, heterogeneous, damp, medium sand loose, with inclusions of sandstone, concrete and sea shells	DP	BH02_0.20-0.30 BH02_0.50-0.60 BH02_0.90-1.00	1.8 1.6 1.5	10L AQ at 0.2-1.0 m. Asbestos sample collected at 0.2-1.0 m. No asbestos, odour or staining observed.
		1.5 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7			Termination Depth at: 1.00 m.				End of hole @ 1.0 m

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SOIL BOREHOLE BH03

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY Terratest
DRILLING DATE 13-Apr-23
DRILL RIG Geoprobe
DRILLING METHOD Push tube/Solid Flight Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC				Concrete	Fill - CONCRETE				
PT / SFA		0.5 1	▨	Fill	Fill - Sandy GRAVEL, black, heterogeneous, dry, poorly graded, medium gravel, angular, loose, with inclusions of coal and ash	DR	BH03_0.10-0.20 BH03_0.50-0.60 BH03_0.90-1.00	4.8 4.5 5.2	10L AQ at 0.1-1.1 m and 1.1-1.5 m. Asbestos samples collected at 0.1-1.1 m and 1.1-1.5 m. No asbestos, odour or staining observed.
		1.5	⁘	Sandstone	Natural - SANDSTONE, grey/yellow/brown, homogenous, dry, well graded, coarse sand medium dense	DR	BH03_1.90-2.00	4.7	No asbestos, odour or staining observed.
		2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7			Termination Depth at: 2.00 m.				End of hole @ 2.0 m. Refusal on sandstone.

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SOIL BOREHOLE BH03A

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY Terratest
DRILLING DATE 14-Apr-23
DRILL RIG Geoprobe
DRILLING METHOD Push tube/Solid Flight Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC				Concrete	Fill - CONCRETE				
PT / SFA		0.5	▨	Fill	Fill - Sandy GRAVEL, dark brown/black, heterogeneous, dry, poorly graded, medium gravel, angular, loose, with inclusions of coal and ash	DR	BH03A_0.20-0.30 BH03A_0.50-0.60	2.3 2.1	10L AQ at 0.1-0.8 m. No asbestos, odour or staining observed.
		1 1.5 2 2.5 3	░	Sandstone	Natural - SANDSTONE, white/yellow, homogenous, dry, coarse sand medium dense	DR			No asbestos, odour or staining observed.
		3.5 4 4.5 5 5.5 6 6.5 7			Termination Depth at: 3.20 m.				End of hole @ 3.2 m

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SOIL BOREHOLE BH04

PROJECT NUMBER 64669	**DRILLING COMPANY** Terratest	**EASTING** N/A
PROJECT NAME Bank St DSI April 2023	**DRILLING DATE** 13-Apr-23	**NORTHING** N/A
CLIENT	**DRILL RIG** Geoprobe	**COORD SYS** GDA94_MGA_zone_54
ADDRESS Banks St, Pyrmont, NSW	**DRILLING METHOD** Push tube/Solid Flight Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC			⁘	Concrete	Fill - CONCRETE				
PT / SFA		0.5	▨	Fill	Fill - Sandy GRAVEL, grey, heterogeneous, dry, poorly graded, fine gravel, sub-angular, loose	DR	BH04_0.50-0.60 BH04_0.90-1.00	1.7 1.5	No asbestos, odour or staining observed. Voids within the borehole leading to limited material and no returns
		1	▨	Fill	Fill - Gravelly SAND, dark brown/black, heterogeneous, damp, medium sand loose	DP			
		1.5 2 2.5	▨	Fill	Fill - SANDSTONE, brown/grey, heterogeneous, damp, medium sand dense	DP	BH04_1.50-1.60 BH04_1.90-2.00	0.7 0.8	
		3 3.5 4 4.5 5 5.5	⁘	SG	Natural - Gravelly SAND, brown/red, homogenous, saturated, coarse sand dense	S	BH04_2.90-3.00 BH04_5.90-6.00	0.5 0.3	End of hole @ 6.0 m
		6 6.5 7			Termination Depth at: 6.00 m.				

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SOIL BOREHOLE BH05

PROJECT NUMBER 64669	**DRILLING COMPANY** Terratest	**EASTING** N/A
PROJECT NAME Bank St DSI April 2023	**DRILLING DATE** 13-Apr-23	**NORTHING** N/A
CLIENT	**DRILL RIG** Geoprobe	**COORD SYS** GDA94_MGA_zone_54
ADDRESS Banks St, Pyrmont, NSW	**DRILLING METHOD** Push tube/Solid Flight Auger	**COORD SOURCE**
	DIAMETER	**LOGGED BY** MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC				Concrete	Fill - CONCRETE				
PT / SFA		0.5 1 1.5 2 2.5 3	▨	Fill	Fill - Gravelly SAND, dark brown, heterogeneous, damp, medium sand loose, with inclusions of ash and coal	DP	BH05_0.20-0.30 BH05_0.50-0.60 BH05_0.90-1.00 BH05_2.00-2.10	0.5 1.1 1.5 1.8	10L AQ at 0.2-1.2 m, 1.2-2.2 m and 2.2-3.2 m. Asbestos samples collected at 0.2-1.2 m, 1.2-2.2 m and 2.2-3.2 m. No asbestos, odour or staining observed.
		3.5 4		Sandstone	Natural - SANDSTONE, yellow/white, homogenous, damp, coarse sand medium dense	DP	BH05_4.10-4.20	1.4	No asbestos, odour or staining observed.
		4.5 5 5.5 6 6.5 7			Termination Depth at: 4.20 m.				End of hole @ 4.2 m. Refusal on sandstone

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SOIL BOREHOLE BH06

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY
DRILLING DATE 05-May-23
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 MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA			▨	Fill	Fill - Silty SAND, dark brown, heterogeneous, damp, loose, with inclusions of wood, gravel and clay clumps	DP	BH06_0.00-0.10 BH06_0.20-0.30	0.9 1.9	10L AQ at 0.0-0.3 m. Asbestos sample collected at 0.0-0.3 m. No asbestos, odour or staining observed.
		0.5	▨	Fill	Fill - Gravelly SAND, brown, heterogeneous, damp, loose, with inclusions of clay clumps	DP	BH06_0.30-0.40	1	No asbestos, odour or staining observed.
			▨	Fill	Fill - Gravelly SAND, light brown, heterogeneous, damp, loose, with inclusions of sandstone and clay clumps	DP	BH06_0.50-0.60 BH06_0.90-1.00	2.5 1.2	10L AQ at 0.5-1.0 m. Asbestos sample collected at 0.5-1.0 m. No asbestos, odour or staining observed. End of hole @ 1.0 m
		1			Termination Depth at: 1.00 m.				
		1.5							
		2							
		2.5							
		3							
		3.5							
		4							
		4.5							
		5							
		5.5							
		6							
		6.5							
		7							

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SOIL BOREHOLE BH07

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY Terratest
DRILLING DATE 05-May-23
DRILL RIG Geoprobe
DRILLING METHOD Push tube/Solid Flight Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
PT / SFA		0.5 1 1.5	▨	Fill	Fill - Gravelly silty SAND, brown, heterogeneous, damp, loose, with inclusions of ash and coal	DP	BH07_0.00-0.10 BH07_0.20-0.30 BH07_0.50-0.60 BH07_0.90-1.00	2.5 2.8 5.5 4.1	10L AQ at 0.0-1.0 m and 1.0-1.5 m. Asbestos samples collected at 0.0-1.0 m and 1.0-1.5 m. No asbestos, odour or staining observed.
		2 2.5 3 3.5 4 4.5	▨	Fill	Fill - Sandy CLAY, dark brown/black, heterogeneous, damp, medium plasticity with inclusions of sandstone and concrete	DP	BH07_2.00-2.10 BH07_3.00-3.10 BH07_4.00-4.10	2.9 1.8 1.7	10L AQ at 1.5-2.5 m, 2.5-3.5 m and 3.5-4.5 m. Asbestos samples collected at 1.5-2.5 m, 2.5-3.5 m and 3.5-4.5 m. No asbestos, odour or staining observed.
		5 5.5	▨	Fill	Fill - Sandy CLAY, dark brown/black, heterogeneous, wet, high plasticity with inclusions of sandstone and concrete	W	BH07_5.00-5.10 BH07_5.40-5.50	0.8 0.8	
		6 6.5 7			Termination Depth at: 5.50 m.				End of hole @ 5.5 m. Refusal on concrete.

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SOIL BOREHOLE BH08

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY Terratest
DRILLING DATE 05-May-23
DRILL RIG Geoprobe
DRILLING METHOD Push tube/Solid Flight Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
PT / SFA		0.5 1 1.5	▩	Fill	Fill - Gravelly silty SAND, brown, heterogeneous, damp, loose, with inclusions of ash and coal	DP	BH08_0.00-0.10 BH08_0.20-0.30 BH08_0.50-0.60 BH08_0.90-1.00	2.4 4.3 4.1 3.2	10L AQ at 0.0-1.0 m and 1.0-1.5 m. Asbestos samples collected at 0.0-1.0 m and 1.0-1.5 m. No asbestos, odour or staining observed.
		2 2.5 3 3.5 4 4.5	▩	Fill	Fill - Sandy CLAY, dark brown, heterogeneous, wet, medium plasticity, soft	W	BH08_2.00-2.10 BH08_3.00-3.10 BH08_4.00-4.10	2.5 1.8 1.5	10L AQ at 2.5-3.5 m and 3.5-4.5 m. Asbestos samples collected at 2.5-3.5 m and 3.5-4.5 m. No asbestos, odour or staining observed.
		5 5.5 6	▩	Fill	Fill - Clayey SAND, dark brown, heterogeneous, saturated, with inclusions of gravel, concrete and 10 cm ash layer at 5 m depth	S	BH08_5.00-5.10	1.5	No asbestos, odour or staining observed.
		6.5 7	░	Sandstone	Rock - SANDSTONE, light brown to red, homogenous, saturated, dense	S	BH08_6.00-6.10 BH08_7.00-7.10	1.2 1.2	No asbestos, odour or staining observed.
					Termination Depth at: 7.20 m.				End of hole @ 7.2 m

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SOIL BOREHOLE BH09

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY
DRILLING DATE 05-May-23
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 MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA			▨	Fill	Fill - Sandy GRAVEL, brown, heterogeneous, dry, loose	DR	BH09_0.00-0.10 BH09_0.20-0.30	20.8 22	10L AQ at 0.0-0.3 m. Asbestos sample collected at 0.0-0.3 m. No asbestos, odour or staining observed. At 0.2 m broke though the geofabric End of hole @ 0.3 m. Refusal on sandstone. Borehole had to be terminated due to the multiple services around
		0.5			Termination Depth at: 0.30 m.				
		1							
		1.5							
		2							
		2.5							
		3							
		3.5							
		4							
		4.5							
		5							
		5.5							
		6							
		6.5							
		7							

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SOIL BOREHOLE BH11

Project Number 64669
Client
Project Name Bank St DSI April 2023
Address Banks St, Pyrmont, NSW

Contractor Terratest
Date 13-Apr-23
Plant Geoprobe
Method Push tube/Solid Flight Auger

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_54
Logged By MN/KA

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
PT / SFA		0.5	▩	Fill	Fill - Gravelly SAND, brown/grey, heterogeneous, dry, coarse sand, angular, loose, with inclusions of sandstone and gypsum	DR	BH11_0.00-0.10 BH11_0.20-0.30	1.5 1.1	10L AQ at 0.0-0.8 m. Asbestos sample collected at 0.0-0.8 m. No asbestos, odour or staining observed.
			▩	Fill	Fill - ASH, black, heterogeneous, dry, with inclusions of coal	DR	BH11_0.80-0.90	1.5	10L AQ at 0.8-1.0 m. Asbestos sample collected at 0.8-1.0 m. No asbestos, odour or staining observed.
		1	▩	Fill	Fill - SANDSTONE, grey/yellow, heterogeneous, dry, medium sand dense	DR	BH11_1.00-1.10	1.1	
		1.5	▩	Fill	Fill - Clayey SAND, brown/grey, heterogeneous, dry, fine sand loose, with inclusions of crushed sandstone	DR	BH11_1.50-1.60	1.5	No asbestos, odour or staining observed.
			▩	Fill	Fill - Sandy CLAY, light brown, heterogeneous, damp, medium plasticity, soft	DP	BH11_1.90-2.00	1.8	
		2 2.5	▩	Fill	Fill - Clayey SAND, brown, heterogeneous, damp, medium sand loose	DR			10L AQ at 2.0-2.5 m. Asbestos sample collected at 2.0-2.5 m. No asbestos, odour or staining observed.
		3 3.5 4 4.5 5 5.5	░	Sandstone	Natural - SANDSTONE, grey/brownish red, homogenous, damp, medium sand medium dense	DP	BH11_2.90-3.00 BH11_3.00-3.10 BH11_3.90-4.00 BH11_4.90-5.00 BH11_5.90-6.00	1.8 1.8 1.2 1.1 0.7	No asbestos, odour or staining observed.
		6 6.5 7			Termination Depth at: 6.00 m.				End of hole @ 6.0 m

Comments:

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SOIL BOREHOLE BH12

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY Terratest
DRILLING DATE 05-May-23
DRILL RIG Geoprobe
DRILLING METHOD Push tube/Solid Flight Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
CC			⁘	Concrete	Fill - CONCRETE				
PT / SFA		0.5	▨	Fill	Fill - Sandy GRAVEL, brown/grey, heterogeneous, dry, loose, with inclusions of sandstone and bricks	DR	BH12_0.20-0.30 BH12_0.50-0.60	2.3 1.8	No asbestos, odour or staining observed.
			▨	Fill	Fill - Silty SAND, grey/yellow, heterogeneous, damp, loose, with inclusions of ash and gravel	DP	BH12_0.70-0.80	1.8	No asbestos, odour or staining observed.
		1	▨	Fill	Fill - Silty sandy CLAY, yellow/grey/white, heterogeneous, damp, non-plastic, firm, with inclusions of sandstone, gravel and ash	DP	BH12_0.90-1.00	2.5	No asbestos, odour or staining observed.
		1.5	▨	Fill	Fill - SILT, white/grey, heterogeneous, dry, loose, and layers of silty sand grey/brown with inclusions of ash, coal and gravel	DR	BH12_1.40-1.50	2.4	10 L AQ at 1.2-1.7 m. Asbestos sample collected at 1.2-1.7 m. No asbestos, odour or staining observed.
		2 2.5 3	▨	Fill	Fill - Silty SAND, red/brown, heterogeneous, damp, loose, with inclusions of ash and gravel	DP	BH12_1.70-1.80 BH12_2.40-2.50	2.1 2.5	10 L AQ at 1.7-2.7 m. Asbestos sample collected at 1.7-2.7 m. No asbestos, odour or staining observed.
		3.5 4 4.5	▨	Fill	Fill - Weathered SANDSTONE, brown, homogenous, damp, dense	DP	BH12_3.50-3.60 BH12_4.60-4.70	1.4 1.1	No asbestos, odour or staining observed.
		5	▨	Fill	Fill - SAND, black, homogenous, wet, loose, with inclusions of large chunks of wood	W	BH12_5.00-5.10	0.8	No asbestos, odour or staining observed.
		5.5	▨	Fill	Fill - Clayey gravelly SAND, brown, homogenous, wet, loose	W	BH12_5.90-6.00	0.5	No asbestos, odour or staining observed.
		6 6.5 7			Termination Depth at: 6.00 m.				End of hole @ 6.0 m

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SOIL BOREHOLE BH13

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY Terratest
DRILLING DATE 13-Apr-23
DRILL RIG Geoprobe
DRILLING METHOD Push tube/Solid Flight Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
PT / SFA		0.5	▨	Fill	Fill - Gravelly SAND, brown/grey, heterogeneous, damp, poorly graded, medium sand dense, with inclusions of slag and gypsum	DP	BH13_0.00-0.10 BH13_0.20-0.30 BH13_0.50-0.60	1.5 1.2 0.8	10L AQ at 0.0-0.9 m. Asbestos sample collected at 0.0-0.9 m. No asbestos, odour or staining observed.
		1	▨	Fill	Fill - ASH, black, heterogeneous, damp, with inclusions of coal	DP			No asbestos, odour or staining observed.
			▨	Fill	Fill - SANDSTONE, yellow/grey, heterogeneous, damp, medium sand dense	DP	BH13_1.10-1.20	1.4	10L AQ at 1.1-1.4 m. Asbestos sample collected at 1.1-1.4 m. No asbestos, odour or staining observed.
		1.5	▨	Fill	Fill - CLAY, brownish grey, heterogeneous, damp, low plasticity, firm, with inclusions of slag, sandstone and slag	DP	BH13_1.50-1.60	2.5	10L AQ at 1.4-1.7 m. Asbestos sample collected at 1.4-1.7 m. No asbestos, odour or staining observed.
		2	▨	Fill	Fill - Clayey SAND, brown, heterogeneous, damp, loose	DP	BH13_2.00-2.10	1.9	10L AQ at 1.7-2.5 m. Asbestos sample collected at 1.7-2.5 m. No asbestos, odour or staining observed.
		2.5 3 3.5 4 4.5 5	░	Sandstone	Natural - SANDSTONE, light brown/light grey/yellow, homogenous, dry, fine sand	DR	BH13_3.00-3.10 BH13_4.00-4.10	1.7 1.6	No asbestos, odour or staining observed.
		5.5 6 6.5 7			Termination Depth at: 5.50 m.				End of hole @ 5.5 m. Refusal on sandstone.

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SOIL BOREHOLE BH14

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY Terratest
DRILLING DATE 14-Apr-23
DRILL RIG Geoprobe
DRILLING METHOD Push tube/Solid Flight Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
PT / SFA		0.5	▩	Fill	Fill - Gravelly SAND, grey, heterogeneous, dry, poorly graded, coarse sand, angular, loose	DR	BH14_0.00-0.10 BH14_0.50-0.60	0.8 0.8	10L AQ at 0.0-0.6 m. Asbestos sample collected at 0.0-0.6 m. No asbestos, odour or staining observed.
		1 1.5	▩	Fill	Fill - Clayey SAND, brown/grey, heterogeneous, dry, medium dense, with inclusions of sandstone	DR	BH14_0.90-1.00 BH14_1.50-1.60	1.1 0.9	10L AQ at 0.6-1.6 m. Asbestos sample collected at 0.6-1.6 m. No asbestos, odour or staining observed.
		2	▨	CL-ML-SM	Natural - Sandy silty CLAY, light brown/grey, homogenous, dry, low plasticity, firm	DR	BH14_1.90-2.00	0.6	No asbestos, odour or staining observed.
		2.5	░	Sandstone	Rock - Weathered SANDSTONE, light brown/red, homogenous, dry, medium sand	DR	BH14_2.90-3.00	0.7	No asbestos, odour or staining observed.
		3	░	Sandstone	Rock - SANDSTONE, light brown/red, homogenous, dry, medium sand	DR	BH14_3.40-3.50	0.6	No asbestos, odour or staining observed.
		3.5 4 4.5 5 5.5 6 6.5 7			Termination Depth at: 3.50 m.				End of hole @ 3.5 m. Refusal on sandstone.

Disclaimer This log is intended for environmental not geotechnical purposes.
produced by ESlog.ESdat.net on 01 Jun 2023

SOIL BOREHOLE BH15

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY Terratest
DRILLING DATE 13-Apr-23
DRILL RIG Geoprobe
DRILLING METHOD Push tube/Solid Flight Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
PT / SFA		0.5 1	▨	Fill	Fill - Gravelly SAND, brown, heterogeneous, dry, angular, medium dense, with inclusions of slag and ash	DR	BH15_0.00-0.10 BH15_0.20-0.30 BH15_0.50-0.60 BH15_0.90-1.00	1.1 0.8 0.8 1.2	10L AQ at 0.0-1.0 m. Asbestos sample collected at 0.0-1.0 m. No asbestos, odour or staining observed.
		1.5	▨	Fill	Fill - Sandy CLAY, dark brown, heterogeneous, damp, non-plastic, firm, with inclusions of sandstone and gravel	DP	BH15_1.40-1.50	1.9	10L AQ at 1.0-1.5 m. Asbestos sample collected at 1.0-1.5 m. No asbestos, odour or staining observed.
		2 2.5 3 3.5	▨	Fill	Fill - Gravelly SAND, dark brown, heterogeneous, damp, medium sand loose, with inclusions of ash and slag at 3.0 m and 3.5 m	DP	BH15_2.40-2.50	2.8	10L AQ at 1.5-2.5 m and 2.5-3.5 m. Asbestos samples collected at 1.5-2.5 m and 2.5-3.5 m. No asbestos, odour or staining observed.
		4 4.5	░	SC	Natural - Weathered clayey SAND, light brown/light grey, homogenous, damp, fine sand loose	DP	BH15_3.90-4.00 BH15_4.50-4.60	3.1 2.8	No asbestos, odour or staining observed.
		5 5.5	░	Sandstone	Rock - SANDSTONE, light grey	DP	BH15_4.90-5.00	1.8	No asbestos, odour or staining observed.
		6 6.5 7			Termination Depth at: 5.60 m.				End of hole @ 5.6 m. SFA refused on sandstone.

SOIL BOREHOLE BH16

PROJECT NUMBER 64669
PROJECT NAME Bank St DSI April 2023
CLIENT
ADDRESS Banks St, Pyrmont, NSW

DRILLING COMPANY Terratest
DRILLING DATE 13-Apr-23
DRILL RIG Geoprobe
DRILLING METHOD Push tube/Solid Flight Auger
DIAMETER

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_54
COORD SOURCE
LOGGED BY MN/KA

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
PT / SFA		0.5	▨	Fill	Fill - Sandy GRAVEL, dark brown, heterogeneous, damp, medium gravel, angular, loose, with inclusions of slag, sandstone and clay	DP	BH16_0.00-0.10 BH16_0.20-0.30	38 47	10L AQ at 0.0-0.8 m. Asbestos sample collected at 0.0-0.8 m. Hydrocarbon odour observed. No asbestos or staining observed.
		1	▨	Fill	Fill - ASH, black, heterogeneous, damp, with inclusions of coal	DP	BH16_0.80-0.90	51	10L AQ at 0.8-1.0 m. Asbestos sample collected at 0.8-1.0 m. Hydrocarbon odour observed. No asbestos or staining observed.
		1.5 2	░	Sandstone	Rock - SANDSTONE, light grey, homogenous, dry, very dense	DR	BH16_1.00-1.10 BH16_1.90-2.00	31 14.5	Hydrocarbon odour observed. No asbestos or staining observed.
		2.5 3 3.5 4 4.5 5 5.5 6 6.5 7			Termination Depth at: 2.00 m.				End of hole @ 2.0 m. Refusal on sandstone.

produced by ESlog.ESdat.net on 01 Jun 2023

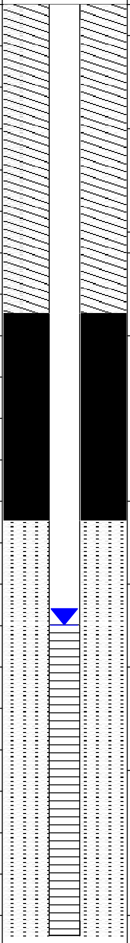
MONITORING WELL LOG REPORT

CDM Smith Australia Pty Ltd
Level 11 / 90 Arthur Street
North Sydney NSW 2060

Project No: S11352.01
Project Manager: Mandi McDowall
Location: Pyrmont
Client: NSW Maritime
Surface Elevation: -
Easting: -

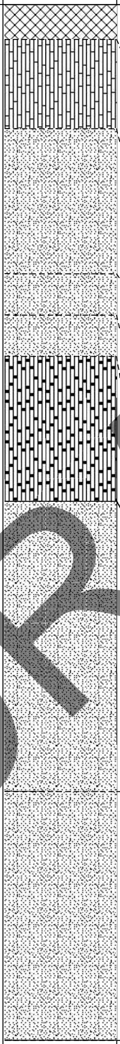
Borehole Number: BH01/MW1
Date: 25/10/12
Logger: Ryan Stewart
Drilled By: Terratest
Bore Diameter: -
Northing: -

DRILLING DATA



DEPTH (m)	SAMPLE ID	SAMPLE TYPE	FIELD TEST PID	SAMPLE ANALYSED
0.0	BH01 0.0-0.15		0.4	X
0.6	BH01 0.6-1.1		0.1	
1.2	BH01 1.2-1.6		0.1	
2.4	BH01 2.4-2.8		0.2	
3.2	BH01 3.2-3.7		0.1	
4.4	BH01 4.4-4.7		0.2	X
4.8	BH01 4.8-5.0		0.3	

MATERIAL DATA



DESCRIPTION Soil division: sand/gravel/clay, grading, weathering, plasticity, colour, other components.	USC CLASS	MOISTURE	CONSISTENCY DENSITY INDEX
Concrete			
FILL (Silty SAND) Black, band of gravels observed from 0.17 till 0.5m bgl, hydrocarbon/paint odours	SP	D/H	L
FILL (SAND) Light brown, compressed bands of sand observed throughout, hydrocarbon odour		D	
Pink and white, compressed bands of sand observed throughout, hydrocarbon odour		D/H	
Brown, compressed bands of sand observed throughout, no odour		H	
FILL (Silty GRAVELS) Black gravels and trace silts, no odour			
Natural - SAND Brown, Sand noted to become coarse grained, trace gravels, band of red sands observed between 3.2- 3.4m bgl, occasional compressed bands of sand observed, no odour			
Dark brown, trace gravels, band of black silts observed between 4.4 and 4.8m bgl, occasional compressed bands of sand observed, no odour		W	
EOBH 5.0m bgl - Designated Depth			

STRUCTURE AND ADDITIONAL OBSERVATIONS

Push-tube used from 0.0 - 5.0m bgl

Multiple voids and soft materials from surface untill 5.0m bgl causing compaction of sample material

Natural material observed at 2.4m bgl

Borehole collapsed between 4.5 and 5.0m bgl

Moisture
D: Dry H: Humid
M: Moist W: Wet

Consistency Index
VS: Very Soft S: Soft St: Stiff V.St: Very Stiff
F: Firm H: Hard Fb: Friable

Density Index
VL: Very Loose D: Dense
L: Loose VD: Very Dense
MD: Medium Dense

Description based on Unified Soil Classification system.
Photo Ionisation Detector (PID)
Parts per million (ppm)

Sheet: 1 of 1

MONITORING WELL LOG REPORT

CDM Smith Australia Pty Ltd
Level 11 / 90 Arthur Street
North Sydney NSW 2060

Project No: S11352.01
Project Manager: Mandi McDowall
Location: Pyrmont
Client: NSW Maritime
Surface Elevation: -
Easting: -

Borehole Number: BH02/MW2
Date: 25/10/12
Logger: Ryan Stewart
Drilled By: Terratest
Bore Diameter: -
Northing: -

DEPTH (m)	SAMPLE ID	FIELD TEST PID	SAMPLE ANALYSED	USC CLASS	DESCRIPTION Soil division: sand/gravel/clay, grading, weathering, plasticity, colour, other components.	MOISTURE	CONSISTENCY DENSITY INDEX	STRUCTURE AND ADDITIONAL OBSERVATIONS
0.0-0.17					***Concrete***			Hand-auger used from 0.0 - 1.1m bgl
0.17-0.27	BH02 0.17-0.27	20.3			***FILL (Silty Sandy GRAVEL)*** Black, paint odour noted at surface, becomming less with depth, from 0.5m bgl material becomes more grey	D/H	L	
0.5-0.6	BH02 0.5-0.6	10.5	X			D		
1.0-1.1	BH02 1.0-1.1	1.3			Increasing sand content, trace light brown silt observed, sweet odour			Push-tube used from 1.1 - 4.5m bgl
1.4-1.7	BH02 1.4-1.7	0.3						
1.9-2.2	BH02 1.9-2.2	0.1			Coal material fragments observed, no odour			
2.4-2.7	BH02 2.4-2.7	0.1		OL	***Natural - Silty Sandy CLAY*** Brown and grey, low plasticity, weathered sandstone observed at 2.7m bgl, weak fragments of sandstone noted before 2.7m bgl, no odour	H		Natural material observed at 2.4m bgl
2.9-3.2	BH02 2.9-3.2	0.2			***Sandstone*** White and light brown, sandstone becoming less weathered with depth, brown bands observed at 3.4 and 3.8m bgl, no odour			
3.4-3.7	BH02 3.4-3.7	0.1	X					
3.9-4.2	BH02 3.9-4.2	0.2						
4.3-4.5	BH02 4.3-4.5	0.1						
4.5					***EOBH 4.5m bgl - Refusal on Sandstone Bedrock***			

Moisture
D: Dry H: Humid
M: Moist W: Wet

Consistency Index
VS: Very Soft S: Soft St: Stiff V.St: Very Stiff
F: Firm H: Hard Fb: Friable

Density Index
VL: Very Loose D: Dense
L: Loose VD: Very Dense
MD: Medium Dense

Description based on Unified Soil Classification system.
Photo Ionisation Detector (PID)
Parts per million (ppm)

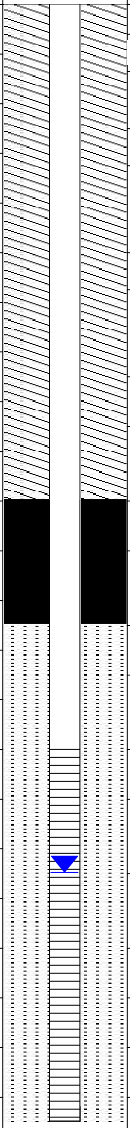
Sheet: 1 of 1

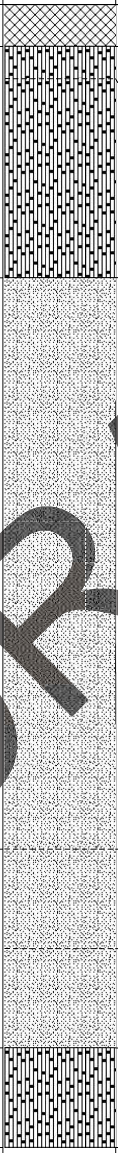
MONITORING WELL LOG REPORT

CDM Smith Australia Pty Ltd
Level 11 / 90 Arthur Street
North Sydney NSW 2060

Project No: S11352.01
Project Manager: Mandi McDowall
Location: Pyrmont
Client: NSW Maritime
Surface Elevation: -
Easting: -

Borehole Number: BH05/MW5
Date: 25/10/12
Logger: Ryan Stewart
Drilled By: Terratest
Bore Diameter: -
Northing: -





DRILLING DATA					MATERIAL DATA							
DEPTH (m)	WELL CONSTRUCTION	SAMPLE ID	SAMPLE TYPE	FIELD TEST PID	SAMPLE ANALYSED	USC CLASS	GRAPHIC LOG	DESCRIPTION Soil division: sand/gravel/clay, grading, weathering, plasticity, colour, other components.	MOISTURE	CONSISTENCY DENSITY INDEX	STRUCTURE AND ADDITIONAL OBSERVATIONS
								Concrete			
		BH05 0.12-0.17		0.5				***FILL (Silty GRAVELS)*** Dark grey/brown, no odour, trace sands			Push-tube used from 0.0 - 4.6m bgl
		BH05 0.5-0.6		0.2				Very dark brown, sweet odour			
1		BH05 1.0-1.1		0.1	X						
						SP		***Natural - SAND*** White and brown, trace dark brown clays between 1.2-1.4m bgl, trace gravels throughout, compressed bands of sand noted at 2.5m bgl, no odour	D	L	Natural material observed at 1.1m bgl
		BH05 1.5-1.7		0.2							
2		BH05 2.0-2.2		0.1							
		BH05 2.5-2.7		0.1							
3		BH05 3.0-3.2		0.5	X						
		BH05 3.5-3.8		110.3	X	SP		Dark grey and trace light brown course grained sands, hydrocarbon odour	M/W		
4		BH05 4.0-4.2		102.1				Whites and light brown, slight hydrocarbon odour, trace dark grey sand observed	H/M		
		BH05 4.4-4.6		29.7		GM		***Gravelly SAND*** Dark grey course grained sand, gravels observed, hydrocarbon odour	W		
5								***EOBH 4.6m bgl- Refusal on Sandstone Bedrock***			

Moisture
D: Dry H: Humid
M: Moist W: Wet

Consistency Index
VS: Very Soft S: Soft St: Stiff V.St: Very Stiff
F: Firm H: Hard Fb: Friable

Density Index
VL: Very Loose D: Dense
L: Loose VD: Very Dense
MD: Medium Dense

Description based on Unified Soil Classification system.
Photo Ionisation Detector (PID)
Parts per million (ppm)

MONITORING WELL LOG REPORT

CDM Smith Australia Pty Ltd
Level 11 / 90 Arthur Street
North Sydney NSW 2060

Project No: S11352.01
Project Manager: Mandi McDowall
Location: Pyrmont
Client: NSW Maritime
Surface Elevation: -
Easting: -

Borehole Number: BH03
Date: 25/10/12
Logger: Ryan Stewart
Drilled By: Terratest
Bore Diameter: -
Northing: -

DRILLING DATA					MATERIAL DATA						
DEPTH (m)	**WELL CONSTRUCTION**	**SAMPLE ID**	**SAMPLE TYPE**	**FIELD TEST PID**	**SAMPLE ANALYSED**	**USC CLASS**	**GRAPHIC LOG**	**DESCRIPTION** **Soil division: sand/gravel/clay, grading, weathering, plasticity, colour, other components.**	**MOISTURE**	**CONSISTENCY DENSITY INDEX**	**STRUCTURE AND ADDITIONAL OBSERVATIONS**
								Concrete			
		BH03 0.18-0.26		0.3	X			***FILL (Silty Sandy GRAVELS)*** Very dark grey, no odour	D/H	L	Natural Material observed at 0.26m bgl Hand-auger used from 0.0-0.4m bgl Push-tube used from 0.0-1.4m bgl Solid-flight-auger refusal at 1.4m bgl
								Natural - SANDSTONE white, course grained sands observed, no odour			
		BH03 0.5-0.7		1.2	X	ZL		***Silty SAND*** White, brown and trace red throughout, trace clays and gravels noted, compressed band of sand observed at 1.1m bgl, band of very dark brown silt observed between 0.5-0.6m bgl, fine grained sands noted at 1.4m bgl, no odour			
1		BH03 1.0-1.2		0.9							
		BH03 1.2-1.4		0.8							
								EOBH 1.4m bgl- Refusal on Sandstone Bedrock			
2											

Moisture
D: Dry H: Humid
M: Moist W: Wet

Consistency Index
VS: Very Soft S: Soft St: Stiff V.St: Very Stiff
F: Firm H: Hard Fb: Friable

Density Index
VL: Very Loose D: Dense
L: Loose VD: Very Dense
MD: Medium Dense

Description based on Unified Soil Classification system.
Photo Ionisation Detector (PID)
Parts per million (ppm)

BOREHOLE LOG REPORT

CDM Smith Australia Pty Ltd
Level 11 / 90 Arthur Street
North Sydney NSW 2060

Project No: S11352.01
Project Manager: Mandi McDowall
Location: Pyrmont
Client: NSW Maritime
Surface Elevation: -
Easting: -
Logged By: Ryan Stewart

Borehole Number: BH04
Date: 25/10/12
Drilled By: Terratest
Bore Diameter: -
Northing: -
Reviewed By: -

DRILLING DATA						MATERIAL DATA					
WATER	DEPTH (m)	SAMPLE ID	SAMPLE TYPE	FIELD TEST PID	SAMPLE ANALYSED	USC CLASS	GRAPHIC LOG	DESCRIPTION Soil division: sand/gravel/clay, grading, weathering, plasticity, colour, other components.	MOISTURE	CONSISTENCY DENSITY INDEX	STRUCTURE AND ADDITIONAL OBSERVATIONS
							▨	***Concrete***			
		BH04 0.14-0.2		0.4	X		▥	***FILL (Gravelly SAND)*** Dark grey, trace gravels observed, no odour			Hand-auger used from 0.0-0.2m bgl
							▥	Black, sands become corse grained, no odour			Push-tube used from 0.2-2.0m bgl
		BH04 0.5-0.7		0.4	X		▥				
	1	BH04 1.0-1.2		0.1			▥		D	L	
							░	***Natural - Sand*** Pink coarse grained sands, no odour			Natural material observed at 1.4m bgl
		BH04 1.5-1.7		0.1		SP	░				
		BH04 1.8-2.0		0.3			░				
	2							***EOBH 2.0m bgl - Refusal on Sandstone Bedrock***			

Moisture
D: Dry H: Humid
M: Moist W: Wet

Consistency Index
VS: Very Soft S: Soft St: Stiff V.St: Very Stiff
F: Firm H: Hard Fb: Friable

Density Index
VL: Very Loose D: Dense
L: Loose VD: Very Dense
MD: Medium Dense

Description based on Unified Soil Classification system.
Photo Ionisation Detector (PID)
Parts per million (ppm)

BOREHOLE LOG REPORT

CDM Smith Australia Pty Ltd
Level 11 / 90 Arthur Street
North Sydney NSW 2060

Project No: S11352.01
Project Manager: Mandi McDowall
Location: Pyrmont
Client: NSW Maritime
Surface Elevation: -
Easting: -
Logged By: Ryan Stewart

Borehole Number: BH06
Date: 25/10/12

Drilled By: Terratest
Bore Diameter: -
Northing: -
Reviewed By: -

DRILLING DATA						**MATERIAL DATA**					
WATER	**DEPTH (m)**	**SAMPLE ID**	**SAMPLE TYPE**	**FIELD TEST PID**	**SAMPLE ANALYSED**	**USC CLASS**	**GRAPHIC LOG**	**DESCRIPTION** Soil division: sand/gravel/clay, grading, weathering, plasticity, colour, other components.	**MOISTURE**	**CONSISTENCY DENSITY INDEX**	**STRUCTURE AND ADDITIONAL OBSERVATIONS**
							▩	***Concrete***			
		BH06 0.15-0.2	▬	0.1	X		▦	***FILL (Silty Sands GRAVELS)*** Black, coarse graines sands, black and red gravels, no odour	D		Hand-auger used from 0.0-0.2m bgl Push-tube used from 0.2-3.0m bgl Natural material observed at 0.5m bgl
	1	BH06 0.5-0.9	I	0.3		SP	░	***Natural - Sand*** Brown, fine grained sand, trace clays, trace gravels and white sand mottles observed, compressed sand plates noted thoughout			
	2	BH06 1.5-1.9	I	0.3	X		░	***SANDSTONE*** White, compressed bands of sand observed, pink band of compressed sand observed at 2.5m bgl, no odour	D/H	L	
		BH06 2.5-2.9	I	0.2			░	Light brown, no odour			
	3							***EOBH 3.0m bgl - Refusal on Sandstone Bedrock***			

Moisture
D: Dry H: Humid
M: Moist W: Wet

Consistency Index
VS: Very Soft S: Soft St: Stiff V.St: Very Stiff
F: Firm H: Hard Fb: Friable

Density Index
VL: Very Loose D: Dense
L: Loose VD: Very Dense
MD: Medium Dense

Description based on Unified Soil Classification system.
Photo Ionisation Detector (PID)
Parts per million (ppm)

BOREHOLE LOG REPORT

CDM Smith Australia Pty Ltd
Level 11 / 90 Arthur Street
North Sydney NSW 2060

Project No: S11352.01
Project Manager: Mandi McDowall
Location: Pyrmont
Client: NSW Maritime
Surface Elevation: -
Easting: -
Logged By: Ryan Stewart

Borehole Number: BH07
Date: 25/10/12
Drilled By: Terratest
Bore Diameter: -
Northing: -
Reviewed By: -

DRILLING DATA						MATERIAL DATA					
WATER	**DEPTH (m)**	**SAMPLE ID**	**SAMPLE TYPE**	**FIELD TEST PID**	**SAMPLE ANALYSED**	**USC CLASS**	**GRAPHIC LOG**	**DESCRIPTION** **Soil division: sand/gravel/clay, grading, weathering, plasticity, colour, other components.**	**MOISTURE**	**CONSISTENCY DENSITY INDEX**	**STRUCTURE AND ADDITIONAL OBSERVATIONS**
		BH07 0.0-0.15		0.3		OL		***FILL (SILT)*** Dark brown, trace gravels observed, roots observed no odour	H	S/L	Hand-auger used from 0.0-0.04m bgl
		BH07 0.3-0.4		0.1	X						
								EOBH 0.4m bgl - Refusal on Concrete			
	1										1

Moisture
D: Dry **H:** Humid
M: Moist **W:** Wet

Consistency Index
VS: Very Soft **S:** Soft **St:** Stiff **V.St:** Very Stiff
F: Firm **H:** Hard **Fb:** Friable

Density Index
VL: Very Loose **D:** Dense
L: Loose **VD:** Very Dense
MD: Medium Dense

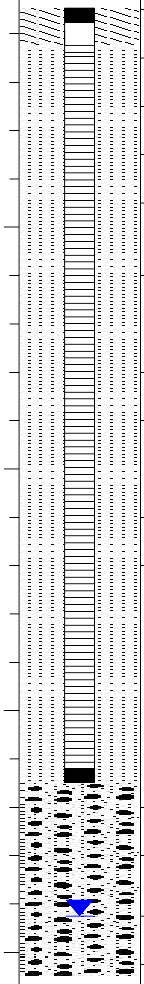
Description based on Unified Soil Classification system.
Photo Ionisation Detector (PID)
Parts per million (ppm)

MONITORING WELL LOG REPORT

E3 Consulting Australia Pty Ltd
28 Qualtrough St
Woolloongabba
QUEENSLAND 4102
Ph: +61 7 3303 8775 Fax: +61 7 3129 1895

Project No: S11363.01
Project Manager: Brett Sutton
Location: 5 Banks Street, Pyrmont, NSW
Client: Maritime NSW
Surface Elevation: -
Easting: -

Borehole Number: BH01
Date: 22/12/2011
Drilled By: Terratest
Bore Diameter: 125mm
Northing: -



DRILLING DATA					MATERIAL DATA						
DEPTH (m)	WELL CONSTRUCTION	SAMPLE ID	SAMPLE TYPE	FIELD TEST PID	SAMPLE ANALYSED	USC CLASS	GRAPHIC LOG	DESCRIPTION Soil division: sand/gravel/clay, grading, weathering, plasticity, colour, other components.	MOISTURE	CONSISTENCY DENSITY INDEX	STRUCTURE AND ADDITIONAL OBSERVATIONS
		BH1_0.1-0.3		0.0				***FILL*** Gravelly Silty SAND Fine to medium grained, poorly graded, dark to light brown, mixed with fine grained, angular to sub-rounded crushed sandstone gravels, no odour, low plasticity fines, no ACM noted.	M	L	0.00-4.10 m: Macro-core push tube pilot hole, followed by Solid Flight Auger
									M	MD-D	
		BH1_0.5-0.7		0.0	X			***FILL*** Gravelly SAND fine grained, well graded, black, mixed with fine grained, angular to sub-angular gravels, black matrial-possibly dried tar, slight H.C odour,som slag fragments throughout, no ACM noted.			
1		BH1_0.9-1.2		0.10					M		
								trace coarse grained, angular gravels of sandstone, rare fragments of blue-grey slag.			
		BH1_1.6-1.8		0.10	X			50 mm band of brown-orange silty sand	M	D-VD	
2								gravels increasing in size to approx. 10 mm, patches of light brown silty sand, some medium plasticity silty clay fines, black-grey material-possibly dried tar mixed with fragments of slag, slight H.C odour.			
		BH1_2.2-2.4		0.0							
								CORE LOSS			
3								***FILL*** Gravelly SAND Fine grained, well graded, dark brown-black with patches/mottles of red-orange and grey-blue, mixed with fine to medium grained, sub-angular to sub-rounded gravels, some clayey fines, no ACM noted.	M M	D-VD	
		BH1_3.4-3.6		0.0							
								bands at approx. 50 mm intervals of dried tar and/or slag.			3.3-4.1 m: Hole collapsed due to presence of slag fragments and gravels of crushed sandstone
4		BH1_3.85-4.05		0.0				50 mm band of fine grained, well graded, clean sand.			
								WEATHERED BEDROCK SANDSTONE fine grained, well graded, light brown, extremely low strength, extremely weathered, some orange iron staining			
5								***End of Borehole*** Borehole terminated into natural material			

Moisture
D: Dry H: Humid
M: Moist W: Wet

Consistency Index
VS: Very Soft S: Soft St: Stiff V.St: Very Stiff
F: Firm H: Hard Fb: Friable

Density Index
VL: Very Loose D: Dense
L: Loose VD: Very Dense
MD: Medium Dense

Description based on Unified Soil Classification system.
Photo Ionisation Detector (PID)
Parts per million (ppm)

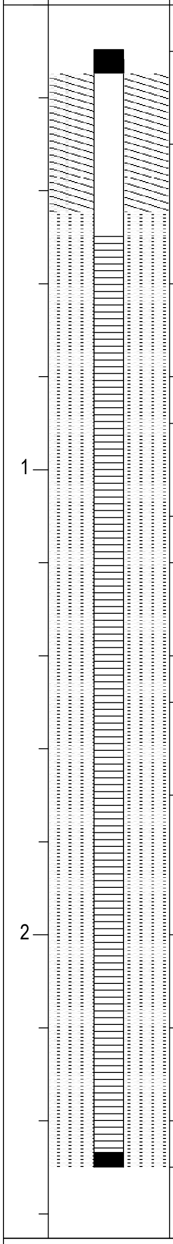
MONITORING WELL LOG REPORT

E3 Consulting Australia Pty Ltd
28 Qualtrough St
Woolloongabba
QUEENSLAND 4102
Ph: +61 7 3303 8775 Fax: +61 7 3129 1895

Project No: S11363.01
Project Manager: Brett Sutton
Location: 5 Banks Street, Pyrmont, NSW
Client: Maritime NSW
Surface Elevation: -
Easting: -

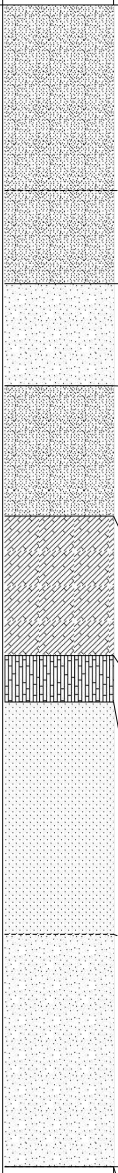
Borehole Number: BH02
Date: 22/12/2011
Drilled By: Terratest
Bore Diameter: 125mm
Northing: -

DRILLING DATA



DEPTH (m)	SAMPLE ID	SAMPLE TYPE	FIELD TEST PID	SAMPLE ANALYSED
0.1-0.3	BH2_0.1-0.3		0.1	
0.6-0.8	BH2_0.6-0.8		0.0	
0.9-1.1	BH2_0.9-1.1		0.10	
1.2-1.4	BH2_1.2-1.4		0.1	X
1.5-1.7	BH2_1.5-1.7		0.0	
2.0-2.2	BH2_2.0-2.2		0.9	X
2.4-2.5	BH2_2.4-2.5		0.5	

MATERIAL DATA



USC CLASS	DESCRIPTION Soil division: sand/gravel/clay, grading, weathering, plasticity, colour, other components.	MOISTURE	CONSISTENCY DENSITY INDEX	STRUCTURE AND ADDITIONAL OBSERVATIONS
	FILL Gravelly Silty SAND Fine to medium grained, poorly graded, brown-grey with some oragne, mixed with fine to coarse grained, angular to sub-angular gravels of crushed sandstone, trace diorite gravels, sporadic patches of dark brown-grey staining, no ACM noted	M	L	0.00-1.70 m: Macro-core push tube
	some orange stainng			
	FILL SAND fine grained, well graded, white to very light grey, some fine grained, sub-angular gravels, no odour	M-D	D-VD	
	FILL Gravelly SAND fine to medium grained, poorly graded, dark brown-black with patches of orange, black material possibly dried tar or fragments of slag, mixed with fine grained, angular gravels, no odour, no ACM noted.	M-D	D-VD	
SC	***ALLUVIAL*** Clayey SAND fine grained, well graded, dark brown-orange, mixed with high plasticity clay, trace sub-rounded to rounded gravels	M	MD-D	Duplicate sample (QA01) at 1.2-1.4m
SM	***ALLUVIAL*** Silty SAND Fine grained, well graded, brown-orange with red, trace low plasticity fines, orange-red staining, no odour	M	VD	
	WEATHERED BEDROCK SANDSTONE Fine grained, well graded, mixed with gravels of sandstone and brown-grey sand, extremely weathered, extremely low strength.			1.70-2.50 m: Solid Flight Auger
	becoming fresh to slightly weathered, low strength			No free groundwater encountered
	End of Borehole Borehole terminated into natural material			

Moisture
D: Dry H: Humid
M: Moist W: Wet

Consistency Index
VS: Very Soft S: Soft St: Stiff V.St: Very Stiff
F: Firm H: Hard Fb: Friable

Density Index
VL: Very Loose D: Dense
L: Loose VD: Very Dense
MD: Medium Dense

Description based on Unified Soil Classification system.
Photo Ionisation Detector (PID)
Parts per million (ppm)

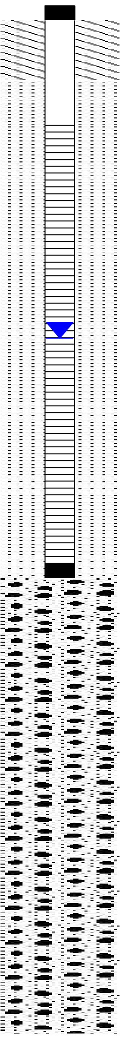
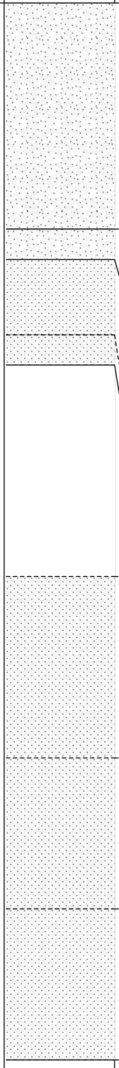
Sheet: 1 of 1

MONITORING WELL LOG REPORT

E3 Consulting Australia Pty Ltd
28 Qualtrough St
Woolloongabba
QUEENSLAND 4102
Ph: +61 7 3303 8775 Fax: +61 7 3129 1895

Project No: S11363.01
Project Manager: Brett Sutton
Location: 5 Banks Street, Pyrmont, NSW
Client: Maritime NSW
Surface Elevation: -
Easting: -

Borehole Number: BH03
Date: 22/12/2011
Drilled By: Terratest
Bore Diameter: 125mm
Northing: -

DRILLING DATA					MATERIAL DATA						
DEPTH (m)	WELL CONSTRUCTION	SAMPLE ID	SAMPLE TYPE	FIELD TEST PID	SAMPLE ANALYSED	USC CLASS	GRAPHIC LOG	DESCRIPTION Soil division: sand/gravel/clay, grading, weathering, plasticity, colour, other components.	MOISTURE	CONSISTENCY DENSITY INDEX	STRUCTURE AND ADDITIONAL OBSERVATIONS
		BH3_0.4-0.6		0.1	X			***FILL*** Gravelly Silty SAND fine grained, well graded, brown-grey with orange, mixed with fine to coarse grained, angular to sub-angular gravels of crushed sandstone, gravels <10mm diam., no odour, no ACM noted	M	L-MD	0.00-2.10m: Macro-core push tube
		BH3_0.75-0.85		0.0		SW		***ALLUVIAL*** Gravelly SAND fine grained, well graded, light brown-grey with patches of orange staining, no odour	M	MD	
1		BH3_1.00-1.20		0.0				***WEATHERED BEDROCK*** SANDSTONE fine to medium grained, well graded, orange-brown, trace bedding fabric, beds dip <5º, extremely weathered, extremely low strength			
								colour grades to light grey-brown			
								CORE LOSS			
2		BH3_1.90-2.10		0.1				light grey, fine grained, highly weathered, low strength			2.10-3.50m: Solid Flight Auger 2.10 m: No further sampling, material wet and disturbed
								light grey, fine grained, low strength			
3								becoming slightly weathered to fresh, increasing in strength			
4								***End of Borehole*** Borehole terminated into natural material			

Moisture
D: Dry H: Humid
M: Moist W: Wet

Consistency Index
VS: Very Soft S: Soft St: Stiff V.St: Very Stiff
F: Firm H: Hard Fb: Friable

Density Index
VL: Very Loose D: Dense
L: Loose VD: Very Dense
MD: Medium Dense

Description based on Unified Soil Classification system.
Photo Ionisation Detector (PID)
Parts per million (ppm)

Sheet: 1 of 1

6.2 Soil Investigation

The soil sampling took place on 18 June 2010. A total number of eight sample locations were sampled to a maximum depth of 1.3m below ground level (mbgl) as follows:

- ☐ Durkin were utilised to scan for underground services.
- ☐ Ross Earthmoving were utilised for test-pitting works using a two-tonne excavator.

A total of eight soil samples were collected from various depths in the soil profile and analysed for a combination of the following analytes summarised in Table 3.

Table 3: Potential Contaminants.

Analyte	Rationale
TPH	TPH are found in diesel and electrical oils.
BTEX	BTEX are found in TPH products.
Heavy Metals	Heavy metals are also generally indicative of contaminated fill materials and can result from a variety of land uses and waste products.
VOCs	VOCs are often found in contaminated industrial fill.
PAHs	PAHs are found in diesel and TPH compounds and PAHs can also be indicative of ash or other contaminated fill materials resulting from the incomplete combustion of organic material.
Asbestos	Asbestos is a naturally occurring mineral with a range of industrial uses including fire retardant coatings, concrete, bricks, pipes and fireplace cement, heat, fire, and acid resistant gaskets, pipe insulation, ceiling insulation, fireproof drywall, flooring, and roofing.

6.3 Sampling Depth and Analysis

Sampling locations for the SCI were chosen on a judgemental sampling pattern. Table 4 summarises the details of each Test Pit (TP) location.

Table 4: Sampling Strategy

Test Pit ID	Test Pit Depth	Fill Depth	Sample Depth	Analysis Undertaken
TP01	0.45m	0.0-0.4m (rubble/sand); 0.4-0.45m (sandstone fill)	0.2m	TPH, BTEX, PAHs, metals, VOCs
TP02	1.3m	0.0-0.5m (rubble/sand); 0.5-0.6m (concrete fill); 0.6-1.3m (sandy fill)	0.5m	TPH, BTEX, PAHs, metals, asbestos
TP03	0.95m	0.0-0.5m (rubble/sand); 0.5-0.55m (concrete fill); 0.55-0.95m (sand)	0.6m	TPH, BTEX, PAHs, metals, VOCs
TP04	0.25m	0.0-0.2m (rubble/sand); 0.2-0.25m (sandstone)	0.1m	TPH, BTEX, PAHs, metals, asbestos
TP05	0.7m	0.0-0.3m (rubble/sand); 0.3-0.5m (roadbase); 0.5-0.7m (sand)	0.4m	TPH, BTEX, PAHs, metals, VOCs
TP06	1.0m	0.0-0.4m (rubble/sand); 0.4-0.5m (bitumen); 0.5-1.0m (grey road base)	0.5m	TPH, BTEX, PAHs, metals, asbestos
TP07	0.75m	0.0-0.4m (rubble/sand); 0.4-0.5m (bitumen); 0.5-0.75m (roadbase)	0.3m	TPH, BTEX, PAHs, metals, VOCs
TP08	0.5m	0.0-0.2m (rubble/fill); 0.2-0.25m (bitumen); 0.25-0.5m (roadbase)	0.3m	TPH, BTEX, PAHs, metals, asbestos

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ENVIRONMENTAL TEST PIT LOG
TP1
SHEET 1 OF 1

PROJECT No: 8535
CLIENT: Aurecon
PROJECT: Environmental Site Investigation
LOCATION: Bank Street, Pyrmont

DATE: 29/04/2011
SURFACE RL:
COORDS:
EXCAVATION METHOD: 3t Excavator

Test Pit Information				Field Material Information					
WATER	FIELD TEST	SAMPLE	DEPTH (m)	GRAPHIC LOG	DESCRIPTION (SOIL NAME; plasticity/grain size, colour, particle shape, secondary components, minor constituents) (ROCK NAME; grain size, colour, minor constituents)	PID (ppm)	MOISTURE/ WEATHERING	CONSISTENCY/ RELATIVE DENSITY/ STRENGTH	STRUCTURE/AESTHETICS AND ADDITIONAL OBSERVATIONS
Not Encountered				▩	FILL, Concrete and brick cobbles, tile fragments		D		FILL
		0.30m D-TP1a 0.40m	0.10	▩	FILL, Concrete and brick cobbles, tile fragments, with fine to coarse gravel in brown/beige clayey sand matrix		M		
			0.40		TEST PIT TP1 TERMINATED AT 0.40 m				
			0.5						
			1.0						
			1.5						

LOGGED: NH
CHECKED: FB
DATE: 20/05/2011

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ENVIRONMENTAL TEST PIT LOG
TP2
SHEET 1 OF 1

PROJECT No: 8535
CLIENT: Aurecon
PROJECT: Environmental Site Investigation
LOCATION: Bank Street, Pyrmont

DATE: 29/04/2011
SURFACE RL:
COORDS:
EXCAVATION METHOD: 3t Excavator

Test Pit Information				Field Material Information					
WATER	FIELD TEST	SAMPLE	DEPTH (m)	GRAPHIC LOG	DESCRIPTION (SOIL NAME; plasticity/grain size, colour, particle shape, secondary components, minor constituents) (ROCK NAME; grain size, colour, minor constituents)	PID (ppm)	MOISTURE/ WEATHERING	CONSISTENCY/ RELATIVE DENSITY/ STRENGTH	STRUCTURE/AESTHETICS AND ADDITIONAL OBSERVATIONS
Not Encountered		0.10m D-TP2a 0.20m	0.30	▨	FILL, Clayey SAND, brown, with fine to coarse gravel		W		FILL
			0.5 1.0 1.5		TEST PIT TP2 TERMINATED AT 0.30 m				

LOGGED: NH | CHECKED: FB | DATE: 20/05/2011

ENVIRONMENTAL TEST PIT LOG
TP3
SHEET 1 OF 1

PROJECT No: 8535
CLIENT: Aurecon
PROJECT: Environmental Site Investigation
LOCATION: Bank Street, Pyrmont

DATE: 29/04/2011
SURFACE RL:
COORDS:
EXCAVATION METHOD: 3t Excavator

Test Pit Information				Field Material Information					
WATER	FIELD TEST	SAMPLE	DEPTH (m)	GRAPHIC LOG	DESCRIPTION (SOIL NAME; plasticity/grain size, colour, particle shape, secondary components, minor constituents) (ROCK NAME; grain size, colour, minor constituents)	PID (ppm)	MOISTURE/ WEATHERING	CONSISTENCY/ RELATIVE DENSITY/ STRENGTH	STRUCTURE/AESTHETICS AND ADDITIONAL OBSERVATIONS
Not Encountered		0.20m D-TP3a 0.30m	0.30	▨	FILL, GRAVEL, fine to coarse, concrete and brick cobbles, tile fragments in brown clayey sand matrix		M		FILL
					TEST PIT TP3 TERMINATED AT 0.30 m				
			0.5						
			1.0						
			1.5						

LOGGED: NH	CHECKED: FB	DATE: 20/05/2011

ENVIRONMENTAL TEST PIT LOG
TP4
SHEET 1 OF 1

PROJECT No: 8535
CLIENT: Aurecon
PROJECT: Environmental Site Investigation
LOCATION: Bank Street, Pyrmont

DATE: 29/04/2011
SURFACE RL:
COORDS:
EXCAVATION METHOD: 3t Excavator

Test Pit Information				Field Material Information					
WATER	FIELD TEST	SAMPLE	DEPTH (m)	GRAPHIC LOG	DESCRIPTION (SOIL NAME; plasticity/grain size, colour, particle shape, secondary components, minor constituents) (ROCK NAME; grain size, colour, minor constituents)	PID (ppm)	MOISTURE/ WEATHERING	CONSISTENCY/ RELATIVE DENSITY/ STRENGTH	STRUCTURE/AESTHETICS AND ADDITIONAL OBSERVATIONS
Not Encountered		0.20m D-TP4a QA1 0.30m	0.30	▨	FILL, Clayey SAND, brown, with concrete and brick cobbles, tile fragments and fine to coarse gravel		M		FILL
					TEST PIT TP4 TERMINATED AT 0.30 m				
			0.5						
			1.0						
			1.5						

LOGGED: NH	CHECKED: FB	DATE: 20/05/2011

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ENVIRONMENTAL TEST PIT LOG
TP5
SHEET 1 OF 1

PROJECT No: 8535
CLIENT: Aurecon
PROJECT: Environmental Site Investigation
LOCATION: Bank Street, Pyrmont

DATE: 29/04/2011
SURFACE RL:
COORDS:
EXCAVATION METHOD: 3t Excavator

Test Pit Information				Field Material Information					
WATER	FIELD TEST	SAMPLE	DEPTH (m)	GRAPHIC LOG	DESCRIPTION (SOIL NAME; plasticity/grain size, colour, particle shape, secondary components, minor constituents) (ROCK NAME; grain size, colour, minor constituents)	PID (ppm)	MOISTURE/ WEATHERING	CONSISTENCY/ RELATIVE DENSITY/ STRENGTH	STRUCTURE/AESTHETICS AND ADDITIONAL OBSERVATIONS
Not Encountered				▨	FILL, Concrete and brick cobbles, tile fragments		D		FILL
		0.20m D-TP5a 0.30m	0.10	▨	FILL, Clayey SAND, brown, with fine to coarse gravel throughout		M		
			0.30		TEST PIT TP5 TERMINATED AT 0.30 m				
			0.5						
			1.0						
			1.5						

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RCA_LIB_05.GLB Log RCA TEST PIT LOG 8535-BORES.GPJ <<DrawingFile>> 27/05/2011 11:43 Produced by gINT Professional, Developed by Datgel

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ENVIRONMENTAL TEST PIT LOG
TP6

SHEET 1 OF 1

PROJECT No: 8535	DATE: 29/04/2011
CLIENT: Aurecon	SURFACE RL:
PROJECT: Environmental Site Investigation	COORDS:
LOCATION: Bank Street, Pyrmont	EXCAVATION METHOD: 3t Excavator

Test Pit Information				Field Material Information					
WATER	FIELD TEST	SAMPLE	DEPTH (m)	GRAPHIC LOG	DESCRIPTION (SOIL NAME; plasticity/grain size, colour, particle shape, secondary components, minor constituents) (ROCK NAME; grain size, colour, minor constituents)	PID (ppm)	MOISTURE/ WEATHERING	CONSISTENCY/ RELATIVE DENSITY/ STRENGTH	STRUCTURE/AESTHETICS AND ADDITIONAL OBSERVATIONS
Not Encountered				▨	FILL, Concrete and brick cobbles, tile fragments		D		FILL
		0.20m D-TP6a 0.30m	0.10	▨	FILL, Clayey SAND, brown, with concrete and brick cobbles and fine to coarse gravel throughout		M		
			0.30		TEST PIT TP6 TERMINATED AT 0.30 m				
			0.5						
			1.0						
			1.5						

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ENVIRONMENTAL TEST PIT LOG
TP7
SHEET 1 OF 1

PROJECT No: 8535
CLIENT: Aurecon
PROJECT: Environmental Site Investigation
LOCATION: Bank Street, Pyrmont

DATE: 29/04/2011
SURFACE RL:
COORDS:
EXCAVATION METHOD: 3t Excavator

Test Pit Information				Field Material Information					
WATER	FIELD TEST	SAMPLE	DEPTH (m)	GRAPHIC LOG	DESCRIPTION (SOIL NAME; plasticity/grain size, colour, particle shape, secondary components, minor constituents) (ROCK NAME; grain size, colour, minor constituents)	PID (ppm)	MOISTURE/ WEATHERING	CONSISTENCY/ RELATIVE DENSITY/ STRENGTH	STRUCTURE/AESTHETICS AND ADDITIONAL OBSERVATIONS
Not Encountered				▨	FILL, Concrete and brick cobbles, tile fragments		D		FILL
			0.10	▨	FILL, Clayey SAND, brown/beige, with concrete and brick cobbles and fine to coarse gravel		M		
		0.20m D-TP7a 0.30m	0.20	▨	FILL, Silty SAND, dark brown/black, with fine to coarse gravel and extremely weathered sandstone throughout				
			0.30	▨	Clayey SAND, brown, with some concrete cobbles				
			0.40		TEST PIT TP7 TERMINATED AT 0.40 m				
			0.5						
			1.0						
			1.5						

LOGGED: NH
CHECKED: FB
DATE: 20/05/2011

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ENVIRONMENTAL TEST PIT LOG
TP8
SHEET 1 OF 1

PROJECT No: 8535
CLIENT: Aurecon
PROJECT: Environmental Site Investigation
LOCATION: Bank Street, Pyrmont

DATE: 29/04/2011
SURFACE RL:
COORDS:
EXCAVATION METHOD: 3t Excavator

Test Pit Information				Field Material Information					
WATER	FIELD TEST	SAMPLE	DEPTH (m)	GRAPHIC LOG	DESCRIPTION (SOIL NAME; plasticity/grain size, colour, particle shape, secondary components, minor constituents) (ROCK NAME; grain size, colour, minor constituents)	PID (ppm)	MOISTURE/ WEATHERING	CONSISTENCY/ RELATIVE DENSITY/ STRENGTH	STRUCTURE/AESTHETICS AND ADDITIONAL OBSERVATIONS
Not Encountered				▨	FILL, Concrete and brick cobbles, tile fragments		D		FILL
		0.20m D-TP8a 0.30m	0.10	▨	FILL, Clayey SAND, brown, with concrete and brick cobbles and fine to coarse gravel throughout		M		
			0.30		TEST PIT TP8 TERMINATED AT 0.30 m				
			0.5						
			1.0						
			1.5						

LOGGED: NH
CHECKED: FB
DATE: 20/05/2011

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ENVIRONMENTAL TEST PIT LOG
TP11
SHEET 1 OF 1

PROJECT No: 8535
CLIENT: Aurecon
PROJECT: Environmental Site Investigation
LOCATION: Bank Street, Pyrmont

DATE: 29/04/2011
SURFACE RL:
COORDS:
EXCAVATION METHOD: 3t Excavator

Test Pit Information				Field Material Information					
WATER	FIELD TEST	SAMPLE	DEPTH (m)	GRAPHIC LOG	DESCRIPTION (SOIL NAME; plasticity/grain size, colour, particle shape, secondary components, minor constituents) (ROCK NAME; grain size, colour, minor constituents)	PID (ppm)	MOISTURE/ WEATHERING	CONSISTENCY/ RELATIVE DENSITY/ STRENGTH	STRUCTURE/AESTHETICS AND ADDITIONAL OBSERVATIONS
Not Encountered		0.30m D-TP11a 0.40m	0.5	▨	FILL, Clayey SAND, brown, with concrete and brick cobbles and fine to coarse gravel		M		FILL
		0.70m D-TP11b 0.80m	0.60	░	Clayey SAND, dark brown/black, with fine to coarse gravel				NATURAL
			0.80 1.0 1.5		TEST PIT TP11 TERMINATED AT 0.80 m				

LOGGED: NH

CHECKED: FB

DATE: 20/05/2011

Appendix L – Laboratory Reports and Chain of Custody Documentation

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☐ **Sydney Laboratory**
179 Magowar Road, Girraween, NSW 2145
+61 2 9900 8400 EnviroSampleNSW@eurofins.com

☐ **Brisbane Laboratory**
Unit 1/21 Smallwood Place, Murarrie, QLD 4172
+61 7 3902 4600 EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory**
46-48 Banksia Road, Welshpool, WA 6106
+61 8 6253 4444 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory**
6 Monterey Road Dandenong South VIC 3175
+61 3 8564 5000 EnviroSampleVic@eurofins.com

Company	JBS&G
Address	Lvl 1, 50 Margaret St, Sydney, NSW, 2000
Contact Name	Milad Noujaim
Phone №	0401 230 032
Special Directions	
Purchase Order	
Quote ID №	
Project №	64669
Project Name	Pyrmont
Project Manager	Milad Noujaim
EDD Format ESdat, EQuIS etc	
Sampler(s)	MN/EA
Email for Invoice	
Email for Results	mnoujaim@jbsg.com.au

Required Turnaround Time (TAT)
Default will be 5 days if not ticked.
♦Surcharge will apply
☐ Overnight (reporting by 9am)♦
☐ Same day♦ ☐ 1 day♦
☐ 2 days♦ ☐ 3 days♦
☑ 5 days (Standard)
☐ Other( )

Analyses: Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.

Containers: Change container type & size if necessary.

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	JB2 Suite	Heavy Metals M8	TRH	BTEX	PAH	OCP	PCB	VOC	PFAS	SPOCAS	pH	CEC	% Clay	Asbestos - WA guidelines			500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other	Sample Comments / Dangerous Goods Warning
1	BH01 0.0-0.1	13/04/23	soil	X										X	X	X									1	1		
2	BH01 0.3-0.4	13/04/23	soil	X																						1		
3	BH01 0.0-0.4	13/04/23	soil														X			1								
4	BH02 0.2-0.3	14/04/23	soil	X							X	X													1	1		
5	BH02 0.5-0.6	14/04/23	soil																							1		
6	BH02 0.9-1.0	14/04/23	soil		X	X		X			X															1		
7	BH02 0.2-1.0	14/04/23	soil														X			1								
8	BH03 0.1-0.2	13/04/23	soil									X													1	1		
9	BH03 0.5-0.6	13/04/23	soil	X																						1		
10	BH03 0.9-1.0	13/04/23	soil	X							X															1		
11	BH03 0.1-1.1	13/04/23	soil														X			1								
12	BH03 1.1-1.5	13/04/23	soil														X			1								981107

13	BH03 1.9-2.0	13/04/23	soil		X	X		X			X		X							1						1		
14	BH03A 0.2-0.3	14/04/23	soil																							1		
15	BH03A 0.5-0.6	14/04/23	soil																							1		
16	BH04 0.5-0.6	13/04/23	soil	X																						1		
17	BH04 0.9-1.0	13/04/23	soil																							1		
18	BH04 1.5-1.6	13/04/23	soil	X										X	X	X										1		
19	BH04 1.9-2.0	13/04/23	soil																							1		
20	BH04 2.9-3.0	13/04/23	soil																							1		
21	BH04 5.9-6.0	13/04/23	soil										X							1						1		
22	BH05 0.2-0.3	14/04/23	soil	X																					1	1		
23	BH05 0.5-0.6	14/04/23	soil																							1		
24	BH05 0.9-1.0	14/04/23	soil																							1		
25	BH05 0.2-1.2	14/04/23	soil														X			1								
26	BH05 2.0-2.1	14/04/23	soil		X	X	X	X																	1	1		
27	BH05 1.2-2.2	14/04/23	soil														X			1								
28	BH05 2.2-3.2	14/04/23	soil																	1								
29	BH05 4.1-4.2	14/04/23	soil																	1								
30	BH11 0.0-0.1	13/04/23	soil																							1		981107

31	BH11 0.2-0.3	13/04/23	soil	X								X		X	X	X										1	1	
32	BH11 0.0-0.8	13/04/23	soil														X			1								
33	BH11 0.8-0.9	13/04/23	soil	X							X															1		
34	BH11 0.8-1.0	13/04/23	soil														X			1								
35	BH11 1.0-1.1	13/04/23	soil																							1		
36	BH11 1.5-1.6	13/04/23	soil																							1		
37	BH11 1.9-2.0	13/04/23	soil																							1		
38	BH11 2.0-2.5	13/04/23	soil														X			1								
39	BH11 2.9-3.0	13/04/23	soil																							1		
40	BH11 3.0-3.1	13/04/23	soil			X		X			X		X							1						1		
41	BH11 3.9-4.0	13/04/23	soil																	1						1		
42	BH11 4.9-5.0	13/04/23	soil																	1								
43	BH11 5.9-6.0	13/04/23	soil																	1								
44	BH13 0.0-0.1	13/04/23	soil	X																						1		
45	BH13 0.2-0.3	13/04/23	soil																							1		
46	BH13 0.5-0.6	13/04/23	soil																							1		
47	BH13 0.0-0.9	13/04/23	soil														X			1								
48	BH13 1.1-1.2	13/04/23	soil																							1		

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49	BH13 1.1-1.4	13/04/23	soil																	1								
50	BH13 1.5-1.6	13/04/23	soil																							1		
51	BH13 1.4-1.7	13/04/23	soil																	1								
52	BH13 2.0-2.1	13/04/23	soil		X	X	X	X																	1	1		
53	BH13 1.7-2.5	13/04/23	soil														X			1								
54	BH13 3.0-3.1	13/04/23	soil																	1						1		
55	BH13 4.0-4.1	13/04/23	soil										X							1						1		
56	BH14 0.0-0.1	13/04/23	soil																							1		
57	BH14 0.5-0.6	13/04/23	soil	X																						1		
58	BH14 0.0-0.6	13/04/23	soil														X			1								
59	BH14 0.9-1.0	13/04/23	soil																							1		
60	BH14 1.5-1.6	13/04/23	soil		X	X	X	X				X		X	X	X									1	1		
61	BH14 0.6-1.6	13/04/23	soil														X			1								
62	BH14 1.9-2.0	13/04/23	soil																	1						1		
63	BH14 2.9-3.0	13/04/23	soil																	1						1		
64	BH14 3.4-3.5	13/04/23	soil										X							1								
65	BH15 0.0-0.1	13/04/23	soil																							1		
66	BH15 0.2-0.3	13/04/23	soil																							1		

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67	BH15 0.5-0.6	13/04/23	soil																							1		
68	BH15 0.9-1.0	13/04/23	soil	X																						1		
69	BH15 0.0-1.0	13/04/23	soil														X			1								
70	BH15 1.0-1.5	13/04/23	soil																	1								
71	BH15 1.4-1.5	13/04/23	soil																						1	1		
72	BH15 1.5-2.5	13/04/23	soil																	1								
73	BH15 2.4-2.5	13/04/23	soil	X																						1		
74	BH15 2.5-3.5	13/04/23	soil														X			1								
75	BH15 3.9-4.0	13/04/23	soil																	1						1		
76	BH15 4.5-4.6	13/04/23	soil																							1		
77	BH15 4.9-5.0	13/04/23	soil										X							1								
78	BH15 5.5-5.6	13/04/23	soil																	1								
79	BH16 0.0-0.1	13/04/23	soil																							1		
80	BH16 0.2-0.3	13/04/23	soil	X							X														1	1		
81	BH16 0.0-0.8	13/04/23	soil														X			1								
82	BH16 0.8-0.9	13/04/23	soil	X							X														1	1		
83	BH16 0.8-1.0	13/04/23	soil														X			1								
84	BH16 1.0-1.1	13/04/23	soil																							1		981107

85	BH16 1.9-2.0	13/04/23	soil			X		X			X															1		
86	QA01	13/04/23	soil	X																						1		
87	QAP01	13/04/23	soil									X													1			
88	QAB01	13/04/23	soil														X			1								
89	QA02	13/04/23	soil																							1		
90	QAB02	13/04/23	soil																	1								
91	QA03	14/04/23	soil	X							X															1		
92	QAB03	14/04/23	soil														X			1								
93	Rinsate	14/04/23	Water	X								X										1	1	1	1			
94	TS/TB	14/04/23	Water				X																	1				
95	BLANK	14/04/23	Water									X													1			
			Total Counts	19	5	7	4	7			10	7	6	4	4	4	19			40		1	1	2	14	60		

Method of Shipment	☐ Courier (#)	☐ Hand Delivered	☐ Postal	Name	**Milad Noujaim**	Signature	M.Noujaim	Date **4/14/2023**	Time
Laboratory Use Only	Received By		[✓ SYD] | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date 14/4	Time 6:27	Temperature 11.3
	Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	Time	Report №

Eurofins Environment Testing Australia Pty Ltd EnviroSales@eurofins.com

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.

981107

Sample Receipt Advice

Company name: JBS & G Australia (NSW) P/L
Contact name: Milad Noujaim
Project name: Pyrmont
Project ID: 64669
Turnaround time: 5 Day
Date/Time received Apr 14, 2023 6:24 PM
Eurofins reference 981107

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 : 11.3 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:

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Milad Noujaim - mnoujaim@jbsg.com.au.

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

Project Name: Pyrmont
Project ID: 64669

Order No.:
Report #: 981107
Phone: 02 8245 0300
Fax:

Received: Apr 14, 2023 6:24 PM
Due: Apr 24, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
External Laboratory																							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																		
1	BH01 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031022	X			X							X	X		X				
2	BH01 0.3-0.4	Apr 13, 2023		Soil	S23-Ap0031023											X			X				
3	BH01 0.0-0.4	Apr 13, 2023		Soil	S23-Ap0031024		X																
4	BH02 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031025								X			X			X			X	
5	BH02 0.9-1.0	Apr 14, 2023		Soil	S23-Ap0031026					X	X		X			X		X					
6	BH02 0.2-1.0	Apr 14, 2023		Soil	S23-Ap0031027		X																
7	BH03 0.1-0.2	Apr 13, 2023		Soil	S23-Ap0031028											X						X	
8	BH03 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031029											X			X				
9	BH03 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031030								X			X			X				
10	BH03 0.1-1.1	Apr 13, 2023		Soil	S23-Ap0031031		X																
11	BH03 1.1-1.5	Apr 13, 2023		Soil	S23-Ap0031032		X																

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
12	BH03 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031033					X	X		X	X		X		X					
13	BH04 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031034											X			X				
14	BH04 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031035	X			X							X	X		X				
15	BH04 5.9-6.0	Apr 13, 2023		Soil	S23-Ap0031036									X		X							
16	BH05 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031037											X			X				
17	BH05 0.2-1.2	Apr 14, 2023		Soil	S23-Ap0031038		X																
18	BH05 2.0-2.1	Apr 14, 2023		Soil	S23-Ap0031039					X	X	X				X		X					
19	BH05 1.2-2.2	Apr 14, 2023		Soil	S23-Ap0031040		X																
20	BH11 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031041	X			X							X	X		X			X	
21	BH11 0.0-0.8	Apr 13, 2023		Soil	S23-Ap0031042		X																
22	BH11 0.8-0.9	Apr 13, 2023		Soil	S23-Ap0031043								X			X			X				
23	BH11 0.8-1.0	Apr 13, 2023		Soil	S23-Ap0031044		X																
24	BH11 2.0-2.5	Apr 13, 2023		Soil	S23-Ap0031045		X																
25	BH11 3.0-3.1	Apr 13, 2023		Soil	S23-Ap0031046					X			X	X		X		X					

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
26	BH13 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031047											X			X				
27	BH13 0.0-0.9	Apr 13, 2023		Soil	S23-Ap0031048		X																
28	BH13 2.0-2.1	Apr 13, 2023		Soil	S23-Ap0031049					X	X	X				X		X					
29	BH13 1.7-2.5	Apr 13, 2023		Soil	S23-Ap0031050		X																
30	BH13 4.0-4.1	Apr 13, 2023		Soil	S23-Ap0031051									X		X							
31	BH14 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031052											X			X				
32	BH14 0.0-0.6	Apr 13, 2023		Soil	S23-Ap0031053		X																
33	BH14 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031054	X			X	X	X	X				X	X	X				X	
34	BH14 0.6-1.6	Apr 13, 2023		Soil	S23-Ap0031055		X																
35	BH14 3.4-3.5	Apr 13, 2023		Soil	S23-Ap0031056									X	X								
36	BH15 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031057											X			X				
37	BH15 0.0-1.0	Apr 13, 2023		Soil	S23-Ap0031058		X																
38	BH15 2.4-2.5	Apr 13, 2023		Soil	S23-Ap0031059											X			X				
39	BH15 2.5-3.5	Apr 13, 2023		Soil	S23-Ap0031060		X																

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
40	BH15 4.9-5.0	Apr 13, 2023		Soil	S23-Ap0031061									X	X								
41	BH16 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031062								X			X			X				
42	BH16 0.0-0.8	Apr 13, 2023		Soil	S23-Ap0031063		X																
43	BH16 0.8-0.9	Apr 13, 2023		Soil	S23-Ap0031064								X			X			X				
44	BH16 0.8-1.0	Apr 13, 2023		Soil	S23-Ap0031065		X																
45	BH16 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031066					X			X			X		X					
46	QA01	Apr 13, 2023		Soil	S23-Ap0031067											X			X				
47	QAP01	Apr 13, 2023		Soil	S23-Ap0031068											X						X	
48	QAB01	Apr 13, 2023		Soil	S23-Ap0031069		X																
49	QA03	Apr 14, 2023		Soil	S23-Ap0031070								X			X			X				
50	QAB03	Apr 14, 2023		Soil	S23-Ap0031071		X																
51	Rinsate	Apr 14, 2023		Water	S23-Ap0031072															X		X	
52	TS	Apr 14, 2023		Trip Spike (liquid)	S23-Ap0031073																		X

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
53	BLANK	Apr 14, 2023		Water	S23-Ap0031074																	X	
54	BH02 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031075			X															
55	BH03A 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031076			X															
56	BH03A 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031077			X															
57	BH04 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031078			X															
58	BH04 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031079			X															
59	BH04 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031080			X															
60	BH05 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031081			X															
61	BH05 0.9-1.0	Apr 14, 2023		Soil	S23-Ap0031082			X															
62	BH05 2.2-3.2	Apr 14, 2023		Soil	S23-Ap0031083			X															
63	BH05 4.1-4.2	Apr 14, 2023		Soil	S23-Ap0031084			X															
64	BH11 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031085			X															
65	BH11 1.0-1.1	Apr 13, 2023		Soil	S23-Ap0031086			X															
66	BH11 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031087			X															

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
67	BH11 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031088			X															
68	BH11 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031089			X															
69	BH11 3.9-4.0	Apr 13, 2023		Soil	S23-Ap0031090			X															
70	BH11 4.9-5.0	Apr 13, 2023		Soil	S23-Ap0031091			X															
71	BH11 5.9-6.0	Apr 13, 2023		Soil	S23-Ap0031092			X															
72	BH13 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031093			X															
73	BH13 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031094			X															
74	BH13 1.1-1.2	Apr 13, 2023		Soil	S23-Ap0031095			X															
75	BH13 1.1-1.4	Apr 13, 2023		Soil	S23-Ap0031096			X															
76	BH13 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031097			X															
77	BH13 1.4-1.7	Apr 13, 2023		Soil	S23-Ap0031098			X															
78	BH13 3.0-3.1	Apr 13, 2023		Soil	S23-Ap0031099			X															
79	BH14 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031100			X															
80	BH14 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031101			X															

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

Project Name: Pyrmont
Project ID: 64669

Order No.:
Report #: 981107
Phone: 02 8245 0300
Fax:

Received: Apr 14, 2023 6:24 PM
Due: Apr 24, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
81	BH14 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031102			X															
82	BH14 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031103			X															
83	BH15 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031104			X															
84	BH15 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031105			X															
85	BH15 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031106			X															
86	BH15 1.0-1.5	Apr 13, 2023		Soil	S23-Ap0031107			X															
87	BH15 1.4-1.5	Apr 13, 2023		Soil	S23-Ap0031108			X															
88	BH15 1.5-2.5	Apr 13, 2023		Soil	S23-Ap0031109			X															
89	BH15 3.9-4.0	Apr 13, 2023		Soil	S23-Ap0031110			X															
90	BH15 4.5-4.6	Apr 13, 2023		Soil	S23-Ap0031111			X															
91	BH15 5.5-5.6	Apr 13, 2023		Soil	S23-Ap0031112			X															
92	BH16 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031113			X															
93	BH16 1.0-1.1	Apr 13, 2023		Soil	S23-Ap0031114			X															
94	QA02	Apr 13, 2023		Soil	S23-Ap0031115			X															

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Project Name: Pyrmont
Project ID: 64669

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
95	QAB02	Apr 13, 2023		Soil	S23-Ap0031116			X															
96	TB	Apr 14, 2023		Trip Blank (liquid)	S23-Ap0031117																X		
97	BH015 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031369			X															
98	BH15 5.0-5.1	Apr 13, 2023		Soil	S23-Ap0031460			X															
Test Counts						4	19	44	4	7	5	3	10	6	31	31	4	7	18	1	1	7	1

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Certificate of Analysis

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:	Milad Noujaim
Report	981107-AID
Project Name	Pyrmont
Project ID	64669
Received Date	Apr 14, 2023
Date Reported	Apr 28, 2023

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 Pyrmont
Project ID 64669
Date Sampled Apr 13, 2023 to Apr 14, 2023
Report 981107-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH01 0.0-0.4	23-Ap0031024	Apr 13, 2023	Approximate Sample 555g Sample consisted of: Brown coarse-grained sandy soil, corroded metal, brick, cement, organic debris and rocks	ACM: Chrysotile, amosite and crocidolite asbestos detected in fibre cement material. Approximate raw weight of ACM = 13g Total estimated asbestos content in ACM = 1.9g* Total estimated asbestos concentration in ACM = 0.35% w/w* AF: Chrysotile asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.012g* Estimated asbestos content in AF = 0.010g* Total estimated asbestos concentration in AF = 0.0019%w/w.* Organic fibre detected. No trace asbestos detected.
BH02 0.2-1.0	23-Ap0031027	Apr 14, 2023	Approximate Sample 692g Sample consisted of: Brown coarse-grained sandy soil, corroded metal, glass and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH03 0.1-1.1	23-Ap0031031	Apr 13, 2023	Approximate Sample 709g 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.
BH03 1.1-1.5	23-Ap0031032	Apr 13, 2023	Approximate Sample 710g Sample consisted of: Brown coarse-grained sandy soil, corroded metal, glass, coal and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH05 0.2-1.2	23-Ap0031038	Apr 14, 2023	Approximate Sample 627g Sample consisted of: Brown coarse-grained sandy soil, glass, corroded metal and rocks	AF: Chrysotile asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0010g* Estimated asbestos content in AF = 0.0010g* Total estimated asbestos concentration in AF = 0.00016% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH05 1.2-2.2	23-Ap0031040	Apr 14, 2023	Approximate Sample 769g Sample consisted of: Brown coarse-grained sandy soil, corroded metal, glass, coal and rocks	AF: Chrysotile asbestos detected in the form of loose fibre bundles. Approximate raw weight of AF = 0.0043g* Estimated asbestos content in AF = 0.0039g* Total estimated asbestos concentration in AF = 0.00050% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH11 0.0-0.8	23-Ap0031042	Apr 13, 2023	Approximate Sample 887g Sample consisted of: Brown coarse-grained sandy soil, brick, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH11 0.8-1.0	23-Ap0031044	Apr 13, 2023	Approximate Sample 718g Sample consisted of: Brown coarse-grained sandy soil, corroded metal, glass and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH11 2.0-2.5	23-Ap0031045	Apr 13, 2023	Approximate Sample 765g Sample consisted of: Brown coarse-grained sandy soil, brick and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH13 0.0-0.9	23-Ap0031048	Apr 13, 2023	Approximate Sample 834g Sample consisted of: Brown coarse-grained sandy soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH13 1.7-2.5	23-Ap0031050	Apr 13, 2023	Approximate Sample 865g 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.
BH14 0.0-0.6	23-Ap0031053	Apr 13, 2023	Approximate Sample 852g Sample consisted of: Brown coarse-grained sandy soil, brick, bitumen, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH14 0.6-1.6	23-Ap0031055	Apr 13, 2023	Approximate Sample 1028g Sample consisted of: Brown coarse-grained sandy soil, bitumen, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH15 0.0-1.0	23-Ap0031058	Apr 13, 2023	Approximate Sample 851g Sample consisted of: Brown fine-grained clayey soil, brick, cement, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH15 2.5-3.5	23-Ap0031060	Apr 13, 2023	Approximate Sample 1032g Sample consisted of: Brown coarse-grained sandy soil, glass, corroded metal, cement, brick and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH16 0.0-0.8	23-Ap0031063	Apr 13, 2023	Approximate Sample 773g 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.
BH16 0.8-1.0	23-Ap0031065	Apr 13, 2023	Approximate Sample 920g Sample consisted of: Brown coarse-grained sandy soil, brick, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
QAB01	23-Ap0031069	Apr 13, 2023	Approximate Sample 845g Sample consisted of: Brown coarse-grained sandy soil, brick, bitumen, cement, corroded metal and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
QAB03	23-Ap0031071	Apr 14, 2023	Approximate Sample 660g Sample consisted of: Brown fine-grained clayey soil, cement, corroded metal, glass 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	Apr 17, 2023	Indefinite

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

Project Name: Pyrmont
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Order No.:
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Phone: 02 8245 0300
Fax:

Received: Apr 14, 2023 6:24 PM
Due: Apr 24, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
External Laboratory																							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																		
1	BH01 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031022	X			X							X	X		X				
2	BH01 0.3-0.4	Apr 13, 2023		Soil	S23-Ap0031023											X			X				
3	BH01 0.0-0.4	Apr 13, 2023		Soil	S23-Ap0031024		X																
4	BH02 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031025								X			X			X			X	
5	BH02 0.9-1.0	Apr 14, 2023		Soil	S23-Ap0031026					X	X		X			X		X					
6	BH02 0.2-1.0	Apr 14, 2023		Soil	S23-Ap0031027		X																
7	BH03 0.1-0.2	Apr 13, 2023		Soil	S23-Ap0031028											X						X	
8	BH03 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031029											X			X				
9	BH03 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031030								X			X			X				
10	BH03 0.1-1.1	Apr 13, 2023		Soil	S23-Ap0031031		X																
11	BH03 1.1-1.5	Apr 13, 2023		Soil	S23-Ap0031032		X																

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
12	BH03 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031033					X	X		X	X		X		X					
13	BH04 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031034											X			X				
14	BH04 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031035	X			X							X	X		X				
15	BH04 5.9-6.0	Apr 13, 2023		Soil	S23-Ap0031036									X		X							
16	BH05 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031037											X			X				
17	BH05 0.2-1.2	Apr 14, 2023		Soil	S23-Ap0031038		X																
18	BH05 2.0-2.1	Apr 14, 2023		Soil	S23-Ap0031039					X	X	X				X		X					
19	BH05 1.2-2.2	Apr 14, 2023		Soil	S23-Ap0031040		X																
20	BH11 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031041	X			X							X	X		X			X	
21	BH11 0.0-0.8	Apr 13, 2023		Soil	S23-Ap0031042		X																
22	BH11 0.8-0.9	Apr 13, 2023		Soil	S23-Ap0031043								X			X			X				
23	BH11 0.8-1.0	Apr 13, 2023		Soil	S23-Ap0031044		X																
24	BH11 2.0-2.5	Apr 13, 2023		Soil	S23-Ap0031045		X																
25	BH11 3.0-3.1	Apr 13, 2023		Soil	S23-Ap0031046					X			X	X		X		X					

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
26	BH13 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031047											X			X				
27	BH13 0.0-0.9	Apr 13, 2023		Soil	S23-Ap0031048		X																
28	BH13 2.0-2.1	Apr 13, 2023		Soil	S23-Ap0031049					X	X	X				X		X					
29	BH13 1.7-2.5	Apr 13, 2023		Soil	S23-Ap0031050		X																
30	BH13 4.0-4.1	Apr 13, 2023		Soil	S23-Ap0031051									X		X							
31	BH14 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031052											X			X				
32	BH14 0.0-0.6	Apr 13, 2023		Soil	S23-Ap0031053		X																
33	BH14 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031054	X			X	X	X	X				X	X	X				X	
34	BH14 0.6-1.6	Apr 13, 2023		Soil	S23-Ap0031055		X																
35	BH14 3.4-3.5	Apr 13, 2023		Soil	S23-Ap0031056									X	X								
36	BH15 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031057											X			X				
37	BH15 0.0-1.0	Apr 13, 2023		Soil	S23-Ap0031058		X																
38	BH15 2.4-2.5	Apr 13, 2023		Soil	S23-Ap0031059											X			X				
39	BH15 2.5-3.5	Apr 13, 2023		Soil	S23-Ap0031060		X																

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
40	BH15 4.9-5.0	Apr 13, 2023		Soil	S23-Ap0031061									X	X								
41	BH16 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031062								X			X			X				
42	BH16 0.0-0.8	Apr 13, 2023		Soil	S23-Ap0031063		X																
43	BH16 0.8-0.9	Apr 13, 2023		Soil	S23-Ap0031064								X			X			X				
44	BH16 0.8-1.0	Apr 13, 2023		Soil	S23-Ap0031065		X																
45	BH16 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031066					X			X			X		X					
46	QA01	Apr 13, 2023		Soil	S23-Ap0031067											X			X				
47	QAP01	Apr 13, 2023		Soil	S23-Ap0031068											X						X	
48	QAB01	Apr 13, 2023		Soil	S23-Ap0031069		X																
49	QA03	Apr 14, 2023		Soil	S23-Ap0031070								X			X			X				
50	QAB03	Apr 14, 2023		Soil	S23-Ap0031071		X																
51	Rinsate	Apr 14, 2023		Water	S23-Ap0031072															X		X	
52	TS	Apr 14, 2023		Trip Spike (liquid)	S23-Ap0031073																		X

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
53	BLANK	Apr 14, 2023		Water	S23-Ap0031074																	X	
54	BH02 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031075			X															
55	BH03A 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031076			X															
56	BH03A 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031077			X															
57	BH04 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031078			X															
58	BH04 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031079			X															
59	BH04 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031080			X															
60	BH05 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031081			X															
61	BH05 0.9-1.0	Apr 14, 2023		Soil	S23-Ap0031082			X															
62	BH05 2.2-3.2	Apr 14, 2023		Soil	S23-Ap0031083			X															
63	BH05 4.1-4.2	Apr 14, 2023		Soil	S23-Ap0031084			X															
64	BH11 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031085			X															
65	BH11 1.0-1.1	Apr 13, 2023		Soil	S23-Ap0031086			X															
66	BH11 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031087			X															

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

Project Name: Pyrmont
Project ID: 64669

Order No.:
Report #: 981107
Phone: 02 8245 0300
Fax:

Received: Apr 14, 2023 6:24 PM
Due: Apr 24, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
67	BH11 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031088			X															
68	BH11 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031089			X															
69	BH11 3.9-4.0	Apr 13, 2023		Soil	S23-Ap0031090			X															
70	BH11 4.9-5.0	Apr 13, 2023		Soil	S23-Ap0031091			X															
71	BH11 5.9-6.0	Apr 13, 2023		Soil	S23-Ap0031092			X															
72	BH13 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031093			X															
73	BH13 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031094			X															
74	BH13 1.1-1.2	Apr 13, 2023		Soil	S23-Ap0031095			X															
75	BH13 1.1-1.4	Apr 13, 2023		Soil	S23-Ap0031096			X															
76	BH13 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031097			X															
77	BH13 1.4-1.7	Apr 13, 2023		Soil	S23-Ap0031098			X															
78	BH13 3.0-3.1	Apr 13, 2023		Soil	S23-Ap0031099			X															
79	BH14 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031100			X															
80	BH14 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031101			X															

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
81	BH14 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031102			X															
82	BH14 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031103			X															
83	BH15 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031104			X															
84	BH15 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031105			X															
85	BH15 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031106			X															
86	BH15 1.0-1.5	Apr 13, 2023		Soil	S23-Ap0031107			X															
87	BH15 1.4-1.5	Apr 13, 2023		Soil	S23-Ap0031108			X															
88	BH15 1.5-2.5	Apr 13, 2023		Soil	S23-Ap0031109			X															
89	BH15 3.9-4.0	Apr 13, 2023		Soil	S23-Ap0031110			X															
90	BH15 4.5-4.6	Apr 13, 2023		Soil	S23-Ap0031111			X															
91	BH15 5.5-5.6	Apr 13, 2023		Soil	S23-Ap0031112			X															
92	BH16 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031113			X															
93	BH16 1.0-1.1	Apr 13, 2023		Soil	S23-Ap0031114			X															
94	QA02	Apr 13, 2023		Soil	S23-Ap0031115			X															

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Received: Apr 14, 2023 6:24 PM
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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
95	QAB02	Apr 13, 2023		Soil	S23-Ap0031116			X															
96	TB	Apr 14, 2023		Trip Blank (liquid)	S23-Ap0031117																X		
97	BH015 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031369			X															
98	BH15 5.0-5.1	Apr 13, 2023		Soil	S23-Ap0031460			X															
Test Counts						4	19	44	4	7	5	3	10	6	31	31	4	7	18	1	1	7	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. 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.
Sampling	Unless otherwise stated Eurofins are not responsible for sampling equipment or the sampling process.
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:

Chamath JHM Annakkage	Senior Analyst-Asbestos

Authorised by:

Laxman Dias	Senior Analyst-Asbestos

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.

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:	**Milad Noujaim**
Report	**981107-S**
Project name	Pyrmont
Project ID	64669
Received Date	Apr 14, 2023

Client Sample ID			^{G01}**BH01 0.0-0.1**	^{G01}**BH01 0.3-0.4**	^{G01}**BH02 0.2-0.3**	**BH02 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031022**	**S23-Ap0031023**	**S23-Ap0031025**	**S23-Ap0031026**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 14, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	66	28	24
TRH C15-C28	50	mg/kg	95	710	260	170
TRH C29-C36	50	mg/kg	88	560	250	150
TRH C10-C36 (Total)	50	mg/kg	183	1336	538	344
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	110	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)^{N01}	50	mg/kg	< 50	110	< 50	< 50
TRH >C16-C34	100	mg/kg	150	1100	450	290
TRH >C34-C40	100	mg/kg	120	450	140	< 100
TRH >C10-C40 (total)*	100	mg/kg	270	1660	590	290
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	%	115	99	54	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	1.5	8.4	1.4	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	1.7	8.4	1.7	0.8
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	2.0	8.4	1.9	1.3
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	0.6	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	2.4	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	1.1	4.9	1.3	1.0
Benzo(a)pyrene	0.5	mg/kg	1.1	5.8	1.0	< 0.5
Benzo(b&j)fluoranthene^{N07}	0.5	mg/kg	0.8	3.8	1.0	0.7
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	2.9	1.1	0.7
Benzo(k)fluoranthene	0.5	mg/kg	1.2	4.7	1.4	0.8
Chrysene	0.5	mg/kg	1.3	7.8	1.8	1.4

Client Sample ID			[G01]**BH01 0.0-0.1**	[G01]**BH01 0.3-0.4**	[G01]**BH02 0.2-0.3**	**BH02 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031022**	**S23-Ap0031023**	**S23-Ap0031025**	**S23-Ap0031026**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 14, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	0.9	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	2.0	12	2.4	1.8
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	0.6	2.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	1.3	6.5	0.7	0.9
Pyrene	0.5	mg/kg	2.5	13	2.9	2.0
Total PAH*	0.5	mg/kg	12	68	14	9.3
2-Fluorobiphenyl (surr.)	1	%	112	83	108	107
p-Terphenyl-d14 (surr.)	1	%	93	67	99	95
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 1	< 1	-
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
4.4'-DDT	0.05	mg/kg	< 0.5	0.73	< 0.5	-
a-HCH	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Aldrin	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
b-HCH	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
d-HCH	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Dieldrin	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Endosulfan I	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Endosulfan II	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Endrin	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Endrin ketone	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Heptachlor	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Methoxychlor	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
Toxaphene	0.5	mg/kg	< 10	< 10	< 10	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	0.73	< 0.5	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 1	< 1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 1	< 1	-
Dibutylchlorendate (surr.)	1	%	66	70	65	-
Tetrachloro-m-xylene (surr.)	1	%	97	78	97	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 1	< 1	-
Aroclor-1221	0.1	mg/kg	< 1	< 1	< 1	-
Aroclor-1232	0.1	mg/kg	< 1	< 1	< 1	-
Aroclor-1242	0.1	mg/kg	< 1	< 1	< 1	-
Aroclor-1248	0.1	mg/kg	< 1	< 1	< 1	-
Aroclor-1254	0.1	mg/kg	< 1	< 1	< 1	-
Aroclor-1260	0.1	mg/kg	< 1	< 1	< 1	-
Total PCB*	0.1	mg/kg	< 1	< 1	< 1	-
Dibutylchlorendate (surr.)	1	%	66	70	65	-
Tetrachloro-m-xylene (surr.)	1	%	97	78	97	-

Client Sample ID			G01 **BH01 0.0-0.1**	G01 **BH01 0.3-0.4**	G01 **BH02 0.2-0.3**	**BH02 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031022**	**S23-Ap0031023**	**S23-Ap0031025**	**S23-Ap0031026**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 14, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
% Clay	1	%	< 1	-	-	-
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	130	-	-	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	7.8	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	13	12	21	22
Cadmium	0.4	mg/kg	0.6	1.5	1.0	0.8
Chromium	5	mg/kg	16	28	7.4	13
Copper	5	mg/kg	92	150	230	390
Lead	5	mg/kg	550	1300	870	700
Mercury	0.1	mg/kg	0.5	0.3	0.9	0.9
Nickel	5	mg/kg	13	19	27	28
Zinc	5	mg/kg	430	450	1000	690
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	12	-	-	-
Sample Properties						
% Moisture	1	%	17	11	17	13
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

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	G01 BH01 0.0-0.1 Soil S23-Ap0031022 Apr 13, 2023	G01 BH01 0.3-0.4 Soil S23-Ap0031023 Apr 13, 2023	G01 BH02 0.2-0.3 Soil S23-Ap0031025 Apr 14, 2023	BH02 0.9-1.0 Soil S23-Ap0031026 Apr 14, 2023
Volatile Organics						
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	%	-	-	54	62
Toluene-d8 (surr.)	1	%	-	-	55	88
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	%	-	-	91	-
13C5-PFPeA (surr.)	1	%	-	-	94	-
13C5-PFHxA (surr.)	1	%	-	-	94	-
13C4-PFHpA (surr.)	1	%	-	-	92	-
13C8-PFOA (surr.)	1	%	-	-	86	-
13C5-PFNA (surr.)	1	%	-	-	92	-
13C6-PFDA (surr.)	1	%	-	-	97	-
13C2-PFUnDA (surr.)	1	%	-	-	110	-
13C2-PFDoDA (surr.)	1	%	-	-	106	-
13C2-PFTeDA (surr.)	1	%	-	-	120	-

Client Sample ID			[G01]**BH01 0.0-0.1**	[G01]**BH01 0.3-0.4**	[G01]**BH02 0.2-0.3**	**BH02 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031022**	**S23-Ap0031023**	**S23-Ap0031025**	**S23-Ap0031026**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 14, 2023**	**Apr 14, 2023**
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	%	-	-	90	-
D3-N-MeFOSA (surr.)	1	%	-	-	106	-
D5-N-EtFOSA (surr.)	1	%	-	-	134	-
D7-N-MeFOSE (surr.)	1	%	-	-	92	-
D9-N-EtFOSE (surr.)	1	%	-	-	84	-
D5-N-EtFOSAA (surr.)	1	%	-	-	111	-
D3-N-MeFOSAA (surr.)	1	%	-	-	127	-
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	%	-	-	107	-
18O2-PFHxS (surr.)	1	%	-	-	100	-
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	%	-	-	102	-
13C2-6:2 FTSA (surr.)	1	%	-	-	79	-
13C2-8:2 FTSA (surr.)	1	%	-	-	144	-
13C2-10:2 FTSA (surr.)	1	%	-	-	134	-
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			**BH03 0.1-0.2**	G01**BH03 0.5-0.6**	**BH03 0.9-1.0**	**BH03 1.9-2.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031028**	**S23-Ap0031029**	**S23-Ap0031030**	**S23-Ap0031033**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	25	< 20	< 20
TRH C15-C28	50	mg/kg	-	140	< 50	< 50
TRH C29-C36	50	mg/kg	-	93	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	-	258	< 50	< 50
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	-	200	< 100	< 100
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	200	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	-
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	-	82	62	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
NaphthaleneN02	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
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
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)fluorantheneN07	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	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	103	88	100
p-Terphenyl-d14 (surr.)	1	%	-	99	89	97

Client Sample ID			**BH03 0.1-0.2**	G01**BH03 0.5-0.6**	**BH03 0.9-1.0**	**BH03 1.9-2.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031028**	**S23-Ap0031029**	**S23-Ap0031030**	**S23-Ap0031033**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 1	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	< 0.5	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	< 0.5	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	< 0.5	< 0.05	-
a-HCH	0.05	mg/kg	-	< 0.5	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.5	< 0.05	-
b-HCH	0.05	mg/kg	-	< 0.5	< 0.05	-
d-HCH	0.05	mg/kg	-	< 0.5	< 0.05	-
Dieldrin	0.05	mg/kg	-	< 0.5	< 0.05	-
Endosulfan I	0.05	mg/kg	-	< 0.5	< 0.05	-
Endosulfan II	0.05	mg/kg	-	< 0.5	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.5	< 0.05	-
Endrin	0.05	mg/kg	-	< 0.5	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	< 0.5	< 0.05	-
Endrin ketone	0.05	mg/kg	-	< 0.5	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	-	< 0.5	< 0.05	-
Heptachlor	0.05	mg/kg	-	< 0.5	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.5	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.5	< 0.05	-
Methoxychlor	0.05	mg/kg	-	< 0.5	< 0.05	-
Toxaphene	0.5	mg/kg	-	< 10	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.5	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.5	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	50	84	-
Tetrachloro-m-xylene (surr.)	1	%	-	89	86	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 1	< 0.1	-
Aroclor-1221	0.1	mg/kg	-	< 1	< 0.1	-
Aroclor-1232	0.1	mg/kg	-	< 1	< 0.1	-
Aroclor-1242	0.1	mg/kg	-	< 1	< 0.1	-
Aroclor-1248	0.1	mg/kg	-	< 1	< 0.1	-
Aroclor-1254	0.1	mg/kg	-	< 1	< 0.1	-
Aroclor-1260	0.1	mg/kg	-	< 1	< 0.1	-
Total PCB*	0.1	mg/kg	-	< 1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	50	84	-
Tetrachloro-m-xylene (surr.)	1	%	-	89	86	-
Heavy Metals						
Arsenic	2	mg/kg	-	12	2.0	2.1
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	-	10	11	15
Copper	5	mg/kg	-	180	18	< 5
Lead	5	mg/kg	-	410	20	14
Mercury	0.1	mg/kg	-	0.8	< 0.1	< 0.1
Nickel	5	mg/kg	-	26	< 5	< 5
Zinc	5	mg/kg	-	450	31	21
Sample Properties						
% Moisture	1	%	16	15	8.9	4.8

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**BH03 0.1-0.2** **Soil** **S23-Ap0031028** **Apr 13, 2023**	G01**BH03 0.5-0.6** **Soil** **S23-Ap0031029** **Apr 13, 2023**	**BH03 0.9-1.0** **Soil** **S23-Ap0031030** **Apr 13, 2023**	**BH03 1.9-2.0** **Soil** **S23-Ap0031033** **Apr 13, 2023**
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 Sample Matrix Eurofins Sample No. Date Sampled Test/Reference	LOR	Unit	BH03 0.1-0.2 Soil S23-Ap0031028 Apr 13, 2023	G01BH03 0.5-0.6 Soil S23-Ap0031029 Apr 13, 2023	BH03 0.9-1.0 Soil S23-Ap0031030 Apr 13, 2023	BH03 1.9-2.0 Soil S23-Ap0031033 Apr 13, 2023
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	%	-	-	62	76
Toluene-d8 (surr.)	1	%	-	-	94	104
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	%	90	-	-	-
13C5-PFPeA (surr.)	1	%	86	-	-	-
13C5-PFHxA (surr.)	1	%	95	-	-	-
13C4-PFHpA (surr.)	1	%	85	-	-	-
13C8-PFOA (surr.)	1	%	83	-	-	-
13C5-PFNA (surr.)	1	%	85	-	-	-
13C6-PFDA (surr.)	1	%	99	-	-	-
13C2-PFUnDA (surr.)	1	%	103	-	-	-
13C2-PFDoDA (surr.)	1	%	98	-	-	-
13C2-PFTeDA (surr.)	1	%	102	-	-	-
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	%	86	-	-	-
D3-N-MeFOSA (surr.)	1	%	111	-	-	-
D5-N-EtFOSA (surr.)	1	%	127	-	-	-
D7-N-MeFOSE (surr.)	1	%	93	-	-	-
D9-N-EtFOSE (surr.)	1	%	84	-	-	-
D5-N-EtFOSAA (surr.)	1	%	101	-	-	-
D3-N-MeFOSAA (surr.)	1	%	90	-	-	-

Client Sample ID			BH03 0.1-0.2	[G01]BH03 0.5-0.6	BH03 0.9-1.0	BH03 1.9-2.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031028**	**S23-Ap0031029**	**S23-Ap0031030**	**S23-Ap0031033**
Date Sampled			Apr 13, 2023	Apr 13, 2023	Apr 13, 2023	Apr 13, 2023
Test/Reference	LOR	Unit				
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	%	104	-	-	-
18O2-PFHxS (surr.)	1	%	96	-	-	-
13C8-PFOS (surr.)	1	%	109	-	-	-
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	%	82	-	-	-
13C2-6:2 FTSA (surr.)	1	%	86	-	-	-
13C2-8:2 FTSA (surr.)	1	%	115	-	-	-
13C2-10:2 FTSA (surr.)	1	%	142	-	-	-
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	-	-	-
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	-	-	-	5.5
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	-	-	-	6.9
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	-	-	-	0.011
Potential Acidity - Titratable Peroxide						
pH-OX	0.1	pH Units	-	-	-	5.1
Titratable Peroxide Acidity (s-TPA)	0.02	% pyrite S	-	-	-	< 0.02
Titratable Peroxide Acidity (a-TPA)	2	mol H+/t	-	-	-	2.6
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	-	-	-	0.008
Peroxide Extractable Sulfur	0.005	% S	-	-	-	0.010
HCl Extractable Sulfur	0.005	% S	-	-	-	N/A
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.005	% S	-	-	-	< 0.005
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	2	mol H+/t	-	-	-	< 2
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.005	% S	-	-	-	N/A
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	-	-	-	N/A
HCl Extractable Sulfur Correction Factor	1	factor	-	-	-	2.0

Client Sample ID			BH03 0.1-0.2	G01BH03 0.5-0.6	BH03 0.9-1.0	BH03 1.9-2.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-Ap0031028	S23-Ap0031029	S23-Ap0031030	S23-Ap0031033
Date Sampled			Apr 13, 2023	Apr 13, 2023	Apr 13, 2023	Apr 13, 2023
Test/Reference	LOR	Unit				
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	-	-	-	0.020
Calcium - Peroxide	0.005	% Ca	-	-	-	0.022
Calcium - Acid Reacted	0.005	% Ca	-	-	-	< 0.005
Calcium - Acid Reacted (s-aCa)	0.005	% S	-	-	-	< 0.005
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	-	-	< 0.005
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	-	-	-	69
>2mm Fraction	0.005	g	-	-	-	< 0.005
Analysed Material	0.1	%	-	-	-	100
Extraneous Material	0.1	%	-	-	-	< 0.1

Client Sample ID			G01BH04 0.5-0.6	BH04 1.5-1.6	BH04 5.9-6.0	G01BH05 0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-Ap0031034	S23-Ap0031035	S23-Ap0031036	S23-Ap0031037
Date Sampled			Apr 13, 2023	Apr 13, 2023	Apr 13, 2023	Apr 14, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-	200
TRH C15-C28	50	mg/kg	240	< 50	-	3500
TRH C29-C36	50	mg/kg	280	< 50	-	1900
TRH C10-C36 (Total)	50	mg/kg	520	< 50	-	5600
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	-	320
TRH >C10-C16 less Naphthalene (F2)N01	50	mg/kg	< 50	< 50	-	319.3
TRH >C16-C34	100	mg/kg	440	< 100	-	5100
TRH >C34-C40	100	mg/kg	200	< 100	-	1800
TRH >C10-C40 (total)*	100	mg/kg	640	< 100	-	7220

Client Sample ID			^{G01}**BH04 0.5-0.6**	**BH04 1.5-1.6**	**BH04 5.9-6.0**	^{G01}**BH05 0.2-0.3**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031034**	**S23-Ap0031035**	**S23-Ap0031036**	**S23-Ap0031037**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
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	-	0.3
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	0.5
4-Bromofluorobenzene (surr.)	1	%	90	120	-	91
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene^{N02}	0.5	mg/kg	0.9	< 0.5	-	0.7
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	4.1	< 0.5	-	8.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	4.3	0.6	-	8.5
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	4.6	1.2	-	8.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	0.6
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	2.8
Benz(a)anthracene	0.5	mg/kg	1.9	< 0.5	-	5.1
Benzo(a)pyrene	0.5	mg/kg	3.1	< 0.5	-	4.8
Benzo(b&j)fluoranthene^{N07}	0.5	mg/kg	2.4	< 0.5	-	7.0
Benzo(g.h.i)perylene	0.5	mg/kg	3.0	< 0.5	-	6.8
Benzo(k)fluoranthene	0.5	mg/kg	3.3	< 0.5	-	7.7
Chrysene	0.5	mg/kg	3.3	< 0.5	-	12
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	1.1
Fluoranthene	0.5	mg/kg	3.3	< 0.5	-	23
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	1.5	< 0.5	-	4.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	2.0
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	20
Pyrene	0.5	mg/kg	4.8	< 0.5	-	21
Total PAH*	0.5	mg/kg	27	< 0.5	-	120
2-Fluorobiphenyl (surr.)	1	%	101	100	-	105
p-Terphenyl-d14 (surr.)	1	%	93	77	-	107
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	-	< 1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
a-HCH	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Aldrin	0.05	mg/kg	1.1	< 0.05	-	< 0.5
b-HCH	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
d-HCH	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Dieldrin	0.05	mg/kg	3.4	< 0.05	-	< 0.5
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Endrin	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5

Client Sample ID			[G01]BH04 0.5-0.6	BH04 1.5-1.6	BH04 5.9-6.0	[G01]BH05 0.2-0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031034**	**S23-Ap0031035**	**S23-Ap0031036**	**S23-Ap0031037**
Date Sampled			Apr 13, 2023	Apr 13, 2023	Apr 13, 2023	Apr 14, 2023
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Toxaphene	0.5	mg/kg	< 10	< 0.5	-	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	4.5	< 0.05	-	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	-	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	4.5	< 0.1	-	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	-	< 1
Dibutylchlorendate (surr.)	1	%	68	90	-	87
Tetrachloro-m-xylene (surr.)	1	%	90	100	-	95
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	-	< 1
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	-	< 1
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	-	< 1
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	-	< 1
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	-	< 1
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	-	< 1
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	-	< 1
Total PCB*	0.1	mg/kg	< 1	< 0.1	-	< 1
Dibutylchlorendate (surr.)	1	%	68	90	-	87
Tetrachloro-m-xylene (surr.)	1	%	90	100	-	95
% Clay	1	%	-	< 1	-	-
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	-	140	-	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	-	7.5	-	-
Heavy Metals						
Arsenic	2	mg/kg	3.0	95	-	65
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	1.5
Chromium	5	mg/kg	11	15	-	18
Copper	5	mg/kg	57	90	-	880
Lead	5	mg/kg	40	390	-	16000
Mercury	0.1	mg/kg	< 0.1	0.2	-	24
Nickel	5	mg/kg	7.1	74	-	9.9
Zinc	5	mg/kg	70	170	-	2000
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	2.0	-	-
Sample Properties						
% Moisture	1	%	7.4	7.1	22	9.2
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	-	-	9.1	-
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	-	-	8.3	-
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	-

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	G01 **BH04 0.5-0.6** **Soil** **S23-Ap0031034** **Apr 13, 2023**	**BH04 1.5-1.6** **Soil** **S23-Ap0031035** **Apr 13, 2023**	**BH04 5.9-6.0** **Soil** **S23-Ap0031036** **Apr 13, 2023**	G01 **BH05 0.2-0.3** **Soil** **S23-Ap0031037** **Apr 14, 2023**
Extractable Sulfur						
Sulfur - KCl Extractable	0.005	% S	-	-	0.053	-
Peroxide Extractable Sulfur	0.005	% S	-	-	0.45	-
HCl Extractable Sulfur	0.005	% S	-	-	N/A	-
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.005	% S	-	-	0.40	-
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	2	mol H+/t	-	-	250	-
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1 S02	0.005	% S	-	-	N/A	-
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	-	-	N/A	-
HCl Extractable Sulfur Correction Factor	1	factor	-	-	2.0	-
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	-	-	0.16	-
Calcium - Peroxide	0.005	% Ca	-	-	1.1	-
Calcium - Acid Reacted	0.005	% Ca	-	-	0.92	-
Calcium - Acid Reacted (s-aCa)	0.005	% S	-	-	0.74	-
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	-	460	-
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	-	-	0.038	-
Magnesium - Peroxide	0.005	% Mg	-	-	0.062	-
Magnesium - Acid Reacted	0.005	% Mg	-	-	0.024	-
Magnesium - Acid Reacted (s-aCa)	0.005	% S	-	-	0.031	-
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	-	20	-
Acid Neutralising Capacity (ANCE)						
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	-	-	1.3	-
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	-	-	0.43	-
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	-	-	270	-
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	-	-	230	-
>2mm Fraction	0.005	g	-	-	17	-
Analysed Material	0.1	%	-	-	93	-
Extraneous Material	0.1	%	-	-	6.7	-

Client Sample ID			**BH05 2.0-2.1**	**BH11 0.2-0.3**	**BH11 0.8-0.9**	**BH11 3.0-3.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031039**	**S23-Ap0031041**	**S23-Ap0031043**	**S23-Ap0031046**
Date Sampled			**Apr 14, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
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	24	< 20
TRH C15-C28	50	mg/kg	93	< 50	200	< 50
TRH C29-C36	50	mg/kg	71	61	150	< 50
TRH C10-C36 (Total)	50	mg/kg	164	61	374	< 50
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	140	< 100	290	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	160	< 100
TRH >C10-C40 (total)*	100	mg/kg	140	< 100	450	< 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	%	92	124	67	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	1.4	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	1.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.9	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	0.9	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	1.0	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	0.9	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	0.5	0.9	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	1.1	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	1.3	< 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	3.1	< 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	0.6	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	1.3	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	2.7	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	0.5	14	< 0.5
2-Fluorobiphenyl (surr.)	1	%	80	108	91	102
p-Terphenyl-d14 (surr.)	1	%	76	79	89	102

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**BH05 2.0-2.1** **Soil** **S23-Ap0031039** **Apr 14, 2023**	**BH11 0.2-0.3** **Soil** **S23-Ap0031041** **Apr 13, 2023**	**BH11 0.8-0.9** **Soil** **S23-Ap0031043** **Apr 13, 2023**	**BH11 3.0-3.1** **Soil** **S23-Ap0031046** **Apr 13, 2023**
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	-	< 0.05	< 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	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	61	79	-
Tetrachloro-m-xylene (surr.)	1	%	-	90	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	-
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	%	-	61	79	-
Tetrachloro-m-xylene (surr.)	1	%	-	90	88	-
% Clay	1	%	-	< 1	-	-
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	-	690	-	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	-	8.6	-	-
Heavy Metals						
Arsenic	2	mg/kg	11	6.3	28	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	13	26	9.0	-
Copper	5	mg/kg	85	36	93	-
Lead	5	mg/kg	290	340	1100	-
Mercury	0.1	mg/kg	0.2	0.1	1.1	-

Client Sample ID			**BH05 2.0-2.1**	**BH11 0.2-0.3**	**BH11 0.8-0.9**	**BH11 3.0-3.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031039**	**S23-Ap0031041**	**S23-Ap0031043**	**S23-Ap0031046**
Date Sampled			**Apr 14, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Heavy Metals						
Nickel	5	mg/kg	17	21	22	-
Zinc	5	mg/kg	210	120	240	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	21	-	-
Sample Properties						
% Moisture	1	%	8.0	7.4	9.6	20
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

Client Sample ID			**BH05 2.0-2.1**	**BH11 0.2-0.3**	**BH11 0.8-0.9**	**BH11 3.0-3.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031039**	**S23-Ap0031041**	**S23-Ap0031043**	**S23-Ap0031046**
Date Sampled			**Apr 14, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	-	-	67	76
Toluene-d8 (surr.)	1	%	-	-	83	97
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	%	-	111	-	-
13C5-PFPeA (surr.)	1	%	-	106	-	-
13C5-PFHxA (surr.)	1	%	-	103	-	-
13C4-PFHpA (surr.)	1	%	-	106	-	-
13C8-PFOA (surr.)	1	%	-	104	-	-
13C5-PFNA (surr.)	1	%	-	110	-	-
13C6-PFDA (surr.)	1	%	-	127	-	-
13C2-PFUnDA (surr.)	1	%	-	116	-	-
13C2-PFDoDA (surr.)	1	%	-	112	-	-
13C2-PFTeDA (surr.)	1	%	-	116	-	-
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	-	-

Client Sample ID			**BH05 2.0-2.1**	**BH11 0.2-0.3**	**BH11 0.8-0.9**	**BH11 3.0-3.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031039**	**S23-Ap0031041**	**S23-Ap0031043**	**S23-Ap0031046**
Date Sampled			**Apr 14, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	10	ug/kg	-	< 10	-	-
13C8-FOSA (surr.)	1	%	-	98	-	-
D3-N-MeFOSA (surr.)	1	%	-	97	-	-
D5-N-EtFOSA (surr.)	1	%	-	108	-	-
D7-N-MeFOSE (surr.)	1	%	-	101	-	-
D9-N-EtFOSE (surr.)	1	%	-	95	-	-
D5-N-EtFOSAA (surr.)	1	%	-	133	-	-
D3-N-MeFOSAA (surr.)	1	%	-	144	-	-
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	%	-	108	-	-
18O2-PFHxS (surr.)	1	%	-	109	-	-
13C8-PFOS (surr.)	1	%	-	103	-	-
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	%	-	102	-	-
13C2-6:2 FTSA (surr.)	1	%	-	103	-	-
13C2-8:2 FTSA (surr.)	1	%	-	INT	-	-
13C2-10:2 FTSA (surr.)	1	%	-	156	-	-
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	-	-
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	-	-	-	9.3
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	-	-	-	7.7
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

Client Sample ID			**BH05 2.0-2.1**	**BH11 0.2-0.3**	**BH11 0.8-0.9**	**BH11 3.0-3.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031039**	**S23-Ap0031041**	**S23-Ap0031043**	**S23-Ap0031046**
Date Sampled			**Apr 14, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Extractable Sulfur						
Sulfur - KCl Extractable	0.005	% S	-	-	-	0.034
Peroxide Extractable Sulfur	0.005	% S	-	-	-	0.052
HCl Extractable Sulfur	0.005	% S	-	-	-	N/A
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.005	% S	-	-	-	0.018
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	2	mol H+/t	-	-	-	11
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.005	% S	-	-	-	N/A
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	-	-	-	N/A
HCl Extractable Sulfur Correction Factor	1	factor	-	-	-	2.0
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	-	-	-	0.21
Calcium - Peroxide	0.005	% Ca	-	-	-	0.32
Calcium - Acid Reacted	0.005	% Ca	-	-	-	0.12
Calcium - Acid Reacted (s-aCa)	0.005	% S	-	-	-	0.094
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	-	-	59
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	-	-	-	< 0.005
Magnesium - Peroxide	0.005	% Mg	-	-	-	0.013
Magnesium - Acid Reacted	0.005	% Mg	-	-	-	0.013
Magnesium - Acid Reacted (s-aCa)	0.005	% S	-	-	-	0.017
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	-	-	11
Acid Neutralising Capacity (ANCE)						
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	-	-	-	0.48
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	-	-	-	0.15
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	-	-	-	97
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	-	-	-	220
>2mm Fraction	0.005	g	-	-	-	4.1
Analysed Material	0.1	%	-	-	-	98
Extraneous Material	0.1	%	-	-	-	1.9

Client Sample ID			G01**BH13 0.0-0.1**	**BH13 2.0-2.1**	**BH13 4.0-4.1**	G01**BH14 0.5-0.6**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031047**	**S23-Ap0031049**	**S23-Ap0031051**	**S23-Ap0031052**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
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	< 50	-	310
TRH C29-C36	50	mg/kg	76	< 50	-	130
TRH C10-C36 (Total)	50	mg/kg	76	< 50	-	440
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	< 100	-	360
TRH >C34-C40	100	mg/kg	140	< 100	-	120
TRH >C10-C40 (total)*	100	mg/kg	140	< 100	-	480
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	%	124	124	-	82
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
NaphthaleneN02	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	4.7
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	4.7
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	4.7
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	1.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	4.8
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	3.1
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	2.7
Benzo(b&j)fluorantheneN07	0.5	mg/kg	< 0.5	< 0.5	-	3.8
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	5.1
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	4.4
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	5.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	14
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	1.3
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	2.9
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	0.6
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	13
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	13
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	76
2-Fluorobiphenyl (surr.)	1	%	99	94	-	104
p-Terphenyl-d14 (surr.)	1	%	83	94	-	95

Client Sample ID Sample Matrix Eurofins Sample No. Date Sampled			[G01]BH13 0.0-0.1 Soil S23-Ap0031047 Apr 13, 2023	BH13 2.0-2.1 Soil S23-Ap0031049 Apr 13, 2023	BH13 4.0-4.1 Soil S23-Ap0031051 Apr 13, 2023	[G01]BH14 0.5-0.6 Soil S23-Ap0031052 Apr 13, 2023
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	%	98	-	-	79
Tetrachloro-m-xylene (surr.)	1	%	78	-	-	89
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	%	98	-	-	79
Tetrachloro-m-xylene (surr.)	1	%	78	-	-	89
Heavy Metals						
Arsenic	2	mg/kg	3.9	3.2	-	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Chromium	5	mg/kg	10	14	-	9.0
Copper	5	mg/kg	22	< 5	-	9.0
Lead	5	mg/kg	85	< 5	-	25
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Nickel	5	mg/kg	9.0	< 5	-	6.1
Zinc	5	mg/kg	38	11	-	29
Sample Properties						
% Moisture	1	%	6.6	9.1	9.4	4.2

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	G01 **BH13 0.0-0.1** **Soil** **S23-Ap0031047** **Apr 13, 2023**	**BH13 2.0-2.1** **Soil** **S23-Ap0031049** **Apr 13, 2023**	**BH13 4.0-4.1** **Soil** **S23-Ap0031051** **Apr 13, 2023**	G01 **BH14 0.5-0.6** **Soil** **S23-Ap0031052** **Apr 13, 2023**
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	-	-	6.4	-
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	-	-	3.2	-
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	-	-	0.005	-
Potential Acidity - Titratable Peroxide						
pH-OX	0.1	pH Units	-	-	6.0	-
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	-	-	0.023	-
Peroxide Extractable Sulfur	0.005	% S	-	-	0.026	-
HCl Extractable Sulfur	0.005	% S	-	-	N/A	-
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.005	% S	-	-	< 0.005	-
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	2	mol H+/t	-	-	< 2	-
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1 S02	0.005	% S	-	-	N/A	-
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	-	-	N/A	-
HCl Extractable Sulfur Correction Factor	1	factor	-	-	2.0	-
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	-	-	0.058	-
Calcium - Peroxide	0.005	% Ca	-	-	0.063	-
Calcium - Acid Reacted	0.005	% Ca	-	-	< 0.005	-
Calcium - Acid Reacted (s-aCa)	0.005	% S	-	-	< 0.005	-
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	-	< 0.005	-
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	-	-	0.012	-
Magnesium - Peroxide	0.005	% Mg	-	-	0.013	-
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	-	-	210	-
>2mm Fraction	0.005	g	-	-	15	-
Analysed Material	0.1	%	-	-	94	-
Extraneous Material	0.1	%	-	-	6.5	-

Client Sample ID			**BH14 1.5-1.6**	**BH14 3.4-3.5**	G01**BH15 0.9-1.0**	**BH15 2.4-2.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031054**	**S23-Ap0031056**	**S23-Ap0031057**	**S23-Ap0031059**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
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	-	230	95
TRH C29-C36	50	mg/kg	< 50	-	340	55
TRH C10-C36 (Total)	50	mg/kg	< 50	-	570	150
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	-	480	120
TRH >C34-C40	100	mg/kg	< 100	-	340	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	820	120
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	%	124	-	118	113
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
NaphthaleneN02	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	3.1	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	3.1	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	3.1	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	-	1.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	1.8	< 0.5
Benzo(b&j)fluorantheneN07	0.5	mg/kg	< 0.5	-	1.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	3.1	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	2.2	< 0.5
Chrysene	0.5	mg/kg	< 0.5	-	2.4	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	0.6	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	2.8	< 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	-	1.7	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	-	0.7	< 0.5
Pyrene	0.5	mg/kg	< 0.5	-	3.3	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	-	22	< 0.5
2-Fluorobiphenyl (surr.)	1	%	106	-	114	101
p-Terphenyl-d14 (surr.)	1	%	94	-	100	87

Client Sample ID			**BH14 1.5-1.6**	**BH14 3.4-3.5**	[G01]**BH15 0.9-1.0**	**BH15 2.4-2.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031054**	**S23-Ap0031056**	**S23-Ap0031057**	**S23-Ap0031059**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 1	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	< 0.5	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	< 0.5	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	< 0.5	< 0.05
a-HCH	0.05	mg/kg	-	-	< 0.5	< 0.05
Aldrin	0.05	mg/kg	-	-	< 0.5	< 0.05
b-HCH	0.05	mg/kg	-	-	< 0.5	< 0.05
d-HCH	0.05	mg/kg	-	-	< 0.5	< 0.05
Dieldrin	0.05	mg/kg	-	-	< 0.5	< 0.05
Endosulfan I	0.05	mg/kg	-	-	< 0.5	< 0.05
Endosulfan II	0.05	mg/kg	-	-	< 0.5	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.5	< 0.05
Endrin	0.05	mg/kg	-	-	< 0.5	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	< 0.5	< 0.05
Endrin ketone	0.05	mg/kg	-	-	< 0.5	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	-	< 0.5	< 0.05
Heptachlor	0.05	mg/kg	-	-	< 0.5	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.5	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.5	< 0.05
Methoxychlor	0.05	mg/kg	-	-	< 0.5	< 0.05
Toxaphene	0.5	mg/kg	-	-	< 10	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	< 0.5	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.5	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	88	116
Tetrachloro-m-xylene (surr.)	1	%	-	-	92	89
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	< 1	< 0.1
Aroclor-1221	0.1	mg/kg	-	-	< 1	< 0.1
Aroclor-1232	0.1	mg/kg	-	-	< 1	< 0.1
Aroclor-1242	0.1	mg/kg	-	-	< 1	< 0.1
Aroclor-1248	0.1	mg/kg	-	-	< 1	< 0.1
Aroclor-1254	0.1	mg/kg	-	-	< 1	< 0.1
Aroclor-1260	0.1	mg/kg	-	-	< 1	< 0.1
Total PCB*	0.1	mg/kg	-	-	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	88	116
Tetrachloro-m-xylene (surr.)	1	%	-	-	92	89
% Clay	1	%	< 1	-	-	-
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	120	-	-	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	7.9	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	3.4	-	22	7.0
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	< 0.4
Chromium	5	mg/kg	10	-	9.8	11
Copper	5	mg/kg	6.2	-	83	110
Lead	5	mg/kg	10	-	150	93
Mercury	0.1	mg/kg	< 0.1	-	0.1	< 0.1

Client Sample ID			**BH14 1.5-1.6**	**BH14 3.4-3.5**	G01**BH15 0.9-1.0**	**BH15 2.4-2.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031054**	**S23-Ap0031056**	**S23-Ap0031057**	**S23-Ap0031059**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Heavy Metals						
Nickel	5	mg/kg	6.5	-	7.6	20
Zinc	5	mg/kg	13	-	890	340
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	2.9	-	-	-
Sample Properties						
% Moisture	1	%	6.8	9.4	8.7	6.5
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	%	113	-	-	-
13C5-PFPeA (surr.)	1	%	110	-	-	-
13C5-PFHxA (surr.)	1	%	111	-	-	-
13C4-PFHpA (surr.)	1	%	102	-	-	-
13C8-PFOA (surr.)	1	%	98	-	-	-
13C5-PFNA (surr.)	1	%	110	-	-	-
13C6-PFDA (surr.)	1	%	123	-	-	-
13C2-PFUnDA (surr.)	1	%	119	-	-	-
13C2-PFDoDA (surr.)	1	%	113	-	-	-
13C2-PFTeDA (surr.)	1	%	114	-	-	-
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	%	93	-	-	-
D3-N-MeFOSA (surr.)	1	%	102	-	-	-
D5-N-EtFOSA (surr.)	1	%	111	-	-	-
D7-N-MeFOSE (surr.)	1	%	105	-	-	-
D9-N-EtFOSE (surr.)	1	%	90	-	-	-
D5-N-EtFOSAA (surr.)	1	%	117	-	-	-
D3-N-MeFOSAA (surr.)	1	%	138	-	-	-

Client Sample ID			**BH14 1.5-1.6**	**BH14 3.4-3.5**	^{G01}**BH15 0.9-1.0**	**BH15 2.4-2.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031054**	**S23-Ap0031056**	**S23-Ap0031057**	**S23-Ap0031059**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
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	%	106	-	-	-
18O2-PFHxS (surr.)	1	%	107	-	-	-
13C8-PFOS (surr.)	1	%	102	-	-	-
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	%	106	-	-	-
13C2-6:2 FTSA (surr.)	1	%	98	-	-	-
13C2-8:2 FTSA (surr.)	1	%	INT	-	-	-
13C2-10:2 FTSA (surr.)	1	%	183	-	-	-
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	-	-	-
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	-	7.6	-	-
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	-	0.022	-	-
Peroxide Extractable Sulfur	0.005	% S	-	0.029	-	-
HCl Extractable Sulfur	0.005	% S	-	N/A	-	-
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.005	% S	-	0.007	-	-
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	2	mol H+/t	-	4.6	-	-
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1^{S02}	0.005	% S	-	N/A	-	-
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	-	N/A	-	-
HCl Extractable Sulfur Correction Factor	1	factor	-	2.0	-	-

Client Sample ID			**BH14 1.5-1.6**	**BH14 3.4-3.5**	G01**BH15 0.9-1.0**	**BH15 2.4-2.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031054**	**S23-Ap0031056**	**S23-Ap0031057**	**S23-Ap0031059**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	-	0.15	-	-
Calcium - Peroxide	0.005	% Ca	-	0.18	-	-
Calcium - Acid Reacted	0.005	% Ca	-	0.030	-	-
Calcium - Acid Reacted (s-aCa)	0.005	% S	-	0.024	-	-
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	15	-	-
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	-	0.009	-	-
Magnesium - Peroxide	0.005	% Mg	-	0.017	-	-
Magnesium - Acid Reacted	0.005	% Mg	-	0.008	-	-
Magnesium - Acid Reacted (s-aCa)	0.005	% S	-	0.010	-	-
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	6.2	-	-
Acid Neutralising Capacity (ANCE)						
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	-	0.29	-	-
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	-	0.09	-	-
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	-	57	-	-
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	-	220	-	-
>2mm Fraction	0.005	g	-	7.6	-	-
Analysed Material	0.1	%	-	97	-	-
Extraneous Material	0.1	%	-	3.3	-	-

Client Sample ID			**BH15 4.9-5.0**	G01**BH16 0.2-0.3**	G01**BH16 0.8-0.9**	**BH16 1.9-2.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031061**	**S23-Ap0031062**	**S23-Ap0031064**	**S23-Ap0031066**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	< 20	< 200	< 20
TRH C10-C14	20	mg/kg	-	200	< 20	50
TRH C15-C28	50	mg/kg	-	380	< 50	100
TRH C29-C36	50	mg/kg	-	210	< 50	94
TRH C10-C36 (Total)	50	mg/kg	-	790	< 50	244
TRH C6-C10	20	mg/kg	-	< 20	< 200	< 20
TRH C6-C10 less BTEX (F1)N04	20	mg/kg	-	< 20	< 200	< 20
TRH >C10-C16	50	mg/kg	-	360	< 50	87
TRH >C10-C16 less Naphthalene (F2)N01	50	mg/kg	-	355.3	< 50	87
TRH >C16-C34	100	mg/kg	-	430	< 100	140
TRH >C34-C40	100	mg/kg	-	310	< 100	170
TRH >C10-C40 (total)*	100	mg/kg	-	1100	< 100	397

Client Sample ID			BH15 4.9-5.0	^{G01}BH16 0.2-0.3	^{G01}BH16 0.8-0.9	BH16 1.9-2.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-Ap0031061	S23-Ap0031062	S23-Ap0031064	S23-Ap0031066
Date Sampled			Apr 13, 2023	Apr 13, 2023	Apr 13, 2023	Apr 13, 2023
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 1	-
Toluene	0.1	mg/kg	-	< 0.1	< 1	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 1	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 2	-
o-Xylene	0.1	mg/kg	-	< 0.1	< 1	-
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 3	-
4-Bromofluorobenzene (surr.)	1	%	-	70	65	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene^{N02}	0.5	mg/kg	-	4.7	66	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	1.3	37	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	1.6	37	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.8	37	1.2
Acenaphthene	0.5	mg/kg	-	5.7	70	1.6
Acenaphthylene	0.5	mg/kg	-	< 0.5	1.6	< 0.5
Anthracene	0.5	mg/kg	-	2.4	19	0.7
Benz(a)anthracene	0.5	mg/kg	-	1.2	18	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	0.8	22	< 0.5
Benzo(b&j)fluoranthene^{N07}	0.5	mg/kg	-	1.5	21	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	1.4	22	0.6
Benzo(k)fluoranthene	0.5	mg/kg	-	1.5	19	< 0.5
Chrysene	0.5	mg/kg	-	1.9	20	0.6
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	6.8	< 0.5
Fluoranthene	0.5	mg/kg	-	5.0	77	1.5
Fluorene	0.5	mg/kg	-	2.9	40	0.8
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	0.9	17	< 0.5
Naphthalene	0.5	mg/kg	-	5.7	76	1.3
Phenanthrene	0.5	mg/kg	-	6.1	99	1.7
Pyrene	0.5	mg/kg	-	3.9	64	1.1
Total PAH*	0.5	mg/kg	-	41	590	9.9
2-Fluorobiphenyl (surr.)	1	%	-	90	124	83
p-Terphenyl-d14 (surr.)	1	%	-	86	109	71
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	-

Client Sample ID			**BH15 4.9-5.0**	^{G01}**BH16 0.2-0.3**	^{G01}**BH16 0.8-0.9**	**BH16 1.9-2.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031061**	**S23-Ap0031062**	**S23-Ap0031064**	**S23-Ap0031066**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
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	%	-	93	^{Q09}INT	-
Tetrachloro-m-xylene (surr.)	1	%	-	79	111	-
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	%	-	93	^{Q09}INT	-
Tetrachloro-m-xylene (surr.)	1	%	-	79	111	-
Heavy Metals						
Arsenic	2	mg/kg	-	8.4	37	-
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	-
Chromium	5	mg/kg	-	15	19	-
Copper	5	mg/kg	-	20	66	-
Lead	5	mg/kg	-	41	870	-
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	-
Nickel	5	mg/kg	-	< 5	10.0	-
Zinc	5	mg/kg	-	45	150	-
Sample Properties						
% Moisture	1	%	9.3	8.8	2.3	2.2
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	< 0.5	< 5	< 0.5

Client Sample ID			BH15 4.9-5.0	G01BH16 0.2-0.3	G01BH16 0.8-0.9	BH16 1.9-2.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-Ap0031061	S23-Ap0031062	S23-Ap0031064	S23-Ap0031066
Date Sampled			Apr 13, 2023	Apr 13, 2023	Apr 13, 2023	Apr 13, 2023
Test/Reference	LOR	Unit				
Volatile Organics						
1.3.5-Trimethylbenzene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	-	< 0.5	< 5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	-	< 0.5	< 5	< 0.5
4-Chlorotoluene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Allyl chloride	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Benzene	0.1	mg/kg	-	< 0.1	< 1	< 0.1
Bromobenzene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Bromochloromethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Bromodichloromethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Bromoform	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Bromomethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Carbon disulfide	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Chlorobenzene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Chloroethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Chloroform	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Chloromethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Dibromochloromethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Dibromomethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 1	< 0.1
Iodomethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	< 0.5	< 5	< 0.5
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 2	< 0.2
Methylene Chloride	0.5	mg/kg	-	< 0.5	< 5	< 0.5
o-Xylene	0.1	mg/kg	-	< 0.1	< 1	< 0.1
Styrene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Tetrachloroethene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Toluene	0.1	mg/kg	-	< 0.1	< 1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Trichloroethene	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Vinyl chloride	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 3	< 0.3
Total MAH*	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	< 0.5	< 5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	< 0.5	< 5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	-	70	65	74
Toluene-d8 (surr.)	1	%	-	123	80	115
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	8.9	-	-	-
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	< 2	-	-	-
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	< 0.003	-	-	-

Client Sample ID			**BH15 4.9-5.0**	G01**BH16 0.2-0.3**	G01**BH16 0.8-0.9**	**BH16 1.9-2.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031061**	**S23-Ap0031062**	**S23-Ap0031064**	**S23-Ap0031066**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**
Test/Reference	LOR	Unit				
Potential Acidity - Titratable Peroxide						
pH-OX	0.1	pH Units	7.9	-	-	-
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	0.056	-	-	-
Peroxide Extractable Sulfur	0.005	% S	0.072	-	-	-
HCl Extractable Sulfur	0.005	% S	N/A	-	-	-
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.005	% S	0.016	-	-	-
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	2	mol H+/t	10	-	-	-
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1S02	0.005	% S	N/A	-	-	-
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	N/A	-	-	-
HCl Extractable Sulfur Correction Factor	1	factor	2.0	-	-	-
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	0.26	-	-	-
Calcium - Peroxide	0.005	% Ca	0.45	-	-	-
Calcium - Acid Reacted	0.005	% Ca	0.19	-	-	-
Calcium - Acid Reacted (s-aCa)	0.005	% S	0.15	-	-	-
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	96	-	-	-
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	0.009	-	-	-
Magnesium - Peroxide	0.005	% Mg	0.021	-	-	-
Magnesium - Acid Reacted	0.005	% Mg	0.012	-	-	-
Magnesium - Acid Reacted (s-aCa)	0.005	% S	0.015	-	-	-
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	9.6	-	-	-
Acid Neutralising Capacity (ANCE)						
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	0.73	-	-	-
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	0.23	-	-	-
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	150	-	-	-
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	110	-	-	-
Analysed Material	0.1	%	50	-	-	-
Extraneous Material	0.1	%	50	-	-	-

Client Sample ID			G01**QA01**	**QAP01**	G01**QA03**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031067**	**S23-Ap0031068**	**S23-Ap0031070**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	-	23
TRH C15-C28	50	mg/kg	52	-	390
TRH C29-C36	50	mg/kg	55	-	680
TRH C10-C36 (Total)	50	mg/kg	107	-	1093
TRH C6-C10	20	mg/kg	< 20	-	< 20
TRH C6-C10 less BTEX (F1)N04	20	mg/kg	< 20	-	< 20
TRH >C10-C16	50	mg/kg	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2)N01	50	mg/kg	< 50	-	< 50
TRH >C16-C34	100	mg/kg	< 100	-	910
TRH >C34-C40	100	mg/kg	< 100	-	570
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	1480
BTEX					
Benzene	0.1	mg/kg	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	132	-	60
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
NaphthaleneN02	0.5	mg/kg	< 0.5	-	< 0.5
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	2.4
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	2.7
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	2.9
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	0.6
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	1.6
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	1.8
Benzo(b&j)fluorantheneN07	0.5	mg/kg	< 0.5	-	1.7
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	2.0
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	1.6
Chrysene	0.5	mg/kg	< 0.5	-	2.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	3.1
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	1.1
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	-	1.5
Pyrene	0.5	mg/kg	< 0.5	-	3.6
Total PAH*	0.5	mg/kg	< 0.5	-	21
2-Fluorobiphenyl (surr.)	1	%	104	-	133
p-Terphenyl-d14 (surr.)	1	%	116	-	112

Client Sample ID			G01QA01	QAP01	G01QA03
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031067**	**S23-Ap0031068**	**S23-Ap0031070**
Date Sampled			Apr 13, 2023	Apr 13, 2023	Apr 14, 2023
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	%	119	-	Q09INT
Tetrachloro-m-xylene (surr.)	1	%	106	-	117
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	%	119	-	Q09INT
Tetrachloro-m-xylene (surr.)	1	%	106	-	117
Heavy Metals					
Arsenic	2	mg/kg	3.0	-	12
Cadmium	0.4	mg/kg	< 0.4	-	0.6
Chromium	5	mg/kg	14	-	6.7
Copper	5	mg/kg	25	-	360
Lead	5	mg/kg	25	-	570
Mercury	0.1	mg/kg	< 0.1	-	0.9
Nickel	5	mg/kg	15	-	22
Zinc	5	mg/kg	62	-	690
Sample Properties					
% Moisture	1	%	4.5	5.3	9.3

Client Sample ID			G01QA01	QAP01	G01QA03
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031067**	**S23-Ap0031068**	**S23-Ap0031070**
Date Sampled			Apr 13, 2023	Apr 13, 2023	Apr 14, 2023
Test/Reference	LOR	Unit			
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
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

Client Sample ID			[G01]QA01	QAP01	[G01]QA03
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031067**	**S23-Ap0031068**	**S23-Ap0031070**
Date Sampled			Apr 13, 2023	Apr 13, 2023	Apr 14, 2023
Test/Reference	LOR	Unit			
Volatile Organics					
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	%	-	-	60
Toluene-d8 (surr.)	1	%	-	-	92
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	%	-	90	-
13C5-PFPeA (surr.)	1	%	-	94	-
13C5-PFHxA (surr.)	1	%	-	95	-
13C4-PFHpA (surr.)	1	%	-	91	-
13C8-PFOA (surr.)	1	%	-	88	-
13C5-PFNA (surr.)	1	%	-	100	-
13C6-PFDA (surr.)	1	%	-	113	-
13C2-PFUnDA (surr.)	1	%	-	113	-
13C2-PFDoDA (surr.)	1	%	-	96	-
13C2-PFTeDA (surr.)	1	%	-	116	-
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	%	-	93	-
D3-N-MeFOSA (surr.)	1	%	-	112	-
D5-N-EtFOSA (surr.)	1	%	-	134	-
D7-N-MeFOSE (surr.)	1	%	-	91	-
D9-N-EtFOSE (surr.)	1	%	-	80	-
D5-N-EtFOSAA (surr.)	1	%	-	119	-
D3-N-MeFOSAA (surr.)	1	%	-	136	-

Client Sample ID			^{G01}**QA01**	**QAP01**	^{G01}**QA03**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-Ap0031067**	**S23-Ap0031068**	**S23-Ap0031070**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit			
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	%	-	102	-
18O2-PFHxS (surr.)	1	%	-	102	-
13C8-PFOS (surr.)	1	%	-	107	-
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	%	-	91	-
13C2-6:2 FTSA (surr.)	1	%	-	93	-
13C2-8:2 FTSA (surr.)	1	%	-	INT	-
13C2-10:2 FTSA (surr.)	1	%	-	173	-
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	-

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	Apr 20, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 20, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Apr 20, 2023	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
JBS&G Suite 2 (metals filtered)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 20, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Apr 20, 2023	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Apr 20, 2023	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Apr 20, 2023	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Clay	Brisbane	Apr 21, 2023	14 Days
- Method: LTM-GEN-7040			
pH (1:5 Aqueous extract at 25 °C as rec.)	Sydney	Apr 18, 2023	7 Days
- Method: LTM-GEN-7090 pH by ISE			
Volatile Organics	Sydney	Apr 20, 2023	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	Melbourne	Apr 21, 2023	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	Apr 26, 2023	28 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			
JBS&G Suite 2			
Metals M8	Sydney	Apr 20, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Apr 17, 2023	14 Days
- Method: LTM-GEN-7080 Moisture			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Sydney	Apr 20, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Sydney	Apr 20, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Sydney	Apr 20, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Sydney	Apr 20, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Sydney	Apr 17, 2023	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
SPOCAS Suite			
SPOCAS Suite	Brisbane	Apr 21, 2023	6 Week
- Method: LTM-GEN-7050			
Extraneous Material	Brisbane	Apr 21, 2023	6 Week
- Method: LTM-GEN-7050/7070			

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NSW 2000

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Project ID: 64669

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Phone: 02 8245 0300
Fax:

Received: Apr 14, 2023 6:24 PM
Due: Apr 24, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
External Laboratory																							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																		
1	BH01 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031022	X			X							X	X		X				
2	BH01 0.3-0.4	Apr 13, 2023		Soil	S23-Ap0031023											X			X				
3	BH01 0.0-0.4	Apr 13, 2023		Soil	S23-Ap0031024		X																
4	BH02 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031025								X			X			X			X	
5	BH02 0.9-1.0	Apr 14, 2023		Soil	S23-Ap0031026					X	X		X			X		X					
6	BH02 0.2-1.0	Apr 14, 2023		Soil	S23-Ap0031027		X																
7	BH03 0.1-0.2	Apr 13, 2023		Soil	S23-Ap0031028											X						X	
8	BH03 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031029											X			X				
9	BH03 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031030								X			X			X				
10	BH03 0.1-1.1	Apr 13, 2023		Soil	S23-Ap0031031		X																
11	BH03 1.1-1.5	Apr 13, 2023		Soil	S23-Ap0031032		X																

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
12	BH03 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031033					X	X		X	X		X		X					
13	BH04 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031034											X			X				
14	BH04 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031035	X			X							X	X		X				
15	BH04 5.9-6.0	Apr 13, 2023		Soil	S23-Ap0031036									X		X							
16	BH05 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031037											X			X				
17	BH05 0.2-1.2	Apr 14, 2023		Soil	S23-Ap0031038		X																
18	BH05 2.0-2.1	Apr 14, 2023		Soil	S23-Ap0031039					X	X	X				X		X					
19	BH05 1.2-2.2	Apr 14, 2023		Soil	S23-Ap0031040		X																
20	BH11 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031041	X			X							X	X		X			X	
21	BH11 0.0-0.8	Apr 13, 2023		Soil	S23-Ap0031042		X																
22	BH11 0.8-0.9	Apr 13, 2023		Soil	S23-Ap0031043								X			X			X				
23	BH11 0.8-1.0	Apr 13, 2023		Soil	S23-Ap0031044		X																
24	BH11 2.0-2.5	Apr 13, 2023		Soil	S23-Ap0031045		X																
25	BH11 3.0-3.1	Apr 13, 2023		Soil	S23-Ap0031046					X			X	X		X		X					

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
26	BH13 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031047											X			X				
27	BH13 0.0-0.9	Apr 13, 2023		Soil	S23-Ap0031048		X																
28	BH13 2.0-2.1	Apr 13, 2023		Soil	S23-Ap0031049					X	X	X				X		X					
29	BH13 1.7-2.5	Apr 13, 2023		Soil	S23-Ap0031050		X																
30	BH13 4.0-4.1	Apr 13, 2023		Soil	S23-Ap0031051									X		X							
31	BH14 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031052											X			X				
32	BH14 0.0-0.6	Apr 13, 2023		Soil	S23-Ap0031053		X																
33	BH14 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031054	X			X	X	X	X				X	X	X				X	
34	BH14 0.6-1.6	Apr 13, 2023		Soil	S23-Ap0031055		X																
35	BH14 3.4-3.5	Apr 13, 2023		Soil	S23-Ap0031056									X	X								
36	BH15 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031057											X			X				
37	BH15 0.0-1.0	Apr 13, 2023		Soil	S23-Ap0031058		X																
38	BH15 2.4-2.5	Apr 13, 2023		Soil	S23-Ap0031059											X			X				
39	BH15 2.5-3.5	Apr 13, 2023		Soil	S23-Ap0031060		X																

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
40	BH15 4.9-5.0	Apr 13, 2023		Soil	S23-Ap0031061									X	X								
41	BH16 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031062								X			X			X				
42	BH16 0.0-0.8	Apr 13, 2023		Soil	S23-Ap0031063		X																
43	BH16 0.8-0.9	Apr 13, 2023		Soil	S23-Ap0031064								X			X			X				
44	BH16 0.8-1.0	Apr 13, 2023		Soil	S23-Ap0031065		X																
45	BH16 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031066					X			X			X		X					
46	QA01	Apr 13, 2023		Soil	S23-Ap0031067											X			X				
47	QAP01	Apr 13, 2023		Soil	S23-Ap0031068											X						X	
48	QAB01	Apr 13, 2023		Soil	S23-Ap0031069		X																
49	QA03	Apr 14, 2023		Soil	S23-Ap0031070								X			X			X				
50	QAB03	Apr 14, 2023		Soil	S23-Ap0031071		X																
51	Rinsate	Apr 14, 2023		Water	S23-Ap0031072															X		X	
52	TS	Apr 14, 2023		Trip Spike (liquid)	S23-Ap0031073																		X

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
53	BLANK	Apr 14, 2023		Water	S23-Ap0031074																	X	
54	BH02 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031075			X															
55	BH03A 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031076			X															
56	BH03A 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031077			X															
57	BH04 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031078			X															
58	BH04 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031079			X															
59	BH04 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031080			X															
60	BH05 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031081			X															
61	BH05 0.9-1.0	Apr 14, 2023		Soil	S23-Ap0031082			X															
62	BH05 2.2-3.2	Apr 14, 2023		Soil	S23-Ap0031083			X															
63	BH05 4.1-4.2	Apr 14, 2023		Soil	S23-Ap0031084			X															
64	BH11 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031085			X															
65	BH11 1.0-1.1	Apr 13, 2023		Soil	S23-Ap0031086			X															
66	BH11 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031087			X															

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
67	BH11 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031088			X															
68	BH11 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031089			X															
69	BH11 3.9-4.0	Apr 13, 2023		Soil	S23-Ap0031090			X															
70	BH11 4.9-5.0	Apr 13, 2023		Soil	S23-Ap0031091			X															
71	BH11 5.9-6.0	Apr 13, 2023		Soil	S23-Ap0031092			X															
72	BH13 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031093			X															
73	BH13 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031094			X															
74	BH13 1.1-1.2	Apr 13, 2023		Soil	S23-Ap0031095			X															
75	BH13 1.1-1.4	Apr 13, 2023		Soil	S23-Ap0031096			X															
76	BH13 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031097			X															
77	BH13 1.4-1.7	Apr 13, 2023		Soil	S23-Ap0031098			X															
78	BH13 3.0-3.1	Apr 13, 2023		Soil	S23-Ap0031099			X															
79	BH14 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031100			X															
80	BH14 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031101			X															

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

Order No.:
Report #: 981107
Phone: 02 8245 0300
Fax:

Received: Apr 14, 2023 6:24 PM
Due: Apr 24, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Project Name: Pyrmont
Project ID: 64669

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
81	BH14 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031102			X															
82	BH14 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031103			X															
83	BH15 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031104			X															
84	BH15 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031105			X															
85	BH15 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031106			X															
86	BH15 1.0-1.5	Apr 13, 2023		Soil	S23-Ap0031107			X															
87	BH15 1.4-1.5	Apr 13, 2023		Soil	S23-Ap0031108			X															
88	BH15 1.5-2.5	Apr 13, 2023		Soil	S23-Ap0031109			X															
89	BH15 3.9-4.0	Apr 13, 2023		Soil	S23-Ap0031110			X															
90	BH15 4.5-4.6	Apr 13, 2023		Soil	S23-Ap0031111			X															
91	BH15 5.5-5.6	Apr 13, 2023		Soil	S23-Ap0031112			X															
92	BH16 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031113			X															
93	BH16 1.0-1.1	Apr 13, 2023		Soil	S23-Ap0031114			X															
94	QA02	Apr 13, 2023		Soil	S23-Ap0031115			X															

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
95	QAB02	Apr 13, 2023		Soil	S23-Ap0031116			X															
96	TB	Apr 14, 2023		Trip Blank (liquid)	S23-Ap0031117																X		
97	BH015 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031369			X															
98	BH15 5.0-5.1	Apr 13, 2023		Soil	S23-Ap0031460			X															
Test Counts						4	19	44	4	7	5	3	10	6	31	31	4	7	18	1	1	7	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
CFU: Colony forming unit		

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.

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	
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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	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	
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
Conductivity (1:5 aqueous extract at 25 °C as rec.)	uS/cm	< 10			10	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	
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
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							
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
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							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	95			70-130	Pass	
TRH C10-C14	%	112			70-130	Pass	
TRH C6-C10	%	98			70-130	Pass	
TRH >C10-C16	%	112			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	110			70-130	Pass	
Toluene	%	96			70-130	Pass	
Ethylbenzene	%	108			70-130	Pass	
m&p-Xylenes	%	107			70-130	Pass	
o-Xylene	%	106			70-130	Pass	
Xylenes - Total*	%	107			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	107			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	99			70-130	Pass	
Acenaphthylene	%	98			70-130	Pass	
Anthracene	%	97			70-130	Pass	
Benz(a)anthracene	%	96			70-130	Pass	
Benzo(a)pyrene	%	106			70-130	Pass	
Benzo(b&j)fluoranthene	%	87			70-130	Pass	
Benzo(g.h.i)perylene	%	92			70-130	Pass	
Benzo(k)fluoranthene	%	120			70-130	Pass	
Chrysene	%	111			70-130	Pass	
Dibenz(a.h)anthracene	%	81			70-130	Pass	
Fluoranthene	%	92			70-130	Pass	
Fluorene	%	96			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	91			70-130	Pass	
Naphthalene	%	96			70-130	Pass	
Phenanthrene	%	80			70-130	Pass	
Pyrene	%	91			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chlordanes - Total	%	96			70-130	Pass	
4.4'-DDD	%	123			70-130	Pass	
4.4'-DDE	%	95			70-130	Pass	
4.4'-DDT	%	90			70-130	Pass	
a-HCH	%	99			70-130	Pass	
Aldrin	%	96			70-130	Pass	
b-HCH	%	94			70-130	Pass	
d-HCH	%	92			70-130	Pass	
Dieldrin	%	95			70-130	Pass	
Endosulfan I	%	97			70-130	Pass	
Endosulfan II	%	94			70-130	Pass	
Endosulfan sulphate	%	86			70-130	Pass	
Endrin	%	85			70-130	Pass	
Endrin aldehyde	%	90			70-130	Pass	
Endrin ketone	%	94			70-130	Pass	
g-HCH (Lindane)	%	97			70-130	Pass	
Heptachlor	%	97			70-130	Pass	
Heptachlor epoxide	%	95			70-130	Pass	
Hexachlorobenzene	%	91			70-130	Pass	
Methoxychlor	%	96			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	87			70-130	Pass	
Aroclor-1260	%	82			70-130	Pass	
LCS - % Recovery							
Conductivity (1:5 aqueous extract at 25 °C as rec.)	%	112			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	107			80-120	Pass	
Cadmium	%	107			80-120	Pass	
Chromium	%	120			80-120	Pass	
Copper	%	118			80-120	Pass	
Lead	%	112			80-120	Pass	
Mercury	%	105			80-120	Pass	
Nickel	%	100			80-120	Pass	
Zinc	%	101			80-120	Pass	
LCS - % Recovery							
Volatile Organics							
1.2-Dichlorobenzene	%	98			70-130	Pass	
1.2-Dichloroethane	%	85			70-130	Pass	
Benzene	%	99			70-130	Pass	
Ethylbenzene	%	106			70-130	Pass	
m&p-Xylenes	%	109			70-130	Pass	
o-Xylene	%	108			70-130	Pass	
Toluene	%	97			70-130	Pass	
Xylenes - Total*	%	109			70-130	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	114			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	119			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	115			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	121			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	119			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	119			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorodecanoic acid (PFDA)	%	116			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	132			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	126			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	107			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	118			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	113			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	112			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	111			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	109			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	119			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	119			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	121			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	113			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	125			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	110			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	101			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	120			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	106			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	119			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	132			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	104			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	112			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	116			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	107			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	S23-Ap0002613	NCP	%	96			70-130	Pass	
TRH >C10-C16	S23-Ap0002613	NCP	%	98			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	N23-Ap0034493	NCP	%	106			70-130	Pass	
Acenaphthylene	N23-Ap0034493	NCP	%	98			70-130	Pass	
Anthracene	N23-Ap0034493	NCP	%	116			70-130	Pass	
Benz(a)anthracene	N23-Ap0034493	NCP	%	79			70-130	Pass	
Benzo(a)pyrene	N23-Ap0034493	NCP	%	72			70-130	Pass	
Benzo(b&j)fluoranthene	N23-Ap0034493	NCP	%	82			70-130	Pass	
Benzo(g.h.i)perylene	N23-Ap0034493	NCP	%	81			70-130	Pass	
Benzo(k)fluoranthene	N23-Ap0034493	NCP	%	97			70-130	Pass	
Chrysene	N23-Ap0034493	NCP	%	96			70-130	Pass	
Dibenz(a.h)anthracene	N23-Ap0034493	NCP	%	84			70-130	Pass	
Fluoranthene	N23-Ap0034493	NCP	%	104			70-130	Pass	
Fluorene	N23-Ap0034493	NCP	%	105			70-130	Pass	
Indeno(1.2.3-cd)pyrene	N23-Ap0034493	NCP	%	83			70-130	Pass	
Naphthalene	N23-Ap0034493	NCP	%	109			70-130	Pass	
Phenanthrene	N23-Ap0034493	NCP	%	97			70-130	Pass	
Pyrene	N23-Ap0034493	NCP	%	107			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	S23-Ap0028376	NCP	%	100			75-125	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S23-Ap0028365	NCP	%	86			70-130	Pass	
4.4'-DDD	S23-Ap0028365	NCP	%	110			70-130	Pass	
4.4'-DDE	S23-Ap0028365	NCP	%	90			70-130	Pass	
4.4'-DDT	S23-Ap0028365	NCP	%	101			70-130	Pass	
a-HCH	S23-Ap0028365	NCP	%	86			70-130	Pass	
Aldrin	S23-Ap0028365	NCP	%	87			70-130	Pass	
b-HCH	S23-Ap0028365	NCP	%	85			70-130	Pass	
d-HCH	S23-Ap0028365	NCP	%	86			70-130	Pass	
Dieldrin	S23-Ap0028365	NCP	%	84			70-130	Pass	
Endosulfan I	S23-Ap0028365	NCP	%	88			70-130	Pass	
Endosulfan II	S23-Ap0028365	NCP	%	81			70-130	Pass	
Endosulfan sulphate	S23-Ap0028365	NCP	%	93			70-130	Pass	
Endrin	S23-Ap0028365	NCP	%	76			70-130	Pass	
Endrin aldehyde	S23-Ap0028365	NCP	%	59			70-130	Fail	Q08
Endrin ketone	S23-Ap0028365	NCP	%	98			70-130	Pass	
g-HCH (Lindane)	S23-Ap0028365	NCP	%	86			70-130	Pass	
Heptachlor	S23-Ap0028365	NCP	%	88			70-130	Pass	
Heptachlor epoxide	S23-Ap0028365	NCP	%	87			70-130	Pass	
Hexachlorobenzene	S23-Ap0028365	NCP	%	83			70-130	Pass	
Methoxychlor	S23-Ap0028365	NCP	%	136			70-130	Fail	Q08
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S23-Ap0028365	NCP	%	84			70-130	Pass	
Aroclor-1260	S23-Ap0028365	NCP	%	87			70-130	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	S23-Ap0041280	NCP	%	94			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S23-Ap0041280	NCP	%	94			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	S23-Ap0041280	NCP	%	94			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S23-Ap0041280	NCP	%	99			50-150	Pass	
Perfluorooctanoic acid (PFOA)	S23-Ap0041280	NCP	%	101			50-150	Pass	
Perfluorononanoic acid (PFNA)	S23-Ap0041280	NCP	%	99			50-150	Pass	
Perfluorodecanoic acid (PFDA)	S23-Ap0041280	NCP	%	100			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	S23-Ap0041280	NCP	%	98			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S23-Ap0041280	NCP	%	102			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	S23-Ap0041280	NCP	%	90			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S23-Ap0041280	NCP	%	103			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	S23-Ap0041280	NCP	%	96			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S23-Ap0041280	NCP	%	96			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S23-Ap0041280	NCP	%	94			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S23-Ap0041280	NCP	%	100			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S23-Ap0041280	NCP	%	113			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S23-Ap0041280	NCP	%	91			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S23-Ap0041280	NCP	%	99			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	S23-Ap0041280	NCP	%	97			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	S23-Ap0041280	NCP	%	98			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S23-Ap0041280	NCP	%	90			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S23-Ap0041280	NCP	%	86			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S23-Ap0041280	NCP	%	94			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S23-Ap0041280	NCP	%	86			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	S23-Ap0041280	NCP	%	94			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	S23-Ap0041280	NCP	%	100			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S23-Ap0041280	NCP	%	92			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S23-Ap0041280	NCP	%	92			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S23-Ap0041280	NCP	%	85			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S23-Ap0041280	NCP	%	96			50-150	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S23-Ap0031041	CP	%	85			70-130	Pass	
TRH C6-C10	S23-Ap0031041	CP	%	86			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S23-Ap0031041	CP	%	97			70-130	Pass	
Toluene	S23-Ap0031041	CP	%	88			70-130	Pass	
Ethylbenzene	S23-Ap0031041	CP	%	97			70-130	Pass	
m&p-Xylenes	S23-Ap0031041	CP	%	96			70-130	Pass	
o-Xylene	S23-Ap0031041	CP	%	100			70-130	Pass	
Xylenes - Total*	S23-Ap0031041	CP	%	97			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S23-Ap0031041	CP	%	98			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S23-Ap0031041	CP	%	100			75-125	Pass	
Cadmium	S23-Ap0031041	CP	%	108			75-125	Pass	
Chromium	S23-Ap0031041	CP	%	91			75-125	Pass	
Copper	S23-Ap0031041	CP	%	78			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mercury	S23-Ap0031041	CP	%	107			75-125	Pass	
Nickel	S23-Ap0031041	CP	%	106			75-125	Pass	
Zinc	S23-Ap0031041	CP	%	82			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 C10-C14	S23-Ap0002610	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S23-Ap0002610	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S23-Ap0002610	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	S23-Ap0002610	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S23-Ap0002610	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S23-Ap0002610	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-Ap0031022	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-Ap0031022	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S23-Ap0031022	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-Ap0031022	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-Ap0031022	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S23-Ap0031022	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-Ap0031022	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S23-Ap0028344	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S23-Ap0028344	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S23-Ap0028344	NCP	mg/kg	0.6	< 0.5	98	30%	Fail	Q15
Benz(a)anthracene	S23-Ap0028344	NCP	mg/kg	1.7	0.7	82	30%	Fail	Q15
Benzo(a)pyrene	S23-Ap0028344	NCP	mg/kg	1.6	0.7	77	30%	Fail	Q15
Benzo(b&j)fluoranthene	S23-Ap0028344	NCP	mg/kg	1.4	0.6	68	30%	Fail	Q15
Benzo(g.h.i)perylene	S23-Ap0028344	NCP	mg/kg	1.0	< 0.5	67	30%	Fail	Q15
Benzo(k)fluoranthene	S23-Ap0028344	NCP	mg/kg	1.9	0.9	69	30%	Fail	Q15
Chrysene	S23-Ap0028344	NCP	mg/kg	2.0	0.9	76	30%	Fail	Q15
Dibenz(a.h)anthracene	S23-Ap0028344	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S23-Ap0028344	NCP	mg/kg	4.6	1.7	89	30%	Fail	Q15
Fluorene	S23-Ap0028344	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S23-Ap0028344	NCP	mg/kg	1.0	< 0.5	82	30%	Fail	Q15
Naphthalene	S23-Ap0028344	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S23-Ap0028344	NCP	mg/kg	2.7	0.7	110	30%	Fail	Q15
Pyrene	S23-Ap0028344	NCP	mg/kg	5.1	1.9	94	30%	Fail	Q15
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	M23-Ap0046748	NCP	uS/cm	240	250	2.7	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S23-Ap0033526	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S23-Ap0033526	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S23-Ap0033526	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	S23-Ap0033526	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S23-Ap0033526	NCP	mg/kg	6.4	6.0	6.7	30%	Pass	
Mercury	S23-Ap0033526	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S23-Ap0033526	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S23-Ap0033526	NCP	mg/kg	18	17	1.9	30%	Pass	

Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-Ap0031022	CP	%	17	16	6.6	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S23-Ap0036131	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S23-Ap0036131	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S23-Ap0036131	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S23-Ap0036131	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S23-Ap0036131	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S23-Ap0036131	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S23-Ap0036131	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S23-Ap0036131	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S23-Ap0036131	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S23-Ap0036131	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S23-Ap0036131	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S23-Ap0031025	CP	ug/kg	< 10	< 10	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S23-Ap0031025	CP	ug/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	N23-Ap0031820	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	N23-Ap0031820	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	S23-Ap0031025	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)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S23-Ap0031025	CP	ug/kg	< 10	< 10	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S23-Ap0031025	CP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S23-Ap0031033	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10	S23-Ap0031033	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-Ap0031033	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-Ap0031033	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S23-Ap0031033	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-Ap0031033	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-Ap0031033	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S23-Ap0031033	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S23-Ap0031033	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
pH (1:5 Aqueous extract at 25 °C as rec.)	S23-Ap0031035	CP	pH Units	7.5	7.4	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-Ap0031036	CP	%	22	22	<1	30%	Pass	

Duplicate									
Actual Acidity (NLM-3.2)				Result 1	Result 2	RPD			
pH-KCL (NLM-3.1)	S23-Ap0031051	CP	pH Units	6.4	6.4	<1	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	S23-Ap0031051	CP	mol H+/t	3.2	3.1	1.5	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	S23-Ap0031051	CP	% pyrite S	0.005	0.005	1.5	30%	Pass	
Duplicate									
Potential Acidity - Titratable Peroxide				Result 1	Result 2	RPD			
pH-OX	S23-Ap0031051	CP	pH Units	6.0	6.0	<1	20%	Pass	
Titratable Peroxide Acidity (s-TPA)	S23-Ap0031051	CP	% pyrite S	< 0.02	< 0.02	<1	30%	Pass	
Titratable Peroxide Acidity (a-TPA)	S23-Ap0031051	CP	mol H+/t	< 2	< 2	<1	20%	Pass	
Titratable Sulfidic Acidity (a-TSA)	S23-Ap0031051	CP	mol H+/t	< 2	< 2	<1	30%	Pass	
Titratable Sulfidic Acidity (s-TSA)	S23-Ap0031051	CP	% pyrite S	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Extractable Sulfur				Result 1	Result 2	RPD			
Sulfur - KCl Extractable	S23-Ap0031051	CP	% S	0.023	0.022	2.6	30%	Pass	
Peroxide Extractable Sulfur	S23-Ap0031051	CP	% S	0.026	0.026	<1	20%	Pass	
HCl Extractable Sulfur	S23-Ap0031051	CP	% S	N/A	N/A	N/A	20%	Pass	
Duplicate									
Potential Acidity (SPOS)				Result 1	Result 2	RPD			
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	S23-Ap0031051	CP	% S	< 0.005	< 0.005	<1	30%	Pass	
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	S23-Ap0031051	CP	mol H+/t	< 2	< 2	<1	30%	Pass	
Duplicate									
Retained Acidity (S-NAS)				Result 1	Result 2	RPD			
Net Acid soluble sulfur (s-SNAS) NLM-4.1	S23-Ap0031051	CP	% S	N/A	N/A	N/A	30%	Pass	
Net Acid soluble sulfur (a-SNAS) NLM-4.1	S23-Ap0031051	CP	mol H+/t	N/A	N/A	N/A	30%	Pass	
Duplicate									
Extractable Calcium				Result 1	Result 2	RPD			
Calcium - KCl Extractable	S23-Ap0031051	CP	% Ca	0.058	0.059	<1	30%	Pass	
Calcium - Peroxide	S23-Ap0031051	CP	% Ca	0.063	0.063	<1	20%	Pass	
Calcium - Acid Reacted	S23-Ap0031051	CP	% Ca	< 0.005	< 0.005	<1	30%	Pass	
Calcium - Acid Reacted (s-aCa)	S23-Ap0031051	CP	% S	< 0.005	< 0.005	<1	30%	Pass	
Calcium - Acid Reacted (a-aCa)	S23-Ap0031051	CP	mol H+/t	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Extractable Magnesium				Result 1	Result 2	RPD			
Magnesium - KCl Extractable	S23-Ap0031051	CP	% Mg	0.012	0.012	<1	30%	Pass	
Magnesium - Peroxide	S23-Ap0031051	CP	% Mg	0.013	0.014	2.6	20%	Pass	
Magnesium - Acid Reacted	S23-Ap0031051	CP	% Mg	< 0.005	< 0.005	<1	30%	Pass	
Magnesium - Acid Reacted (s-aCa)	S23-Ap0031051	CP	% S	< 0.005	< 0.005	<1	30%	Pass	
Magnesium - Acid Reacted (a-aCa)	S23-Ap0031051	CP	mol H+/t	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Acid Neutralising Capacity (ANCE)				Result 1	Result 2	RPD			
Acid Neutralising Capacity - (ANCE)	S23-Ap0031051	CP	% CaCO3	N/A	N/A	N/A	30%	Pass	
Acid Neutralising Capacity - (a-ANCE)	S23-Ap0031051	CP	mol H+/t	n/a	n/a	N/A	30%	Pass	
Duplicate									
Acid Neutralising Capacity (ANCbt)				Result 1	Result 2	RPD			
ANC Fineness Factor	S23-Ap0031051	CP	factor	1.5	1.5	<1	30%	Pass	
Duplicate									
Net Acidity (Including ANC)				Result 1	Result 2	RPD			
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	S23-Ap0031051	CP	mol H+/t	< 10	< 10	<1	30%	Pass	
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	S23-Ap0031051	CP	% S	< 0.02	< 0.02	<1	30%	Pass	
SPOCAS - Liming rate - ASSMAC	S23-Ap0031051	CP	kg CaCO3/t	< 1	< 1	<1	30%	Pass	

Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-Ap0031054	CP	%	6.8	7.0	2.3	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S23-Ap0031062	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10	S23-Ap0031062	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-Ap0031062	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-Ap0031062	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S23-Ap0031062	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-Ap0031062	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-Ap0031062	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S23-Ap0031062	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-Ap0031062	CP	mg/kg	4.7	4.8	1.5	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Dichlorodifluoromethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S23-Ap0031062	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-Ap0031070	CP	%	9.3	11	16	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
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).
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
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 Black	Analytical Services Manager
Caitlin Breeze	Senior Analyst-Inorganic
Emily Rosenberg	Senior Analyst-Metal
Jonathon Angell	Senior Analyst-Inorganic
Jonathon Angell	Senior Analyst-SPOCAS
Laxman Dias	Senior Analyst-Asbestos
Mickael Ros	Senior Analyst-Metal
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Inorganic
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile

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.

Certificate of Analysis

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:	**Milad Noujaim**
Report	**981107-W**
Project name	Pyrmont
Project ID	64669
Received Date	Apr 14, 2023

Client Sample ID			**Rinsate**	**TS**	**BLANK**	**TB**
Sample Matrix			**Water**	**Trip Spike (liquid)**	**Water**	**Trip Blank (liquid)**
Eurofins Sample No.			**S23-Ap0031072**	**S23-Ap0031073**	**S23-Ap0031074**	**S23-Ap0031117**
Date Sampled			**Apr 14, 2023**	**Apr 14, 2023**	**Apr 14, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	-	-	< 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	-	-	-
TRH C6-C10	0.02	mg/L	< 0.02	-	-	< 0.02
TRH C6-C10 less BTEX (F1)N04	0.02	mg/L	< 0.02	-	-	< 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	%	123	-	-	128
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
NaphthaleneN02	0.01	mg/L	< 0.01	-	-	-
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)fluorantheneN07	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	-	-	-

Client Sample ID			**Rinsate**	**TS**	**BLANK**	**TB**
Sample Matrix			**Water**	**Trip Spike (liquid)**	**Water**	**Trip Blank (liquid)**
Eurofins Sample No.			**S23-Ap0031072**	**S23-Ap0031073**	**S23-Ap0031074**	**S23-Ap0031117**
Date Sampled			**Apr 14, 2023**	**Apr 14, 2023**	**Apr 14, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	%	101	-	-	-
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	%	^{Q09}INT	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	^{Q09}INT	-	-	-
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	%	^{Q09}INT	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	^{Q09}INT	-	-	-

Client Sample ID			Rinsate	TS	BLANK	TB
Sample Matrix			Water	Trip Spike (liquid)	Water	Trip Blank (liquid)
Eurofins Sample No.			S23-Ap0031072	S23-Ap0031073	S23-Ap0031074	S23-Ap0031117
Date Sampled			Apr 14, 2023	Apr 14, 2023	Apr 14, 2023	Apr 14, 2023
Test/Reference	LOR	Unit				
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	< 0.001	-	-	-
Zinc (filtered)	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	%	62	-	90	-
13C5-PFPeA (surr.)	1	%	69	-	92	-
13C5-PFHxA (surr.)	1	%	67	-	97	-
13C4-PFHpA (surr.)	1	%	66	-	92	-
13C8-PFOA (surr.)	1	%	72	-	100	-
13C5-PFNA (surr.)	1	%	64	-	95	-
13C6-PFDA (surr.)	1	%	64	-	93	-
13C2-PFUnDA (surr.)	1	%	73	-	114	-
13C2-PFDoDA (surr.)	1	%	107	-	164	-
13C2-PFTeDA (surr.)	1	%	71	-	107	-
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	%	74	-	115	-
D3-N-MeFOSA (surr.)	1	%	53	-	89	-
D5-N-EtFOSA (surr.)	1	%	58	-	95	-
D7-N-MeFOSE (surr.)	1	%	59	-	86	-
D9-N-EtFOSE (surr.)	1	%	60	-	88	-
D5-N-EtFOSAA (surr.)	1	%	108	-	197	-
D3-N-MeFOSAA (surr.)	1	%	79	-	101	-

Client Sample ID			**Rinsate**	**TS**	**BLANK**	**TB**
Sample Matrix			**Water**	**Trip Spike (liquid)**	**Water**	**Trip Blank (liquid)**
Eurofins Sample No.			**S23-Ap0031072**	**S23-Ap0031073**	**S23-Ap0031074**	**S23-Ap0031117**
Date Sampled			**Apr 14, 2023**	**Apr 14, 2023**	**Apr 14, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
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	%	69	-	101	-
18O2-PFHxS (surr.)	1	%	72	-	103	-
13C8-PFOS (surr.)	1	%	71	-	99	-
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	%	64	-	92	-
13C2-6:2 FTSA (surr.)	1	%	70	-	97	-
13C2-8:2 FTSA (surr.)	1	%	64	-	94	-
13C2-10:2 FTSA (surr.)	1	%	85	-	178	-
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	-
TRH C6-C10	1	%	-	78	-	-
Naphthalene[N02]	0.01	mg/L	-	-	-	< 0.01
Total Recoverable Hydrocarbons						
Naphthalene	1	%	-	110	-	-
TRH C6-C9	1	%	-	81	-	-
BTEX						
Benzene	1	%	-	110	-	-
Ethylbenzene	1	%	-	110	-	-
m&p-Xylenes	1	%	-	110	-	-
o-Xylene	1	%	-	110	-	-
Toluene	1	%	-	110	-	-
Xylenes - Total	1	%	-	110	-	-
4-Bromofluorobenzene (surr.)	1	%	-	119	-	-

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	Apr 18, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 18, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Apr 17, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Apr 18, 2023	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
JBS&G Suite 2 (metals filtered)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 18, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Apr 18, 2023	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Apr 18, 2023	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Apr 18, 2023	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8 filtered	Sydney	Apr 18, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Sydney	Apr 18, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Sydney	Apr 18, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Sydney	Apr 18, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Sydney	Apr 18, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Sydney	Apr 17, 2023	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

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

Project Name: Pyrmont
Project ID: 64669

Order No.:
Report #: 981107
Phone: 02 8245 0300
Fax:

Received: Apr 14, 2023 6:24 PM
Due: Apr 24, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
External Laboratory																							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																		
1	BH01 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031022	X			X							X	X		X				
2	BH01 0.3-0.4	Apr 13, 2023		Soil	S23-Ap0031023											X			X				
3	BH01 0.0-0.4	Apr 13, 2023		Soil	S23-Ap0031024		X																
4	BH02 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031025								X			X			X			X	
5	BH02 0.9-1.0	Apr 14, 2023		Soil	S23-Ap0031026					X	X		X			X		X					
6	BH02 0.2-1.0	Apr 14, 2023		Soil	S23-Ap0031027		X																
7	BH03 0.1-0.2	Apr 13, 2023		Soil	S23-Ap0031028											X						X	
8	BH03 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031029											X			X				
9	BH03 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031030								X			X			X				
10	BH03 0.1-1.1	Apr 13, 2023		Soil	S23-Ap0031031		X																
11	BH03 1.1-1.5	Apr 13, 2023		Soil	S23-Ap0031032		X																

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

Project Name: Pyrmont
Project ID: 64669

Order No.:
Report #: 981107
Phone: 02 8245 0300
Fax:

Received: Apr 14, 2023 6:24 PM
Due: Apr 24, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	Metals M8	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
12	BH03 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031033					X	X		X	X		X		X					
13	BH04 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031034											X			X				
14	BH04 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031035	X			X							X	X		X				
15	BH04 5.9-6.0	Apr 13, 2023		Soil	S23-Ap0031036									X		X							
16	BH05 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031037											X			X				
17	BH05 0.2-1.2	Apr 14, 2023		Soil	S23-Ap0031038		X																
18	BH05 2.0-2.1	Apr 14, 2023		Soil	S23-Ap0031039					X	X	X				X		X					
19	BH05 1.2-2.2	Apr 14, 2023		Soil	S23-Ap0031040		X																
20	BH11 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031041	X			X							X	X		X			X	
21	BH11 0.0-0.8	Apr 13, 2023		Soil	S23-Ap0031042		X																
22	BH11 0.8-0.9	Apr 13, 2023		Soil	S23-Ap0031043								X			X			X				
23	BH11 0.8-1.0	Apr 13, 2023		Soil	S23-Ap0031044		X																
24	BH11 2.0-2.5	Apr 13, 2023		Soil	S23-Ap0031045		X																
25	BH11 3.0-3.1	Apr 13, 2023		Soil	S23-Ap0031046					X			X	X		X		X					

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
26	BH13 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031047											X			X				
27	BH13 0.0-0.9	Apr 13, 2023		Soil	S23-Ap0031048		X																
28	BH13 2.0-2.1	Apr 13, 2023		Soil	S23-Ap0031049					X	X	X				X		X					
29	BH13 1.7-2.5	Apr 13, 2023		Soil	S23-Ap0031050		X																
30	BH13 4.0-4.1	Apr 13, 2023		Soil	S23-Ap0031051									X		X							
31	BH14 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031052											X			X				
32	BH14 0.0-0.6	Apr 13, 2023		Soil	S23-Ap0031053		X																
33	BH14 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031054	X			X	X	X	X				X	X	X				X	
34	BH14 0.6-1.6	Apr 13, 2023		Soil	S23-Ap0031055		X																
35	BH14 3.4-3.5	Apr 13, 2023		Soil	S23-Ap0031056									X	X								
36	BH15 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031057											X			X				
37	BH15 0.0-1.0	Apr 13, 2023		Soil	S23-Ap0031058		X																
38	BH15 2.4-2.5	Apr 13, 2023		Soil	S23-Ap0031059											X			X				
39	BH15 2.5-3.5	Apr 13, 2023		Soil	S23-Ap0031060		X																

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
40	BH15 4.9-5.0	Apr 13, 2023		Soil	S23-Ap0031061									X	X								
41	BH16 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031062								X			X			X				
42	BH16 0.0-0.8	Apr 13, 2023		Soil	S23-Ap0031063		X																
43	BH16 0.8-0.9	Apr 13, 2023		Soil	S23-Ap0031064								X			X			X				
44	BH16 0.8-1.0	Apr 13, 2023		Soil	S23-Ap0031065		X																
45	BH16 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031066					X			X			X		X					
46	QA01	Apr 13, 2023		Soil	S23-Ap0031067											X			X				
47	QAP01	Apr 13, 2023		Soil	S23-Ap0031068											X						X	
48	QAB01	Apr 13, 2023		Soil	S23-Ap0031069		X																
49	QA03	Apr 14, 2023		Soil	S23-Ap0031070								X			X			X				
50	QAB03	Apr 14, 2023		Soil	S23-Ap0031071		X																
51	Rinsate	Apr 14, 2023		Water	S23-Ap0031072															X		X	
52	TS	Apr 14, 2023		Trip Spike (liquid)	S23-Ap0031073																		X

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
53	BLANK	Apr 14, 2023		Water	S23-Ap0031074																	X	
54	BH02 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031075			X															
55	BH03A 0.2-0.3	Apr 14, 2023		Soil	S23-Ap0031076			X															
56	BH03A 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031077			X															
57	BH04 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031078			X															
58	BH04 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031079			X															
59	BH04 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031080			X															
60	BH05 0.5-0.6	Apr 14, 2023		Soil	S23-Ap0031081			X															
61	BH05 0.9-1.0	Apr 14, 2023		Soil	S23-Ap0031082			X															
62	BH05 2.2-3.2	Apr 14, 2023		Soil	S23-Ap0031083			X															
63	BH05 4.1-4.2	Apr 14, 2023		Soil	S23-Ap0031084			X															
64	BH11 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031085			X															
65	BH11 1.0-1.1	Apr 13, 2023		Soil	S23-Ap0031086			X															
66	BH11 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031087			X															

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
67	BH11 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031088			X															
68	BH11 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031089			X															
69	BH11 3.9-4.0	Apr 13, 2023		Soil	S23-Ap0031090			X															
70	BH11 4.9-5.0	Apr 13, 2023		Soil	S23-Ap0031091			X															
71	BH11 5.9-6.0	Apr 13, 2023		Soil	S23-Ap0031092			X															
72	BH13 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031093			X															
73	BH13 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031094			X															
74	BH13 1.1-1.2	Apr 13, 2023		Soil	S23-Ap0031095			X															
75	BH13 1.1-1.4	Apr 13, 2023		Soil	S23-Ap0031096			X															
76	BH13 1.5-1.6	Apr 13, 2023		Soil	S23-Ap0031097			X															
77	BH13 1.4-1.7	Apr 13, 2023		Soil	S23-Ap0031098			X															
78	BH13 3.0-3.1	Apr 13, 2023		Soil	S23-Ap0031099			X															
79	BH14 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031100			X															
80	BH14 0.9-1.0	Apr 13, 2023		Soil	S23-Ap0031101			X															

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
81	BH14 1.9-2.0	Apr 13, 2023		Soil	S23-Ap0031102			X															
82	BH14 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031103			X															
83	BH15 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031104			X															
84	BH15 0.2-0.3	Apr 13, 2023		Soil	S23-Ap0031105			X															
85	BH15 0.5-0.6	Apr 13, 2023		Soil	S23-Ap0031106			X															
86	BH15 1.0-1.5	Apr 13, 2023		Soil	S23-Ap0031107			X															
87	BH15 1.4-1.5	Apr 13, 2023		Soil	S23-Ap0031108			X															
88	BH15 1.5-2.5	Apr 13, 2023		Soil	S23-Ap0031109			X															
89	BH15 3.9-4.0	Apr 13, 2023		Soil	S23-Ap0031110			X															
90	BH15 4.5-4.6	Apr 13, 2023		Soil	S23-Ap0031111			X															
91	BH15 5.5-5.6	Apr 13, 2023		Soil	S23-Ap0031112			X															
92	BH16 0.0-0.1	Apr 13, 2023		Soil	S23-Ap0031113			X															
93	BH16 1.0-1.1	Apr 13, 2023		Soil	S23-Ap0031114			X															
94	QA02	Apr 13, 2023		Soil	S23-Ap0031115			X															

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Melbourne Laboratory - NATA # 1261 Site # 1254										X							X	X	X	X	X		
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X							
95	QAB02	Apr 13, 2023		Soil	S23-Ap0031116			X															
96	TB	Apr 14, 2023		Trip Blank (liquid)	S23-Ap0031117																X		
97	BH015 2.9-3.0	Apr 13, 2023		Soil	S23-Ap0031369			X															
98	BH15 5.0-5.1	Apr 13, 2023		Soil	S23-Ap0031460			X															
Test Counts						4	19	44	4	7	5	3	10	6	31	31	4	7	18	1	1	7	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

ppm: parts per million

org/100 mL: Organisms per 100 millilitres

CFU: Colony forming unit

mg/L: milligrams per litre

ppb: parts per billion

NTU: Nephelometric Turbidity Units

µg/L: micrograms per litre

%: Percentage

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.

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	
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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
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 (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	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)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	%	95			70-130	Pass	
TRH C10-C14	%	101			70-130	Pass	
TRH C6-C10	%	93			70-130	Pass	
TRH >C10-C16	%	110			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	96			70-130	Pass	
Toluene	%	92			70-130	Pass	
Ethylbenzene	%	94			70-130	Pass	
m&p-Xylenes	%	96			70-130	Pass	
o-Xylene	%	94			70-130	Pass	
Xylenes - Total*	%	95			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	94			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	82			70-130	Pass	
Acenaphthylene	%	83			70-130	Pass	
Anthracene	%	83			70-130	Pass	
Benz(a)anthracene	%	88			70-130	Pass	
Benzo(a)pyrene	%	93			70-130	Pass	
Benzo(b&j)fluoranthene	%	93			70-130	Pass	
Benzo(g.h.i)perylene	%	80			70-130	Pass	
Benzo(k)fluoranthene	%	86			70-130	Pass	
Chrysene	%	99			70-130	Pass	
Dibenz(a.h)anthracene	%	86			70-130	Pass	
Fluoranthene	%	73			70-130	Pass	
Fluorene	%	78			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	87			70-130	Pass	
Naphthalene	%	73			70-130	Pass	
Phenanthrene	%	82			70-130	Pass	
Pyrene	%	76			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	83			70-130	Pass	
4.4'-DDD	%	129			70-130	Pass	
4.4'-DDE	%	98			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
a-HCH	%	118			70-130	Pass	
Aldrin	%	123			70-130	Pass	
b-HCH	%	121			70-130	Pass	
d-HCH	%	128			70-130	Pass	
Dieldrin	%	106			70-130	Pass	
Endosulfan I	%	127			70-130	Pass	
Endosulfan II	%	126			70-130	Pass	
Endosulfan sulphate	%	112			70-130	Pass	
Endrin	%	121			70-130	Pass	
Endrin aldehyde	%	108			70-130	Pass	
Endrin ketone	%	123			70-130	Pass	
g-HCH (Lindane)	%	129			70-130	Pass	
Heptachlor	%	104			70-130	Pass	
Heptachlor epoxide	%	91			70-130	Pass	
Hexachlorobenzene	%	92			70-130	Pass	
Methoxychlor	%	75			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	124			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	96			80-120	Pass	
Cadmium (filtered)	%	97			80-120	Pass	
Chromium (filtered)	%	99			80-120	Pass	
Copper (filtered)	%	101			80-120	Pass	
Lead (filtered)	%	101			80-120	Pass	
Mercury (filtered)	%	99			80-120	Pass	
Nickel (filtered)	%	99			80-120	Pass	
Zinc (filtered)	%	100			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	109			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	111			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	109			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	113			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	119			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	114			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	117			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	119			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	108			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	130			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	116			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	110			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	108			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	99			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	106			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	112			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	108			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	116			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	109			50-150	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorononanesulfonic acid (PFNS)			%	133			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)			%	97			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)			%	91			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)			%	118			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)			%	100			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)			%	114			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)			%	123			50-150	Pass	
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)			%	114			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)			%	121			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)			%	121			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)			%	115			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	S23-Ap0018281	NCP	%	107			70-130	Pass	
TRH >C10-C16	S23-Ap0018281	NCP	%	111			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthylene	S23-Ap0037124	NCP	%	74			70-130	Pass	
Anthracene	S23-Ap0037124	NCP	%	74			70-130	Pass	
Benz(a)anthracene	S23-Ap0037124	NCP	%	80			70-130	Pass	
Benzo(a)pyrene	S23-Ap0037124	NCP	%	85			70-130	Pass	
Benzo(b&j)fluoranthene	S23-Ap0037124	NCP	%	83			70-130	Pass	
Benzo(k)fluoranthene	S23-Ap0037124	NCP	%	88			70-130	Pass	
Chrysene	S23-Ap0037124	NCP	%	75			70-130	Pass	
Fluorene	S23-Ap0037124	NCP	%	70			70-130	Pass	
Phenanthrene	S23-Ap0037124	NCP	%	71			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	S23-Ap0037124	NCP	%	77			70-130	Pass	
4.4'-DDT	S23-Ap0037124	NCP	%	88			70-130	Pass	
a-HCH	S23-Ap0037124	NCP	%	73			70-130	Pass	
Aldrin	S23-Ap0037124	NCP	%	70			70-130	Pass	
b-HCH	S23-Ap0037124	NCP	%	73			70-130	Pass	
d-HCH	S23-Ap0037124	NCP	%	76			70-130	Pass	
Endosulfan I	S23-Ap0037124	NCP	%	75			70-130	Pass	
Endosulfan II	S23-Ap0037124	NCP	%	80			70-130	Pass	
Endosulfan sulphate	S23-Ap0037124	NCP	%	71			70-130	Pass	
Endrin	S23-Ap0037124	NCP	%	84			70-130	Pass	
Endrin ketone	S23-Ap0037124	NCP	%	70			70-130	Pass	
g-HCH (Lindane)	S23-Ap0037124	NCP	%	77			70-130	Pass	
Methoxychlor	S23-Ap0037124	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S23-Ap0037124	NCP	%	72			70-130	Pass	
Aroclor-1260	S23-Ap0037124	NCP	%	78			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	R23-Ap0024386	NCP	%	93			75-125	Pass	
Cadmium (filtered)	R23-Ap0024386	NCP	%	94			75-125	Pass	
Chromium (filtered)	R23-Ap0024386	NCP	%	94			75-125	Pass	
Copper (filtered)	R23-Ap0024386	NCP	%	91			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Lead (filtered)	R23-Ap0024386	NCP	%	94			75-125	Pass	
Mercury (filtered)	R23-Ap0024386	NCP	%	93			75-125	Pass	
Nickel (filtered)	R23-Ap0024386	NCP	%	90			75-125	Pass	
Zinc (filtered)	R23-Ap0024386	NCP	%	94			75-125	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	S23-Ap0030499	NCP	%	126			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S23-Ap0030499	NCP	%	132			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S23-Ap0030499	NCP	%	135			50-150	Pass	
Perfluorooctanoic acid (PFOA)	S23-Ap0030499	NCP	%	124			50-150	Pass	
Perfluorononanoic acid (PFNA)	S23-Ap0030499	NCP	%	123			50-150	Pass	
Perfluorodecanoic acid (PFDA)	S23-Ap0030499	NCP	%	117			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	S23-Ap0030499	NCP	%	119			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S23-Ap0030499	NCP	%	113			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S23-Ap0030499	NCP	%	121			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	S23-Ap0030499	NCP	%	111			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S23-Ap0030499	NCP	%	114			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S23-Ap0030499	NCP	%	103			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S23-Ap0030499	NCP	%	115			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S23-Ap0030499	NCP	%	112			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S23-Ap0030499	NCP	%	105			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S23-Ap0030499	NCP	%	121			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	S23-Ap0030499	NCP	%	124			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	S23-Ap0030499	NCP	%	137			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S23-Ap0030499	NCP	%	108			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S23-Ap0030499	NCP	%	110			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	W23-Ap0021369	NCP	%	95			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S23-Ap0030499	NCP	%	125			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	S23-Ap0030499	NCP	%	118			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	S23-Ap0030499	NCP	%	135			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S23-Ap0030499	NCP	%	113			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S23-Ap0030499	NCP	%	128			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S23-Ap0030499	NCP	%	115			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S23-Ap0030499	NCP	%	105			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	S23-Ap0030494	NCP	mg/L	0.11	0.11	3.9	30%	Pass	
TRH C10-C14	S23-Ap0029999	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S23-Ap0029999	NCP	mg/L	0.1	0.1	21	30%	Pass	
TRH C29-C36	S23-Ap0029999	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C6-C10	S23-Ap0030494	NCP	mg/L	0.11	0.11	3.8	30%	Pass	
TRH >C10-C16	S23-Ap0029999	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S23-Ap0029999	NCP	mg/L	0.2	0.2	21	30%	Pass	
TRH >C34-C40	S23-Ap0029999	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-Ap0030809	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S23-Ap0030809	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S23-Ap0030809	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S23-Ap0030809	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S23-Ap0030809	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S23-Ap0030809	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-Ap0030809	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	R23-Ap0024091	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	R23-Ap0024091	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	R23-Ap0024091	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	R23-Ap0024091	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead (filtered)	R23-Ap0024091	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	R23-Ap0024091	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	R23-Ap0024091	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc (filtered)	R23-Ap0024091	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	S23-Ap0033667	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	S23-Ap0033667	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S23-Ap0033667	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S23-Ap0033667	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S23-Ap0033667	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S23-Ap0033667	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S23-Ap0033667	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S23-Ap0033667	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	S23-Ap0033667	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)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S23-Ap0033667	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S23-Ap0033667	NCP	ug/L	< 0.01	< 0.01	<1	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
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:

Andrew Black	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile

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.

3 DAY TAT ADDITIONAL ANALYSIS AND LEACHATES: FW: Eurofins Test Results - Report 981107 : Site Pyrmont (64669)

Andrew Black <AndrewBlack@eurofins.com>
Fri 2023-04-28 1:31 PM
To: #AU25_Enviro_Sample_NSW <EnviroSampleNSW@eurofins.com>

INFO: INTERNAL EMAIL - Sent from your own Eurofins email domain.

Urgent additional thanks team on 3 day TAT but will need urgent extraction.

ALSO NOTE:

- Spread leftover soils from BH05_0.2-0.3 and send photos

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing Australia Pty Ltd
1 / 2 Frost Drive
Mayfield West, NSW, 2304
Phone: +61 2 9900 8490
Mobile: +61 410 220 750
Email: AndrewBlack@eurofins.com
Website: eurofins.com.au/environmental-testing

35 YEARS
TESTING FOR LIFE

From: Milad Noujaim <mnoujaim@jbsg.com.au>
Sent: Friday, 28 April 2023 12:57 PM
To: Adam Bateup <AdamBateup@eurofins.com>
Cc: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 981107 : Site Pyrmont (64669)

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Hi,

Can I please request the following:

- Heavy Metals and BaP TCLP and ASLP for BH05_0.2-0.3

- Lead and BaP TCLP and ASLP for BH16_0.8-0.9
- Lead and BaP TCLP and ASLP for BH11_0.8-0.9
- Heavy Metals, TRH and PAHs for BH16_0.9-1.0
- Rextract, resample and rerun BH05_0.2-0.3 for Heavy Metals, TRH, PAHs
- Spread leftover soils from BH05_0.2-0.3 and send photos

Can these be extracted today with a STD TAT.

Kind Regards,

Milad Noujaim | Project Manager | JBS&G
Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: AdamBateup@eurofins.com <AdamBateup@eurofins.com>
Sent: Monday, April 24, 2023 11:52 PM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Subject: Eurofins Test Results - Report 981107 : Site Pyrmont (64669)

Please find the attached draft reports

Kind regards,
Adam Bateup
Assistant Analytical Services Manager
My hours are 3 pm - 11 pm

Eurofins Environment Testing Australia Pty Ltd
179 Magowar Road
Girraween, NSW, 2145

Email: AdamBateup@eurofins.com
Website: www.eurofins.com/environmental-testing
View our latest EnviroNotes

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Milad Noujaim
Project name:	ADDITIONAL: Pyrmont
Project ID:	ADDITIONAL: 64669
Turnaround time:	3 Day
Date/Time received	Apr 28, 2023 12:00 AM
Eurofins reference	984766

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 : 11.3 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

Please note Sample BH16_0.9-1.0 was used during Asbestos testing and there was no extra sample supplied. This testing has been cancelled.

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Milad Noujaim - mnoujaim@jbsg.com.au.

Global Leader - Results you can trust

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

Order No.:
Report #: 984766
Phone: 02 8245 0300
Fax:

Received: Apr 28, 2023 12:00 AM
Due: May 3, 2023
Priority: 3 Day
Contact Name: Milad Noujaim

Project Name: ADDITIONAL: Pyrmont
Project ID: ADDITIONAL: 64669

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	CANCELLED	Lead	Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	USA Leaching Procedure	Metals M8	Moisture Set	Total Recoverable Hydrocarbons
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X
External Laboratory														
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
1	BH05_0.2-0.3	Apr 14, 2023		AUS Leachate	S23-Ap0060505	X				X		X		
2	BH16_0.8-0.9	Apr 14, 2023		AUS Leachate	S23-Ap0060506	X		X		X				
3	BH11_0.8-0.9	Apr 14, 2023		AUS Leachate	S23-Ap0060507	X		X		X				
4	BH16_0.9-1.0	Apr 14, 2023		Soil	S23-Ap0060508		X							
5	BH05_0.2-0.3_RESAMPLED	Apr 14, 2023		Soil	S23-Ap0060509				X			X	X	X
6	BH05_0.2-0.3	Apr 14, 2023		US Leachate	S23-Ap0060585	X					X	X		
7	BH16_0.8-0.9	Apr 14, 2023		US Leachate	S23-Ap0060586	X		X			X			
8	BH11_0.8-0.9	Apr 14, 2023		US Leachate	S23-Ap0060587	X		X			X			
Test Counts						6	1	4	1	3	3	3	1	1

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention:	**Milad Noujaim**
Report	**984766-L**
Project name	ADDITIONAL: Pyrmont
Project ID	ADDITIONAL: 64669
Received Date	Apr 28, 2023

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**BH05_0.2-0.3** **AUS Leachate** **S23-Ap0060505** **Apr 14, 2023**	**BH16_0.8-0.9** **AUS Leachate** **S23-Ap0060506** **Apr 14, 2023**	**BH11_0.8-0.9** **AUS Leachate** **S23-Ap0060507** **Apr 14, 2023**	**BH05_0.2-0.3** **US Leachate** **S23-Ap0060585** **Apr 14, 2023**
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Heavy Metals						
Arsenic	0.01	mg/L	0.01	-	-	< 0.01
Cadmium	0.005	mg/L	< 0.005	-	-	0.025
Chromium	0.05	mg/L	< 0.05	-	-	< 0.05
Copper	0.05	mg/L	0.09	-	-	0.70
Lead	0.01	mg/L	1.4	0.12	< 0.01	30
Mercury	0.001	mg/L	0.006	-	-	0.002
Nickel	0.01	mg/L	< 0.01	-	-	0.05
Zinc	0.05	mg/L	0.42	-	-	41
AUS Leaching Procedure						
Leachate Fluid[C01]		comment	4.0	4.0	4.0	-
pH (initial)	0.1	pH Units	6.5	7.0	6.4	-
pH (Leachate fluid)	0.1	pH Units	6.6	6.6	6.6	-
pH (off)	0.1	pH Units	6.3	6.6	6.5	-
USA Leaching Procedure						
Leachate Fluid[C01]		comment	-	-	-	1.0
pH (initial)	0.1	pH Units	-	-	-	5.9
pH (off)	0.1	pH Units	-	-	-	5.1
pH (USA HCl addition)	0.1	pH Units	-	-	-	2.3

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**BH16_0.8-0.9** **US Leachate** **S23-Ap0060586** **Apr 14, 2023**	**BH11_0.8-0.9** **US Leachate** **S23-Ap0060587** **Apr 14, 2023**
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001
Heavy Metals				
Lead	0.01	mg/L	< 0.01	0.23

Client Sample ID			**BH16_0.8-0.9**	**BH11_0.8-0.9**
Sample Matrix			**US Leachate**	**US Leachate**
Eurofins Sample No.			**S23-Ap0060586**	**S23-Ap0060587**
Date Sampled			**Apr 14, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit		
USA Leaching Procedure				
Leachate Fluid[C01]		comment	1.0	1.0
pH (initial)	0.1	pH Units	7.2	6.8
pH (off)	0.1	pH Units	6.1	5.0
pH (USA HCl addition)	0.1	pH Units	2.3	2.3

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
Polycyclic Aromatic Hydrocarbons	Sydney	Apr 28, 2023	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Apr 28, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Heavy Metals	Sydney	Apr 28, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
AUS Leaching Procedure	Sydney	Apr 28, 2023	7 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
USA Leaching Procedure	Sydney	Apr 28, 2023	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			

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

Project Name: ADDITIONAL: Pyrmont
Project ID: ADDITIONAL: 64669

Order No.:
Report #: 984766
Phone: 02 8245 0300
Fax:

Received: Apr 28, 2023 12:00 AM
Due: May 3, 2023
Priority: 3 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	CANCELLED	Lead	Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	USA Leaching Procedure	Metals M8	Moisture Set	Total Recoverable Hydrocarbons
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X
External Laboratory														
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
1	BH05_0.2-0.3	Apr 14, 2023		AUS Leachate	S23-Ap0060505	X				X		X		
2	BH16_0.8-0.9	Apr 14, 2023		AUS Leachate	S23-Ap0060506	X		X		X				
3	BH11_0.8-0.9	Apr 14, 2023		AUS Leachate	S23-Ap0060507	X		X		X				
4	BH16_0.9-1.0	Apr 14, 2023		Soil	S23-Ap0060508		X							
5	BH05_0.2-0.3_RESAMPLED	Apr 14, 2023		Soil	S23-Ap0060509				X			X	X	X
6	BH05_0.2-0.3	Apr 14, 2023		US Leachate	S23-Ap0060585	X					X	X		
7	BH16_0.8-0.9	Apr 14, 2023		US Leachate	S23-Ap0060586	X		X			X			
8	BH11_0.8-0.9	Apr 14, 2023		US Leachate	S23-Ap0060587	X		X			X			
Test Counts						6	1	4	1	3	3	3	1	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
CFU: Colony forming unit		

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.

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/L	< 0.01			0.01	Pass	
Cadmium			mg/L	< 0.005			0.005	Pass	
Chromium			mg/L	< 0.05			0.05	Pass	
Copper			mg/L	< 0.05			0.05	Pass	
Lead			mg/L	< 0.01			0.01	Pass	
Mercury			mg/L	< 0.001			0.001	Pass	
Nickel			mg/L	< 0.01			0.01	Pass	
Zinc			mg/L	< 0.05			0.05	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	92			80-120	Pass	
Cadmium			%	95			80-120	Pass	
Chromium			%	90			80-120	Pass	
Copper			%	88			80-120	Pass	
Lead			%	103			80-120	Pass	
Mercury			%	100			80-120	Pass	
Nickel			%	99			80-120	Pass	
Zinc			%	99			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S23-Ap0060507	CP	%	100			75-125	Pass	
Cadmium	S23-Ap0060507	CP	%	102			75-125	Pass	
Chromium	S23-Ap0060507	CP	%	96			75-125	Pass	
Copper	S23-Ap0060507	CP	%	91			75-125	Pass	
Lead	S23-Ap0060507	CP	%	105			75-125	Pass	
Mercury	S23-Ap0060507	CP	%	105			75-125	Pass	
Nickel	S23-Ap0060507	CP	%	104			75-125	Pass	
Zinc	S23-Ap0060507	CP	%	102			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S23-Ap0060505	CP	mg/L	0.01	0.01	<1	30%	Pass	
Cadmium	S23-Ap0060505	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chromium	S23-Ap0060505	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Copper	S23-Ap0060505	CP	mg/L	0.09	0.08	2.7	30%	Pass	
Lead	S23-Ap0060505	CP	mg/L	1.4	1.3	8.7	30%	Pass	
Mercury	S23-Ap0060505	CP	mg/L	0.006	0.006	1.4	30%	Pass	
Nickel	S23-Ap0060505	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Zinc	S23-Ap0060505	CP	mg/L	0.42	0.39	8.2	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Copper	S23-Ap0060505	NCP	mg/L	0.09	0.08	2.7	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S23-Ap0056806	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Cadmium	S23-Ap0056806	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chromium	S23-Ap0056806	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(a)pyrene	S23-Ap0060587	CP	mg/L	< 0.001	< 0.001	<1	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
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised by:

Andrew Black	Analytical Services Manager
Fang Yee Tan	Senior Analyst-Metal
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic

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.

Certificate of Analysis

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:	**Milad Noujaim**
Report	**984766-S**
Project name	ADDITIONAL: Pyrmont
Project ID	ADDITIONAL: 64669
Received Date	Apr 28, 2023

Client Sample ID			**BH05_0.2-0.3_RESAMPLED**
Sample Matrix			**Soil**
Eurofins Sample No.			**S23-Ap0060509**
Date Sampled			**Apr 14, 2023**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	360
TRH C15-C28	50	mg/kg	8000
TRH C29-C36	50	mg/kg	2900
TRH C10-C36 (Total)	50	mg/kg	11260
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)^{N04}	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	640
TRH >C10-C16 less Naphthalene (F2)^{N01}	50	mg/kg	639.1
TRH >C16-C34	100	mg/kg	9700
TRH >C34-C40	100	mg/kg	1900
TRH >C10-C40 (total)*	100	mg/kg	12240
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene^{N02}	0.5	mg/kg	0.9
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	23
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	23
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	23
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	4.3
Benz(a)anthracene	0.5	mg/kg	13
Benzo(a)pyrene	0.5	mg/kg	9.3
Benzo(b&j)fluoranthene^{N07}	0.5	mg/kg	20
Benzo(g.h.i)perylene	0.5	mg/kg	17
Benzo(k)fluoranthene	0.5	mg/kg	18
Chrysene	0.5	mg/kg	29
Dibenz(a.h)anthracene	0.5	mg/kg	7.1
Fluoranthene	0.5	mg/kg	57
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	14
Naphthalene	0.5	mg/kg	2.0
Phenanthrene	0.5	mg/kg	47

Client Sample ID			**BH05_0.2-0.3_RESAMPLED**
Sample Matrix			**Soil**
Eurofins Sample No.			**S23-Ap0060509**
Date Sampled			**Apr 14, 2023**
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Pyrene	0.5	mg/kg	53
Total PAH*	0.5	mg/kg	290
2-Fluorobiphenyl (surr.)	1	%	105
p-Terphenyl-d14 (surr.)	1	%	96
Heavy Metals			
Arsenic	2	mg/kg	82
Cadmium	0.4	mg/kg	3.3
Chromium	5	mg/kg	52
Copper	5	mg/kg	480
Lead	5	mg/kg	40000
Mercury	0.1	mg/kg	39
Nickel	5	mg/kg	15
Zinc	5	mg/kg	3600
Sample Properties			
% Moisture	1	%	10

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 - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Apr 28, 2023	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Apr 28, 2023	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Apr 28, 2023	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Apr 28, 2023	14 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Apr 28, 2023	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Sydney	Apr 28, 2023	14 Days

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

Project Name: ADDITIONAL: Pyrmont
Project ID: ADDITIONAL: 64669

Order No.:
Report #: 984766
Phone: 02 8245 0300
Fax:

Received: Apr 28, 2023 12:00 AM
Due: May 3, 2023
Priority: 3 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	CANCELLED	Lead	Polycyclic Aromatic Hydrocarbons	AUS Leaching Procedure	USA Leaching Procedure	Metals M8	Moisture Set	Total Recoverable Hydrocarbons
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X
External Laboratory														
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
1	BH05_0.2-0.3	Apr 14, 2023		AUS Leachate	S23-Ap0060505	X				X		X		
2	BH16_0.8-0.9	Apr 14, 2023		AUS Leachate	S23-Ap0060506	X		X		X				
3	BH11_0.8-0.9	Apr 14, 2023		AUS Leachate	S23-Ap0060507	X		X		X				
4	BH16_0.9-1.0	Apr 14, 2023		Soil	S23-Ap0060508		X							
5	BH05_0.2-0.3_RESAMPLED	Apr 14, 2023		Soil	S23-Ap0060509				X			X	X	X
6	BH05_0.2-0.3	Apr 14, 2023		US Leachate	S23-Ap0060585	X					X	X		
7	BH16_0.8-0.9	Apr 14, 2023		US Leachate	S23-Ap0060586	X		X			X			
8	BH11_0.8-0.9	Apr 14, 2023		US Leachate	S23-Ap0060587	X		X			X			
Test Counts						6	1	4	1	3	3	3	1	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
CFU: Colony forming unit		

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.

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	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	103			80-120	Pass	
Cadmium	%	103			80-120	Pass	
Chromium	%	92			80-120	Pass	
Copper	%	89			80-120	Pass	
Lead	%	110			80-120	Pass	
Mercury	%	103			80-120	Pass	
Nickel	%	106			80-120	Pass	
Zinc	%	108			80-120	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
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

Authorised by:

Andrew Black	Analytical Services Manager
Fang Yee Tan	Senior Analyst-Metal
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile

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.

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☐ Sydney Laboratory
179 Magowar Road, Girraween, NSW 2145
+61 2 9900 8400 EnviroSampleNSW@eurofins.com

Unit 1/21 Smallwood Place, Murarrie, QLD 4172
+61 7 3902 4600 EnviroSampleQLD@eurofins.com

+61 8 6253 4444 EnviroSampleWA@eurofins.com

+61 3 8564 5000 EnviroSampleVic@eurofins.com

Company JBS&G
Address Lvl 1, 50 Margaret St, Sydney, NSW, 2000
Contact Name Milad Noujaim
Phone № 0401 230 032
Special Directions
Purchase Order
Quote ID №

Project № 64669
Project Name Pymont
Project Manager Milad Noujaim
EDD Format ESdat, EQuIS etc
Sampler(s) MN/EA
Email for Invoice
Email for Results mnoujaim@jbsg.com.au

Required Turnaround Time (TAT)
Default will be 5 days if not ticked
◆Surcharge will apply
☐ Overnight (reporting by 9am)◆
☐ Same day◆
☐ 1 day◆
☐ 2 days◆
☐ 3 days◆
☑ 5 days (Standard)
☐ Other( )

Analyses Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing

Containers Change container type & size if necessary

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	JB2 Suite	Heavy Metals M8	TRH	BTEX	PAH	OCP	PCB	VOC	PFAS	SPOCAS	pH	CEC	% Clay	Asbestos - WA guidelines			500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other	Sample Comments / Dangerous Goods Warning
1	BH06 0-0.1	5/05/23	S	X																						1		
2	BH06 0.2-0.3	5/05/23	S																							1		
3	BH06 0-0.3	5/05/23	S														X			1								
4	BH06 0.3-0.4	5/05/23	S																							1		
5	BH06 0.5-0.6	5/05/23	S	X										X	X	X										1		
6	BH06 0.5-1.0	5/05/23	S														X			1								
7	BH06 0.9-1.0	5/05/23	S																							1		
8	BH07 0-0.1	5/05/23	S																							1		
9	BH07 0.2-0.3	5/05/23	S																							1		
10	BH07 0.5-0.6	5/05/23	S		X	X	X	X																	1	1		
11	BH07 0.9-1	5/05/23	S	X																					1	1		
12	BH07 0-1	5/05/23	S														X			1								
13	BH07 1-1.5	5/05/23	S														X			1								
14	BH07 1.5-2.5	5/05/23	S														X			1								
15	BH07 2-2.1	5/05/23	S	X								X													1	1		
16	BH07 2.5-3.5	5/05/23	S																	1								
17	BH07 3-3.1	5/05/23	S																							1		
18	BH07 3.5-4.5	5/05/23	S														X			1								
19	BH07 4-4.1	5/05/23	S																							1		
20	BH07 5.0-5.1	5/05/23	S																							1		
21	BH07 5.4-5.5	5/05/23	S										X							1						1		
22	BH08 0-0.1	5/05/23	S																							1		
23	BH08 0.2-0.3	5/05/23	S		X	X	X	X																	1	1		
24	BH08 0.5-0.6	5/05/23	S																							1		
25	BH08 0.9-1	5/05/23	S	X																						1		
26	BH08 0-1	5/05/23	S														X			1								
27	BH08 1-1.5	5/05/23	S														X			1								
28	BH08 2.5-3.5	5/05/23	S														X			1								
29	BH08 2-2.1	5/05/23	S																							1		
30	BH08 3.0-3.1	5/05/23	S																						1	1		
31	BH08 4.0-4.1	5/05/23	S		X	X	X	X						X	X	X										1		
32	BH08 3.5-4.5	5/05/23	S														X			1								

33	BH08 5.0-5.1	5/05/23	S																							1		
34	BH08 6.0-6.1	5/05/23	S																	1								
35	BH08 7.0-7.1	5/05/23	S																	1								
36	BH09 0-0.1	5/05/23	S			X	X	X																		1		
37	BH09 0.2-0.3	5/05/23	S	X							X														1	1		
38	BH09 0-0.3	5/05/23	S														X			1								
39	BH12 0.2-0.3	5/05/23	S								X															1		
40	BH12 0.5-0.6	5/05/23	S	X																						1		
41	BH12 0.7-0.8	5/05/23	S																							1		
42	BH12 0.9-1	5/05/23	S									X													1	1		
43	BH12 1.2-1.7	5/05/23	S														X			1								
44	BH12 1.4-1.5	5/05/23	S	X																						1		
45	BH12 1.7-1.8	5/05/23	S																							1		
46	BH12 1.7-2.7	5/05/23	S														X			1								
47	BH12 2.4-2.5	5/05/23	S		X	X	X	X																	1	1		
48	BH12 3.5-3.6	5/05/23	S																	1						1		
49	BH12 4.6-4.7	5/05/23	S																	1								
50	BH12 5.0-5.1	5/05/23	S										X							1						1		
51	BH12 5.9-6.0	5/05/23	S																	1						1		
52	Rin	5/05/23	W	X								X											1	1	1			
53	TS/TB	5/05/23	W				X																	1				
54	Blank	5/05/23	W									X													1			
		Total Counts		9	4	5	6	5			2	4	2	2	2	2	13			21			1	2	10	34		

Method of Shipment ☐ Courier (#) ☐ Hand Delivered ☐ Postal

Name **Milad Noujaim** Signature M.Noujaim Date 5/05/2023 Time

Laboratory Use Only

Received By [✓ SYD] | BNE | MEL | PER | ADL | NTL | DRW Signature Date 5/5 Time 6:30 Temperature 5.6°

Received By SYD | BNE | MEL | PER | ADL | NTL | DRW Signature Date Time Report № chilled

Eurofins Environment Testing Australia Pty Ltd EnviroSales@eurofins.com

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request

987142

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Milad Noujaim
Project name:	PYRMONT
Project ID:	64669
Turnaround time:	5 Day
Date/Time received	May 5, 2023 5:30 PM
Eurofins reference	987142

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 : 8.6 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

Sample bag BH7 1.5-2.5 not received analysis cancel. Received extra sample BH08 1.5-2.5 bag. Logged on hold. BH12 1.7-2.7 PFAS tub not received.
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:

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Milad Noujaim - mnoujaim@jbsg.com.au.

Global Leader - Results you can trust

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

Project Name: PYRMONT
Project ID: 64669

Order No.:
Report #: 987142
Phone: 02 8245 0300
Fax:

Received: May 5, 2023 5:30 PM
Due: May 12, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
External Laboratory																								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																			
1	BH06 0-0.1	May 05, 2023		Soil	S23-My0016838											X				X				
2	BH06 0.2-0.3	May 05, 2023		Soil	S23-My0016839				X															
3	BH06 0.5-0.6	May 05, 2023		Soil	S23-My0016840	X				X						X	X			X				
4	BH06 0.5-1.0	May 05, 2023		Soil	S23-My0016841		X																	
5	BH07 0.5-0.6	May 05, 2023		Soil	S23-My0016842											X			X					
6	BH07 0.9-1.0	May 05, 2023		Soil	S23-My0016843											X				X				
7	BH07 0-1.0	May 05, 2023		Soil	S23-My0016844		X																	
8	BH07 1-1.5	May 05, 2023		Soil	S23-My0016845		X																	
9	BH07 1.5-2.5	May 05, 2023		Soil	S23-My0016846			X																
10	BH07 2-2.1	May 05, 2023		Soil	S23-My0016847											X				X			X	
11	BH07 3.5-4.5	May 05, 2023		Soil	S23-My0016848		X																	

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Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
12	BH07 5.4-5.5	May 05, 2023		Soil	S23-My0016849									X	X									
13	BH08 0.2-0.3	May 05, 2023		Soil	S23-My0016850											X			X					
14	BH08 0.9-1.0	May 05, 2023		Soil	S23-My0016851											X				X				
15	BH08 0-1	May 05, 2023		Soil	S23-My0016852		X																	
16	BH08 1-1.5	May 05, 2023		Soil	S23-My0016853		X																	
17	BH08 2.5-3.5	May 05, 2023		Soil	S23-My0016854		X																	
18	BH08 4.0-4.1	May 05, 2023		Soil	S23-My0016855	X				X						X	X		X					
19	BH08 3.5-4.5	May 05, 2023		Soil	S23-My0016856		X																	
20	BH09 0-0.1	May 05, 2023		Soil	S23-My0016857						X	X				X		X						
21	BH09 0.2-0.3	May 05, 2023		Soil	S23-My0016858								X			X				X				
22	BH09 0-0.3	May 05, 2023		Soil	S23-My0016859		X																	
23	BH12 0.2-0.3	May 05, 2023		Soil	S23-My0016860								X			X								
24	BH12 0.5-0.6	May 05, 2023		Soil	S23-My0016861											X				X				
25	BH12 0.9-1	May 05, 2023		Soil	S23-My0016862											X							X	

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Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
26	BH12 1.2-1.7	May 05, 2023		Soil	S23-My0016863		X																	
27	BH12 1.4-1.5	May 05, 2023		Soil	S23-My0016864											X				X				
28	BH12 1.7-2.7	May 05, 2023		Soil	S23-My0016865			X																
29	BH12 2.4-2.5	May 05, 2023		Soil	S23-My0016866											X			X					
30	BH12 5.0-5.1	May 05, 2023		Soil	S23-My0016867									X	X									
31	RIN	May 05, 2023		Water	S23-My0016868																X		X	
32	BLANK	May 05, 2023		Water	S23-My0016869																		X	
33	BH06 0-0.3	May 05, 2023		Soil	S23-My0016870		X																	
34	BH06 0.3-0.4	May 05, 2023		Soil	S23-My0016871				X															
35	BH06 0.9-1.0	May 05, 2023		Soil	S23-My0016872				X															
36	BH07 0-0.1	May 05, 2023		Soil	S23-My0016873				X															
37	BH07 0.2-0.3	May 05, 2023		Soil	S23-My0016874				X															
38	BH07 2.5-3.5	May 05, 2023		Soil	S23-My0016875		X																	
39	BH07 3-3.1	May 05, 2023		Soil	S23-My0016876				X															

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Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
40	BH07 4-4.1	May 05, 2023		Soil	S23-My0016877				X															
41	BH07 5.0-5.1	May 05, 2023		Soil	S23-My0016878				X															
42	BH08 0-0.1	May 05, 2023		Soil	S23-My0016879				X															
43	BH08 0.5-0.6	May 05, 2023		Soil	S23-My0016880				X															
44	BH08 2-2.1	May 05, 2023		Soil	S23-My0016881				X															
45	BH08 3.0-3.1	May 05, 2023		Soil	S23-My0016882				X															
46	BH08 5.0-5.1	May 05, 2023		Soil	S23-My0016883				X															
47	BH08 6.0-6.1	May 05, 2023		Soil	S23-My0016884				X															
48	BH08 7.0-7.1	May 05, 2023		Soil	S23-My0016885				X															
49	BH12 0.7-0.8	May 05, 2023		Soil	S23-My0016886				X															
50	BH12 1.7-1.8	May 05, 2023		Soil	S23-My0016887				X															
51	BH12 3.5-3.6	May 05, 2023		Soil	S23-My0016888				X															
52	BH12 4.6-4.7	May 05, 2023		Soil	S23-My0016889				X															
53	BH12 5.9-6.0	May 05, 2023		Soil	S23-My0016890				X															

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Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
54	TB	May 05, 2023		Water	S23-My0016891																	X		
55	TS	May 05, 2023		Water	S23-My0016892																			X
56	BH08 1.5-2.5	May 05, 2023		Soil	S23-My0018502				X															
Test Counts						2	12	2	21	2	1	1	2	2	17	17	2	1	4	8	1	1	4	1

Certificate of Analysis

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:	Milad Noujaim
Report	987142-AID
Project Name	PYRMONT
Project ID	64669
Received Date	May 05, 2023
Date Reported	May 16, 2023

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 PYRMONT

Project ID 64669

Date Sampled May 05, 2023

Report 987142-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH06 0.5-1.0	23-My0016841	May 05, 2023	Approximate Sample 803g Sample consisted of: Brown fine-grained sandy soil, organic debris, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH07 0-1.0	23-My0016844	May 05, 2023	Approximate Sample 510g Sample consisted of: Brown fine-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.
BH07 1-1.5	23-My0016845	May 05, 2023	Approximate Sample 619g Sample consisted of: Brown fine-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.
BH07 3.5-4.5	23-My0016848	May 05, 2023	Approximate Sample 595g Sample consisted of: Brown fine-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.
BH08 0-1	23-My0016852	May 05, 2023	Approximate Sample 777g Sample consisted of: Brown fine-grained sandy soil, sand stone, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH08 1-1.5	23-My0016853	May 05, 2023	Approximate Sample 807g Sample consisted of: Brown fine-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.
BH08 2.5-3.5	23-My0016854	May 05, 2023	Approximate Sample 637g Sample consisted of: Brown fine-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.
BH08 3.5-4.5	23-My0016856	May 05, 2023	Approximate Sample 851g Sample consisted of: Brown fine-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.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH09 0-0.3	23-My0016859	May 05, 2023	Approximate Sample 938 Sample consisted of: Brown fine-grained sandy soil, brick, cement, organic debris and rocks	FA: Chrysotile asbestos detected in weathered plaster cement material. Approximate raw weight of FA = 0.040g Estimated asbestos content in FA = 0.0040g* Total estimated asbestos concentration in FA = 0.00043% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH12 1.2-1.7	23-My0016863	May 05, 2023	Approximate Sample 899g Sample consisted of: Brown fine-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.
BH06 0-0.3	23-My0016870	May 05, 2023	Approximate Sample 471g Sample consisted of: Brown fine-grained sandy soil, wood chips, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
BH07 2.5-3.5	23-My0016875	May 05, 2023	Approximate Sample 828g Sample consisted of: Brown coarse-grained clayey 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	May 15, 2023	Indefinite

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Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
External Laboratory																								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																			
1	BH06 0-0.1	May 05, 2023		Soil	S23-My0016838											X				X				
2	BH06 0.2-0.3	May 05, 2023		Soil	S23-My0016839				X															
3	BH06 0.5-0.6	May 05, 2023		Soil	S23-My0016840	X				X						X	X			X				
4	BH06 0.5-1.0	May 05, 2023		Soil	S23-My0016841		X																	
5	BH07 0.5-0.6	May 05, 2023		Soil	S23-My0016842											X			X					
6	BH07 0.9-1.0	May 05, 2023		Soil	S23-My0016843											X				X				
7	BH07 0-1.0	May 05, 2023		Soil	S23-My0016844		X																	
8	BH07 1-1.5	May 05, 2023		Soil	S23-My0016845		X																	
9	BH07 1.5-2.5	May 05, 2023		Soil	S23-My0016846			X																
10	BH07 2-2.1	May 05, 2023		Soil	S23-My0016847											X				X			X	
11	BH07 3.5-4.5	May 05, 2023		Soil	S23-My0016848		X																	

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Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
12	BH07 5.4-5.5	May 05, 2023		Soil	S23-My0016849									X	X									
13	BH08 0.2-0.3	May 05, 2023		Soil	S23-My0016850											X			X					
14	BH08 0.9-1.0	May 05, 2023		Soil	S23-My0016851											X				X				
15	BH08 0-1	May 05, 2023		Soil	S23-My0016852		X																	
16	BH08 1-1.5	May 05, 2023		Soil	S23-My0016853		X																	
17	BH08 2.5-3.5	May 05, 2023		Soil	S23-My0016854		X																	
18	BH08 4.0-4.1	May 05, 2023		Soil	S23-My0016855	X				X						X	X		X					
19	BH08 3.5-4.5	May 05, 2023		Soil	S23-My0016856		X																	
20	BH09 0-0.1	May 05, 2023		Soil	S23-My0016857						X	X				X		X						
21	BH09 0.2-0.3	May 05, 2023		Soil	S23-My0016858								X			X				X				
22	BH09 0-0.3	May 05, 2023		Soil	S23-My0016859		X																	
23	BH12 0.2-0.3	May 05, 2023		Soil	S23-My0016860								X			X								
24	BH12 0.5-0.6	May 05, 2023		Soil	S23-My0016861											X				X				
25	BH12 0.9-1	May 05, 2023		Soil	S23-My0016862											X							X	

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Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
26	BH12 1.2-1.7	May 05, 2023		Soil	S23-My0016863		X																	
27	BH12 1.4-1.5	May 05, 2023		Soil	S23-My0016864											X				X				
28	BH12 1.7-2.7	May 05, 2023		Soil	S23-My0016865			X																
29	BH12 2.4-2.5	May 05, 2023		Soil	S23-My0016866											X			X					
30	BH12 5.0-5.1	May 05, 2023		Soil	S23-My0016867									X	X									
31	RIN	May 05, 2023		Water	S23-My0016868																X		X	
32	BLANK	May 05, 2023		Water	S23-My0016869																		X	
33	BH06 0-0.3	May 05, 2023		Soil	S23-My0016870		X																	
34	BH06 0.3-0.4	May 05, 2023		Soil	S23-My0016871				X															
35	BH06 0.9-1.0	May 05, 2023		Soil	S23-My0016872				X															
36	BH07 0-0.1	May 05, 2023		Soil	S23-My0016873				X															
37	BH07 0.2-0.3	May 05, 2023		Soil	S23-My0016874				X															
38	BH07 2.5-3.5	May 05, 2023		Soil	S23-My0016875		X																	
39	BH07 3-3.1	May 05, 2023		Soil	S23-My0016876				X															

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

Project Name: PYRMONT
Project ID: 64669

Order No.:
Report #: 987142
Phone: 02 8245 0300
Fax:

Received: May 5, 2023 5:30 PM
Due: May 12, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
40	BH07 4-4.1	May 05, 2023		Soil	S23-My0016877				X															
41	BH07 5.0-5.1	May 05, 2023		Soil	S23-My0016878				X															
42	BH08 0-0.1	May 05, 2023		Soil	S23-My0016879				X															
43	BH08 0.5-0.6	May 05, 2023		Soil	S23-My0016880				X															
44	BH08 2-2.1	May 05, 2023		Soil	S23-My0016881				X															
45	BH08 3.0-3.1	May 05, 2023		Soil	S23-My0016882				X															
46	BH08 5.0-5.1	May 05, 2023		Soil	S23-My0016883				X															
47	BH08 6.0-6.1	May 05, 2023		Soil	S23-My0016884				X															
48	BH08 7.0-7.1	May 05, 2023		Soil	S23-My0016885				X															
49	BH12 0.7-0.8	May 05, 2023		Soil	S23-My0016886				X															
50	BH12 1.7-1.8	May 05, 2023		Soil	S23-My0016887				X															
51	BH12 3.5-3.6	May 05, 2023		Soil	S23-My0016888				X															
52	BH12 4.6-4.7	May 05, 2023		Soil	S23-My0016889				X															
53	BH12 5.9-6.0	May 05, 2023		Soil	S23-My0016890				X															

Company Name:	JBS & G Australia (NSW) P/L	**Order No.:**		**Received:**	May 5, 2023 5:30 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	987142	**Due:**	May 12, 2023
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Milad Noujaim
Project Name:	PYRMONT				
Project ID:	64669				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
54	TB	May 05, 2023		Water	S23-My0016891																	X		
55	TS	May 05, 2023		Water	S23-My0016892																			X
56	BH08 1.5-2.5	May 05, 2023		Soil	S23-My0018502				X															
Test Counts						2	12	2	21	2	1	1	2	2	17	17	2	1	4	8	1	1	4	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. 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.
Sampling	Unless otherwise stated Eurofins are not responsible for sampling equipment or the sampling process.
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

23-My0016870: Sample received was 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	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

Authorised by:

Laxman Dias	Senior Analyst-Asbestos

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.

Certificate of Analysis

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: **Milad Noujaim**

Report **987142-S**
Project name PYRMONT
Project ID 64669
Received Date May 05, 2023

Client Sample ID			**BH06 0-0.1**	[G01]**BH06 0.5-0.6**	**BH07 0.5-0.6**	[G01]**BH07 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016838**	**S23-My0016840**	**S23-My0016842**	**S23-My0016843**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
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	< 50	120
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	120
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	240
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	210
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	210
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	0.2	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	93	112	112	65
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.8
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	1.1
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.3
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	0.7
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
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	0.6
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7

Client Sample ID			**BH06 0-0.1**	**[G01]BH06 0.5-0.6**	**BH07 0.5-0.6**	**[G01]BH07 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016838**	**S23-My0016840**	**S23-My0016842**	**S23-My0016843**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	1.3
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	0.6
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.1
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	6.7
2-Fluorobiphenyl (surr.)	1	%	93	95	96	87
p-Terphenyl-d14 (surr.)	1	%	98	84	98	77
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 1	-	< 1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
a-HCH	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Aldrin	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
b-HCH	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
d-HCH	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Dieldrin	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Endosulfan I	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Endosulfan II	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Endrin	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Endrin ketone	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Heptachlor	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Methoxychlor	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Toxaphene	0.5	mg/kg	< 0.5	< 10	-	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.5	-	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 1	-	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 1	-	< 1
Dibutylchlorendate (surr.)	1	%	58	INT	-	INT
Tetrachloro-m-xylene (surr.)	1	%	86	78	-	77
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 1	-	< 1
Aroclor-1221	0.1	mg/kg	< 0.1	< 1	-	< 1
Aroclor-1232	0.1	mg/kg	< 0.1	< 1	-	< 1
Aroclor-1242	0.1	mg/kg	< 0.1	< 1	-	< 1
Aroclor-1248	0.1	mg/kg	< 0.1	< 1	-	< 1
Aroclor-1254	0.1	mg/kg	< 0.1	< 1	-	< 1
Aroclor-1260	0.1	mg/kg	< 0.1	< 1	-	< 1
Total PCB*	0.1	mg/kg	< 0.1	< 1	-	< 1
Dibutylchlorendate (surr.)	1	%	58	INT	-	INT
Tetrachloro-m-xylene (surr.)	1	%	86	78	-	77

Client Sample ID			**BH06 0-0.1**	G01**BH06 0.5-0.6**	**BH07 0.5-0.6**	G01**BH07 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016838**	**S23-My0016840**	**S23-My0016842**	**S23-My0016843**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	12	5.0	4.9	8.5
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	22	17	9.7	8.2
Copper	5	mg/kg	68	16	24	35
Lead	5	mg/kg	43	40	92	260
Mercury	0.1	mg/kg	0.5	< 0.1	0.2	0.3
Nickel	5	mg/kg	10	14	7.4	7.5
Zinc	5	mg/kg	160	76	110	160
Sample Properties						
% Moisture	1	%	37	13	9.5	8.9
% Clay	1	%	-	3.4	-	-
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	-	99	-	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	-	8.5	-	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	43	-	-

Client Sample ID			G01**BH07 2-2.1**	**BH07 5.4-5.5**	**BH08 0.2-0.3**	G01**BH08 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016847**	**S23-My0016849**	**S23-My0016850**	**S23-My0016851**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
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	-	81	< 50
TRH C29-C36	50	mg/kg	< 50	-	110	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	-	191	< 50
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	-	150	< 100
TRH >C34-C40	100	mg/kg	< 100	-	160	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	310	< 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	%	126	-	129	58
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
NaphthaleneN02	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			G01 **BH07 2-2.1**	**BH07 5.4-5.5**	**BH08 0.2-0.3**	G01 **BH08 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016847**	**S23-My0016849**	**S23-My0016850**	**S23-My0016851**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
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
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	0.6
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	0.8	1.2
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	0.6
Pyrene	0.5	mg/kg	< 0.5	-	0.8	1.1
Total PAH*	0.5	mg/kg	< 0.5	-	1.6	3.5
2-Fluorobiphenyl (surr.)	1	%	88	-	92	81
p-Terphenyl-d14 (surr.)	1	%	85	-	76	78
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	%	INT	-	-	INT
Tetrachloro-m-xylene (surr.)	1	%	79	-	-	70

Client Sample ID			G01**BH07 2-2.1**	**BH07 5.4-5.5**	**BH08 0.2-0.3**	G01**BH08 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016847**	**S23-My0016849**	**S23-My0016850**	**S23-My0016851**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
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	%	INT	-	-	INT
Tetrachloro-m-xylene (surr.)	1	%	79	-	-	70
Heavy Metals						
Arsenic	2	mg/kg	12	-	3.8	6.9
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	< 0.4
Chromium	5	mg/kg	11	-	17	9.9
Copper	5	mg/kg	23	-	29	20
Lead	5	mg/kg	230	-	32	93
Mercury	0.1	mg/kg	0.3	-	< 0.1	0.2
Nickel	5	mg/kg	6.7	-	9.5	6.6
Zinc	5	mg/kg	100	-	60	77
Sample Properties						
% Moisture	1	%	18	28	12	11
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	%	52	-	-	-
13C5-PFPeA (surr.)	1	%	60	-	-	-
13C5-PFHxA (surr.)	1	%	62	-	-	-
13C4-PFHpA (surr.)	1	%	62	-	-	-
13C8-PFOA (surr.)	1	%	69	-	-	-
13C5-PFNA (surr.)	1	%	82	-	-	-
13C6-PFDA (surr.)	1	%	104	-	-	-
13C2-PFUnDA (surr.)	1	%	96	-	-	-
13C2-PFDoDA (surr.)	1	%	83	-	-	-
13C2-PFTeDA (surr.)	1	%	86	-	-	-

Client Sample ID			G01 BH07 2-2.1	BH07 5.4-5.5	BH08 0.2-0.3	G01 BH08 0.9-1.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-My0016847	S23-My0016849	S23-My0016850	S23-My0016851
Date Sampled			May 05, 2023	May 05, 2023	May 05, 2023	May 05, 2023
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	%	128	-	-	-
D3-N-MeFOSA (surr.)	1	%	120	-	-	-
D5-N-EtFOSA (surr.)	1	%	130	-	-	-
D7-N-MeFOSE (surr.)	1	%	147	-	-	-
D9-N-EtFOSE (surr.)	1	%	142	-	-	-
D5-N-EtFOSAA (surr.)	1	%	85	-	-	-
D3-N-MeFOSAA (surr.)	1	%	89	-	-	-
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	%	110	-	-	-
18O2-PFHxS (surr.)	1	%	116	-	-	-
13C8-PFOS (surr.)	1	%	140	-	-	-
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	%	82	-	-	-
13C2-6:2 FTSA (surr.)	1	%	93	-	-	-
13C2-8:2 FTSA (surr.)	1	%	INT	-	-	-
13C2-10:2 FTSA (surr.)	1	%	149	-	-	-
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			[G01]**BH07 2-2.1**	**BH07 5.4-5.5**	**BH08 0.2-0.3**	[G01]**BH08 0.9-1.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016847**	**S23-My0016849**	**S23-My0016850**	**S23-My0016851**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	-	9.4	-	-
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	-	8.2	-	-
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	-	0.091	-	-
Peroxide Extractable Sulfur	0.005	% S	-	0.36	-	-
HCl Extractable Sulfur	0.005	% S	-	N/A	-	-
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.005	% S	-	0.26	-	-
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	2	mol H+/t	-	160	-	-
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.005	% S	-	N/A	-	-
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	-	N/A	-	-
HCl Extractable Sulfur Correction Factor	1	factor	-	2.0	-	-
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	-	0.26	-	-
Calcium - Peroxide	0.005	% Ca	-	2.4	-	-
Calcium - Acid Reacted	0.005	% Ca	-	2.1	-	-
Calcium - Acid Reacted (s-aCa)	0.005	% S	-	1.7	-	-
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	1100	-	-
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	-	0.012	-	-
Magnesium - Peroxide	0.005	% Mg	-	0.071	-	-
Magnesium - Acid Reacted	0.005	% Mg	-	0.059	-	-
Magnesium - Acid Reacted (s-aCa)	0.005	% S	-	0.077	-	-
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	-	48	-	-
Acid Neutralising Capacity (ANCE)						
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	-	4.8	-	-
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	-	1.6	-	-
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	-	970	-	-
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	-	93	-	-
>2mm Fraction	0.005	g	-	5.1	-	-
Analysed Material	0.1	%	-	95	-	-
Extraneous Material	0.1	%	-	5.2	-	-

Client Sample ID			BH08 4.0-4.1	BH09 0-0.1	G01BH09 0.2-0.3	BH12 0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-My0016855	S23-My0016857	S23-My0016858	S23-My0016860
Date Sampled			May 05, 2023	May 05, 2023	May 05, 2023	May 05, 2023
Test/Reference	LOR	Unit				
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	< 50	< 50	-
TRH C29-C36	50	mg/kg	< 50	< 50	59	-
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	59	-
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	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 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	0.2	-
m&p-Xylenes	0.2	mg/kg	< 0.2	0.4	1.1	-
o-Xylene	0.1	mg/kg	< 0.1	0.2	0.6	-
Xylenes - Total*	0.3	mg/kg	< 0.3	0.6	1.6	-
4-Bromofluorobenzene (surr.)	1	%	107	87	124	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
NaphthaleneN02	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
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	-
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)fluorantheneN07	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	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	104	83	98	-
p-Terphenyl-d14 (surr.)	1	%	104	83	78	-

Client Sample ID Sample Matrix Eurofins Sample No. Date Sampled Test/Reference	LOR	Unit	BH08 4.0-4.1 Soil S23-My0016855 May 05, 2023	BH09 0-0.1 Soil S23-My0016857 May 05, 2023	G01BH09 0.2-0.3 Soil S23-My0016858 May 05, 2023	BH12 0.2-0.3 Soil S23-My0016860 May 05, 2023
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	-	-	< 0.5	-
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	-	-	< 0.5	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.5	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 1	-
Dibutylchlorendate (surr.)	1	%	-	-	INT	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	75	-
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	%	-	-	INT	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	75	-
Heavy Metals						
Arsenic	2	mg/kg	6.6	-	3.1	-
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	-
Chromium	5	mg/kg	8.6	-	15	-
Copper	5	mg/kg	31	-	32	-
Lead	5	mg/kg	100	-	54	-
Mercury	0.1	mg/kg	0.1	-	< 0.1	-
Nickel	5	mg/kg	6.1	-	8.8	-
Zinc	5	mg/kg	72	-	74	-
Sample Properties						
% Moisture	1	%	20	10.0	10	7.8

Client Sample ID			BH08 4.0-4.1	BH09 0-0.1	[G01]BH09 0.2-0.3	BH12 0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-My0016855	S23-My0016857	S23-My0016858	S23-My0016860
Date Sampled			May 05, 2023	May 05, 2023	May 05, 2023	May 05, 2023
Test/Reference	LOR	Unit				
% Clay	1	%	6.2	-	-	-
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	2900	-	-	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	8.3	-	-	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	27	-	-	-
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	-	-	0.2	< 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	-	-	1.1	< 0.2
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	< 0.5

Client Sample ID			**BH08 4.0-4.1**	**BH09 0-0.1**	[G01]**BH09 0.2-0.3**	**BH12 0.2-0.3**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016855**	**S23-My0016857**	**S23-My0016858**	**S23-My0016860**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
Volatile Organics						
o-Xylene	0.1	mg/kg	-	-	0.6	< 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	-	-	1.6	< 0.3
Total MAH*	0.5	mg/kg	-	-	1.9	< 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	%	-	-	124	139
Toluene-d8 (surr.)	1	%	-	-	123	95

Client Sample ID			[G01]**BH12 0.5-0.6**	**BH12 0.9-1**	**BH12 1.4-1.5**	**BH12 2.4-2.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016861**	**S23-My0016862**	**S23-My0016864**	**S23-My0016866**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
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	-	< 50	97
TRH C29-C36	50	mg/kg	< 50	-	< 50	78
TRH C10-C36 (Total)	50	mg/kg	< 50	-	< 50	175
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	-	< 100	150
TRH >C34-C40	100	mg/kg	< 100	-	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 100	150
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	-	0.2	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	3.7	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	2.4	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	-	6.1	< 0.3
4-Bromofluorobenzene (surr.)	1	%	144	-	116	53
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			[G01]**BH12 0.5-0.6**	**BH12 0.9-1**	**BH12 1.4-1.5**	**BH12 2.4-2.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016861**	**S23-My0016862**	**S23-My0016864**	**S23-My0016866**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	8.7
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	8.7
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	8.7
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	2.8
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	5.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	5.1
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	4.9
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	5.7
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	5.1
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	8.4
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	1.5
Fluoranthene	0.5	mg/kg	0.6	-	< 0.5	16
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	3.9
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	5.3
Pyrene	0.5	mg/kg	0.5	-	< 0.5	15
Total PAH*	0.5	mg/kg	1.1	-	< 0.5	80
2-Fluorobiphenyl (surr.)	1	%	89	-	103	100
p-Terphenyl-d14 (surr.)	1	%	85	-	94	79
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.5	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.5	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.5	-	< 0.05	-
a-HCH	0.05	mg/kg	< 0.5	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.5	-	< 0.05	-
b-HCH	0.05	mg/kg	< 0.5	-	< 0.05	-
d-HCH	0.05	mg/kg	< 0.5	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.5	-	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.5	-	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.5	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.5	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.5	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.5	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.5	-	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	< 0.5	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.5	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.5	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.5	-	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.5	-	< 0.05	-
Toxaphene	0.5	mg/kg	< 10	-	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	-	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	INT	-	INT	-
Tetrachloro-m-xylene (surr.)	1	%	79	-	92	-

Client Sample ID			[G01]**BH12 0.5-0.6**	**BH12 0.9-1**	**BH12 1.4-1.5**	**BH12 2.4-2.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016861**	**S23-My0016862**	**S23-My0016864**	**S23-My0016866**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1221	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1232	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1242	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1248	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1254	0.1	mg/kg	< 1	-	< 0.1	-
Aroclor-1260	0.1	mg/kg	< 1	-	< 0.1	-
Total PCB*	0.1	mg/kg	< 1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	INT	-	INT	-
Tetrachloro-m-xylene (surr.)	1	%	79	-	92	-
Heavy Metals						
Arsenic	2	mg/kg	6.5	-	2.0	3.2
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	< 0.4
Chromium	5	mg/kg	8.9	-	< 5	9.5
Copper	5	mg/kg	22	-	14	8.2
Lead	5	mg/kg	71	-	33	59
Mercury	0.1	mg/kg	0.2	-	< 0.1	0.2
Nickel	5	mg/kg	7.3	-	< 5	< 5
Zinc	5	mg/kg	71	-	31	46
Sample Properties						
% Moisture	1	%	7.7	7.5	5.8	26
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	%	-	56	-	-
13C5-PFPeA (surr.)	1	%	-	66	-	-
13C5-PFHxA (surr.)	1	%	-	63	-	-
13C4-PFHpA (surr.)	1	%	-	67	-	-
13C8-PFOA (surr.)	1	%	-	73	-	-
13C5-PFNA (surr.)	1	%	-	94	-	-
13C6-PFDA (surr.)	1	%	-	123	-	-
13C2-PFUnDA (surr.)	1	%	-	113	-	-
13C2-PFDoDA (surr.)	1	%	-	98	-	-
13C2-PFTeDA (surr.)	1	%	-	101	-	-

Client Sample ID			G01**BH12 0.5-0.6**	**BH12 0.9-1**	**BH12 1.4-1.5**	**BH12 2.4-2.5**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-My0016861**	**S23-My0016862**	**S23-My0016864**	**S23-My0016866**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
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	%	-	138	-	-
D3-N-MeFOSA (surr.)	1	%	-	133	-	-
D5-N-EtFOSA (surr.)	1	%	-	144	-	-
D7-N-MeFOSE (surr.)	1	%	-	155	-	-
D9-N-EtFOSE (surr.)	1	%	-	153	-	-
D5-N-EtFOSAA (surr.)	1	%	-	92	-	-
D3-N-MeFOSAA (surr.)	1	%	-	102	-	-
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	-	N098.5	-	-
Perfluorodecanesulfonic acid (PFDS)N15	5	ug/kg	-	< 5	-	-
13C3-PFBS (surr.)	1	%	-	122	-	-
18O2-PFHxS (surr.)	1	%	-	123	-	-
13C8-PFOS (surr.)	1	%	-	147	-	-
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	%	-	85	-	-
13C2-6:2 FTSA (surr.)	1	%	-	100	-	-
13C2-8:2 FTSA (surr.)	1	%	-	INT	-	-
13C2-10:2 FTSA (surr.)	1	%	-	184	-	-
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	-	8.5	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	-	8.5	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	-	8.5	-	-
Sum of WA DWER PFAS (n=10)*	10	ug/kg	-	< 10	-	-
Sum of PFASs (n=30)*	50	ug/kg	-	< 50	-	-

Client Sample ID			BH12 5.0-5.1
Sample Matrix			Soil
Eurofins Sample No.			S23-My0016867
Date Sampled			May 05, 2023
Test/Reference	LOR	Unit	
Sample Properties			
% Moisture	1	%	20
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	3.8
Titratable Peroxide Acidity (s-TPA)	0.02	% pyrite S	0.14
Titratable Peroxide Acidity (a-TPA)	2	mol H+/t	88
Titratable Sulfidic Acidity (a-TSA)	2	mol H+/t	88
Titratable Sulfidic Acidity (s-TSA)	0.02	% pyrite S	0.14
Extractable Sulfur			
Sulfur - KCl Extractable	0.005	% S	0.13
Peroxide Extractable Sulfur	0.005	% S	1.1
HCl Extractable Sulfur	0.005	% S	N/A
Potential Acidity (SPOS)			
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.005	% S	0.92
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	2	mol H+/t	580
Retained Acidity (S-NAS)			
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.005	% S	N/A
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	N/A
HCl Extractable Sulfur Correction Factor	1	factor	2.0
Extractable Calcium			
Calcium - KCl Extractable	0.005	% Ca	0.23
Calcium - Peroxide	0.005	% Ca	1.1
Calcium - Acid Reacted	0.005	% Ca	0.83
Calcium - Acid Reacted (s-aCa)	0.005	% S	0.66
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	410
Extractable Magnesium			
Magnesium - KCl Extractable	0.005	% Mg	0.053
Magnesium - Peroxide	0.005	% Mg	0.11
Magnesium - Acid Reacted	0.005	% Mg	0.055
Magnesium - Acid Reacted (s-aCa)	0.005	% S	0.073
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	45
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	250
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	0.02	% S	0.40
SPOCAS - Liming rate - ASSMAC	1	kg CaCO3/t	19
Extraneous Material			
<2mm Fraction	0.005	g	110
>2mm Fraction	0.005	g	< 0.005
Analysed Material	0.1	%	100
Extraneous Material	0.1	%	< 0.1

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	May 11, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	May 11, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	May 11, 2023	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
JBS&G Suite 2 (metals filtered)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	May 11, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	May 11, 2023	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	May 09, 2023	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	May 09, 2023	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
JBS&G Suite 2			
Metals M8	Sydney	May 11, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Brisbane	May 06, 2023	14 Days
- Method: LTM-GEN-7080 Moisture			
% Clay	Brisbane	May 11, 2023	14 Days
- Method: LTM-GEN-7040			
pH (1:5 Aqueous extract at 25 °C as rec.)	Sydney	May 08, 2023	7 Days
- Method: LTM-GEN-7090 pH by ISE			
Volatile Organics	Sydney	May 08, 2023	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	Melbourne	May 10, 2023	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	May 10, 2023	28 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Sydney	May 08, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Sydney	May 08, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Sydney	May 08, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Sydney	May 08, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Sydney	May 06, 2023	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
SPOCAS Suite			
SPOCAS Suite	Brisbane	May 11, 2023	6 Week
- Method: LTM-GEN-7050			
Extraneous Material	Brisbane	May 11, 2023	6 Week
- Method: LTM-GEN-7050/7070			

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NSW 2000

Project Name: PYRMONT
Project ID: 64669

Order No.:
Report #: 987142
Phone: 02 8245 0300
Fax:

Received: May 5, 2023 5:30 PM
Due: May 12, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
External Laboratory																								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																			
1	BH06 0-0.1	May 05, 2023		Soil	S23-My0016838											X				X				
2	BH06 0.2-0.3	May 05, 2023		Soil	S23-My0016839				X															
3	BH06 0.5-0.6	May 05, 2023		Soil	S23-My0016840	X				X						X	X			X				
4	BH06 0.5-1.0	May 05, 2023		Soil	S23-My0016841		X																	
5	BH07 0.5-0.6	May 05, 2023		Soil	S23-My0016842											X			X					
6	BH07 0.9-1.0	May 05, 2023		Soil	S23-My0016843											X				X				
7	BH07 0-1.0	May 05, 2023		Soil	S23-My0016844		X																	
8	BH07 1-1.5	May 05, 2023		Soil	S23-My0016845		X																	
9	BH07 1.5-2.5	May 05, 2023		Soil	S23-My0016846			X																
10	BH07 2-2.1	May 05, 2023		Soil	S23-My0016847											X				X			X	
11	BH07 3.5-4.5	May 05, 2023		Soil	S23-My0016848		X																	

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Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
12	BH07 5.4-5.5	May 05, 2023		Soil	S23-My0016849									X	X									
13	BH08 0.2-0.3	May 05, 2023		Soil	S23-My0016850											X			X					
14	BH08 0.9-1.0	May 05, 2023		Soil	S23-My0016851											X				X				
15	BH08 0-1	May 05, 2023		Soil	S23-My0016852		X																	
16	BH08 1-1.5	May 05, 2023		Soil	S23-My0016853		X																	
17	BH08 2.5-3.5	May 05, 2023		Soil	S23-My0016854		X																	
18	BH08 4.0-4.1	May 05, 2023		Soil	S23-My0016855	X				X						X	X		X					
19	BH08 3.5-4.5	May 05, 2023		Soil	S23-My0016856		X																	
20	BH09 0-0.1	May 05, 2023		Soil	S23-My0016857						X	X				X		X						
21	BH09 0.2-0.3	May 05, 2023		Soil	S23-My0016858								X			X				X				
22	BH09 0-0.3	May 05, 2023		Soil	S23-My0016859		X																	
23	BH12 0.2-0.3	May 05, 2023		Soil	S23-My0016860								X			X								
24	BH12 0.5-0.6	May 05, 2023		Soil	S23-My0016861											X				X				
25	BH12 0.9-1	May 05, 2023		Soil	S23-My0016862											X							X	

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Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
26	BH12 1.2-1.7	May 05, 2023		Soil	S23-My0016863		X																	
27	BH12 1.4-1.5	May 05, 2023		Soil	S23-My0016864											X				X				
28	BH12 1.7-2.7	May 05, 2023		Soil	S23-My0016865			X																
29	BH12 2.4-2.5	May 05, 2023		Soil	S23-My0016866											X			X					
30	BH12 5.0-5.1	May 05, 2023		Soil	S23-My0016867									X	X									
31	RIN	May 05, 2023		Water	S23-My0016868																X		X	
32	BLANK	May 05, 2023		Water	S23-My0016869																		X	
33	BH06 0-0.3	May 05, 2023		Soil	S23-My0016870		X																	
34	BH06 0.3-0.4	May 05, 2023		Soil	S23-My0016871				X															
35	BH06 0.9-1.0	May 05, 2023		Soil	S23-My0016872				X															
36	BH07 0-0.1	May 05, 2023		Soil	S23-My0016873				X															
37	BH07 0.2-0.3	May 05, 2023		Soil	S23-My0016874				X															
38	BH07 2.5-3.5	May 05, 2023		Soil	S23-My0016875		X																	
39	BH07 3-3.1	May 05, 2023		Soil	S23-My0016876				X															

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Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
40	BH07 4-4.1	May 05, 2023		Soil	S23-My0016877				X															
41	BH07 5.0-5.1	May 05, 2023		Soil	S23-My0016878				X															
42	BH08 0-0.1	May 05, 2023		Soil	S23-My0016879				X															
43	BH08 0.5-0.6	May 05, 2023		Soil	S23-My0016880				X															
44	BH08 2-2.1	May 05, 2023		Soil	S23-My0016881				X															
45	BH08 3.0-3.1	May 05, 2023		Soil	S23-My0016882				X															
46	BH08 5.0-5.1	May 05, 2023		Soil	S23-My0016883				X															
47	BH08 6.0-6.1	May 05, 2023		Soil	S23-My0016884				X															
48	BH08 7.0-7.1	May 05, 2023		Soil	S23-My0016885				X															
49	BH12 0.7-0.8	May 05, 2023		Soil	S23-My0016886				X															
50	BH12 1.7-1.8	May 05, 2023		Soil	S23-My0016887				X															
51	BH12 3.5-3.6	May 05, 2023		Soil	S23-My0016888				X															
52	BH12 4.6-4.7	May 05, 2023		Soil	S23-My0016889				X															
53	BH12 5.9-6.0	May 05, 2023		Soil	S23-My0016890				X															

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Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
54	TB	May 05, 2023		Water	S23-My0016891																	X		
55	TS	May 05, 2023		Water	S23-My0016892																			X
56	BH08 1.5-2.5	May 05, 2023		Soil	S23-My0018502				X															
Test Counts						2	12	2	21	2	1	1	2	2	17	17	2	1	4	8	1	1	4	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
CFU: Colony forming unit		

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.

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	
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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	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	
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
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							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
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	
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	
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	95			70-130	Pass	
TRH C10-C14	%	84			70-130	Pass	
TRH C6-C10	%	97			70-130	Pass	
TRH >C10-C16	%	83			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	95			70-130	Pass	
Toluene	%	94			70-130	Pass	
Ethylbenzene	%	93			70-130	Pass	
m&p-Xylenes	%	95			70-130	Pass	
o-Xylene	%	93			70-130	Pass	
Xylenes - Total*	%	95			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	87			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	107			70-130	Pass	
Acenaphthylene	%	107			70-130	Pass	
Anthracene	%	104			70-130	Pass	
Benz(a)anthracene	%	103			70-130	Pass	
Benzo(a)pyrene	%	102			70-130	Pass	
Benzo(b&j)fluoranthene	%	99			70-130	Pass	
Benzo(g.h.i)perylene	%	102			70-130	Pass	
Benzo(k)fluoranthene	%	107			70-130	Pass	
Chrysene	%	102			70-130	Pass	
Dibenz(a.h)anthracene	%	102			70-130	Pass	
Fluoranthene	%	104			70-130	Pass	
Fluorene	%	107			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	103			70-130	Pass	
Naphthalene	%	107			70-130	Pass	
Phenanthrene	%	107			70-130	Pass	
Pyrene	%	103			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	77			70-130	Pass	
4.4'-DDD	%	87			70-130	Pass	
4.4'-DDE	%	84			70-130	Pass	
4.4'-DDT	%	72			70-130	Pass	
a-HCH	%	78			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aldrin	%	81			70-130	Pass	
b-HCH	%	79			70-130	Pass	
d-HCH	%	82			70-130	Pass	
Dieldrin	%	74			70-130	Pass	
Endosulfan I	%	75			70-130	Pass	
Endosulfan II	%	74			70-130	Pass	
Endosulfan sulphate	%	75			70-130	Pass	
Endrin	%	79			70-130	Pass	
Endrin aldehyde	%	78			70-130	Pass	
Endrin ketone	%	71			70-130	Pass	
g-HCH (Lindane)	%	82			70-130	Pass	
Heptachlor	%	74			70-130	Pass	
Heptachlor epoxide	%	77			70-130	Pass	
Hexachlorobenzene	%	81			70-130	Pass	
Methoxychlor	%	89			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	82			70-130	Pass	
Aroclor-1260	%	80			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	104			80-120	Pass	
Cadmium	%	106			80-120	Pass	
Chromium	%	93			80-120	Pass	
Copper	%	112			80-120	Pass	
Lead	%	117			80-120	Pass	
Mercury	%	115			80-120	Pass	
Nickel	%	108			80-120	Pass	
Zinc	%	111			80-120	Pass	
LCS - % Recovery							
% Clay	%	123			70-130	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	112			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	113			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	119			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	108			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	115			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	116			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	115			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	116			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	120			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	98			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	112			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	120			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	113			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	110			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	108			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	119			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	98			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	115			50-150	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	118			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	108			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	112			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	116			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	114			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	103			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	112			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	113			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	113			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	126			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	124			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	118			50-150	Pass	
LCS - % Recovery							
Actual Acidity (NLM-3.2)							
pH-KCL (NLM-3.1)	%	89			80-120	Pass	
Titratable Actual Acidity (NLM-3.2)	%	95			80-120	Pass	
LCS - % Recovery							
Extractable Sulfur							
HCl Extractable Sulfur	%	102			80-120	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	80			70-130	Pass	
1.1.1-Trichloroethane	%	82			70-130	Pass	
1.2-Dichlorobenzene	%	109			70-130	Pass	
1.2-Dichloroethane	%	88			70-130	Pass	
Trichloroethene	%	75			70-130	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	S23-My0015888	NCP	%	80			70-130	Pass	
TRH >C10-C16	S23-My0015888	NCP	%	78			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S23-My0025820	NCP	%	80			70-130	Pass	
Acenaphthylene	S23-My0025820	NCP	%	92			70-130	Pass	
Anthracene	S23-My0025820	NCP	%	82			70-130	Pass	
Benz(a)anthracene	S23-My0025820	NCP	%	77			70-130	Pass	
Benzo(a)pyrene	S23-My0025820	NCP	%	81			70-130	Pass	
Benzo(b&j)fluoranthene	S23-My0025820	NCP	%	79			70-130	Pass	
Benzo(g.h.i)perylene	S23-My0025820	NCP	%	81			70-130	Pass	
Benzo(k)fluoranthene	S23-My0025820	NCP	%	83			70-130	Pass	
Chrysene	S23-My0025820	NCP	%	83			70-130	Pass	
Dibenz(a.h)anthracene	S23-My0025820	NCP	%	85			70-130	Pass	
Fluoranthene	S23-My0023980	NCP	%	89			70-130	Pass	
Fluorene	S23-My0025820	NCP	%	82			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S23-My0025820	NCP	%	83			70-130	Pass	
Naphthalene	S23-My0025820	NCP	%	82			70-130	Pass	
Phenanthrene	S23-My0023980	NCP	%	105			70-130	Pass	
Pyrene	S23-My0023980	NCP	%	77			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chlordanes - Total	N23-My0013193	NCP	%	76			70-130	Pass	
4.4'-DDD	N23-My0013193	NCP	%	76			70-130	Pass	
4.4'-DDE	N23-My0013193	NCP	%	85			70-130	Pass	
4.4'-DDT	S23-My0023961	NCP	%	77			70-130	Pass	
a-HCH	N23-My0013193	NCP	%	76			70-130	Pass	
Aldrin	N23-My0013193	NCP	%	81			70-130	Pass	
b-HCH	N23-My0013193	NCP	%	76			70-130	Pass	
d-HCH	N23-My0013193	NCP	%	79			70-130	Pass	
Dieldrin	N23-My0013193	NCP	%	75			70-130	Pass	
Endosulfan I	N23-My0013193	NCP	%	88			70-130	Pass	
Endosulfan II	N23-My0013193	NCP	%	72			70-130	Pass	
Endrin	N23-My0013193	NCP	%	72			70-130	Pass	
Endrin aldehyde	N23-My0013193	NCP	%	77			70-130	Pass	
Endrin ketone	S23-My0023974	NCP	%	74			70-130	Pass	
g-HCH (Lindane)	N23-My0013193	NCP	%	79			70-130	Pass	
Heptachlor	S23-My0023974	NCP	%	95			70-130	Pass	
Heptachlor epoxide	N23-My0013193	NCP	%	74			70-130	Pass	
Hexachlorobenzene	N23-My0013193	NCP	%	83			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	N23-My0013193	NCP	%	85			70-130	Pass	
Aroclor-1260	N23-My0013193	NCP	%	88			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	N23-My0012834	NCP	%	103			75-125	Pass	
Cadmium	N23-My0012834	NCP	%	104			75-125	Pass	
Chromium	N23-My0012834	NCP	%	100			75-125	Pass	
Copper	N23-My0012834	NCP	%	89			75-125	Pass	
Lead	N23-My0012834	NCP	%	113			75-125	Pass	
Mercury	N23-My0012834	NCP	%	113			75-125	Pass	
Nickel	N23-My0012834	NCP	%	114			75-125	Pass	
Zinc	S23-My0016898	NCP	%	106			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S23-My0016840	CP	%	93			70-130	Pass	
TRH C6-C10	S23-My0016840	CP	%	94			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S23-My0016840	CP	%	99			70-130	Pass	
Toluene	S23-My0016840	CP	%	96			70-130	Pass	
Ethylbenzene	S23-My0016840	CP	%	98			70-130	Pass	
m&p-Xylenes	S23-My0016840	CP	%	100			70-130	Pass	
o-Xylene	S23-My0016840	CP	%	98			70-130	Pass	
Xylenes - Total*	S23-My0016840	CP	%	99			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S23-My0016840	CP	%	83			70-130	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	N23-My0013194	NCP	%	120			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	N23-My0013194	NCP	%	124			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	N23-My0013194	NCP	%	137			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	N23-My0013194	NCP	%	115			50-150	Pass	
Perfluorooctanoic acid (PFOA)	N23-My0013194	NCP	%	124			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorononanoic acid (PFNA)	N23-My0013194	NCP	%	123			50-150	Pass	
Perfluorodecanoic acid (PFDA)	N23-My0013194	NCP	%	116			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	N23-My0013194	NCP	%	132			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	N23-My0013194	NCP	%	123			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	N23-My0013194	NCP	%	110			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	N23-My0013194	NCP	%	121			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	N23-My0013194	NCP	%	129			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	N23-My0013194	NCP	%	120			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	N23-My0013194	NCP	%	117			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	N23-My0013194	NCP	%	114			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	N23-My0013194	NCP	%	116			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	N23-My0013194	NCP	%	110			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	N23-My0013194	NCP	%	118			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	N23-My0013214	NCP	%	136			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	N23-My0013194	NCP	%	124			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	N23-My0013194	NCP	%	117			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	N23-My0013194	NCP	%	122			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	N23-My0013194	NCP	%	122			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	N23-My0013194	NCP	%	124			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	N23-My0013194	NCP	%	141			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	N23-My0013194	NCP	%	120			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	N23-My0013194	NCP	%	134			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	N23-My0013194	NCP	%	133			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	N23-My0013194	NCP	%	120			50-150	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S23-My0016858	CP	%	86			70-130	Pass	
Toluene	S23-My0016858	CP	%	94			70-130	Pass	
Ethylbenzene	S23-My0016858	CP	%	98			70-130	Pass	
m&p-Xylenes	S23-My0016858	CP	%	101			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
o-Xylene	S23-My0016858	CP	%	98			70-130	Pass	
Xylenes - Total*	S23-My0016858	CP	%	100			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S23-My0016858	CP	%	86			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	S23-My0013092	NCP	%	107			70-130	Pass	
1.1.1-Trichloroethane	S23-My0013092	NCP	%	81			70-130	Pass	
1.2-Dichlorobenzene	S23-My0014285	NCP	%	98			70-130	Pass	
1.2-Dichloroethane	S23-My0014285	NCP	%	109			70-130	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	S23-My0016838	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S23-My0015887	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S23-My0015887	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S23-My0015887	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C6-C10	S23-My0016838	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S23-My0015887	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S23-My0015887	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S23-My0015887	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-My0016838	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-My0016838	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S23-My0016838	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-My0016838	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-My0016838	CP	mg/kg	0.2	0.2	<1	30%	Pass	
Xylenes - Total*	S23-My0016838	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-My0016838	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Toxaphene	S23-My0025819	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S23-My0025819	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S23-My0025819	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S23-My0025819	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S23-My0025819	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S23-My0025819	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S23-My0025819	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S23-My0025819	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S23-My0025819	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S23-My0016838	CP	mg/kg	12	11	7.6	30%	Pass	
Cadmium	S23-My0016838	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S23-My0016838	CP	mg/kg	22	21	6.6	30%	Pass	
Copper	S23-My0016838	CP	mg/kg	68	64	5.1	30%	Pass	
Lead	S23-My0016838	CP	mg/kg	43	38	11	30%	Pass	
Nickel	S23-My0016838	CP	mg/kg	10	9.9	2.7	30%	Pass	
Zinc	S23-My0016838	CP	mg/kg	160	150	2.1	30%	Pass	

Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	M23-My0022070	NCP	uS/cm	1800	2200	21	30%	Pass	
pH (1:5 Aqueous extract at 25 °C as rec.)	S23-My0028484	NCP	pH Units	10	10	<1	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Cation Exchange Capacity	S23-My0012203	NCP	meq/100g	15	15	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	N23-My0013193	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	N23-My0013193	NCP	ug/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	N23-My0013193	NCP	ug/kg	760	900	16	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	N23-My0013193	NCP	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)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	N23-My0013193	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Actual Acidity (NLM-3.2)				Result 1	Result 2	RPD			
pH-KCL (NLM-3.1)	B23-My0006033	NCP	pH Units	4.3	4.3	<1	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	B23-My0006033	NCP	mol H+/t	110	110	<1	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	B23-My0006033	NCP	% pyrite S	0.17	0.17	<1	30%	Pass	
Duplicate									
Potential Acidity - Titratable Peroxide				Result 1	Result 2	RPD			
pH-OX	B23-My0006033	NCP	pH Units	4.2	4.2	<1	20%	Pass	
Titratable Peroxide Acidity (s-TPA)	B23-My0006033	NCP	% pyrite S	0.18	0.18	<1	30%	Pass	
Titratable Peroxide Acidity (a-TPA)	B23-My0006033	NCP	mol H+/t	110	110	<1	20%	Pass	
Titratable Sulfidic Acidity (a-TSA)	B23-My0006033	NCP	mol H+/t	< 2	< 2	<1	30%	Pass	
Titratable Sulfidic Acidity (s-TSA)	B23-My0006033	NCP	% pyrite S	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Extractable Sulfur				Result 1	Result 2	RPD			
Sulfur - KCl Extractable	B23-My0006033	NCP	% S	0.008	0.007	12	30%	Pass	
Peroxide Extractable Sulfur	B23-My0006033	NCP	% S	0.015	0.014	4.4	20%	Pass	
HCl Extractable Sulfur	B23-My0006033	NCP	% S	0.011	0.011	1.4	20%	Pass	
Duplicate									
Potential Acidity (SPOS)				Result 1	Result 2	RPD			
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	B23-My0006033	NCP	% S	0.007	0.007	3.3	30%	Pass	
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	B23-My0006033	NCP	mol H+/t	4.3	4.5	3.3	30%	Pass	
Duplicate									
Retained Acidity (S-NAS)				Result 1	Result 2	RPD			
Net Acid soluble sulfur (s-SNAS) NLM-4.1	B23-My0006033	NCP	% S	< 0.005	< 0.005	<1	30%	Pass	
Net Acid soluble sulfur (a-SNAS) NLM-4.1	B23-My0006033	NCP	mol H+/t	< 2	< 2	<1	30%	Pass	
Duplicate									
Extractable Calcium				Result 1	Result 2	RPD			
Calcium - KCl Extractable	B23-My0006033	NCP	% Ca	0.031	0.030	5.6	30%	Pass	
Calcium - Peroxide	B23-My0006033	NCP	% Ca	0.035	0.034	3.9	20%	Pass	
Calcium - Acid Reacted	B23-My0006033	NCP	% Ca	< 0.005	< 0.005	<1	30%	Pass	
Calcium - Acid Reacted (s-aCa)	B23-My0006033	NCP	% S	< 0.005	< 0.005	<1	30%	Pass	
Calcium - Acid Reacted (a-aCa)	B23-My0006033	NCP	mol H+/t	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Extractable Magnesium				Result 1	Result 2	RPD			
Magnesium - KCl Extractable	B23-My0006033	NCP	% Mg	0.048	0.047	2.5	30%	Pass	
Magnesium - Peroxide	B23-My0006033	NCP	% Mg	0.051	0.050	1.1	20%	Pass	
Magnesium - Acid Reacted	B23-My0006033	NCP	% Mg	< 0.005	< 0.005	<1	30%	Pass	
Magnesium - Acid Reacted (s-aCa)	B23-My0006033	NCP	% S	< 0.005	< 0.005	<1	30%	Pass	
Magnesium - Acid Reacted (a-aCa)	B23-My0006033	NCP	mol H+/t	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Acid Neutralising Capacity (ANCE)				Result 1	Result 2	RPD			
Acid Neutralising Capacity - (ANCE)	B23-My0006033	NCP	% CaCO3	N/A	N/A	N/A	30%	Pass	
Acid Neutralising Capacity - (a-ANCE)	B23-My0006033	NCP	mol H+/t	n/a	n/a	N/A	30%	Pass	

Duplicate									
Acid Neutralising Capacity (ANCbt)				Result 1	Result 2	RPD			
ANC Fineness Factor	B23-My0006033	NCP	factor	1.5	1.5	<1	30%	Pass	
Duplicate									
Net Acidity (Including ANC)				Result 1	Result 2	RPD			
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	B23-My0006033	NCP	mol H+/t	110	110	<1	30%	Pass	
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	B23-My0006033	NCP	% S	0.18	0.18	<1	30%	Pass	
SPOCAS - Liming rate - ASSMAC	B23-My0006033	NCP	kg CaCO3/t	8.2	8.3	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-My0016855	CP	%	20	23	9.9	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
trans-1.2-Dichloroethene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S23-My0020248	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S23-My0016861	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10	S23-My0016861	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-My0016861	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-My0016861	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S23-My0016861	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-My0016861	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-My0016861	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S23-My0016861	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S23-My0016861	CP	mg/kg	< 0.5	0.9	100	30%	Fail	Q15
Benzo(a)pyrene	S23-My0016861	CP	mg/kg	< 0.5	0.9	100	30%	Fail	Q15
Benzo(b&j)fluoranthene	S23-My0016861	CP	mg/kg	< 0.5	0.9	110	30%	Fail	Q15
Benzo(g.h.i)perylene	S23-My0016861	CP	mg/kg	< 0.5	0.9	96	30%	Fail	Q15
Benzo(k)fluoranthene	S23-My0016861	CP	mg/kg	< 0.5	0.9	97	30%	Fail	Q15
Chrysene	S23-My0016861	CP	mg/kg	< 0.5	1.0	100	30%	Fail	Q15
Dibenz(a.h)anthracene	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S23-My0016861	CP	mg/kg	0.6	2.1	110	30%	Fail	Q15
Fluorene	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S23-My0016861	CP	mg/kg	< 0.5	0.6	110	30%	Fail	Q15
Naphthalene	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S23-My0016861	CP	mg/kg	< 0.5	0.5	69	30%	Fail	Q15
Pyrene	S23-My0016861	CP	mg/kg	0.5	2.0	120	30%	Fail	Q15
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S23-My0016861	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4.4'-DDD	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Endrin ketone	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	S23-My0016861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S23-My0016864	CP	mg/kg	2.0	2.3	11	30%	Pass	
Cadmium	S23-My0016864	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S23-My0016864	CP	mg/kg	< 5	5.0	6.4	30%	Pass	
Copper	S23-My0016864	CP	mg/kg	14	17	21	30%	Pass	
Lead	S23-My0016864	CP	mg/kg	33	34	3.5	30%	Pass	
Mercury	S23-My0016864	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S23-My0016864	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S23-My0016864	CP	mg/kg	31	36	15	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
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).
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:

Adam Bateup	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Inorganic
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Organic
Mary Makarios	Senior Analyst-Inorganic
Laxman Dias	Senior Analyst-Asbestos
Jonathon Angell	Senior Analyst-Inorganic
Jonathon Angell	Senior Analyst-Sample Properties
Emily Rosenberg	Senior Analyst-Metal
Jonathon Angell	Senior Analyst-SPOCAS

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.

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: **Milad Noujaim**

Report **987142-W**
Project name PYRMONT
Project ID 64669
Received Date May 05, 2023

Client Sample ID			**RIN**	**BLANK**	**TB**	**TS**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-My0016868**	**S23-My0016869**	**S23-My0016891**	**S23-My0016892**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	-	< 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	-	-	-
TRH C6-C10	0.02	mg/L	< 0.02	-	< 0.02	-
TRH C6-C10 less BTEX (F1)^{N04}	0.02	mg/L	< 0.02	-	< 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	%	120	-	106	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene^{N02}	0.01	mg/L	< 0.01	-	-	-
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	-	-	-

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**RIN** **Water** **S23-My0016868** **May 05, 2023**	**BLANK** **Water** **S23-My0016869** **May 05, 2023**	**TB** **Water** **S23-My0016891** **May 05, 2023**	**TS** **Water** **S23-My0016892** **May 05, 2023**
Polycyclic Aromatic Hydrocarbons						
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	%	70	-	-	-
p-Terphenyl-d14 (surr.)	1	%	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	%	146	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	127	-	-	-
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	%	146	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	127	-	-	-

Client Sample ID			**RIN**	**BLANK**	**TB**	**TS**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-My0016868**	**S23-My0016869**	**S23-My0016891**	**S23-My0016892**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
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	< 0.001	-	-	-
Zinc (filtered)	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	%	61	63	-	-
13C5-PFPeA (surr.)	1	%	70	72	-	-
13C5-PFHxA (surr.)	1	%	69	74	-	-
13C4-PFHpA (surr.)	1	%	72	75	-	-
13C8-PFOA (surr.)	1	%	80	85	-	-
13C5-PFNA (surr.)	1	%	76	81	-	-
13C6-PFDA (surr.)	1	%	81	85	-	-
13C2-PFUnDA (surr.)	1	%	78	80	-	-
13C2-PFDoDA (surr.)	1	%	76	80	-	-
13C2-PFTeDA (surr.)	1	%	54	75	-	-
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	%	140	148	-	-
D3-N-MeFOSA (surr.)	1	%	30	23	-	-
D5-N-EtFOSA (surr.)	1	%	19	17	-	-
D7-N-MeFOSE (surr.)	1	%	INT	INT	-	-
D9-N-EtFOSE (surr.)	1	%	INT	INT	-	-
D5-N-EtFOSAA (surr.)	1	%	82	93	-	-
D3-N-MeFOSAA (surr.)	1	%	82	84	-	-

Client Sample ID			**RIN**	**BLANK**	**TB**	**TS**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-My0016868**	**S23-My0016869**	**S23-My0016891**	**S23-My0016892**
Date Sampled			**May 05, 2023**	**May 05, 2023**	**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit				
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	%	126	132	-	-
18O2-PFHxS (surr.)	1	%	124	128	-	-
13C8-PFOS (surr.)	1	%	135	144	-	-
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	%	91	95	-	-
13C2-6:2 FTSA (surr.)	1	%	97	97	-	-
13C2-8:2 FTSA (surr.)	1	%	102	107	-	-
13C2-10:2 FTSA (surr.)	1	%	136	102	-	-
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	-	-
Naphthalene[N02]	0.01	mg/L	-	-	< 0.01	-
TRH C6-C10	1	%	-	-	-	79
Total Recoverable Hydrocarbons						
Naphthalene	1	%	-	-	-	100
TRH C6-C9	1	%	-	-	-	82
BTEX						
Benzene	1	%	-	-	-	88
Ethylbenzene	1	%	-	-	-	86
m&p-Xylenes	1	%	-	-	-	87
o-Xylene	1	%	-	-	-	82
Toluene	1	%	-	-	-	88
Xylenes - Total	1	%	-	-	-	84
4-Bromofluorobenzene (surr.)	1	%	-	-	-	102

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	May 08, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	May 08, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	May 06, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	May 08, 2023	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
JBS&G Suite 2 (metals filtered)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	May 08, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	May 08, 2023	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	May 08, 2023	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	May 08, 2023	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8 filtered	Sydney	May 08, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Sydney	May 08, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Sydney	May 08, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Sydney	May 08, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Sydney	May 08, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
PFASs Summations	Sydney	May 06, 2023	
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			

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

Project Name: PYRMONT
Project ID: 64669

Order No.:
Report #: 987142
Phone: 02 8245 0300
Fax:

Received: May 5, 2023 5:30 PM
Due: May 12, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
External Laboratory																								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																			
1	BH06 0-0.1	May 05, 2023		Soil	S23-My0016838											X				X				
2	BH06 0.2-0.3	May 05, 2023		Soil	S23-My0016839				X															
3	BH06 0.5-0.6	May 05, 2023		Soil	S23-My0016840	X				X						X	X			X				
4	BH06 0.5-1.0	May 05, 2023		Soil	S23-My0016841		X																	
5	BH07 0.5-0.6	May 05, 2023		Soil	S23-My0016842											X			X					
6	BH07 0.9-1.0	May 05, 2023		Soil	S23-My0016843											X				X				
7	BH07 0-1.0	May 05, 2023		Soil	S23-My0016844		X																	
8	BH07 1-1.5	May 05, 2023		Soil	S23-My0016845		X																	
9	BH07 1.5-2.5	May 05, 2023		Soil	S23-My0016846			X																
10	BH07 2-2.1	May 05, 2023		Soil	S23-My0016847											X				X			X	
11	BH07 3.5-4.5	May 05, 2023		Soil	S23-My0016848		X																	

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Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
12	BH07 5.4-5.5	May 05, 2023		Soil	S23-My0016849									X	X									
13	BH08 0.2-0.3	May 05, 2023		Soil	S23-My0016850											X			X					
14	BH08 0.9-1.0	May 05, 2023		Soil	S23-My0016851											X				X				
15	BH08 0-1	May 05, 2023		Soil	S23-My0016852		X																	
16	BH08 1-1.5	May 05, 2023		Soil	S23-My0016853		X																	
17	BH08 2.5-3.5	May 05, 2023		Soil	S23-My0016854		X																	
18	BH08 4.0-4.1	May 05, 2023		Soil	S23-My0016855	X				X						X	X		X					
19	BH08 3.5-4.5	May 05, 2023		Soil	S23-My0016856		X																	
20	BH09 0-0.1	May 05, 2023		Soil	S23-My0016857						X	X				X		X						
21	BH09 0.2-0.3	May 05, 2023		Soil	S23-My0016858								X			X				X				
22	BH09 0-0.3	May 05, 2023		Soil	S23-My0016859		X																	
23	BH12 0.2-0.3	May 05, 2023		Soil	S23-My0016860								X			X								
24	BH12 0.5-0.6	May 05, 2023		Soil	S23-My0016861											X				X				
25	BH12 0.9-1	May 05, 2023		Soil	S23-My0016862											X							X	

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Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
26	BH12 1.2-1.7	May 05, 2023		Soil	S23-My0016863		X																	
27	BH12 1.4-1.5	May 05, 2023		Soil	S23-My0016864											X				X				
28	BH12 1.7-2.7	May 05, 2023		Soil	S23-My0016865			X																
29	BH12 2.4-2.5	May 05, 2023		Soil	S23-My0016866											X			X					
30	BH12 5.0-5.1	May 05, 2023		Soil	S23-My0016867									X	X									
31	RIN	May 05, 2023		Water	S23-My0016868																X		X	
32	BLANK	May 05, 2023		Water	S23-My0016869																		X	
33	BH06 0-0.3	May 05, 2023		Soil	S23-My0016870		X																	
34	BH06 0.3-0.4	May 05, 2023		Soil	S23-My0016871				X															
35	BH06 0.9-1.0	May 05, 2023		Soil	S23-My0016872				X															
36	BH07 0-0.1	May 05, 2023		Soil	S23-My0016873				X															
37	BH07 0.2-0.3	May 05, 2023		Soil	S23-My0016874				X															
38	BH07 2.5-3.5	May 05, 2023		Soil	S23-My0016875		X																	
39	BH07 3-3.1	May 05, 2023		Soil	S23-My0016876				X															

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Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
40	BH07 4-4.1	May 05, 2023		Soil	S23-My0016877				X															
41	BH07 5.0-5.1	May 05, 2023		Soil	S23-My0016878				X															
42	BH08 0-0.1	May 05, 2023		Soil	S23-My0016879				X															
43	BH08 0.5-0.6	May 05, 2023		Soil	S23-My0016880				X															
44	BH08 2-2.1	May 05, 2023		Soil	S23-My0016881				X															
45	BH08 3.0-3.1	May 05, 2023		Soil	S23-My0016882				X															
46	BH08 5.0-5.1	May 05, 2023		Soil	S23-My0016883				X															
47	BH08 6.0-6.1	May 05, 2023		Soil	S23-My0016884				X															
48	BH08 7.0-7.1	May 05, 2023		Soil	S23-My0016885				X															
49	BH12 0.7-0.8	May 05, 2023		Soil	S23-My0016886				X															
50	BH12 1.7-1.8	May 05, 2023		Soil	S23-My0016887				X															
51	BH12 3.5-3.6	May 05, 2023		Soil	S23-My0016888				X															
52	BH12 4.6-4.7	May 05, 2023		Soil	S23-My0016889				X															
53	BH12 5.9-6.0	May 05, 2023		Soil	S23-My0016890				X															

Company Name:	JBS & G Australia (NSW) P/L	**Order No.:**	
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Project Name:	PYRMONT		
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Sample Detail						% Clay	Asbestos - WA guidelines	CANCELLED	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Polycyclic Aromatic Hydrocarbons	BTEX	Volatile Organics	SPOCAS Suite	Moisture Set	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	Eurofins Suite B7	JBS&G Suite 2	JBS&G Suite 2 (metals filtered)	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254																	X	X	X	X	X			
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794						X								X	X	X								
54	TB	May 05, 2023		Water	S23-My0016891																	X		
55	TS	May 05, 2023		Water	S23-My0016892																			X
56	BH08 1.5-2.5	May 05, 2023		Soil	S23-My0018502				X															
Test Counts						2	12	2	21	2	1	1	2	2	17	17	2	1	4	8	1	1	4	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
CFU: Colony forming unit		

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.

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	
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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
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 (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	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)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	%	80			70-130	Pass	
TRH C10-C14	%	89			70-130	Pass	
TRH C6-C10	%	81			70-130	Pass	
TRH >C10-C16	%	91			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	90			70-130	Pass	
Toluene	%	91			70-130	Pass	
Ethylbenzene	%	87			70-130	Pass	
m&p-Xylenes	%	86			70-130	Pass	
o-Xylene	%	85			70-130	Pass	
Xylenes - Total*	%	86			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	99			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthylene	%	74			70-130	Pass	
Anthracene	%	79			70-130	Pass	
Benz(a)anthracene	%	80			70-130	Pass	
Benzo(a)pyrene	%	82			70-130	Pass	
Benzo(b&j)fluoranthene	%	75			70-130	Pass	
Benzo(g.h.i)perylene	%	71			70-130	Pass	
Benzo(k)fluoranthene	%	80			70-130	Pass	
Chrysene	%	80			70-130	Pass	
Dibenz(a.h)anthracene	%	76			70-130	Pass	
Fluoranthene	%	82			70-130	Pass	
Fluorene	%	76			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	76			70-130	Pass	
Phenanthrene	%	79			70-130	Pass	
Pyrene	%	84			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	84			70-130	Pass	
4.4'-DDD	%	92			70-130	Pass	
4.4'-DDE	%	83			70-130	Pass	
4.4'-DDT	%	89			70-130	Pass	
a-HCH	%	79			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aldrin	%	77			70-130	Pass	
b-HCH	%	83			70-130	Pass	
d-HCH	%	82			70-130	Pass	
Dieldrin	%	83			70-130	Pass	
Endosulfan I	%	84			70-130	Pass	
Endosulfan II	%	88			70-130	Pass	
Endosulfan sulphate	%	81			70-130	Pass	
Endrin	%	77			70-130	Pass	
Endrin aldehyde	%	81			70-130	Pass	
Endrin ketone	%	88			70-130	Pass	
g-HCH (Lindane)	%	83			70-130	Pass	
Heptachlor	%	84			70-130	Pass	
Heptachlor epoxide	%	82			70-130	Pass	
Hexachlorobenzene	%	75			70-130	Pass	
Methoxychlor	%	123			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	81			70-130	Pass	
Aroclor-1260	%	86			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	91			80-120	Pass	
Cadmium (filtered)	%	92			80-120	Pass	
Chromium (filtered)	%	87			80-120	Pass	
Copper (filtered)	%	91			80-120	Pass	
Lead (filtered)	%	90			80-120	Pass	
Mercury (filtered)	%	86			80-120	Pass	
Nickel (filtered)	%	84			80-120	Pass	
Zinc (filtered)	%	86			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	113			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	113			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	113			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	108			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	114			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	112			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	111			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	120			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	117			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	113			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	120			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	114			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	111			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	112			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	114			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	104			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	114			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	115			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	126			50-150	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoropropanesulfonic acid (PFPrS)			%	106			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)			%	108			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)			%	115			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)			%	100			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)			%	114			50-150	Pass	
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)			%	117			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)			%	118			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)			%	133			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)			%	116			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	S23-Ap0030485	NCP	%	78			70-130	Pass	
TRH >C10-C16	S23-Ap0030485	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S23-My0014521	NCP	%	94			75-125	Pass	
Cadmium (filtered)	S23-My0014521	NCP	%	92			75-125	Pass	
Chromium (filtered)	S23-My0014521	NCP	%	81			75-125	Pass	
Copper (filtered)	S23-My0014521	NCP	%	84			75-125	Pass	
Lead (filtered)	S23-My0014521	NCP	%	85			75-125	Pass	
Mercury (filtered)	S23-My0014521	NCP	%	82			75-125	Pass	
Nickel (filtered)	R23-My0007189	NCP	%	101			75-125	Pass	
Zinc (filtered)	S23-My0014521	NCP	%	81			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	S23-My0019876	NCP	mg/L	0.49	0.51	4.5	30%	Pass	
TRH C10-C14	S23-Ap0030494	NCP	mg/L	0.13	0.20	45	30%	Fail	Q15
TRH C15-C28	S23-Ap0030494	NCP	mg/L	0.4	0.5	26	30%	Pass	
TRH C29-C36	S23-Ap0030494	NCP	mg/L	< 0.1	0.1	28	30%	Pass	
TRH C6-C10	S23-My0019876	NCP	mg/L	0.69	0.80	14	30%	Pass	
TRH >C10-C16	S23-Ap0030494	NCP	mg/L	0.19	0.27	34	30%	Fail	Q15
TRH >C16-C34	S23-Ap0030494	NCP	mg/L	0.4	0.5	27	30%	Pass	
TRH >C34-C40	S23-Ap0030494	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-My0019876	NCP	mg/L	0.051	0.054	4.7	30%	Pass	
Toluene	S23-My0019876	NCP	mg/L	0.002	0.002	18	30%	Pass	
Ethylbenzene	W23-My0017454	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	W23-My0017454	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	W23-My0017454	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	W23-My0017454	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-My0019876	NCP	mg/L	0.03	0.03	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S23-My0016868	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
4.4'-DDD	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
4.4'-DDE	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
4.4'-DDT	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
a-HCH	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Aldrin	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
b-HCH	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
d-HCH	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Dieldrin	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endosulfan I	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endosulfan II	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endosulfan sulphate	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endrin	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endrin aldehyde	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Endrin ketone	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
g-HCH (Lindane)	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Heptachlor	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Heptachlor epoxide	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Hexachlorobenzene	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Methoxychlor	S23-My0016868	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Toxaphene	S23-My0016868	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S23-My0016868	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1221	S23-My0016868	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1232	S23-My0016868	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1242	S23-My0016868	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1248	S23-My0016868	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1254	S23-My0016868	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aroclor-1260	S23-My0016868	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Total PCB*	S23-My0016868	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S23-My0015992	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S23-My0015992	NCP	mg/L	0.002	0.002	<1	30%	Pass	
Lead (filtered)	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S23-My0016868	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S23-My0016868	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc (filtered)	S23-My0016868	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	S23-My0016564	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	S23-My0016564	NCP	ug/L	0.04	0.04	4.1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	S23-My0016564	NCP	ug/L	0.21	0.22	8.4	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	S23-My0016564	NCP	ug/L	0.02	0.02	6.2	30%	Pass	
Perfluorooctanoic acid (PFOA)	S23-My0016564	NCP	ug/L	0.04	0.05	5.4	30%	Pass	
Perfluorononanoic acid (PFNA)	S23-My0016564	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	S23-My0016564	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	S23-My0016564	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	S23-My0016564	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	S23-My0016564	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S23-My0016564	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	S23-My0016564	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S23-My0016564	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S23-My0016564	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S23-My0016564	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S23-My0016564	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S23-My0016564	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S23-My0016564	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	S23-My0016564	NCP	ug/L	0.09	0.10	8.8	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S23-My0016564	NCP	ug/L	0.02	0.03	8.0	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S23-My0016564	NCP	ug/L	0.12	0.12	7.0	30%	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S23-My0016564	NCP	ug/L	1.2	1.3	5.5	30%	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S23-My0016564	NCP	ug/L	0.04	0.04	5.9	30%	Pass	
Perfluorooctanesulfonic acid (PFOS)	S23-My0016564	NCP	ug/L	0.79	0.85	7.7	30%	Pass	
Perfluorodecanesulfonic acid (PFDS)	S23-My0016564	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)	S23-My0016564	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S23-My0016564	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S23-My0016564	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S23-My0016564	NCP	ug/L	< 0.01	< 0.01	<1	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
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.

Authorised by:

Adam Bateup	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile

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.

FW: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

Adam Bateup
Fri 2023-05-19 4:12 PM
To: #AU25_Enviro_Sample_NSW <EnviroSampleNSW@eurofins.com>
Cc: Andrew Black <AndrewBlack@eurofins.com>

1 attachments (321 KB)
RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669);

INFO: INTERNAL EMAIL **-** Sent from your own Eurofins email domain.

2-day TAT additional for the below please 😊

Kind Regards,

Adam Bateup
Assistant Analytical Services Manager
My hours are 3 pm - 11 pm

Eurofins Environment Testing Australia Pty Ltd
179 Magowar Road
Girraween, NSW, 2145

Email: Adam Bateup
Phone: 0413 917 819
Website: www.eurofins.com.au/environmental-testing

From: Milad Noujaim <mnoujaim@jbsg.com.au>
Sent: Friday, 19 May 2023 4:05 PM
To: Adam Bateup <AdamBateup@eurofins.com>
Cc: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Hi,

Can I please request the following analysis on a 2 day TAT:

- BH08 6.0-6.1 for Heavy Metals, TRH/BTEX and PAHs

- BH12 5.9-6.0 for Heavy Metals, TRH/BTEX and PAHs

Kind Regards,

Milad Noujaim | Project Manager | JBS&G
Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: Milad Noujaim
Sent: Thursday, May 18, 2023 5:38 PM
To: Adam Bateup <AdamBateup@eurofins.com>
Cc: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

Much appreciated.

Kind Regards,

Milad Noujaim | Project Manager | JBS&G
Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: Adam Bateup <AdamBateup@eurofins.com>
Sent: Thursday, May 18, 2023 5:37 PM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Cc: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

Ah yep, we have those!

Transit has left for today so I’m dubious we’ll get them out on a 3-day TAT, but we’ll see what we can do 😊

Kind Regards,

Adam Bateup
Assistant Analytical Services Manager
My hours are 3 pm - 11 pm

Eurofins Environment Testing Australia Pty Ltd
179 Magowar Road
Girraween, NSW, 2145

Email: Adam Bateup
Phone: 0413 917 819
Website: www.eurofins.com.au/environmental-testing

From: Milad Noujaim <mnoujaim@jbsg.com.au>
Sent: Thursday, 18 May 2023 5:30 PM
To: Adam Bateup <AdamBateup@eurofins.com>
Cc: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

BH12 4.6-4.7 and BH12 5.9-6.0. Is that correct ?

Kind Regards,

Milad Noujaim | Project Manager | JBS&G
Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: Adam Bateup <AdamBateup@eurofins.com>
Sent: Thursday, May 18, 2023 5:26 PM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Cc: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

Hey Milad,

I'm not seeing sample ID's that match with the two you have specified, was this for a different report?

Kind Regards,

Adam Bateup
Assistant Analytical Services Manager
My hours are 3 pm - 11 pm

Eurofins Environment Testing Australia Pty Ltd
179 Magowar Road
Girraween, NSW, 2145

Email: Adam Bateup

Phone: 0413 917 819
Website: www.eurofins.com.au/environmental-testing

From: Milad Noujaim <mnoujaim@jbsg.com.au>
Sent: Thursday, 18 May 2023 4:55 PM
To: Adam Bateup <AdamBateup@eurofins.com>
Cc: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

Can I get a SPOCAS done on a 3 day TAT for the following:

- BH12 4.0-4.1
- BH12 6.0-6.1

Kind Regards,

Milad Noujaim | Project Manager | JBS&G
Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: AdamBateup@eurofins.com <AdamBateup@eurofins.com>
Sent: Tuesday, May 16, 2023 11:28 PM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Subject: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

Please find the attached reports

Kind regards,
Adam Bateup
Assistant Analytical Services Manager
My hours are 3 pm - 11 pm

Eurofins Environment Testing Australia Pty Ltd
179 Magowar Road
Girraween, NSW, 2145

Email: AdamBateup@eurofins.com

Website: www.eurofins.com/environmental-testing
View our latest EnviroNotes

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Milad Noujaim
Project name:	ADDITIONAL: PYRMONT
Project ID:	ADDITIONAL: 64669
Turnaround time:	2 Day
Date/Time received	May 19, 2023 4:12 PM
Eurofins reference	991398

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 : 8.6 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

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Milad Noujaim - mnoujaim@jbsg.com.au.

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

Project Name: ADDITIONAL: PYRMONT
Project ID: ADDITIONAL: 64669

Order No.:
Report #: 991398
Phone: 02 8245 0300
Fax:

Received: May 19, 2023 4:12 PM
Due: May 23, 2023
Priority: 2 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Moisture Set	Eurofins Suite B7
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BH08 6.0-6.1	May 05, 2023		Soil	S23-My0050622	X	X
2	BH12 5.9-6.0	May 05, 2023		Soil	S23-My0050623	X	X
Test Counts						2	2

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: **Milad Noujaim**

Report **991398-S**
Project name ADDITIONAL: PYRMONT
Project ID ADDITIONAL: 64669
Received Date May 19, 2023

Client Sample ID			**BH08 6.0-6.1**	**BH12 5.9-6.0**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S23-My0050622**	**S23-My0050623**
Date Sampled			**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	65
TRH C29-C36	50	mg/kg	< 50	54
TRH C10-C36 (Total)	50	mg/kg	< 50	119
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	100
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	76	88
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	0.7
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	1.0
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.3
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	0.6
Benzo(a)pyrene	0.5	mg/kg	< 0.5	0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	0.9
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	0.7
Chrysene	0.5	mg/kg	0.6	1.1

Client Sample ID			**BH08 6.0-6.1**	**BH12 5.9-6.0**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S23-My0050622**	**S23-My0050623**
Date Sampled			**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	0.7	0.9
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	0.7	1.2
Total PAH*	0.5	mg/kg	2.0	6.4
2-Fluorobiphenyl (surr.)	1	%	60	71
p-Terphenyl-d14 (surr.)	1	%	69	92
Heavy Metals				
Arsenic	2	mg/kg	3.8	18
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	79	13
Copper	5	mg/kg	18	120
Lead	5	mg/kg	35	76
Mercury	0.1	mg/kg	< 0.1	0.1
Nickel	5	mg/kg	15	13
Zinc	5	mg/kg	31	120
Sample Properties				
% Moisture	1	%	24	19

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 - Method: LTM-ORG-2010 TRH C6-C40	Sydney	May 22, 2023	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	May 22, 2023	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	May 22, 2023	14 Days
BTEX - Method: LTM-ORG-2010 BTEX and Volatile TRH	Sydney	May 22, 2023	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	May 22, 2023	14 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	May 22, 2023	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Sydney	May 19, 2023	14 Days

Company Name:	JBS & G Australia (NSW) P/L	**Order No.:**		**Received:**	May 19, 2023 4:12 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	991398	**Due:**	May 23, 2023
		Phone:	02 8245 0300	**Priority:**	2 Day
		Fax:		**Contact Name:**	Milad Noujaim
Project Name:	ADDITIONAL: PYRMONT				
Project ID:	ADDITIONAL: 64669				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Moisture Set	Eurofins Suite B7
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BH08 6.0-6.1	May 05, 2023		Soil	S23-My0050622	X	X
2	BH12 5.9-6.0	May 05, 2023		Soil	S23-My0050623	X	X
Test Counts						2	2

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

ppm: parts per million

org/100 mL: Organisms per 100 millilitres

CFU: Colony forming unit

mg/L: milligrams per litre

ppb: parts per billion

NTU: Nephelometric Turbidity Units

µg/L: micrograms per litre

%: Percentage

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.

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	
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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	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							
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	%	104			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	%	78			70-130	Pass	
TRH C6-C10	%	101			70-130	Pass	
TRH >C10-C16	%	80			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	98			70-130	Pass	
Toluene	%	107			70-130	Pass	
Ethylbenzene	%	99			70-130	Pass	
m&p-Xylenes	%	100			70-130	Pass	
o-Xylene	%	96			70-130	Pass	
Xylenes - Total*	%	99			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	82			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	105			70-130	Pass	
Acenaphthylene	%	84			70-130	Pass	
Anthracene	%	83			70-130	Pass	
Benz(a)anthracene	%	83			70-130	Pass	
Benzo(a)pyrene	%	89			70-130	Pass	
Benzo(b&j)fluoranthene	%	79			70-130	Pass	
Benzo(g.h.i)perylene	%	115			70-130	Pass	
Benzo(k)fluoranthene	%	103			70-130	Pass	
Chrysene	%	101			70-130	Pass	
Dibenz(a.h)anthracene	%	87			70-130	Pass	
Fluoranthene	%	76			70-130	Pass	
Fluorene	%	91			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	82			70-130	Pass	
Naphthalene	%	94			70-130	Pass	
Phenanthrene	%	81			70-130	Pass	
Pyrene	%	74			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	93			80-120	Pass	
Cadmium	%	100			80-120	Pass	
Chromium	%	103			80-120	Pass	
Copper	%	104			80-120	Pass	
Lead	%	112			80-120	Pass	
Mercury	%	105			80-120	Pass	
Nickel	%	104			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	S23-My0043928	NCP	%	103			70-130	Pass	
TRH C10-C14	S23-My0050622	CP	%	118			70-130	Pass	
TRH C6-C10	S23-My0043928	NCP	%	101			70-130	Pass	
TRH >C10-C16	S23-My0050622	CP	%	120			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S23-My0043928	NCP	%	95			70-130	Pass	
Toluene	S23-My0043928	NCP	%	97			70-130	Pass	
Ethylbenzene	S23-My0043928	NCP	%	97			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	S23-My0043928	NCP	%	96			70-130	Pass	
o-Xylene	S23-My0043928	NCP	%	91			70-130	Pass	
Xylenes - Total*	S23-My0043928	NCP	%	95			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S23-My0043928	NCP	%	75			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S23-My0053737	NCP	%	95			70-130	Pass	
Acenaphthylene	S23-My0053737	NCP	%	92			70-130	Pass	
Anthracene	S23-My0053737	NCP	%	75			70-130	Pass	
Benz(a)anthracene	S23-My0049535	NCP	%	84			70-130	Pass	
Benzo(a)pyrene	S23-My0053737	NCP	%	82			70-130	Pass	
Benzo(b&j)fluoranthene	S23-My0049535	NCP	%	79			70-130	Pass	
Benzo(g.h.i)perylene	S23-My0053737	NCP	%	95			70-130	Pass	
Benzo(k)fluoranthene	S23-My0053737	NCP	%	74			70-130	Pass	
Chrysene	S23-My0053737	NCP	%	105			70-130	Pass	
Dibenz(a.h)anthracene	S23-My0049535	NCP	%	89			70-130	Pass	
Fluoranthene	S23-My0049535	NCP	%	82			70-130	Pass	
Fluorene	S23-My0053737	NCP	%	84			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S23-My0053737	NCP	%	73			70-130	Pass	
Naphthalene	S23-My0053737	NCP	%	92			70-130	Pass	
Phenanthrene	S23-My0049535	NCP	%	78			70-130	Pass	
Pyrene	S23-My0049535	NCP	%	82			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S23-My0051790	NCP	%	98			75-125	Pass	
Cadmium	S23-My0051790	NCP	%	109			75-125	Pass	
Chromium	S23-My0051790	NCP	%	105			75-125	Pass	
Copper	S23-My0051790	NCP	%	104			75-125	Pass	
Lead	S23-My0051790	NCP	%	114			75-125	Pass	
Mercury	S23-My0051790	NCP	%	107			75-125	Pass	
Nickel	S23-My0051790	NCP	%	104			75-125	Pass	
Zinc	S23-My0051790	NCP	%	104			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	S23-My0043928	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S23-My0054720	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S23-My0054720	NCP	mg/kg	55	< 50	23	30%	Pass	
TRH C29-C36	S23-My0054720	NCP	mg/kg	78	67	16	30%	Pass	
TRH C6-C10	S23-My0043928	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S23-My0054720	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S23-My0054720	NCP	mg/kg	110	< 100	18	30%	Pass	
TRH >C34-C40	S23-My0054720	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-My0043928	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-My0043928	NCP	mg/kg	0.4	0.3	7.3	30%	Pass	
Ethylbenzene	S23-My0043928	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-My0050017	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-My0043928	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S23-My0050017	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-My0043928	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S23-My0047284	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S23-My0047284	NCP	mg/kg	6.6	9.0	31	30%	Fail	Q15
Cadmium	S23-My0047284	NCP	mg/kg	< 0.4	1.8	180	30%	Fail	Q15
Chromium	S23-My0047284	NCP	mg/kg	25	24	3.9	30%	Pass	
Copper	S23-My0047284	NCP	mg/kg	7.1	11	43	30%	Fail	Q15
Lead	S23-My0047284	NCP	mg/kg	15	22	39	30%	Fail	Q15
Mercury	S23-My0047284	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S23-My0047284	NCP	mg/kg	< 5	5.2	37	30%	Fail	Q15
Zinc	S23-My0051799	NCP	mg/kg	26	23	11	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-My0049531	NCP	%	15	14	2.3	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
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
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.

Authorised by:

Andrew Black	Analytical Services Manager
Roopesh Rangarajan	Senior Analyst-Organic
Fang Yee Tan	Senior Analyst-Metal

Glenn Jackson
Managing Director

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.

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☐ **Sydney Laboratory**
179 Magowar Road, Girraween, NSW 2145
+61 2 9900 8400 EnviroSampleNSW@eurofins.com

☐ **Brisbane Laboratory**
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☐ **Melbourne Laboratory**
6 Monterey Road Dandenong South VIC 3175
+61 3 8564 5000 EnviroSampleVic@eurofins.com

Company	JBS&G	**Project №**	64669	**Project Manager**	Milad Noujaim
Address	Lvl 1, 50 Margaret St, Sydney, NSW, 2000	**Project Name**	Pyrmont	**EDD Format** (ESdat, EQuIS etc)	
Contact Name	Milad Noujaim			**Sampler(s)**	MN/EF
Phone №	0401 230 032			**Email for Invoice**	
Special Directions	Electronic COC also Sent			**Email for Results**	mnoujaim@jbsg.com.au
Purchase Order					
Quote ID №					

Analyses Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.

Containers Change container type & size if necessary.

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	JB2 Suite	Heavy Metals M8	TRH	BTEX	PAH (Low Level)	OCP	PCB	VOC	PFAS (Low Level)	Hardness	pH	EC	TDS	Asbestos - WA guidelines	Heavy Metals	40mL VOA vial	1000 mL Amber	PFAS Bottle	Inorganics	500mL PFAS Bottle	Jar (Glass or HDPE)	Other	Sample Comments / Dangerous Goods Warning
1	MW01	13/04/23	soil		X	X		X			X	X	X	X	X	X		1	1	1	1	1				
2	MW02	13/04/23	soil		X	X		X			X	X	X	X	X	X		1	1	1	1	1				
3	MW05	13/04/23	soil		X	X		X			X	X	X	X	X	X		1	1	1	1	1				
4	DBMW01	14/04/23	soil		X	X		X			X	X	X	X	X	X		1	1	1	1	1				
5	QAW01	14/04/23	soil		X	X		X			X	X						1	1	1	1	1				
93	Rinsate	14/04/23	Water		X	X		X			X	X						1	1	1	1	1				
94	TS/TB	14/04/23	Water				X												1							
95	BLANK	14/04/23	Water									X									1					
	Total Counts				6	6	1	6			6	7	4	4	4	4		6	7	6	7	6				

Required Turnaround Time (TAT) Default will be 5 days if not ticked.

♦Surcharge will apply

☐ Overnight (reporting by 9am)♦
☐ Same day♦
☐ 1 day♦
☐ 2 days♦
☐ 3 days♦
☑ 5 days (Standard)
☐ Other( )

Method of Shipment ☐ Courier (#) ☐ Hand Delivered ☐ Postal Name **Milad Noujaim** Signature M.Noujaim Date **18/04/2023** Time

Laboratory Use Only	Received By		[✓ SYD] | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	18/4	Time	6:25	Temperature 1.1c
	Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date		Time		Report № 981895

Eurofins Environment Testing Australia Pty Ltd EnviroSales@eurofins.com
R12 AU COC - Alternative Modified by T Wong Approved by A Black Approved on 16 November 2022

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Milad Noujaim
Project name:	PYRMONT
Project ID:	64669
Turnaround time:	5 Day
Date/Time received	Apr 18, 2023 6:25 PM
Eurofins reference	981895

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.
✗	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:

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Milad Noujaim - mnoujaim@jbsg.com.au.

Global Leader - Results you can trust

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

Project Name: PYRMONT
Project ID: 64669

Order No.:
Report #: 981895
Phone: 02 8245 0300
Fax:

Received: Apr 18, 2023 6:25 PM
Due: Apr 26, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Conductivity (at 25 °C)	pH (at 25 °C)	Metals M8	Metals M8 filtered	BTEX	Hardness Set	Volatile Organics	Total Recoverable Hydrocarbons	BTEX	Polycyclic Aromatic Hydrocarbons (Trace level)	Per- and Polyfluoroalkyl Substances (PFASs) - Trace	Total Dissolved Solids Dried at 180 °C ± 2 °C
Melbourne Laboratory - NATA # 1261 Site # 1254													X		X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X			X
Brisbane Laboratory - NATA # 1261 Site # 20794																X	
External Laboratory																	
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**												
1	MW01	Apr 18, 2023		Water	S23-Ap0037193	X	X		X		X	X	X		X	X	X
2	MW02	Apr 18, 2023		Water	S23-Ap0037194	X	X		X		X	X	X		X	X	X
3	MW05	Apr 18, 2023		Water	S23-Ap0037195	X	X		X		X	X	X		X	X	X
4	DBMW01	Apr 18, 2023		Water	S23-Ap0037196	X	X		X		X	X	X		X	X	X
5	QAW01	Apr 18, 2023		Water	S23-Ap0037197				X			X	X		X	X	
6	RINSATE	Apr 18, 2023		Water	S23-Ap0037198			X				X	X		X	X	
7	TS	Apr 18, 2023		Water	S23-Ap0037199									X			
8	TB	Apr 14, 2023		Water	S23-Ap0037200					X							
9	BLANK	Apr 14, 2023		Water	S23-Ap0037201											X	
Test Counts						4	4	1	5	1	4	6	6	1	6	7	4

Certificate of Analysis

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:	**Milad Noujaim**
Report	**981895-W**
Project name	PYRMONT
Project ID	64669
Received Date	Apr 18, 2023

Client Sample ID			**MW01**	**MW02**	**MW05**	**DBMW01**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037193**	**S23-Ap0037194**	**S23-Ap0037195**	**S23-Ap0037196**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 14, 2023**
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	0.13	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	0.4	< 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	0.63	< 0.1
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	0.06	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	0.06	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	0.4	< 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	0.46	< 0.1
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
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

Client Sample ID			**MW01**	**MW02**	**MW05**	**DBMW01**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037193**	**S23-Ap0037194**	**S23-Ap0037195**	**S23-Ap0037196**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	94	94	93	94
Toluene-d8 (surr.)	1	%	90	89	85	89
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene^{N02}	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
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 - low level	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

Client Sample ID			**MW01**	**MW02**	**MW05**	**DBMW01**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037193**	**S23-Ap0037194**	**S23-Ap0037195**	**S23-Ap0037196**
Date Sampled			**Apr 13, 2023**	**Apr 13, 2023**	**Apr 13, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
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	%	89	99	61	64
p-Terphenyl-d14 (surr.)	1	%	82	90	58	83
Conductivity (at 25 °C)	10	uS/cm	45000	43000	850	40000
pH (at 25 °C)	0.1	pH Units	7.7	7.8	6.5	7.5
Total Dissolved Solids Dried at 180 °C ± 2 °C	10	mg/L	30000	32000	600	27000
Hardness mg equivalent CaCO3/L	1	mg/L	5600	5500	210	5300
Alkali Metals						
Calcium	0.5	mg/L	380	380	54	380
Magnesium	0.5	mg/L	1100	1100	18	1100
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.001	< 0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.003	0.002	< 0.001	0.002
Lead (filtered)	0.001	mg/L	0.005	0.018	< 0.001	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc (filtered)	0.005	mg/L	0.031	0.023	0.008	0.012
PFASs Summations						
Sum (PFHxS + PFOS)*	0.001	ug/L	0.142	0.8	0.033	0.096
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.001	ug/L	0.147	0.822	0.073	0.104
Sum of PFASs (n=30)*	0.005	ug/L	0.201	1.029	0.53	0.215
Sum of US EPA PFAS (PFOS + PFOA)*	0.001	ug/L	0.052	0.342	0.053	0.044
Sum of WA DWER PFAS (n=10)*	0.005	ug/L	0.185	0.97	0.51	0.195
Perfluoroalkyl sulfonamido substances- Trace						
Perfluorooctane sulfonamide (FOSA)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
13C8-FOSA (surr.)	1	%	61	50	42	74
D3-N-MeFOSA (surr.)	1	%	88	107	70	99
D5-N-EtFOSA (surr.)	1	%	81	157	51	101
D7-N-MeFOSE (surr.)	1	%	49	45	39	40
D9-N-EtFOSE (surr.)	1	%	44	62	31	47

Client Sample ID			MW01	MW02	MW05	DBMW01
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037193**	**S23-Ap0037194**	**S23-Ap0037195**	**S23-Ap0037196**
Date Sampled			Apr 13, 2023	Apr 13, 2023	Apr 13, 2023	Apr 14, 2023
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances- Trace						
D5-N-EtFOSAA (surr.)	1	%	29	37	44	36
D3-N-MeFOSAA (surr.)	1	%	62	29	81	60
Perfluoroalkyl carboxylic acids (PFCAs) - Trace						
Perfluorobutanoic acid (PFBA)[N11]	0.005	ug/L	< 0.005	0.012	0.093	0.014
Perfluoropentanoic acid (PFPeA)[N11]	0.001	ug/L	0.006	0.021	0.12	0.030
Perfluorohexanoic acid (PFHxA)[N11]	0.001	ug/L	0.019	0.073	0.10	0.032
Perfluoroheptanoic acid (PFHpA)[N11]	0.001	ug/L	[N09]0.005	[N09]0.022	[N09]0.072	[N09]0.009
Perfluorooctanoic acid (PFOA)[N11]	0.001	ug/L	[N09]0.005	[N09]0.022	[N09]0.040	[N09]0.008
Perfluorononanoic acid (PFNA)[N11]	0.001	ug/L	< 0.001	0.002	0.008	0.003
Perfluorodecanoic acid (PFDA)[N11]	0.001	ug/L	0.003	0.009	0.011	0.009
Perfluorotridecanoic acid (PFTrDA)[N15]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
Perfluoroundecanoic acid (PFUnDA)[N11]	0.001	ug/L	< 0.001	0.003	< 0.001	0.001
Perfluorododecanoic acid (PFDoDA)[N11]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
13C4-PFBA (surr.)	1	%	76	52	51	55
13C5-PFPeA (surr.)	1	%	96	51	42	51
13C5-PFHxA (surr.)	1	%	112	104	62	129
13C4-PFHpA (surr.)	1	%	72	65	78	65
13C8-PFOA (surr.)	1	%	115	80	132	111
13C5-PFNA (surr.)	1	%	115	109	65	112
13C6-PFDA (surr.)	1	%	77	71	67	76
13C2-PFUnDA (surr.)	1	%	60	61	78	64
13C2-PFDoDA (surr.)	1	%	52	59	69	65
13C2-PFTeDA (surr.)	1	%	34	56	34	53
Perfluoroalkyl sulfonic acids (PFSAs)- Trace						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.001	ug/L	0.008	0.020	0.047	0.006
Perfluorononanesulfonic acid (PFNS)[N15]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.001	ug/L	0.001	0.005	< 0.001	< 0.001
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.001	ug/L	[N09]0.009	[N09]0.026	< 0.001	[N09]0.005
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.001	ug/L	[N09]0.095	[N09]0.48	[N09]0.020	[N09]0.060
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.001	ug/L	[N09]0.003	[N09]0.014	[N09]0.001	[N09]0.002
Perfluorooctanesulfonic acid (PFOS)[N11]	0.001	ug/L	[N09]0.047	[N09]0.32	[N09]0.013	[N09]0.036
Perfluorodecanesulfonic acid (PFDS)[N15]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
13C3-PFBS (surr.)	1	%	77	82	83	93
18O2-PFHxS (surr.)	1	%	101	80	93	77
13C8-PFOS (surr.)	1	%	77	54	51	71
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)- Trace						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.005	ug/L	< 0.005	< 0.005	0.005	< 0.005
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
13C2-4:2 FTSA (surr.)	1	%	78	57	37	112
13C2-6:2 FTSA (surr.)	1	%	102	99	133	116
13C2-8:2 FTSA (surr.)	1	%	48	25	126	49
13C2-10:2 FTSA (surr.)	1	%	34	25	65	62

Client Sample ID Sample Matrix Eurofins Sample No. Date Sampled Test/Reference	LOR	Unit	QAW01 Water S23-Ap0037197 Apr 14, 2023	RINSATE Water S23-Ap0037198 Apr 14, 2023	TS Water S23-Ap0037199 Apr 14, 2023	TB Water S23-Ap0037200 Apr 14, 2023
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C6-C10 less BTEX (F1)^{N04}	0.02	mg/L	< 0.02	< 0.02	-	-
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)^{N01}	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	-	-
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	-	-
Volatile Organics						
1.1-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dibromoethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.3-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	-	-
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
2-Butanone (MEK)	0.005	mg/L	< 0.005	< 0.005	-	-
2-Propanone (Acetone)	0.005	mg/L	< 0.005	< 0.005	-	-
4-Chlorotoluene	0.001	mg/L	< 0.001	< 0.001	-	-
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	< 0.005	< 0.005	-	-
Allyl chloride	0.001	mg/L	< 0.001	< 0.001	-	-
Benzene	0.001	mg/L	< 0.001	< 0.001	-	-
Bromobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
Bromochloromethane	0.001	mg/L	< 0.001	< 0.001	-	-
Bromodichloromethane	0.001	mg/L	< 0.001	< 0.001	-	-
Bromoform	0.001	mg/L	< 0.001	< 0.001	-	-
Bromomethane	0.005	mg/L	< 0.005	< 0.005	-	-
Carbon disulfide	0.001	mg/L	< 0.001	< 0.001	-	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	< 0.001	-	-
Chlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
Chloroethane	0.005	mg/L	< 0.005	< 0.005	-	-
Chloroform	0.005	mg/L	< 0.005	< 0.005	-	-
Chloromethane	0.005	mg/L	< 0.005	< 0.005	-	-
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	-	-
Dibromochloromethane	0.001	mg/L	< 0.001	< 0.001	-	-

Client Sample ID			QAW01	RINSATE	TS	TB
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037197**	**S23-Ap0037198**	**S23-Ap0037199**	**S23-Ap0037200**
Date Sampled			Apr 14, 2023	Apr 14, 2023	Apr 14, 2023	Apr 14, 2023
Test/Reference	LOR	Unit				
Volatile Organics						
Dibromomethane	0.001	mg/L	< 0.001	< 0.001	-	-
Dichlorodifluoromethane	0.005	mg/L	< 0.005	< 0.005	-	-
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	-	-
Iodomethane	0.001	mg/L	< 0.001	< 0.001	-	-
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	< 0.001	-	-
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	-	-
Methylene Chloride	0.005	mg/L	< 0.005	< 0.005	-	-
o-Xylene	0.001	mg/L	< 0.001	< 0.001	-	-
Styrene	0.001	mg/L	< 0.001	< 0.001	-	-
Tetrachloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
Toluene	0.001	mg/L	< 0.001	< 0.001	-	-
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	-	-
Trichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
Trichlorofluoromethane	0.005	mg/L	< 0.005	< 0.005	-	-
Vinyl chloride	0.005	mg/L	< 0.005	< 0.005	-	-
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	-	-
Total MAH*	0.003	mg/L	< 0.003	< 0.003	-	-
Vic EPA IWRG 621 CHC (Total)*	0.005	mg/L	< 0.005	< 0.005	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.005	mg/L	< 0.005	< 0.005	-	-
4-Bromofluorobenzene (surr.)	1	%	95	94	-	-
Toluene-d8 (surr.)	1	%	89	88	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene^{N02}	0.01	mg/L	< 0.01	< 0.01	-	-
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(a)pyrene - low level	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	-	-
2-Fluorobiphenyl (surr.)	1	%	88	59	-	-
p-Terphenyl-d14 (surr.)	1	%	56	83	-	-
Heavy Metals						
Arsenic	0.001	mg/L	-	< 0.001	-	-
Arsenic (filtered)	0.001	mg/L	0.002	-	-	-
Cadmium	0.0002	mg/L	-	< 0.0002	-	-
Cadmium (filtered)	0.0002	mg/L	< 0.0002	-	-	-

Client Sample ID			QAW01	RINSATE	TS	TB
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037197**	**S23-Ap0037198**	**S23-Ap0037199**	**S23-Ap0037200**
Date Sampled			Apr 14, 2023	Apr 14, 2023	Apr 14, 2023	Apr 14, 2023
Test/Reference	LOR	Unit				
Heavy Metals						
Chromium	0.001	mg/L	-	0.001	-	-
Chromium (filtered)	0.001	mg/L	< 0.001	-	-	-
Copper	0.001	mg/L	-	0.002	-	-
Copper (filtered)	0.001	mg/L	0.003	-	-	-
Lead	0.001	mg/L	-	0.001	-	-
Lead (filtered)	0.001	mg/L	0.004	-	-	-
Mercury	0.0001	mg/L	-	< 0.0001	-	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	-	-	-
Nickel	0.001	mg/L	-	< 0.001	-	-
Nickel (filtered)	0.001	mg/L	< 0.001	-	-	-
Zinc	0.005	mg/L	-	< 0.005	-	-
Zinc (filtered)	0.005	mg/L	0.031	-	-	-
PFASs Summations						
Sum (PFHxS + PFOS)*	0.001	ug/L	0.141	< 0.001	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.001	ug/L	0.147	< 0.001	-	-
Sum of PFASs (n=30)*	0.005	ug/L	0.199	< 0.005	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.001	ug/L	0.057	< 0.001	-	-
Sum of WA DWER PFAS (n=10)*	0.005	ug/L	0.186	< 0.005	-	-
Perfluoroalkyl sulfonamido substances- Trace						
Perfluorooctane sulfonamide (FOSA)[N11]	0.005	ug/L	< 0.005	< 0.005	-	-
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)[N11]	0.005	ug/L	< 0.005	< 0.005	-	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)[N11]	0.005	ug/L	< 0.005	< 0.005	-	-
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)[N11]	0.005	ug/L	< 0.005	< 0.005	-	-
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)[N11]	0.005	ug/L	< 0.005	< 0.005	-	-
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)[N11]	0.005	ug/L	< 0.005	< 0.005	-	-
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)[N11]	0.005	ug/L	< 0.005	< 0.005	-	-
13C8-FOSA (surr.)	1	%	67	67	-	-
D3-N-MeFOSA (surr.)	1	%	111	169	-	-
D5-N-EtFOSA (surr.)	1	%	96	143	-	-
D7-N-MeFOSE (surr.)	1	%	39	58	-	-
D9-N-EtFOSE (surr.)	1	%	56	62	-	-
D5-N-EtFOSAA (surr.)	1	%	33	67	-	-
D3-N-MeFOSAA (surr.)	1	%	53	94	-	-
Perfluoroalkyl carboxylic acids (PFCAs) - Trace						
Perfluorobutanoic acid (PFBA)[N11]	0.005	ug/L	< 0.005	< 0.005	-	-
Perfluoropentanoic acid (PFPeA)[N11]	0.001	ug/L	0.007	< 0.001	-	-
Perfluorohexanoic acid (PFHxA)[N11]	0.001	ug/L	0.021	< 0.001	-	-
Perfluoroheptanoic acid (PFHpA)[N11]	0.001	ug/L	[N09]0.006	< 0.001	-	-
Perfluorooctanoic acid (PFOA)[N11]	0.001	ug/L	[N09]0.006	< 0.001	-	-
Perfluorononanoic acid (PFNA)[N11]	0.001	ug/L	< 0.001	< 0.001	-	-
Perfluorodecanoic acid (PFDA)[N11]	0.001	ug/L	0.003	< 0.001	-	-
Perfluorotridecanoic acid (PFTrDA)[N15]	0.001	ug/L	< 0.001	< 0.001	-	-
Perfluoroundecanoic acid (PFUnDA)[N11]	0.001	ug/L	0.001	< 0.001	-	-
Perfluorododecanoic acid (PFDoDA)[N11]	0.001	ug/L	< 0.001	< 0.001	-	-
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.001	ug/L	< 0.001	< 0.001	-	-

Client Sample ID			**QAW01**	**RINSATE**	**TS**	**TB**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037197**	**S23-Ap0037198**	**S23-Ap0037199**	**S23-Ap0037200**
Date Sampled			**Apr 14, 2023**	**Apr 14, 2023**	**Apr 14, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs) - Trace						
13C4-PFBA (surr.)	1	%	77	110	-	-
13C5-PFPeA (surr.)	1	%	68	125	-	-
13C5-PFHxA (surr.)	1	%	50	105	-	-
13C4-PFHpA (surr.)	1	%	82	86	-	-
13C8-PFOA (surr.)	1	%	96	89	-	-
13C5-PFNA (surr.)	1	%	92	112	-	-
13C6-PFDA (surr.)	1	%	63	108	-	-
13C2-PFUnDA (surr.)	1	%	51	78	-	-
13C2-PFDoDA (surr.)	1	%	46	82	-	-
13C2-PFTeDA (surr.)	1	%	44	69	-	-
Perfluoroalkyl sulfonic acids (PFSAs)- Trace						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.001	ug/L	0.005	< 0.001	-	-
Perfluorononanesulfonic acid (PFNS)[N15]	0.001	ug/L	< 0.001	< 0.001	-	-
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.001	ug/L	0.001	< 0.001	-	-
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.001	ug/L	[N09]0.006	< 0.001	-	-
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.001	ug/L	[N09]0.090	< 0.001	-	-
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.001	ug/L	[N09]0.002	< 0.001	-	-
Perfluorooctanesulfonic acid (PFOS)[N11]	0.001	ug/L	[N09]0.051	< 0.001	-	-
Perfluorodecanesulfonic acid (PFDS)[N15]	0.001	ug/L	< 0.001	< 0.001	-	-
13C3-PFBS (surr.)	1	%	116	90	-	-
18O2-PFHxS (surr.)	1	%	122	103	-	-
13C8-PFOS (surr.)	1	%	68	141	-	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)- Trace						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.001	ug/L	< 0.001	< 0.001	-	-
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.005	ug/L	< 0.005	< 0.005	-	-
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.001	ug/L	< 0.001	< 0.001	-	-
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.001	ug/L	< 0.001	< 0.001	-	-
13C2-4:2 FTSA (surr.)	1	%	60	88	-	-
13C2-6:2 FTSA (surr.)	1	%	100	83	-	-
13C2-8:2 FTSA (surr.)	1	%	39	54	-	-
13C2-10:2 FTSA (surr.)	1	%	31	46	-	-
BTEX						
Benzene	1	%	-	-	110	-
Ethylbenzene	1	%	-	-	110	-
m&p-Xylenes	1	%	-	-	110	-
o-Xylene	1	%	-	-	110	-
Toluene	1	%	-	-	110	-
Xylenes - Total	1	%	-	-	110	-
4-Bromofluorobenzene (surr.)	1	%	-	-	132	-
BTEX						
Benzene	0.001	mg/L	-	-	-	< 0.001
Toluene	0.001	mg/L	-	-	-	< 0.001
Ethylbenzene	0.001	mg/L	-	-	-	< 0.001
m&p-Xylenes	0.002	mg/L	-	-	-	< 0.002
o-Xylene	0.001	mg/L	-	-	-	< 0.001
Xylenes - Total*	0.003	mg/L	-	-	-	< 0.003
4-Bromofluorobenzene (surr.)	1	%	-	-	-	124

Client Sample ID Sample Matrix Eurofins Sample No. Date Sampled Test/Reference	LOR	Unit	BLANK Water S23-Ap0037201 Apr 14, 2023
PFASs Summations			
Sum (PFHxS + PFOS)*	0.001	ug/L	< 0.001
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.001	ug/L	< 0.001
Sum of PFASs (n=30)*	0.005	ug/L	< 0.005
Sum of US EPA PFAS (PFOS + PFOA)*	0.001	ug/L	< 0.001
Sum of WA DWER PFAS (n=10)*	0.005	ug/L	< 0.005
Perfluoroalkyl sulfonamido substances- Trace			
Perfluorooctane sulfonamide (FOSA)N11	0.005	ug/L	< 0.005
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)N11	0.005	ug/L	< 0.005
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)N11	0.005	ug/L	< 0.005
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)N11	0.005	ug/L	< 0.005
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)N11	0.005	ug/L	< 0.005
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)N11	0.005	ug/L	< 0.005
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)N11	0.005	ug/L	< 0.005
13C8-FOSA (surr.)	1	%	65
D3-N-MeFOSA (surr.)	1	%	138
D5-N-EtFOSA (surr.)	1	%	169
D7-N-MeFOSE (surr.)	1	%	61
D9-N-EtFOSE (surr.)	1	%	65
D5-N-EtFOSAA (surr.)	1	%	73
D3-N-MeFOSAA (surr.)	1	%	94
Perfluoroalkyl carboxylic acids (PFCAs) - Trace			
Perfluorobutanoic acid (PFBA)N11	0.005	ug/L	< 0.005
Perfluoropentanoic acid (PFPeA)N11	0.001	ug/L	< 0.001
Perfluorohexanoic acid (PFHxA)N11	0.001	ug/L	< 0.001
Perfluoroheptanoic acid (PFHpA)N11	0.001	ug/L	< 0.001
Perfluorooctanoic acid (PFOA)N11	0.001	ug/L	< 0.001
Perfluorononanoic acid (PFNA)N11	0.001	ug/L	< 0.001
Perfluorodecanoic acid (PFDA)N11	0.001	ug/L	< 0.001
Perfluorotridecanoic acid (PFTrDA)N15	0.001	ug/L	< 0.001
Perfluoroundecanoic acid (PFUnDA)N11	0.001	ug/L	< 0.001
Perfluorododecanoic acid (PFDoDA)N11	0.001	ug/L	< 0.001
Perfluorotetradecanoic acid (PFTeDA)N11	0.001	ug/L	< 0.001
13C4-PFBA (surr.)	1	%	108
13C5-PFPeA (surr.)	1	%	123
13C5-PFHxA (surr.)	1	%	109
13C4-PFHpA (surr.)	1	%	80
13C8-PFOA (surr.)	1	%	81
13C5-PFNA (surr.)	1	%	108
13C6-PFDA (surr.)	1	%	101
13C2-PFUnDA (surr.)	1	%	76
13C2-PFDoDA (surr.)	1	%	79
13C2-PFTeDA (surr.)	1	%	66

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**BLANK** **Water** **S23-Ap0037201** **Apr 14, 2023**
Perfluoroalkyl sulfonic acids (PFSAs)- Trace			
Perfluorobutanesulfonic acid (PFBS)^{N11}	0.001	ug/L	< 0.001
Perfluorononanesulfonic acid (PFNS)^{N15}	0.001	ug/L	< 0.001
Perfluoropropanesulfonic acid (PFPrS)^{N15}	0.001	ug/L	< 0.001
Perfluoropentanesulfonic acid (PFPeS)^{N15}	0.001	ug/L	< 0.001
Perfluorohexanesulfonic acid (PFHxS)^{N11}	0.001	ug/L	< 0.001
Perfluoroheptanesulfonic acid (PFHpS)^{N15}	0.001	ug/L	< 0.001
Perfluorooctanesulfonic acid (PFOS)^{N11}	0.001	ug/L	< 0.001
Perfluorodecanesulfonic acid (PFDS)^{N15}	0.001	ug/L	< 0.001
13C3-PFBS (surr.)	1	%	84
18O2-PFHxS (surr.)	1	%	96
13C8-PFOS (surr.)	1	%	124
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)- Trace			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)^{N11}	0.001	ug/L	< 0.001
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)^{N11}	0.005	ug/L	< 0.005
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)^{N11}	0.001	ug/L	< 0.001
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)^{N11}	0.001	ug/L	< 0.001
13C2-4:2 FTSA (surr.)	1	%	114
13C2-6:2 FTSA (surr.)	1	%	66
13C2-8:2 FTSA (surr.)	1	%	41
13C2-10:2 FTSA (surr.)	1	%	143

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 - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Apr 23, 2023	7 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Apr 18, 2023	7 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Apr 23, 2023	7 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices	Sydney	Apr 18, 2023	7 Days
Polycyclic Aromatic Hydrocarbons (Trace level) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water (trace)	Melbourne	Apr 23, 2023	7 Days
Conductivity (at 25 °C) - Method: LTM-INO-4030 Conductivity	Sydney	Apr 24, 2023	28 Days
pH (at 25 °C) - Method: LTM-GEN-7090 pH in water by ISE	Sydney	Apr 24, 2023	0 Hour
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Apr 24, 2023	28 Days
Metals M8 filtered - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Apr 24, 2023	28 Days
BTEX - Method: LTM-ORG-2010 BTEX and Volatile TRH	Sydney	Apr 18, 2023	14 Days
Total Dissolved Solids Dried at 180 °C ± 2 °C - Method: LTM-INO-4170 Total Dissolved Solids in Water	Sydney	Apr 24, 2023	7 Days
Hardness Set			
Hardness mg equivalent CaCO3/L - Method: E020.1 Hardness in water	Sydney	Apr 24, 2023	28 Days
Alkali Metals - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Apr 24, 2023	180 Days
Per- and Polyfluoroalkyl Substances (PFASs) - Trace			
Perfluoroalkyl sulfonamido substances- Trace - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) - low level	Brisbane	Apr 26, 2023	28 Days
Perfluoroalkyl carboxylic acids (PFCAs) - Trace - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) - low level	Brisbane	Apr 26, 2023	28 Days
Perfluoroalkyl sulfonic acids (PFSAs)- Trace - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) - low level	Brisbane	Apr 26, 2023	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)- Trace - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) - low level	Brisbane	Apr 26, 2023	28 Days

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

Project Name: PYRMONT
Project ID: 64669

Order No.:
Report #: 981895
Phone: 02 8245 0300
Fax:

Received: Apr 18, 2023 6:25 PM
Due: Apr 26, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Conductivity (at 25 °C)	pH (at 25 °C)	Metals M8	Metals M8 filtered	BTEX	Hardness Set	Volatile Organics	Total Recoverable Hydrocarbons	BTEX	Polycyclic Aromatic Hydrocarbons (Trace level)	Per- and Polyfluoroalkyl Substances (PFASs) - Trace	Total Dissolved Solids Dried at 180 °C ± 2 °C
Melbourne Laboratory - NATA # 1261 Site # 1254													X		X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X			X
Brisbane Laboratory - NATA # 1261 Site # 20794																X	
External Laboratory																	
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**												
1	MW01	Apr 13, 2023		Water	S23-Ap0037193	X	X		X		X	X	X		X	X	X
2	MW02	Apr 13, 2023		Water	S23-Ap0037194	X	X		X		X	X	X		X	X	X
3	MW05	Apr 13, 2023		Water	S23-Ap0037195	X	X		X		X	X	X		X	X	X
4	DBMW01	Apr 14, 2023		Water	S23-Ap0037196	X	X		X		X	X	X		X	X	X
5	QAW01	Apr 14, 2023		Water	S23-Ap0037197				X			X	X		X	X	
6	RINSATE	Apr 14, 2023		Water	S23-Ap0037198			X				X	X		X	X	
7	TS	Apr 14, 2023		Water	S23-Ap0037199									X			
8	TB	Apr 14, 2023		Water	S23-Ap0037200					X							
9	BLANK	Apr 14, 2023		Water	S23-Ap0037201											X	
Test Counts						4	4	1	5	1	4	6	6	1	6	7	4

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

ppm: parts per million

org/100 mL: Organisms per 100 millilitres

CFU: Colony forming unit

mg/L: milligrams per litre

ppb: parts per billion

NTU: Nephelometric Turbidity Units

μg/L: micrograms per litre

%: Percentage

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.

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	
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							
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	
Benzene	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	
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	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
Methylene Chloride	mg/L	< 0.005			0.005	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
Toluene	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	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	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 - low level	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	
Method Blank							
Conductivity (at 25 °C)	uS/cm	< 10			10	Pass	
Total Dissolved Solids Dried at 180 °C ± 2 °C	mg/L	< 10			10	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)- Trace							
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.001			0.001	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	100			70-130	Pass	
TRH C10-C14	%	73			70-130	Pass	
TRH C6-C10	%	96			70-130	Pass	
TRH >C10-C16	%	72			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	100			70-130	Pass	
1.1.1-Trichloroethane	%	96			70-130	Pass	
1.2-Dichlorobenzene	%	91			70-130	Pass	
1.2-Dichloroethane	%	101			70-130	Pass	
Benzene	%	95			70-130	Pass	
Ethylbenzene	%	94			70-130	Pass	
m&p-Xylenes	%	95			70-130	Pass	
o-Xylene	%	93			70-130	Pass	
Toluene	%	91			70-130	Pass	
Trichloroethene	%	86			70-130	Pass	
Xylenes - Total*	%	94			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	95			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	%	126			70-130	Pass	
Acenaphthylene	%	109			70-130	Pass	
Anthracene	%	79			70-130	Pass	
Benz(a)anthracene	%	92			70-130	Pass	
Benzo(a)pyrene - low level	%	90			70-130	Pass	
Benzo(b&j)fluoranthene	%	88			70-130	Pass	
Benzo(g.h.i)perylene	%	119			70-130	Pass	
Benzo(k)fluoranthene	%	108			70-130	Pass	
Chrysene	%	115			70-130	Pass	
Dibenz(a.h)anthracene	%	77			70-130	Pass	
Fluoranthene	%	89			70-130	Pass	
Fluorene	%	90			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	95			70-130	Pass	
Naphthalene	%	84			70-130	Pass	
Phenanthrene	%	86			70-130	Pass	
Pyrene	%	93			70-130	Pass	
LCS - % Recovery							
Conductivity (at 25 °C)	%	96			70-130	Pass	
Total Dissolved Solids Dried at 180 °C ± 2 °C	%	90			70-130	Pass	
LCS - % Recovery							
Alkali Metals							
Calcium	%	92			80-120	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Magnesium	%	99			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	87			80-120	Pass	
Arsenic (filtered)	%	90			80-120	Pass	
Cadmium	%	93			80-120	Pass	
Cadmium (filtered)	%	94			80-120	Pass	
Chromium	%	98			80-120	Pass	
Chromium (filtered)	%	95			80-120	Pass	
Copper	%	108			80-120	Pass	
Copper (filtered)	%	94			80-120	Pass	
Lead	%	105			80-120	Pass	
Lead (filtered)	%	95			80-120	Pass	
Mercury	%	104			80-120	Pass	
Mercury (filtered)	%	97			80-120	Pass	
Nickel	%	100			80-120	Pass	
Nickel (filtered)	%	92			80-120	Pass	
Zinc	%	97			80-120	Pass	
Zinc (filtered)	%	89			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)- Trace							
Perfluorooctanesulfonic acid (PFOS)	%	93			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	M23-Ap0045071	NCP	%	124			70-130	Pass	
TRH >C10-C16	M23-Ap0045071	NCP	%	126			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1					
Acenaphthene	M23-Ap0025115	NCP	%	121			70-130	Pass	
Acenaphthylene	M23-Ap0025115	NCP	%	113			70-130	Pass	
Anthracene	M23-Ap0025115	NCP	%	80			70-130	Pass	
Benz(a)anthracene	M23-Ap0025115	NCP	%	76			70-130	Pass	
Benzo(a)pyrene - low level	L23-Ap0028449	NCP	%	78			70-130	Pass	
Benzo(b&j)fluoranthene	M23-Ap0025115	NCP	%	82			70-130	Pass	
Benzo(g.h.i)perylene	M23-Ap0025115	NCP	%	91			70-130	Pass	
Benzo(k)fluoranthene	M23-Ap0025115	NCP	%	87			70-130	Pass	
Chrysene	M23-Ap0025115	NCP	%	96			70-130	Pass	
Dibenz(a.h)anthracene	M23-Ap0025115	NCP	%	88			70-130	Pass	
Fluoranthene	M23-Ap0025115	NCP	%	96			70-130	Pass	
Fluorene	M23-Ap0025115	NCP	%	89			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M23-Ap0025115	NCP	%	79			70-130	Pass	
Naphthalene	M23-Ap0025115	NCP	%	103			70-130	Pass	
Phenanthrene	M23-Ap0025115	NCP	%	96			70-130	Pass	
Pyrene	M23-Ap0025115	NCP	%	101			70-130	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Calcium	S23-Ap0045381	NCP	%	90			75-125	Pass	
Magnesium	S23-Ap0045381	NCP	%	101			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S23-Ap0045381	NCP	%	89			75-125	Pass	
Cadmium	S23-Ap0045381	NCP	%	95			75-125	Pass	
Chromium	S23-Ap0045381	NCP	%	98			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Copper	S23-Ap0045381	NCP	%	108			75-125	Pass	
Lead	S23-Ap0045381	NCP	%	105			75-125	Pass	
Mercury	S23-Ap0045381	NCP	%	102			75-125	Pass	
Nickel	S23-Ap0045381	NCP	%	99			75-125	Pass	
Zinc	S23-Ap0045381	NCP	%	100			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	S23-Ap0030494	NCP	mg/L	0.11	0.11	3.9	30%	Pass	
TRH C10-C14	M23-Ap0045072	NCP	mg/L	0.16	0.14	19	30%	Pass	
TRH C15-C28	M23-Ap0045072	NCP	mg/L	3.0	4.7	42	30%	Fail	Q15
TRH C29-C36	M23-Ap0045072	NCP	mg/L	2.4	4.2	56	30%	Fail	Q15
TRH C6-C10	S23-Ap0030494	NCP	mg/L	0.11	0.11	3.8	30%	Pass	
TRH >C10-C16	M23-Ap0045072	NCP	mg/L	0.42	0.44	4.1	30%	Pass	
TRH >C16-C34	M23-Ap0045072	NCP	mg/L	4.2	6.9	48	30%	Fail	Q15
TRH >C34-C40	M23-Ap0045072	NCP	mg/L	1.1	2.0	61	30%	Fail	Q15
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1-Dichloroethene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1-Trichloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2-Trichloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dibromoethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichlorobenzene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloropropane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.3-Trichloropropane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.4-Trimethylbenzene	S23-Ap0027173	NCP	mg/L	0.037	0.038	5.0	30%	Pass	
1.3-Dichlorobenzene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3-Dichloropropane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3.5-Trimethylbenzene	S23-Ap0027173	NCP	mg/L	0.061	0.064	4.5	30%	Pass	
1.4-Dichlorobenzene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
2-Butanone (MEK)	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Propanone (Acetone)	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Chlorotoluene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S23-Ap0027173	NCP	mg/L	0.12	0.12	1.4	30%	Pass	
Allyl chloride	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzene	S23-Ap0030494	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromobenzene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromochloromethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromodichloromethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromoform	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromomethane	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Carbon disulfide	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Carbon Tetrachloride	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chlorobenzene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chloroethane	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloroform	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloromethane	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
cis-1.2-Dichloroethene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
cis-1.3-Dichloropropene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromochloromethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Dibromomethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dichlorodifluoromethane	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Ethylbenzene	S23-Ap0030494	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Iodomethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Isopropyl benzene (Cumene)	S23-Ap0027173	NCP	mg/L	0.021	0.022	2.8	30%	Pass	
m&p-Xylenes	S23-Ap0030494	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
Methylene Chloride	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
o-Xylene	S23-Ap0030494	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Styrene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Tetrachloroethene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S23-Ap0030494	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.2-Dichloroethene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.3-Dichloropropene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichloroethene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichlorofluoromethane	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Vinyl chloride	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Xylenes - Total*	S23-Ap0030494	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-Ap0030494	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1	Result 2	RPD			
Acenaphthene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Acenaphthylene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Anthracene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benz(a)anthracene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(a)pyrene - low level	L23-Ap0035222	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(b&j)fluoranthene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(g.h.i)perylene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(k)fluoranthene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Chrysene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Dibenz(a.h)anthracene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluoranthene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluorene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Naphthalene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Phenanthrene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Pyrene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Dissolved Solids Dried at 180 °C ± 2 °C	R23-Ap0035197	NCP	mg/L	1100	1200	3.9	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	R23-Ap0035195	NCP	mg/L	15	14	3.1	30%	Pass	
Magnesium	R23-Ap0035195	NCP	mg/L	2.8	2.8	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S23-Ap0038197	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S23-Ap0038197	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S23-Ap0038197	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S23-Ap0038197	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead (filtered)	S23-Ap0038197	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S23-Ap0043303	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Nickel (filtered)	S23-Ap0038197	NCP	mg/L	0.004	0.004	5.4	30%	Pass	
Zinc (filtered)	S23-Ap0038197	NCP	mg/L	0.026	0.026	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (at 25 °C)	S23-Ap0037195	CP	uS/cm	850	860	1.6	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	R23-Ap0035195	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	R23-Ap0035195	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	R23-Ap0035195	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	R23-Ap0035195	NCP	mg/L	0.003	0.003	3.9	30%	Pass	Q15
Lead	R23-Ap0035195	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	R23-Ap0035195	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	R23-Ap0035195	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	R23-Ap0035195	NCP	mg/L	0.039	0.037	4.3	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
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).
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.

Authorised by:

Adam Bateup	Analytical Services Manager
Carroll Lee	Senior Analyst-Organic
Edward Lee	Senior Analyst-Organic
Jonathon Angell	Senior Analyst-PFAS
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Inorganic
Roopesh Rangarajan	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Inorganic

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.

Certificate of Analysis

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:	**Milad Noujaim**
Report	**981895-W-V2**
Project name	PYRMONT
Project ID	64669
Received Date	Apr 18, 2023

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**MW01** **Water** **S23-Ap0037193** **Apr 18, 2023**	**MW02** **Water** **S23-Ap0037194** **Apr 18, 2023**	**MW05** **Water** **S23-Ap0037195** **Apr 18, 2023**	**DBMW01** **Water** **S23-Ap0037196** **Apr 18, 2023**
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	0.13	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	0.4	< 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	0.63	< 0.1
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	0.06	< 0.05
TRH >C10-C16 less Naphthalene (F2)^{N01}	0.05	mg/L	< 0.05	< 0.05	0.06	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	0.4	< 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	0.46	< 0.1
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
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

Client Sample ID			**MW01**	**MW02**	**MW05**	**DBMW01**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037193**	**S23-Ap0037194**	**S23-Ap0037195**	**S23-Ap0037196**
Date Sampled			**Apr 18, 2023**	**Apr 18, 2023**	**Apr 18, 2023**	**Apr 18, 2023**
Test/Reference	LOR	Unit				
Volatile Organics						
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	%	94	94	93	94
Toluene-d8 (surr.)	1	%	90	89	85	89
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene^{N02}	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
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 - low level	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

Client Sample ID			**MW01**	**MW02**	**MW05**	**DBMW01**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037193**	**S23-Ap0037194**	**S23-Ap0037195**	**S23-Ap0037196**
Date Sampled			**Apr 18, 2023**	**Apr 18, 2023**	**Apr 18, 2023**	**Apr 18, 2023**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
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	%	89	99	61	64
p-Terphenyl-d14 (surr.)	1	%	82	90	58	83
Conductivity (at 25 °C)	10	uS/cm	45000	43000	850	40000
pH (at 25 °C)	0.1	pH Units	7.7	7.8	6.5	7.5
Total Dissolved Solids Dried at 180 °C ± 2 °C	10	mg/L	30000	32000	600	27000
Hardness mg equivalent CaCO3/L	1	mg/L	5600	5500	210	5300
Alkali Metals						
Calcium	0.5	mg/L	380	380	54	380
Magnesium	0.5	mg/L	1100	1100	18	1100
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.001	< 0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.003	0.002	< 0.001	0.002
Lead (filtered)	0.001	mg/L	0.005	0.018	< 0.001	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc (filtered)	0.005	mg/L	0.031	0.023	0.008	0.012
PFASs Summations						
Sum (PFHxS + PFOS)*	0.001	ug/L	0.142	0.8	0.033	0.096
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.001	ug/L	0.147	0.822	0.073	0.104
Sum of PFASs (n=30)*	0.005	ug/L	0.201	1.029	0.53	0.215
Sum of US EPA PFAS (PFOS + PFOA)*	0.001	ug/L	0.052	0.342	0.053	0.044
Sum of WA DWER PFAS (n=10)*	0.005	ug/L	0.185	0.97	0.51	0.195
Perfluoroalkyl sulfonamido substances- Trace						
Perfluorooctane sulfonamide (FOSA)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)^{N11}	0.005	ug/L	< 0.005	< 0.005	< 0.005	< 0.005
13C8-FOSA (surr.)	1	%	61	50	42	74
D3-N-MeFOSA (surr.)	1	%	88	107	70	99
D5-N-EtFOSA (surr.)	1	%	81	157	51	101
D7-N-MeFOSE (surr.)	1	%	49	45	39	40
D9-N-EtFOSE (surr.)	1	%	44	62	31	47

Client Sample ID			MW01	MW02	MW05	DBMW01
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S23-Ap0037193	S23-Ap0037194	S23-Ap0037195	S23-Ap0037196
Date Sampled			Apr 18, 2023	Apr 18, 2023	Apr 18, 2023	Apr 18, 2023
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances- Trace						
D5-N-EtFOSAA (surr.)	1	%	29	37	44	36
D3-N-MeFOSAA (surr.)	1	%	62	29	81	60
Perfluoroalkyl carboxylic acids (PFCAs) - Trace						
Perfluorobutanoic acid (PFBA)[N11]	0.005	ug/L	< 0.005	0.012	0.093	0.014
Perfluoropentanoic acid (PFPeA)[N11]	0.001	ug/L	0.006	0.021	0.12	0.030
Perfluorohexanoic acid (PFHxA)[N11]	0.001	ug/L	0.019	0.073	0.10	0.032
Perfluoroheptanoic acid (PFHpA)[N11]	0.001	ug/L	[N09]0.005	[N09]0.022	[N09]0.072	[N09]0.009
Perfluorooctanoic acid (PFOA)[N11]	0.001	ug/L	[N09]0.005	[N09]0.022	[N09]0.040	[N09]0.008
Perfluorononanoic acid (PFNA)[N11]	0.001	ug/L	< 0.001	0.002	0.008	0.003
Perfluorodecanoic acid (PFDA)[N11]	0.001	ug/L	0.003	0.009	0.011	0.009
Perfluorotridecanoic acid (PFTrDA)[N15]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
Perfluoroundecanoic acid (PFUnDA)[N11]	0.001	ug/L	< 0.001	0.003	< 0.001	0.001
Perfluorododecanoic acid (PFDoDA)[N11]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
Perfluorotetradecanoic acid (PFTeDA)[N11]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
13C4-PFBA (surr.)	1	%	76	52	51	55
13C5-PFPeA (surr.)	1	%	96	51	42	51
13C5-PFHxA (surr.)	1	%	112	104	62	129
13C4-PFHpA (surr.)	1	%	72	65	78	65
13C8-PFOA (surr.)	1	%	115	80	132	111
13C5-PFNA (surr.)	1	%	115	109	65	112
13C6-PFDA (surr.)	1	%	77	71	67	76
13C2-PFUnDA (surr.)	1	%	60	61	78	64
13C2-PFDoDA (surr.)	1	%	52	59	69	65
13C2-PFTeDA (surr.)	1	%	34	56	34	53
Perfluoroalkyl sulfonic acids (PFSAs)- Trace						
Perfluorobutanesulfonic acid (PFBS)[N11]	0.001	ug/L	0.008	0.020	0.047	0.006
Perfluorononanesulfonic acid (PFNS)[N15]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
Perfluoropropanesulfonic acid (PFPrS)[N15]	0.001	ug/L	0.001	0.005	< 0.001	< 0.001
Perfluoropentanesulfonic acid (PFPeS)[N15]	0.001	ug/L	[N09]0.009	[N09]0.026	< 0.001	[N09]0.005
Perfluorohexanesulfonic acid (PFHxS)[N11]	0.001	ug/L	[N09]0.095	[N09]0.48	[N09]0.020	[N09]0.060
Perfluoroheptanesulfonic acid (PFHpS)[N15]	0.001	ug/L	[N09]0.003	[N09]0.014	[N09]0.001	[N09]0.002
Perfluorooctanesulfonic acid (PFOS)[N11]	0.001	ug/L	[N09]0.047	[N09]0.32	[N09]0.013	[N09]0.036
Perfluorodecanesulfonic acid (PFDS)[N15]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
13C3-PFBS (surr.)	1	%	77	82	83	93
18O2-PFHxS (surr.)	1	%	101	80	93	77
13C8-PFOS (surr.)	1	%	77	54	51	71
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)- Trace						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)[N11]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)[N11]	0.005	ug/L	< 0.005	< 0.005	0.005	< 0.005
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)[N11]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)[N11]	0.001	ug/L	< 0.001	< 0.001	< 0.001	< 0.001
13C2-4:2 FTSA (surr.)	1	%	78	57	37	112
13C2-6:2 FTSA (surr.)	1	%	102	99	133	116
13C2-8:2 FTSA (surr.)	1	%	48	25	126	49
13C2-10:2 FTSA (surr.)	1	%	34	25	65	62

Client Sample ID			**QAW01**	**RINSATE**	**TS**	**TB**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037197**	**S23-Ap0037198**	**S23-Ap0037199**	**S23-Ap0037200**
Date Sampled			**Apr 18, 2023**	**Apr 18, 2023**	**Apr 18, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C6-C10 less BTEX (F1)^{N04}	0.02	mg/L	< 0.02	< 0.02	-	-
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)^{N01}	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	-	-
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	-	-
Volatile Organics						
1.1-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dibromoethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	< 0.001	-	-
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.3-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	-	-
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	-	-
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
2-Butanone (MEK)	0.005	mg/L	< 0.005	< 0.005	-	-
2-Propanone (Acetone)	0.005	mg/L	< 0.005	< 0.005	-	-
4-Chlorotoluene	0.001	mg/L	< 0.001	< 0.001	-	-
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	< 0.005	< 0.005	-	-
Allyl chloride	0.001	mg/L	< 0.001	< 0.001	-	-
Benzene	0.001	mg/L	< 0.001	< 0.001	-	-
Bromobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
Bromochloromethane	0.001	mg/L	< 0.001	< 0.001	-	-
Bromodichloromethane	0.001	mg/L	< 0.001	< 0.001	-	-
Bromoform	0.001	mg/L	< 0.001	< 0.001	-	-
Bromomethane	0.005	mg/L	< 0.005	< 0.005	-	-
Carbon disulfide	0.001	mg/L	< 0.001	< 0.001	-	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	< 0.001	-	-
Chlorobenzene	0.001	mg/L	< 0.001	< 0.001	-	-
Chloroethane	0.005	mg/L	< 0.005	< 0.005	-	-
Chloroform	0.005	mg/L	< 0.005	< 0.005	-	-
Chloromethane	0.005	mg/L	< 0.005	< 0.005	-	-
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	-	-
Dibromochloromethane	0.001	mg/L	< 0.001	< 0.001	-	-

Client Sample ID			QAW01	RINSATE	TS	TB
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037197**	**S23-Ap0037198**	**S23-Ap0037199**	**S23-Ap0037200**
Date Sampled			Apr 18, 2023	Apr 18, 2023	Apr 18, 2023	Apr 14, 2023
Test/Reference	LOR	Unit				
Volatile Organics						
Dibromomethane	0.001	mg/L	< 0.001	< 0.001	-	-
Dichlorodifluoromethane	0.005	mg/L	< 0.005	< 0.005	-	-
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	-	-
Iodomethane	0.001	mg/L	< 0.001	< 0.001	-	-
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	< 0.001	-	-
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	-	-
Methylene Chloride	0.005	mg/L	< 0.005	< 0.005	-	-
o-Xylene	0.001	mg/L	< 0.001	< 0.001	-	-
Styrene	0.001	mg/L	< 0.001	< 0.001	-	-
Tetrachloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
Toluene	0.001	mg/L	< 0.001	< 0.001	-	-
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	-	-
Trichloroethene	0.001	mg/L	< 0.001	< 0.001	-	-
Trichlorofluoromethane	0.005	mg/L	< 0.005	< 0.005	-	-
Vinyl chloride	0.005	mg/L	< 0.005	< 0.005	-	-
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	-	-
Total MAH*	0.003	mg/L	< 0.003	< 0.003	-	-
Vic EPA IWRG 621 CHC (Total)*	0.005	mg/L	< 0.005	< 0.005	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.005	mg/L	< 0.005	< 0.005	-	-
4-Bromofluorobenzene (surr.)	1	%	95	94	-	-
Toluene-d8 (surr.)	1	%	89	88	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene^{N02}	0.01	mg/L	< 0.01	< 0.01	-	-
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(a)pyrene - low level	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	-	-
2-Fluorobiphenyl (surr.)	1	%	88	59	-	-
p-Terphenyl-d14 (surr.)	1	%	56	83	-	-
Heavy Metals						
Arsenic	0.001	mg/L	-	< 0.001	-	-
Arsenic (filtered)	0.001	mg/L	0.002	-	-	-
Cadmium	0.0002	mg/L	-	< 0.0002	-	-
Cadmium (filtered)	0.0002	mg/L	< 0.0002	-	-	-

Client Sample ID			**QAW01**	**RINSATE**	**TS**	**TB**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037197**	**S23-Ap0037198**	**S23-Ap0037199**	**S23-Ap0037200**
Date Sampled			**Apr 18, 2023**	**Apr 18, 2023**	**Apr 18, 2023**	**Apr 14, 2023**
Test/Reference	LOR	Unit				
Heavy Metals						
Chromium	0.001	mg/L	-	0.001	-	-
Chromium (filtered)	0.001	mg/L	< 0.001	-	-	-
Copper	0.001	mg/L	-	0.002	-	-
Copper (filtered)	0.001	mg/L	0.003	-	-	-
Lead	0.001	mg/L	-	0.001	-	-
Lead (filtered)	0.001	mg/L	0.004	-	-	-
Mercury	0.0001	mg/L	-	< 0.0001	-	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	-	-	-
Nickel	0.001	mg/L	-	< 0.001	-	-
Nickel (filtered)	0.001	mg/L	< 0.001	-	-	-
Zinc	0.005	mg/L	-	< 0.005	-	-
Zinc (filtered)	0.005	mg/L	0.031	-	-	-
PFASs Summations						
Sum (PFHxS + PFOS)*	0.001	ug/L	0.141	< 0.001	-	-
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.001	ug/L	0.147	< 0.001	-	-
Sum of PFASs (n=30)*	0.005	ug/L	0.199	< 0.005	-	-
Sum of US EPA PFAS (PFOS + PFOA)*	0.001	ug/L	0.057	< 0.001	-	-
Sum of WA DWER PFAS (n=10)*	0.005	ug/L	0.186	< 0.005	-	-
Perfluoroalkyl sulfonamido substances- Trace						
Perfluorooctane sulfonamide (FOSA)N11	0.005	ug/L	< 0.005	< 0.005	-	-
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)N11	0.005	ug/L	< 0.005	< 0.005	-	-
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)N11	0.005	ug/L	< 0.005	< 0.005	-	-
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)N11	0.005	ug/L	< 0.005	< 0.005	-	-
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)N11	0.005	ug/L	< 0.005	< 0.005	-	-
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)N11	0.005	ug/L	< 0.005	< 0.005	-	-
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)N11	0.005	ug/L	< 0.005	< 0.005	-	-
13C8-FOSA (surr.)	1	%	67	67	-	-
D3-N-MeFOSA (surr.)	1	%	111	169	-	-
D5-N-EtFOSA (surr.)	1	%	96	143	-	-
D7-N-MeFOSE (surr.)	1	%	39	58	-	-
D9-N-EtFOSE (surr.)	1	%	56	62	-	-
D5-N-EtFOSAA (surr.)	1	%	33	67	-	-
D3-N-MeFOSAA (surr.)	1	%	53	94	-	-
Perfluoroalkyl carboxylic acids (PFCAs) - Trace						
Perfluorobutanoic acid (PFBA)N11	0.005	ug/L	< 0.005	< 0.005	-	-
Perfluoropentanoic acid (PFPeA)N11	0.001	ug/L	0.007	< 0.001	-	-
Perfluorohexanoic acid (PFHxA)N11	0.001	ug/L	0.021	< 0.001	-	-
Perfluoroheptanoic acid (PFHpA)N11	0.001	ug/L	N090.006	< 0.001	-	-
Perfluorooctanoic acid (PFOA)N11	0.001	ug/L	N090.006	< 0.001	-	-
Perfluorononanoic acid (PFNA)N11	0.001	ug/L	< 0.001	< 0.001	-	-
Perfluorodecanoic acid (PFDA)N11	0.001	ug/L	0.003	< 0.001	-	-
Perfluorotridecanoic acid (PFTrDA)N15	0.001	ug/L	< 0.001	< 0.001	-	-
Perfluoroundecanoic acid (PFUnDA)N11	0.001	ug/L	0.001	< 0.001	-	-
Perfluorododecanoic acid (PFDoDA)N11	0.001	ug/L	< 0.001	< 0.001	-	-
Perfluorotetradecanoic acid (PFTeDA)N11	0.001	ug/L	< 0.001	< 0.001	-	-

Client Sample ID			QAW01	RINSATE	TS	TB
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S23-Ap0037197**	**S23-Ap0037198**	**S23-Ap0037199**	**S23-Ap0037200**
Date Sampled			Apr 18, 2023	Apr 18, 2023	Apr 18, 2023	Apr 14, 2023
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs) - Trace						
13C4-PFBA (surr.)	1	%	77	110	-	-
13C5-PFPeA (surr.)	1	%	68	125	-	-
13C5-PFHxA (surr.)	1	%	50	105	-	-
13C4-PFHpA (surr.)	1	%	82	86	-	-
13C8-PFOA (surr.)	1	%	96	89	-	-
13C5-PFNA (surr.)	1	%	92	112	-	-
13C6-PFDA (surr.)	1	%	63	108	-	-
13C2-PFUnDA (surr.)	1	%	51	78	-	-
13C2-PFDoDA (surr.)	1	%	46	82	-	-
13C2-PFTeDA (surr.)	1	%	44	69	-	-
Perfluoroalkyl sulfonic acids (PFSAs)- Trace						
Perfluorobutanesulfonic acid (PFBS)^{N11}	0.001	ug/L	0.005	< 0.001	-	-
Perfluorononanesulfonic acid (PFNS)^{N15}	0.001	ug/L	< 0.001	< 0.001	-	-
Perfluoropropanesulfonic acid (PFPrS)^{N15}	0.001	ug/L	0.001	< 0.001	-	-
Perfluoropentanesulfonic acid (PFPeS)^{N15}	0.001	ug/L	^{N09}0.006	< 0.001	-	-
Perfluorohexanesulfonic acid (PFHxS)^{N11}	0.001	ug/L	^{N09}0.090	< 0.001	-	-
Perfluoroheptanesulfonic acid (PFHpS)^{N15}	0.001	ug/L	^{N09}0.002	< 0.001	-	-
Perfluorooctanesulfonic acid (PFOS)^{N11}	0.001	ug/L	^{N09}0.051	< 0.001	-	-
Perfluorodecanesulfonic acid (PFDS)^{N15}	0.001	ug/L	< 0.001	< 0.001	-	-
13C3-PFBS (surr.)	1	%	116	90	-	-
18O2-PFHxS (surr.)	1	%	122	103	-	-
13C8-PFOS (surr.)	1	%	68	141	-	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)- Trace						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)^{N11}	0.001	ug/L	< 0.001	< 0.001	-	-
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)^{N11}	0.005	ug/L	< 0.005	< 0.005	-	-
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)^{N11}	0.001	ug/L	< 0.001	< 0.001	-	-
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)^{N11}	0.001	ug/L	< 0.001	< 0.001	-	-
13C2-4:2 FTSA (surr.)	1	%	60	88	-	-
13C2-6:2 FTSA (surr.)	1	%	100	83	-	-
13C2-8:2 FTSA (surr.)	1	%	39	54	-	-
13C2-10:2 FTSA (surr.)	1	%	31	46	-	-
BTEX						
Benzene	1	%	-	-	110	-
Ethylbenzene	1	%	-	-	110	-
m&p-Xylenes	1	%	-	-	110	-
o-Xylene	1	%	-	-	110	-
Toluene	1	%	-	-	110	-
Xylenes - Total	1	%	-	-	110	-
4-Bromofluorobenzene (surr.)	1	%	-	-	132	-
BTEX						
Benzene	0.001	mg/L	-	-	-	< 0.001
Toluene	0.001	mg/L	-	-	-	< 0.001
Ethylbenzene	0.001	mg/L	-	-	-	< 0.001
m&p-Xylenes	0.002	mg/L	-	-	-	< 0.002
o-Xylene	0.001	mg/L	-	-	-	< 0.001
Xylenes - Total*	0.003	mg/L	-	-	-	< 0.003
4-Bromofluorobenzene (surr.)	1	%	-	-	-	124

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**BLANK** **Water** **S23-Ap0037201** **Apr 14, 2023**
PFASs Summations			
Sum (PFHxS + PFOS)*	0.001	ug/L	< 0.001
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.001	ug/L	< 0.001
Sum of PFASs (n=30)*	0.005	ug/L	< 0.005
Sum of US EPA PFAS (PFOS + PFOA)*	0.001	ug/L	< 0.001
Sum of WA DWER PFAS (n=10)*	0.005	ug/L	< 0.005
Perfluoroalkyl sulfonamido substances- Trace			
Perfluorooctane sulfonamide (FOSA)N11	0.005	ug/L	< 0.005
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)N11	0.005	ug/L	< 0.005
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)N11	0.005	ug/L	< 0.005
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)N11	0.005	ug/L	< 0.005
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)N11	0.005	ug/L	< 0.005
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)N11	0.005	ug/L	< 0.005
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)N11	0.005	ug/L	< 0.005
13C8-FOSA (surr.)	1	%	65
D3-N-MeFOSA (surr.)	1	%	138
D5-N-EtFOSA (surr.)	1	%	169
D7-N-MeFOSE (surr.)	1	%	61
D9-N-EtFOSE (surr.)	1	%	65
D5-N-EtFOSAA (surr.)	1	%	73
D3-N-MeFOSAA (surr.)	1	%	94
Perfluoroalkyl carboxylic acids (PFCAs) - Trace			
Perfluorobutanoic acid (PFBA)N11	0.005	ug/L	< 0.005
Perfluoropentanoic acid (PFPeA)N11	0.001	ug/L	< 0.001
Perfluorohexanoic acid (PFHxA)N11	0.001	ug/L	< 0.001
Perfluoroheptanoic acid (PFHpA)N11	0.001	ug/L	< 0.001
Perfluorooctanoic acid (PFOA)N11	0.001	ug/L	< 0.001
Perfluorononanoic acid (PFNA)N11	0.001	ug/L	< 0.001
Perfluorodecanoic acid (PFDA)N11	0.001	ug/L	< 0.001
Perfluorotridecanoic acid (PFTrDA)N15	0.001	ug/L	< 0.001
Perfluoroundecanoic acid (PFUnDA)N11	0.001	ug/L	< 0.001
Perfluorododecanoic acid (PFDoDA)N11	0.001	ug/L	< 0.001
Perfluorotetradecanoic acid (PFTeDA)N11	0.001	ug/L	< 0.001
13C4-PFBA (surr.)	1	%	108
13C5-PFPeA (surr.)	1	%	123
13C5-PFHxA (surr.)	1	%	109
13C4-PFHpA (surr.)	1	%	80
13C8-PFOA (surr.)	1	%	81
13C5-PFNA (surr.)	1	%	108
13C6-PFDA (surr.)	1	%	101
13C2-PFUnDA (surr.)	1	%	76
13C2-PFDoDA (surr.)	1	%	79
13C2-PFTeDA (surr.)	1	%	66

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**BLANK** **Water** **S23-Ap0037201** **Apr 14, 2023**
Perfluoroalkyl sulfonic acids (PFSAs)- Trace			
Perfluorobutanesulfonic acid (PFBS)N11	0.001	ug/L	< 0.001
Perfluorononanesulfonic acid (PFNS)N15	0.001	ug/L	< 0.001
Perfluoropropanesulfonic acid (PFPrS)N15	0.001	ug/L	< 0.001
Perfluoropentanesulfonic acid (PFPeS)N15	0.001	ug/L	< 0.001
Perfluorohexanesulfonic acid (PFHxS)N11	0.001	ug/L	< 0.001
Perfluoroheptanesulfonic acid (PFHpS)N15	0.001	ug/L	< 0.001
Perfluorooctanesulfonic acid (PFOS)N11	0.001	ug/L	< 0.001
Perfluorodecanesulfonic acid (PFDS)N15	0.001	ug/L	< 0.001
13C3-PFBS (surr.)	1	%	84
18O2-PFHxS (surr.)	1	%	96
13C8-PFOS (surr.)	1	%	124
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)- Trace			
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)N11	0.001	ug/L	< 0.001
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)N11	0.005	ug/L	< 0.005
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)N11	0.001	ug/L	< 0.001
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)N11	0.001	ug/L	< 0.001
13C2-4:2 FTSA (surr.)	1	%	114
13C2-6:2 FTSA (surr.)	1	%	66
13C2-8:2 FTSA (surr.)	1	%	41
13C2-10:2 FTSA (surr.)	1	%	143

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	Melbourne	Apr 23, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 18, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Apr 23, 2023	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Volatile Organics	Sydney	Apr 18, 2023	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons (Trace level)	Melbourne	Apr 23, 2023	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water (trace)			
Conductivity (at 25 °C)	Sydney	Apr 24, 2023	28 Days
- Method: LTM-INO-4030 Conductivity			
pH (at 25 °C)	Sydney	Apr 24, 2023	0 Hour
- Method: LTM-GEN-7090 pH in water by ISE			
Metals M8	Sydney	Apr 24, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Metals M8 filtered	Sydney	Apr 24, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
BTEX	Sydney	Apr 18, 2023	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Dissolved Solids Dried at 180 °C ± 2 °C	Sydney	Apr 24, 2023	7 Days
- Method: LTM-INO-4170 Total Dissolved Solids in Water			
Hardness Set			
Hardness mg equivalent CaCO3/L	Sydney	Apr 24, 2023	28 Days
- Method: E020.1 Hardness in water			
Alkali Metals	Sydney	Apr 24, 2023	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Per- and Polyfluoroalkyl Substances (PFASs) - Trace			
Perfluoroalkyl sulfonamido substances- Trace	Brisbane	Apr 26, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) - low level			
Perfluoroalkyl carboxylic acids (PFCAs) - Trace	Brisbane	Apr 26, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) - low level			
Perfluoroalkyl sulfonic acids (PFSAs)- Trace	Brisbane	Apr 26, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) - low level			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)- Trace	Brisbane	Apr 26, 2023	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS) - low level			

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

Project Name: PYRMONT
Project ID: 64669

Order No.:
Report #: 981895
Phone: 02 8245 0300
Fax:

Received: Apr 18, 2023 6:25 PM
Due: Apr 26, 2023
Priority: 5 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Conductivity (at 25 °C)	pH (at 25 °C)	Metals M8	Metals M8 filtered	BTEX	Hardness Set	Volatile Organics	Total Recoverable Hydrocarbons	BTEX	Polycyclic Aromatic Hydrocarbons (Trace level)	Per- and Polyfluoroalkyl Substances (PFASs) - Trace	Total Dissolved Solids Dried at 180 °C ± 2 °C
Melbourne Laboratory - NATA # 1261 Site # 1254													X		X		
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X			X
Brisbane Laboratory - NATA # 1261 Site # 20794																X	
External Laboratory																	
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**												
1	MW01	Apr 18, 2023		Water	S23-Ap0037193	X	X		X		X	X	X		X	X	X
2	MW02	Apr 18, 2023		Water	S23-Ap0037194	X	X		X		X	X	X		X	X	X
3	MW05	Apr 18, 2023		Water	S23-Ap0037195	X	X		X		X	X	X		X	X	X
4	DBMW01	Apr 18, 2023		Water	S23-Ap0037196	X	X		X		X	X	X		X	X	X
5	QAW01	Apr 18, 2023		Water	S23-Ap0037197				X			X	X		X	X	
6	RINSATE	Apr 18, 2023		Water	S23-Ap0037198			X				X	X		X	X	
7	TS	Apr 18, 2023		Water	S23-Ap0037199									X			
8	TB	Apr 14, 2023		Water	S23-Ap0037200					X							
9	BLANK	Apr 14, 2023		Water	S23-Ap0037201											X	
Test Counts						4	4	1	5	1	4	6	6	1	6	7	4

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

CFU: Colony forming unit

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.

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	
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							
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	
Benzene	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	
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	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
Methylene Chloride	mg/L	< 0.005			0.005	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
Toluene	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	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	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 - low level	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	
Method Blank							
Conductivity (at 25 °C)	uS/cm	< 10			10	Pass	
Total Dissolved Solids Dried at 180 °C ± 2 °C	mg/L	< 10			10	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)- Trace							
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.001			0.001	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	100			70-130	Pass	
TRH C10-C14	%	73			70-130	Pass	
TRH C6-C10	%	96			70-130	Pass	
TRH >C10-C16	%	72			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	100			70-130	Pass	
1.1.1-Trichloroethane	%	96			70-130	Pass	
1.2-Dichlorobenzene	%	91			70-130	Pass	
1.2-Dichloroethane	%	101			70-130	Pass	
Benzene	%	95			70-130	Pass	
Ethylbenzene	%	94			70-130	Pass	
m&p-Xylenes	%	95			70-130	Pass	
o-Xylene	%	93			70-130	Pass	
Toluene	%	91			70-130	Pass	
Trichloroethene	%	86			70-130	Pass	
Xylenes - Total*	%	94			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	95			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	%	126			70-130	Pass	
Acenaphthylene	%	109			70-130	Pass	
Anthracene	%	79			70-130	Pass	
Benz(a)anthracene	%	92			70-130	Pass	
Benzo(a)pyrene - low level	%	90			70-130	Pass	
Benzo(b&j)fluoranthene	%	88			70-130	Pass	
Benzo(g.h.i)perylene	%	119			70-130	Pass	
Benzo(k)fluoranthene	%	108			70-130	Pass	
Chrysene	%	115			70-130	Pass	
Dibenz(a.h)anthracene	%	77			70-130	Pass	
Fluoranthene	%	89			70-130	Pass	
Fluorene	%	90			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	95			70-130	Pass	
Naphthalene	%	84			70-130	Pass	
Phenanthrene	%	86			70-130	Pass	
Pyrene	%	93			70-130	Pass	
LCS - % Recovery							
Conductivity (at 25 °C)	%	96			70-130	Pass	
Total Dissolved Solids Dried at 180 °C ± 2 °C	%	90			70-130	Pass	
LCS - % Recovery							
Alkali Metals							
Calcium	%	92			80-120	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Magnesium	%	99			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	87			80-120	Pass	
Arsenic (filtered)	%	90			80-120	Pass	
Cadmium	%	93			80-120	Pass	
Cadmium (filtered)	%	94			80-120	Pass	
Chromium	%	98			80-120	Pass	
Chromium (filtered)	%	95			80-120	Pass	
Copper	%	108			80-120	Pass	
Copper (filtered)	%	94			80-120	Pass	
Lead	%	105			80-120	Pass	
Lead (filtered)	%	95			80-120	Pass	
Mercury	%	104			80-120	Pass	
Mercury (filtered)	%	97			80-120	Pass	
Nickel	%	100			80-120	Pass	
Nickel (filtered)	%	92			80-120	Pass	
Zinc	%	97			80-120	Pass	
Zinc (filtered)	%	89			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)- Trace							
Perfluorooctanesulfonic acid (PFOS)	%	93			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	M23-Ap0045071	NCP	%	124			70-130	Pass	
TRH >C10-C16	M23-Ap0045071	NCP	%	126			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1					
Acenaphthene	M23-Ap0025115	NCP	%	121			70-130	Pass	
Acenaphthylene	M23-Ap0025115	NCP	%	113			70-130	Pass	
Anthracene	M23-Ap0025115	NCP	%	80			70-130	Pass	
Benz(a)anthracene	M23-Ap0025115	NCP	%	76			70-130	Pass	
Benzo(a)pyrene - low level	L23-Ap0028449	NCP	%	78			70-130	Pass	
Benzo(b&j)fluoranthene	M23-Ap0025115	NCP	%	82			70-130	Pass	
Benzo(g.h.i)perylene	M23-Ap0025115	NCP	%	91			70-130	Pass	
Benzo(k)fluoranthene	M23-Ap0025115	NCP	%	87			70-130	Pass	
Chrysene	M23-Ap0025115	NCP	%	96			70-130	Pass	
Dibenz(a.h)anthracene	M23-Ap0025115	NCP	%	88			70-130	Pass	
Fluoranthene	M23-Ap0025115	NCP	%	96			70-130	Pass	
Fluorene	M23-Ap0025115	NCP	%	89			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M23-Ap0025115	NCP	%	79			70-130	Pass	
Naphthalene	M23-Ap0025115	NCP	%	103			70-130	Pass	
Phenanthrene	M23-Ap0025115	NCP	%	96			70-130	Pass	
Pyrene	M23-Ap0025115	NCP	%	101			70-130	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Calcium	S23-Ap0045381	NCP	%	90			75-125	Pass	
Magnesium	S23-Ap0045381	NCP	%	101			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S23-Ap0045381	NCP	%	89			75-125	Pass	
Cadmium	S23-Ap0045381	NCP	%	95			75-125	Pass	
Chromium	S23-Ap0045381	NCP	%	98			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Copper	S23-Ap0045381	NCP	%	108			75-125	Pass	
Lead	S23-Ap0045381	NCP	%	105			75-125	Pass	
Mercury	S23-Ap0045381	NCP	%	102			75-125	Pass	
Nickel	S23-Ap0045381	NCP	%	99			75-125	Pass	
Zinc	S23-Ap0045381	NCP	%	100			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	S23-Ap0030494	NCP	mg/L	0.11	0.11	3.9	30%	Pass	
TRH C10-C14	M23-Ap0045072	NCP	mg/L	0.16	0.14	19	30%	Pass	
TRH C15-C28	M23-Ap0045072	NCP	mg/L	3.0	4.7	42	30%	Fail	Q15
TRH C29-C36	M23-Ap0045072	NCP	mg/L	2.4	4.2	56	30%	Fail	Q15
TRH C6-C10	S23-Ap0030494	NCP	mg/L	0.11	0.11	3.8	30%	Pass	
TRH >C10-C16	M23-Ap0045072	NCP	mg/L	0.42	0.44	4.1	30%	Pass	
TRH >C16-C34	M23-Ap0045072	NCP	mg/L	4.2	6.9	48	30%	Fail	Q15
TRH >C34-C40	M23-Ap0045072	NCP	mg/L	1.1	2.0	61	30%	Fail	Q15
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1-Dichloroethene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1-Trichloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2-Trichloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dibromoethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichlorobenzene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloroethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2-Dichloropropane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.3-Trichloropropane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.2.4-Trimethylbenzene	S23-Ap0027173	NCP	mg/L	0.037	0.038	5.0	30%	Pass	
1.3-Dichlorobenzene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3-Dichloropropane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
1.3.5-Trimethylbenzene	S23-Ap0027173	NCP	mg/L	0.061	0.064	4.5	30%	Pass	
1.4-Dichlorobenzene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
2-Butanone (MEK)	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Propanone (Acetone)	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Chlorotoluene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S23-Ap0027173	NCP	mg/L	0.12	0.12	1.4	30%	Pass	
Allyl chloride	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzene	S23-Ap0030494	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromobenzene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromochloromethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromodichloromethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromoform	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromomethane	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Carbon disulfide	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Carbon Tetrachloride	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chlorobenzene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chloroethane	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloroform	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloromethane	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
cis-1.2-Dichloroethene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
cis-1.3-Dichloropropene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromochloromethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Dibromomethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dichlorodifluoromethane	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Ethylbenzene	S23-Ap0030494	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Iodomethane	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Isopropyl benzene (Cumene)	S23-Ap0027173	NCP	mg/L	0.021	0.022	2.8	30%	Pass	
m&p-Xylenes	S23-Ap0030494	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
Methylene Chloride	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
o-Xylene	S23-Ap0030494	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Styrene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Tetrachloroethene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S23-Ap0030494	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.2-Dichloroethene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.3-Dichloropropene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichloroethene	S23-Ap0027173	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichlorofluoromethane	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Vinyl chloride	S23-Ap0027173	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Xylenes - Total*	S23-Ap0030494	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-Ap0030494	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1	Result 2	RPD			
Acenaphthene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Acenaphthylene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Anthracene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benz(a)anthracene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(a)pyrene - low level	L23-Ap0035222	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(b&j)fluoranthene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(g.h.i)perylene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(k)fluoranthene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Chrysene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Dibenz(a.h)anthracene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluoranthene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluorene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Naphthalene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Phenanthrene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Pyrene	M23-Ap0036659	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Dissolved Solids Dried at 180 °C ± 2 °C	R23-Ap0035197	NCP	mg/L	1100	1200	3.9	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	R23-Ap0035195	NCP	mg/L	15	14	3.1	30%	Pass	
Magnesium	R23-Ap0035195	NCP	mg/L	2.8	2.8	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S23-Ap0038197	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S23-Ap0038197	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S23-Ap0038197	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S23-Ap0038197	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead (filtered)	S23-Ap0038197	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S23-Ap0043303	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Nickel (filtered)	S23-Ap0038197	NCP	mg/L	0.004	0.004	5.4	30%	Pass	
Zinc (filtered)	S23-Ap0038197	NCP	mg/L	0.026	0.026	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (at 25 °C)	S23-Ap0037195	CP	uS/cm	850	860	1.6	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	R23-Ap0035195	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	R23-Ap0035195	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	R23-Ap0035195	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	R23-Ap0035195	NCP	mg/L	0.003	0.003	3.9	30%	Pass	Q15
Lead	R23-Ap0035195	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	R23-Ap0035195	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	R23-Ap0035195	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	R23-Ap0035195	NCP	mg/L	0.039	0.037	4.3	30%	Pass	

Comments

V2- new version with amended sampling dates as per client request.

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).
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.

Authorised by:

Andrew Black	Analytical Services Manager
Carroll Lee	Senior Analyst-Organic
Edward Lee	Senior Analyst-Organic
Jonathon Angell	Senior Analyst-PFAS
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Inorganic
Roopesh Rangarajan	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Inorganic

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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FW: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

Adam Bateup
Thu 2023-05-18 5:38 PM
To: #AU25_Enviro_Sample_NSW <EnviroSampleNSW@eurofins.com>
Cc: Andrew Black <AndrewBlack@eurofins.com>

1 attachments (291 KB)
RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669);

INFO: INTERNAL EMAIL **-** Sent from your own Eurofins email domain.

Good evening, guys

3-day TAT additional SPOCAS analysis pretty please, samples are:

23-My0016889 - BH12 4.6-4.7
23-My0016890 - BH12 5.9-6.0

Kind Regards,

Adam Bateup
Assistant Analytical Services Manager
My hours are 3 pm - 11 pm

Eurofins Environment Testing Australia Pty Ltd
179 Magowar Road
Girraween, NSW, 2145

Email: Adam Bateup
Phone: 0413 917 819
Website: www.eurofins.com.au/environmental-testing

From: Milad Noujaim <mnoujaim@jbsg.com.au>
Sent: Thursday, 18 May 2023 5:30 PM
To: Adam Bateup <AdamBateup@eurofins.com>
Cc: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

BH12 4.6-4.7 and BH12 5.9-6.0. Is that correct ?

Kind Regards,

Milad Noujaim | Project Manager | JBS&G
Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: Adam Bateup <AdamBateup@eurofins.com>
Sent: Thursday, May 18, 2023 5:26 PM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Cc: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

Hey Milad,

I'm not seeing sample ID's that match with the two you have specified, was this for a different report?

Kind Regards,

Adam Bateup
Assistant Analytical Services Manager
My hours are 3 pm - 11 pm

Eurofins Environment Testing Australia Pty Ltd
179 Magowar Road
Girraween, NSW, 2145

Email: Adam Bateup
Phone: 0413 917 819
Website: www.eurofins.com.au/environmental-testing

From: Milad Noujaim <mnoujaim@jbsg.com.au>
Sent: Thursday, 18 May 2023 4:55 PM
To: Adam Bateup <AdamBateup@eurofins.com>
Cc: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

Can I get a SPOCAS done on a 3 day TAT for the following:

- BH12 4.0-4.1
- BH12 6.0-6.1

Kind Regards,

Milad Noujaim | Project Manager | JBS&G
Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: AdamBateup@eurofins.com <AdamBateup@eurofins.com>
Sent: Tuesday, May 16, 2023 11:28 PM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Subject: Eurofins Test Results - Report 987142 : Site PYRMONT (64669)

Please find the attached reports

Kind regards,
Adam Bateup
Assistant Analytical Services Manager
My hours are 3 pm - 11 pm

Eurofins Environment Testing Australia Pty Ltd
179 Magowar Road
Girraween, NSW, 2145

Email: AdamBateup@eurofins.com
Website: www.eurofins.com/environmental-testing
View our latest EnviroNotes

eurofins | Environment Testing

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

Eurofins Environment Testing Australia Pty Ltd ABN: 50 005 085 521						Eurofins ARL Pty Ltd ABN: 91 05 0159 898	Eurofins Environment Testing NZ Ltd NZBN: 9429046024954	
Melbourne	**Geelong**	**Sydney**	**Canberra**	**Brisbane**	**Newcastle**	**Perth**	**Auckland**	**Christchurch**
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive	46-48 Banksia Road	35 O'Rorke Road	43 Detroit Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West NSW 2304	Welshpool	Penrose,	Rolleston,
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	Tel: +61 2 4968 8448	WA 6106	Auckland 1061	Christchurch 7675
Tel: +61 3 8564 5000	Tel: +61 3 8564 5000	Tel: +61 2 9900 8400	Tel: +61 2 6113 8091	Tel: +61 7 3902 4600	NATA# 1261	Tel: +61 8 6253 4444	Tel: +64 9 526 45 51	Tel: 0800 856 450
NATA# 1261 Site# 1254	NATA# 1261 Site# 25403	NATA# 1261 Site# 18217	NATA# 1261 Site# 25466	NATA# 1261 Site# 20794	Site# 25079 & 25289	NATA# 2377 Site# 2370	IANZ# 1327	IANZ# 1290

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Milad Noujaim
Project name:	ADDITIONAL: PYRMONT
Project ID:	ADDITIONAL: 64669
Turnaround time:	3 Day
Date/Time received	May 18, 2023 4:55 PM
Eurofins reference	991180

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 : 8.6 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

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Milad Noujaim - mnoujaim@jbsg.com.au.

Global Leader - Results you can trust

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

Project Name: ADDITIONAL: PYRMONT
Project ID: ADDITIONAL: 64669

Order No.:
Report #: 991180
Phone: 02 8245 0300
Fax:

Received: May 18, 2023 4:55 PM
Due: May 23, 2023
Priority: 3 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						SPOCAS Suite	Moisture Set
Brisbane Laboratory - NATA # 1261 Site # 20794						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BH12 4.6-4.7	May 05, 2023		Soil	S23-My0048608	X	X
2	BH12 5.9-6.0	May 05, 2023		Soil	S23-My0048609	X	X
Test Counts						2	2

eurofins | Environment Testing

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 20794

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: **Milad Noujaim**

Report **991180-S**
Project name ADDITIONAL: PYRMONT
Project ID ADDITIONAL: 64669
Received Date May 18, 2023

Client Sample ID			**BH12 4.6-4.7**	**BH12 5.9-6.0**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S23-My0048608**	**S23-My0048609**
Date Sampled			**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit		
Actual Acidity (NLM-3.2)				
pH-KCL (NLM-3.1)	0.1	pH Units	6.4	6.7
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	3.5	< 2
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	0.006	< 0.003
Potential Acidity - Titratable Peroxide				
pH-OX	0.1	pH Units	5.9	4.1
Titratable Peroxide Acidity (s-TPA)	0.02	% pyrite S	< 0.02	0.07
Titratable Peroxide Acidity (a-TPA)	2	mol H+/t	< 2	41
Titratable Sulfidic Acidity (a-TSA)	2	mol H+/t	< 2	41
Titratable Sulfidic Acidity (s-TSA)	0.02	% pyrite S	< 0.02	0.07
Extractable Sulfur				
Sulfur - KCl Extractable	0.005	% S	0.012	0.035
Peroxide Extractable Sulfur	0.005	% S	0.015	0.085
HCl Extractable Sulfur	0.005	% S	N/A	N/A
Potential Acidity (SPOS)				
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.005	% S	< 0.005	0.050
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	2	mol H+/t	< 2	31
Retained Acidity (S-NAS)				
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.005	% S	N/A	N/A
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	N/A	N/A
HCl Extractable Sulfur Correction Factor	1	factor	2.0	2.0
Extractable Calcium				
Calcium - KCl Extractable	0.005	% Ca	0.019	0.039
Calcium - Peroxide	0.005	% Ca	0.023	0.056
Calcium - Acid Reacted	0.005	% Ca	< 0.005	0.017
Calcium - Acid Reacted (s-aCa)	0.005	% S	< 0.005	0.014
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	< 0.005	8.4
Extractable Magnesium				
Magnesium - KCl Extractable	0.005	% Mg	0.021	0.049
Magnesium - Peroxide	0.005	% Mg	0.025	0.064
Magnesium - Acid Reacted	0.005	% Mg	< 0.005	0.015
Magnesium - Acid Reacted (s-aCa)	0.005	% S	< 0.005	0.020
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	< 0.005	13

Client Sample ID			**BH12 4.6-4.7**	**BH12 5.9-6.0**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S23-My0048608**	**S23-My0048609**
Date Sampled			**May 05, 2023**	**May 05, 2023**
Test/Reference	LOR	Unit		
Acid Neutralising Capacity (ANCE)				
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	N/A	N/A
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	N/A	N/A
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	n/a	n/a
Acid Neutralising Capacity (ANCbt)				
ANC Fineness Factor		factor	1.5	1.5
Net Acidity (Including ANC)				
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	10	mol H+/t	< 10	38
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	0.02	% S	< 0.02	0.06
SPOCAS - Liming rate - ASSMAC	1	kg CaCO3/t	< 1	2.8
Extraneous Material				
<2mm Fraction	0.005	g	160	51
>2mm Fraction	0.005	g	< 0.005	100
Analysed Material	0.1	%	100	33
Extraneous Material	0.1	%	< 0.1	67
Sample Properties				
% Moisture	1	%	12	22

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	May 22, 2023	6 Week
- Method: LTM-GEN-7050			
Extraneous Material	Brisbane	May 22, 2023	6 Week
- Method: LTM-GEN-7050/7070			
% Moisture	Brisbane	May 19, 2023	14 Days
- Method: LTM-GEN-7080 Moisture			

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

Order No.:
Report #: 991180
Phone: 02 8245 0300
Fax:

Received: May 18, 2023 4:55 PM
Due: May 23, 2023
Priority: 3 Day
Contact Name: Milad Noujaim

Project Name: ADDITIONAL: PYRMONT
Project ID: ADDITIONAL: 64669

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						SPOCAS Suite	Moisture Set
Brisbane Laboratory - NATA # 1261 Site # 20794						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BH12 4.6-4.7	May 05, 2023		Soil	S23-My0048608	X	X
2	BH12 5.9-6.0	May 05, 2023		Soil	S23-My0048609	X	X
Test Counts						2	2

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
CFU: Colony forming unit

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.

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
LCS - % Recovery									
Actual Acidity (NLM-3.2)									
pH-KCL (NLM-3.1)			%	92			80-120	Pass	
Titratable Actual Acidity (NLM-3.2)			%	94			80-120	Pass	
LCS - % Recovery									
Extractable Sulfur									
HCl Extractable Sulfur			%	103			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Actual Acidity (NLM-3.2)				Result 1	Result 2	RPD			
pH-KCL (NLM-3.1)	S23-My0048608	CP	pH Units	6.4	6.4	<1	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	S23-My0048608	CP	mol H+/t	3.5	3.0	15	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	S23-My0048608	CP	% pyrite S	0.006	0.005	15	30%	Pass	
Duplicate									
Potential Acidity - Titratable Peroxide				Result 1	Result 2	RPD			
pH-OX	S23-My0048608	CP	pH Units	5.9	5.9	<1	20%	Pass	
Titratable Peroxide Acidity (s-TPA)	S23-My0048608	CP	% pyrite S	< 0.02	< 0.02	<1	30%	Pass	
Titratable Peroxide Acidity (a-TPA)	S23-My0048608	CP	mol H+/t	< 2	< 2	<1	20%	Pass	
Titratable Sulfidic Acidity (a-TSA)	S23-My0048608	CP	mol H+/t	< 2	< 2	<1	30%	Pass	
Titratable Sulfidic Acidity (s-TSA)	S23-My0048608	CP	% pyrite S	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Extractable Sulfur				Result 1	Result 2	RPD			
Sulfur - KCl Extractable	S23-My0048608	CP	% S	0.012	0.012	4.4	30%	Pass	
Peroxide Extractable Sulfur	S23-My0048608	CP	% S	0.015	0.016	2.4	20%	Pass	
HCl Extractable Sulfur	S23-My0048608	CP	% S	N/A	N/A	N/A	20%	Pass	
Duplicate									
Potential Acidity (SPOS)				Result 1	Result 2	RPD			
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	S23-My0048608	CP	% S	< 0.005	< 0.005	<1	30%	Pass	
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	S23-My0048608	CP	mol H+/t	< 2	< 2	<1	30%	Pass	
Duplicate									
Retained Acidity (S-NAS)				Result 1	Result 2	RPD			
Net Acid soluble sulfur (s-SNAS) NLM-4.1	S23-My0048608	CP	% S	N/A	N/A	N/A	30%	Pass	
Net Acid soluble sulfur (a-SNAS) NLM-4.1	S23-My0048608	CP	mol H+/t	N/A	N/A	N/A	30%	Pass	
Duplicate									
Extractable Calcium				Result 1	Result 2	RPD			
Calcium - KCl Extractable	S23-My0048608	CP	% Ca	0.019	0.019	1.7	30%	Pass	
Calcium - Peroxide	S23-My0048608	CP	% Ca	0.023	0.022	2.8	20%	Pass	
Calcium - Acid Reacted	S23-My0048608	CP	% Ca	< 0.005	< 0.005	<1	30%	Pass	
Calcium - Acid Reacted (s-aCa)	S23-My0048608	CP	% S	< 0.005	< 0.005	<1	30%	Pass	
Calcium - Acid Reacted (a-aCa)	S23-My0048608	CP	mol H+/t	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Extractable Magnesium				Result 1	Result 2	RPD			
Magnesium - KCl Extractable	S23-My0048608	CP	% Mg	0.021	0.021	<1	30%	Pass	
Magnesium - Peroxide	S23-My0048608	CP	% Mg	0.025	0.024	1.2	20%	Pass	
Magnesium - Acid Reacted	S23-My0048608	CP	% Mg	< 0.005	< 0.005	<1	30%	Pass	
Magnesium - Acid Reacted (s-aCa)	S23-My0048608	CP	% S	< 0.005	< 0.005	<1	30%	Pass	
Magnesium - Acid Reacted (a-aCa)	S23-My0048608	CP	mol H+/t	< 0.005	< 0.005	<1	30%	Pass	

Duplicate									
Acid Neutralising Capacity (ANCE)				Result 1	Result 2	RPD			
Acid Neutralising Capacity - (ANCE)	S23-My0048608	CP	% CaCO3	N/A	N/A	N/A	30%	Pass	
Acid Neutralising Capacity - (a-ANCE)	S23-My0048608	CP	mol H+/t	n/a	n/a	N/A	30%	Pass	
Duplicate									
Acid Neutralising Capacity (ANCbt)				Result 1	Result 2	RPD			
ANC Fineness Factor	S23-My0048608	CP	factor	1.5	1.5	<1	30%	Pass	
Duplicate									
Net Acidity (Including ANC)				Result 1	Result 2	RPD			
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	S23-My0048608	CP	mol H+/t	< 10	< 10	<1	30%	Pass	
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	S23-My0048608	CP	% S	< 0.02	< 0.02	<1	30%	Pass	
SPOCAS - Liming rate - ASSMAC	S23-My0048608	CP	kg CaCO3/t	< 1	< 1	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	B23-My0046382	NCP	%	21	24	11	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
S02	Retained Acidity is Reported when the pHKCl is less than pH 4.5

Authorised by:

Andrew Black	Analytical Services Manager
Jonathon Angell	Senior Analyst-Sample Properties
Jonathon Angell	Senior Analyst-SPOCAS

Glenn Jackson
Managing Director

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.

SAME DAY TAT ADDITIONAL ANALYSIS: FW: Eurofins Test Results - Report 981107 : Site Pyrmont (64669)

Andrew Black

Thu 2023-06-01 9:52 AM

To: #AU25_Enviro_Sample_NSW <EnviroSampleNSW@eurofins.com>

INFO: INTERNAL EMAIL - Sent from your own Eurofins email domain.

Urgent same day TAT additional thanks team for lead

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing Australia Pty Ltd
1 / 2 Frost Drive
Mayfield West, NSW, 2304
Phone: +61 2 9900 8490
Mobile: +61 410 220 750
Email: AndrewBlack@eurofins.com
Website: eurofins.com.au/environmental-testing

35 YEARS
TESTING FOR LIFE

From: Milad Noujaim <mnoujaim@jbsg.com.au>
Sent: Thursday, 1 June 2023 9:50 AM
To: Andrew Black <AndrewBlack@eurofins.com>
Subject: RE: Eurofins Test Results - Report 981107 : Site Pyrmont (64669)

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Hi Andrew,

Can I please get Lead analysis on BH05_0.5-0.6 on a same day TAT.

Kind Regards,

Milad Noujaim | Project Manager | JBS&G
Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: AndrewBlack@eurofins.com <AndrewBlack@eurofins.com>
Sent: Friday, April 28, 2023 1:35 PM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Subject: Eurofins Test Results - Report 981107 : Site Pyrmont (64669)

Kindest Regards,

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing
Unit 7
7 Friesian Close
SANDGATE NSW 2304
AUSTRALIA
Phone: +61 299 008 490
Mobile: +61 410 220 750
Email: AndrewBlack@eurofins.com
Website:[http://]environment.eurofins.com.au

View our latest EnviroNotes

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Milad Noujaim
Project name:	ADDITIONAL: PYRMONT
Project ID:	ADDITIONAL: 64669
Turnaround time:	Same day
Date/Time received	Jun 1, 2023 9:50 AM
Eurofins reference	995084

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 : 11.3 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

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Milad Noujaim - mnoujaim@jbsg.com.au.

Global Leader - Results you can trust

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

Project Name: ADDITIONAL: PYRMONT
Project ID: ADDITIONAL: 64669

Order No.:
Report #: 995084
Phone: 02 8245 0300
Fax:

Received: Jun 1, 2023 9:50 AM
Due: Jun 1, 2023
Priority: Same day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Lead	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BH05_0.5-0.6	Apr 14, 2023		Soil	S23-Jn0001467	X	X
Test Counts						1	1

Certificate of Analysis

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: **Milad Noujaim**

Report **995084-S**
Project name ADDITIONAL: PYRMONT
Project ID ADDITIONAL: 64669
Received Date Jun 01, 2023

Client Sample ID			**BH05_0.5-0.6**
Sample Matrix			**Soil**
Eurofins Sample No.			**S23-Jn0001467**
Date Sampled			**Apr 14, 2023**
Test/Reference	LOR	Unit	
Heavy Metals			
Lead	5	mg/kg	1400
Sample Properties			
% Moisture	1	%	4.2

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
Heavy Metals	Sydney	Jun 01, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Jun 01, 2023	14 Days
- Method: LTM-GEN-7080 Moisture			

Company Name:	JBS & G Australia (NSW) P/L	**Order No.:**		**Received:**	Jun 1, 2023 9:50 AM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	995084	**Due:**	Jun 1, 2023
		Phone:	02 8245 0300	**Priority:**	Same day
		Fax:		**Contact Name:**	Milad Noujaim
Project Name:	ADDITIONAL: PYRMONT				
Project ID:	ADDITIONAL: 64669				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Lead	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BH05_0.5-0.6	Apr 14, 2023		Soil	S23-Jn0001467	X	X
Test Counts						1	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
CFU: Colony forming unit		

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.

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									
Lead			mg/kg	< 5			5	Pass	
LCS - % Recovery									
Heavy Metals									
Lead			%	98			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	S23-My0078668	NCP	%	97			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	S23-Jn0001503	NCP	mg/kg	32	33	3.3	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-Jn0001467	CP	%	4.2	4.6	7.4	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

Authorised by:

Andrew Black	Analytical Services Manager
Fang Yee Tan	Senior Analyst-Metal

Glenn Jackson
Managing Director

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.

2 DAY TAT ADDITIONAL LEACHATES: FW: Eurofins Test Results - Report 981107 : Site Pyrmont (64669)

Andrew Black

Thu 2023-06-01 2:58 PM

To:#AU25_Enviro_Sample_NSW <EnviroSampleNSW@eurofins.com>

INFO: INTERNAL EMAIL - Sent from your own Eurofins email domain.

Urgent 2 day TAT additional leachates thanks team

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing Australia Pty Ltd
1 / 2 Frost Drive
Mayfield West, NSW, 2304
Phone: +61 2 9900 8490
Mobile: +61 410 220 750
Email: AndrewBlack@eurofins.com
Website: eurofins.com.au/environmental-testing

35 YEARS TESTING FOR LIFE

From: Milad Noujaim <mnoujaim@jbsg.com.au>
Sent: Thursday, 1 June 2023 2:44 PM
To: Andrew Black <AndrewBlack@eurofins.com>
Cc: #AU25_Enviro_Sample_NSW <EnviroSampleNSW@eurofins.com>
Subject: RE: Eurofins Test Results - Report 981107 : Site Pyrmont (64669)

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Hi Andrew,

Can I please request the additional analysis on a 2 day TAT:

- TCLP Lead for BH01_0.3-0.4
- TCLP Nickel for BH04_1.5-1.6

Kind Regards,

Milad Noujaim | Project Manager | JBS&G

Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: Milad Noujaim
Sent: Thursday, June 1, 2023 9:50 AM
To: AndrewBlack@eurofins.com
Subject: RE: Eurofins Test Results - Report 981107 : Site Pyrmont (64669)

Hi Andrew,

Can I please get Lead analysis on BH05_0.5-0.6 on a same day TAT.

Kind Regards,

Milad Noujaim | Project Manager | JBS&G
Gadigal Country | Level 1, 50 Margaret Street, Sydney, NSW
T: 02 8245 0300 | M: 0401 230 032 | E: mnoujaim@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: AndrewBlack@eurofins.com <AndrewBlack@eurofins.com>
Sent: Friday, April 28, 2023 1:35 PM
To: Milad Noujaim <mnoujaim@jbsg.com.au>
Subject: Eurofins Test Results - Report 981107 : Site Pyrmont (64669)

Kindest Regards,

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing
Unit 7
7 Friesian Close
SANDGATE NSW 2304
AUSTRALIA
Phone: +61 299 008 490
Mobile: +61 410 220 750
Email: AndrewBlack@eurofins.com
Website:[http://]environment.eurofins.com.au
View our latest EnviroNotes

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Milad Noujaim
Project name:	ADDITIONAL: PYRMONT
Project ID:	ADDITIONAL: 64669
Turnaround time:	2 Day
Date/Time received	Jun 1, 2023 2:44 PM
Eurofins reference	995451

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 : 11.3 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

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Milad Noujaim - mnoujaim@jbsg.com.au.

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

Project Name: ADDITIONAL: PYRMONT
Project ID: ADDITIONAL: 64669

Order No.:
Report #: 995451
Phone: 02 8245 0300
Fax:

Received: Jun 1, 2023 2:44 PM
Due: Jun 5, 2023
Priority: 2 Day
Contact Name: Milad Noujaim

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Lead	Nickel	USA Leaching Procedure
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BH01_0.3-0.4	Apr 13, 2023		US Leachate	S23-Jn0004719	X		X
2	BH04_1.5-1.6	Apr 13, 2023		US Leachate	S23-Jn0004720		X	X
Test Counts						1	1	2

Certificate of Analysis

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: **Milad Noujaim**

Report **995451-L**
Project name ADDITIONAL: PYRMONT
Project ID ADDITIONAL: 64669
Received Date Jun 01, 2023

Client Sample ID **Sample Matrix** **Eurofins Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**BH01_0.3-0.4** **US Leachate** **S23-Jn0004719** **Apr 13, 2023**	**BH04_1.5-1.6** **US Leachate** **S23-Jn0004720** **Apr 13, 2023**
Heavy Metals				
Lead	0.01	mg/L	0.94	-
Nickel	0.01	mg/L	-	< 0.01
USA Leaching Procedure				
Leachate Fluid^{C01}		comment	1.0	1.0
pH (initial)	0.1	pH Units	8.8	8.2
pH (off)	0.1	pH Units	5.1	5.1
pH (USA HCl addition)	0.1	pH Units	1.9	1.8

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
Heavy Metals	Sydney	Jun 02, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
USA Leaching Procedure	Sydney	Jun 02, 2023	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			

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

Order No.:
Report #: 995451
Phone: 02 8245 0300
Fax:

Received: Jun 1, 2023 2:44 PM
Due: Jun 5, 2023
Priority: 2 Day
Contact Name: Milad Noujaim

Project Name: ADDITIONAL: PYRMONT
Project ID: ADDITIONAL: 64669

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Lead	Nickel	USA Leaching Procedure
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BH01_0.3-0.4	Apr 13, 2023		US Leachate	S23-Jn0004719	X		X
2	BH04_1.5-1.6	Apr 13, 2023		US Leachate	S23-Jn0004720		X	X
Test Counts						1	1	2

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.

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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
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org/100 mL: Organisms per 100 millilitres	**NTU:** Nephelometric Turbidity Units	**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit		

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.

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									
Lead			mg/L	< 0.01			0.01	Pass	
Nickel			mg/L	< 0.01			0.01	Pass	
LCS - % Recovery									
Heavy Metals									
Lead			%	91			80-120	Pass	
Nickel			%	101			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	S23-Jn0003954	NCP	%	86			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Nickel	S23-Jn0003954	NCP	%	92			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	S23-Jn0003463	NCP	mg/L	< 0.01	0.02	150	30%	Fail	Q15
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Nickel	S23-Jn0003463	NCP	mg/L	< 0.01	0.01	10	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
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other
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.

Authorised by:

Andrew Black	Analytical Services Manager
Fang Yee Tan	Senior Analyst-Metal

Glenn Jackson
Managing Director

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.

Envirolab 1 of 1 COC 14/4 17:57

Chain of Custody

JBS&G

PROJECT NO.: 64669
PROJECT NAME: Pyrmont
DATE NEEDED BY: STD
LABORATORY BATCH NO.:
SAMPLERS: MA/LEA
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) ....maoliaim......@jbsg.com.au; (3) ....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	S	PFAS	VOCs																TYPE OF ASBESTOS ANALYSIS IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS NEPM/WA	NOTES:
1	QC01	Soil	13/4/23		J+ice		X																				
2	QCP01	↓	↓		PFAS+ice			X																			
3	QCB01				B																					X	
4	QC02				J+ice		[illegible]																				
5	QCB02				B																					[illegible]	
6	QC03		14/4/23		J+ice		X		X																		
7	QCB03	↓	↓		B																					X	

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 320926
Date Received: 14/04/23
Time Received: 1615
Received By: PL
Temp: [✓ Cool]/Ambient
Cooling: [✓ Ice]/Icepack
Security: [✓ Intact]/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: M DATE: 14/4/23 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: PL DATE: 14/04/23 OF: ELS SYD	COOLER SEAL – Yes ✓ No .... Intact ✓ Broken .... COOLER TEMP 7 deg C
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

Controlled Copy (June 2015)

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
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customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 320926

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Milad Noujaim
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**64669 Pyrmont**
Number of Samples	7 Soil
Date samples received	14/04/2023
Date completed instructions received	14/04/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	21/04/2023
Date of Issue	21/04/2023

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Asbestos Approved By
Analysed by Asbestos Approved Analyst: Stuart Chen
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Greta Petzold, Operation Manager
Kyle Gavrily, Senior Chemist
Liam Timmins, Organics Supervisor
Loren Bardwell, Development Chemist
Lucy Zhu, Asbestos Supervisor
Phalak Inthakesone, Organics Development Manager, Sydney

Authorised By

Nancy Zhang, Laboratory Manager

VOCs in soil		
Our Reference		320926-6
Your Reference	UNITS	QC03
Date Sampled		14/04/2023
Type of sample		Soil
Date extracted	-	17/04/2023
Date analysed	-	18/04/2023
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		320926-6
Your Reference	UNITS	QC03
Date Sampled		14/04/2023
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	%	100
Surrogate aaa-Trifluorotoluene	%	103
Surrogate Toluene-d_8	%	104
Surrogate 4-Bromofluorobenzene	%	98

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		320926-1	320926-6
Your Reference	UNITS	QC01	QC03
Date Sampled		13/04/2023	14/04/2023
Type of sample		Soil	Soil
Date extracted	-	17/04/2023	17/04/2023
Date analysed	-	18/04/2023	18/04/2023
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
Naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	95	103

svTRH (C10-C40) in Soil			
Our Reference		320926-1	320926-6
Your Reference	UNITS	QC01	QC03
Date Sampled		13/04/2023	14/04/2023
Type of sample		Soil	Soil
Date extracted	-	17/04/2023	17/04/2023
Date analysed	-	18/04/2023	18/04/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	210
TRH C_{29} - C_{36}	mg/kg	<100	190
Total +ve TRH (C10-C36)	mg/kg	<50	390
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	340
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	340
Surrogate o-Terphenyl	%	83	87

PAHs in Soil			
Our Reference		320926-1	320926-6
Your Reference	UNITS	QC01	QC03
Date Sampled		13/04/2023	14/04/2023
Type of sample		Soil	Soil
Date extracted	-	17/04/2023	17/04/2023
Date analysed	-	17/04/2023	17/04/2023
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	0.2
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.9
Anthracene	mg/kg	<0.1	0.3
Fluoranthene	mg/kg	0.2	2.4
Pyrene	mg/kg	0.2	2.5
Benzo(a)anthracene	mg/kg	0.1	2.1
Chrysene	mg/kg	<0.1	1.4
Benzo(b,j+k)fluoranthene	mg/kg	0.2	3.2
Benzo(a)pyrene	mg/kg	0.1	2.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	1.7
Dibenzo(a,h)anthracene	mg/kg	<0.1	0.2
Benzo(g,h,i)perylene	mg/kg	0.2	1.3
Total +ve PAH's	mg/kg	1.0	19
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	3.4
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	3.4
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	3.4
Surrogate p-Terphenyl-d14	%	106	113

Organochlorine Pesticides in soil			
Our Reference		320926-1	320926-6
Your Reference	UNITS	QC01	QC03
Date Sampled		13/04/2023	14/04/2023
Type of sample		Soil	Soil
Date extracted	-	17/04/2023	17/04/2023
Date analysed	-	17/04/2023	17/04/2023
alpha-BHC	mg/kg	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	0.2
Endrin	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1
Surrogate TCMX	%	102	101

PCBs in Soil			
Our Reference		320926-1	320926-6
Your Reference	UNITS	QC01	QC03
Date Sampled		13/04/2023	14/04/2023
Type of sample		Soil	Soil
Date extracted	-	17/04/2023	17/04/2023
Date analysed	-	17/04/2023	17/04/2023
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1
Surrogate TCMX	%	102	101

Acid Extractable metals in soil			
Our Reference		320926-1	320926-6
Your Reference	UNITS	QC01	QC03
Date Sampled		13/04/2023	14/04/2023
Type of sample		Soil	Soil
Date prepared	-	17/04/2023	17/04/2023
Date analysed	-	18/04/2023	18/04/2023
Arsenic	mg/kg	<4	11
Cadmium	mg/kg	<0.4	0.8
Chromium	mg/kg	13	8
Copper	mg/kg	25	370
Lead	mg/kg	20	430
Mercury	mg/kg	<0.1	0.9
Nickel	mg/kg	10	22
Zinc	mg/kg	50	550

Moisture				
Our Reference		320926-1	320926-2	320926-6
Your Reference	UNITS	QC01	QCP01	QC03
Date Sampled		13/04/2023	13/04/2023	14/04/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	17/04/2023	17/04/2023	17/04/2023
Date analysed	-	18/04/2023	18/04/2023	18/04/2023
Moisture	%	2.7	2.8	9.6

PFAS in Soils Extended		
Our Reference		320926-2
Your Reference	UNITS	QCP01
Date Sampled		13/04/2023
Type of sample		Soil
Date prepared	-	18/04/2023
Date analysed	-	18/04/2023
Perfluorobutanesulfonic acid	µg/kg	0.1
Perfluoropentanesulfonic acid	µg/kg	0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.8
Perfluoroheptanesulfonic acid	µg/kg	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	0.8
Perfluorodecanesulfonic acid	µg/kg	<0.2
Perfluorobutanoic acid	µg/kg	<0.2
Perfluoropentanoic acid	µg/kg	<0.2
Perfluorohexanoic acid	µg/kg	0.4
Perfluoroheptanoic acid	µg/kg	0.2
Perfluorooctanoic acid PFOA	µg/kg	0.7
Perfluorononanoic acid	µg/kg	<0.1
Perfluorodecanoic acid	µg/kg	<0.5
Perfluoroundecanoic acid	µg/kg	<0.5
Perfluorododecanoic acid	µg/kg	<0.5
Perfluorotridecanoic acid	µg/kg	<0.5
Perfluorotetradecanoic acid	µg/kg	<5
4:2 FTS	µg/kg	<0.1
6:2 FTS	µg/kg	<0.1
8:2 FTS	µg/kg	<0.2
10:2 FTS	µg/kg	<0.2
Perfluorooctane sulfonamide	µg/kg	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	96
Surrogate $^{13}C_2$ *PFOA*	%	98
Extracted ISTD $^{13}C_3$ *PFBS*	%	90
Extracted ISTD $^{18}O_2$ *PFHxS*	%	98
Extracted ISTD $^{13}C_4$ *PFOS*	%	101
Extracted ISTD $^{13}C_4$ *PFBA*	%	94

PFAS in Soils Extended		
Our Reference		320926-2
Your Reference	UNITS	QCP01
Date Sampled		13/04/2023
Type of sample		Soil
Extracted ISTD $^{13}C_3$ *PFPeA*	%	90
Extracted ISTD $^{13}C_2$ *PFHxA*	%	89
Extracted ISTD $^{13}C_4$ *PFHpA*	%	101
Extracted ISTD $^{13}C_4$ *PFOA*	%	107
Extracted ISTD $^{13}C_5$ *PFNA*	%	113
Extracted ISTD $^{13}C_2$ *PFDA*	%	88
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	104
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	111
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	105
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	93
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	123
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	126
Extracted ISTD $^{13}C_8$ *FOSA*	%	114
Extracted ISTD d_3 *N MeFOSA*	%	88
Extracted ISTD d_5 *N EtFOSA*	%	99
Extracted ISTD d_7 *N MeFOSE*	%	99
Extracted ISTD d_9 *N EtFOSE*	%	91
Extracted ISTD d_3 *N MeFOSAA*	%	92
Extracted ISTD d_5 *N EtFOSAA*	%	97
Total Positive PFHxS & PFOS	µg/kg	1.6
Total Positive PFOS & PFOA	µg/kg	1.5
Total Positive PFAS	µg/kg	3.2

Asbestos ID - soils NEPM - ASB-001			
Our Reference		320926-3	320926-7
Your Reference	UNITS	QCB01	QCB03
Date Sampled		13/04/2023	14/04/2023
Type of sample		Soil	Soil
Date analysed	-	17/04/2023	17/04/2023
Sample mass tested	g	848.18	719.46
Sample Description	-	Grey fine-grained soil & rocks	Grey fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–
FA and AF Estimation*	g	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. **NOTE** #1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF) **NOTE** #2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
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.

Method ID	Methodology Summary
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.
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.

Method ID	Methodology Summary
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 5.4 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 soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			17/04/2023	[NT]	[NT]	[NT]	[NT]	17/04/2023	[NT]
Date analysed	-			18/04/2023	[NT]	[NT]	[NT]	[NT]	18/04/2023	[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]	116	[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]	115	[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]	122	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	124	[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]	126	[NT]
bromodichloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	122	[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]	118	[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]	127	[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-1	[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	110	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	112	[NT]	[NT]	[NT]	[NT]	107	[NT]
Surrogate Toluene-d_8	%		Org-023	106	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	99	[NT]	[NT]	[NT]	[NT]	98	[NT]

Client Reference: 64669 Pyrmont

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			17/04/2023	[NT]	[NT]	[NT]	[NT]	17/04/2023	[NT]
Date analysed	-			18/04/2023	[NT]	[NT]	[NT]	[NT]	18/04/2023	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	116	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	116	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	113	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	118	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	119	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	120	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	124	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	112	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			17/04/2023	[NT]	[NT]	[NT]	[NT]	17/04/2023	[NT]
Date analysed	-			18/04/2023	[NT]	[NT]	[NT]	[NT]	18/04/2023	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	129	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	89	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	129	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	89	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate o-Terphenyl	%		Org-020	85	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			17/04/2023	[NT]	[NT]	[NT]	[NT]	17/04/2023	[NT]
Date analysed	-			17/04/2023	[NT]	[NT]	[NT]	[NT]	17/04/2023	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	101	[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]	101	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	106	[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]	106	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	103	[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]	93	[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]	96	[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	98	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			17/04/2023	6	17/04/2023	17/04/2023		17/04/2023	[NT]
Date analysed	-			17/04/2023	6	17/04/2023	17/04/2023		17/04/2023	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	106	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	130	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	103	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	107	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	104	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	113	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	6	0.2	0.2	0	116	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	92	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	80	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	78	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	6	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	98	6	101	99	2	103	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			17/04/2023	[NT]	[NT]	[NT]	[NT]	17/04/2023	[NT]
Date analysed	-			17/04/2023	[NT]	[NT]	[NT]	[NT]	17/04/2023	[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]	125	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	98	[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-1	[NT]
Date prepared	-			17/04/2023	[NT]	[NT]	[NT]	[NT]	17/04/2023	[NT]
Date analysed	-			18/04/2023	[NT]	[NT]	[NT]	[NT]	18/04/2023	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	97	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	100	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			18/04/2023	[NT]	[NT]	[NT]	[NT]	18/04/2023	[NT]
Date analysed	-			18/04/2023	[NT]	[NT]	[NT]	[NT]	18/04/2023	[NT]
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	102	[NT]
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorononanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	102	[NT]
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	114	[NT]
4:2 FTS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
6:2 FTS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
8:2 FTS	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	99	[NT]
10:2 FTS	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	114	[NT]
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	111	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	102	[NT]
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate $^{13}C_8$ PFOS	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	102	[NT]
Surrogate $^{13}C_2$ PFOA	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	95	[NT]

QUALITY CONTROL: PFAS in Soils Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	108	[NT]	[NT]	[NT]	[NT]	104	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	108	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	115	[NT]	[NT]	[NT]	[NT]	106	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	104	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	116	[NT]	[NT]	[NT]	[NT]	115	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	106	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	118	[NT]	[NT]	[NT]	[NT]	113	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	116	[NT]	[NT]	[NT]	[NT]	108	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	119	[NT]	[NT]	[NT]	[NT]	108	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	112	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	114	[NT]	[NT]	[NT]	[NT]	107	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	104	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	108	[NT]	[NT]	[NT]	[NT]	103	[NT]

QUALITY CONTROL: PFAS in Soils Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	104	[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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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.

Report Comments

Asbestos-ID in soil: NEPM

This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

Envirolab 10+1

JBS&G

Chain of Custody

PROJECT NO.: 64669
PROJECT NAME: Pyrmont
DATE NEEDED BY: STD

LABORATORY BATCH NO.:
SAMPLERS:
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) ......MARvigeiro.........@jbsg.com.au; (3) ....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL: SEND to Envirolab

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH	VOCs		PAHs (low level)	PFAS (low level)	pH	EC	TDS	Hardness									TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
①	QCW01	water	18/4/23		PFAS, Amber, vials, Inorganics, HM		X	X	X		X	X															

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 321252
Date Received: 19/4/23
Time Received: 1425
Received By: DL
Temp: [✓ Cool]/Ambient
Cooling: Ice/[✓ Icepack]
Security: [✓ Intact]/Broken/None

RELINQUISHED BY:
NAME: M DATE: 18/4/23
OF: JBS&G
NAME: DATE:
OF:

METHOD OF SHIPMENT:
CONSIGNMENT NOTE NO.
TRANSPORT CO.
CONSIGNMENT NOTE NO.
TRANSPORT CO

RECEIVED BY:
NAME:
DATE: 18/4 : 6:25
OF:
NAME: DL DATE: 19/4/23 1425
OF: ELS SYD

FOR RECEIVING LAB USE ONLY:
COOLER SEAL – Yes....... No .... Intact .... Broken ....
COOLER TEMP 1.1 °C deg C
COOLER SEAL – [✓ Yes.......]. No .... [✓ Intact ..]....... Broken ....
COOLER TEMP 10 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

Controlled Copy (June 2015)

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 321252

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Milad Noujaim
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**64669 Pyrmont**
Number of Samples	1 Water
Date samples received	19/04/2023
Date completed instructions received	19/04/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	27/04/2023
Date of Issue	27/04/2023

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

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

Results Approved By
Alexander Mitchell Maclean, Senior Chemist
Hannah Nguyen, Metals Supervisor
Kyle Gavrily, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

VOCs in water		
Our Reference		321252-1
Your Reference	UNITS	QCW01
Date Sampled		18/04/2023
Type of sample		Water
Date extracted	-	20/04/2023
Date analysed	-	21/04/2023
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	UNITS	321252-1
Your Reference		QCW01
Date Sampled		18/04/2023
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	%	107
Surrogate toluene-d8	%	101
Surrogate 4-BFB	%	109

vTRH(C6-C10)/BTEXN in Water		
Our Reference		321252-1
Your Reference	UNITS	QCW01
Date Sampled		18/04/2023
Type of sample		Water
Date extracted	-	20/04/2023
Date analysed	-	21/04/2023
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	107
Surrogate toluene-d8	%	101
Surrogate 4-BFB	%	109

svTRH (C10-C40) in Water		
Our Reference		321252-1
Your Reference	UNITS	QCW01
Date Sampled		18/04/2023
Type of sample		Water
Date extracted	-	26/04/2023
Date analysed	-	26/04/2023
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_{10} - C_{16} less Naphthalene (F2)	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	%	75

PAHs in Water		
Our Reference		321252-1
Your Reference	UNITS	QCW01
Date Sampled		18/04/2023
Type of sample		Water
Date extracted	-	26/04/2023
Date analysed	-	26/04/2023
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	%	97

PFAS in Water LOW LEVEL Extend		
Our Reference		321252-1
Your Reference	UNITS	QCW01
Date Sampled		18/04/2023
Type of sample		Water
Date prepared	-	24/04/2023
Date analysed	-	24/04/2023
Perfluorobutanesulfonic acid	µg/L	0.011
Perfluoropentanesulfonic acid	µg/L	0.012
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.056
Perfluoroheptanesulfonic acid	µg/L	0.003
Perfluorooctanesulfonic acid PFOS	µg/L	0.053
Perfluorodecanesulfonic acid	µg/L	<0.002
Perfluorobutanoic acid	µg/L	0.006
Perfluoropentanoic acid	µg/L	0.01
Perfluorohexanoic acid	µg/L	0.023
Perfluoroheptanoic acid	µg/L	0.008
Perfluorooctanoic acid PFOA	µg/L	0.017
Perfluorononanoic acid	µg/L	0.001
Perfluorodecanoic acid	µg/L	0.003
Perfluoroundecanoic acid	µg/L	<0.002
Perfluorododecanoic acid	µg/L	<0.005
Perfluorotridecanoic acid	µg/L	<0.01
Perfluorotetradecanoic acid	µg/L	<0.05
4:2 FTS	µg/L	<0.001
6:2 FTS	µg/L	<0.001
8:2 FTS	µg/L	<0.002
10:2 FTS	µg/L	<0.002
Perfluorooctane sulfonamide	µg/L	<0.01
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	<0.002
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.002
Surrogate $^{13}C_8$ *PFOS*	%	98
Surrogate $^{13}C_2$ *PFOA*	%	77
Extracted ISTD $^{13}C_3$ *PFBS*	%	74
Extracted ISTD $^{18}O_2$ *PFHxS*	%	78
Extracted ISTD $^{13}C_4$ *PFOS*	%	111
Extracted ISTD $^{13}C_4$ *PFBA*	%	83

PFAS in Water LOW LEVEL Extend		
Our Reference		321252-1
Your Reference	UNITS	QCW01
Date Sampled		18/04/2023
Type of sample		Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	59
Extracted ISTD $^{13}C_2$ *PFHxA*	%	105
Extracted ISTD $^{13}C_4$ *PFHpA*	%	105
Extracted ISTD $^{13}C_4$ *PFOA*	%	119
Extracted ISTD $^{13}C_5$ *PFNA*	%	103
Extracted ISTD $^{13}C_2$ *PFDA*	%	105
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	113
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	138
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	62
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	155
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	109
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	171
Extracted ISTD $^{13}C_8$ *FOSA*	%	90
Extracted ISTD d_3 *N MeFOSA*	%	96
Extracted ISTD d_5 *N EtFOSA*	%	95
Extracted ISTD d_7 *N MeFOSE*	%	97
Extracted ISTD d_9 *N EtFOSE*	%	90
Extracted ISTD d_3 *N MeFOSAA*	%	174
Extracted ISTD d_5 *N EtFOSAA*	%	143
Total Positive PFHxS & PFOS	µg/L	0.11
Total Positive PFOA & PFOS	µg/L	0.069
Total Positive PFAS	µg/L	0.21

HM in water - dissolved		
Our Reference		321252-1
Your Reference	UNITS	QCW01
Date Sampled		18/04/2023
Type of sample		Water
Date prepared	-	21/04/2023
Date analysed	-	21/04/2023
Arsenic-Dissolved	µg/L	1
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	1
Copper-Dissolved	µg/L	4
Lead-Dissolved	µg/L	5
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	1
Zinc-Dissolved	µg/L	51

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 5.4 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	-			20/04/2023	[NT]	[NT]	[NT]	[NT]	20/04/2023	[NT]
Date analysed	-			21/04/2023	[NT]	[NT]	[NT]	[NT]	21/04/2023	[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]	105	[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]	108	[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]	103	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	100	[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]	99	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	106	[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]	108	[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]	105	[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	108	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate toluene-d8	%		Org-023	102	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate 4-BFB	%		Org-023	110	[NT]	[NT]	[NT]	[NT]	106	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			20/04/2023	[NT]	[NT]	[NT]	[NT]	20/04/2023	[NT]
Date analysed	-			21/04/2023	[NT]	[NT]	[NT]	[NT]	21/04/2023	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	110	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	110	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	113	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	112	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	108	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate toluene-d8	%		Org-023	102	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate 4-BFB	%		Org-023	110	[NT]	[NT]	[NT]	[NT]	106	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			26/04/2023	[NT]	[NT]	[NT]	[NT]	26/04/2023	[NT]
Date analysed	-			26/04/2023	[NT]	[NT]	[NT]	[NT]	26/04/2023	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	99	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	99	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
Surrogate o-Terphenyl	%		Org-020	76	[NT]	[NT]	[NT]	[NT]	68	[NT]

Client Reference: 64669 Pyrmont

QUALITY CONTROL: PAHs in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date extracted	-			26/04/2023	[NT]	[NT]	[NT]	[NT]	26/04/2023	[NT]
Date analysed	-			26/04/2023	[NT]	[NT]	[NT]	[NT]	26/04/2023	[NT]
Naphthalene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	76	[NT]
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]	84	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	89	[NT]
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]	86	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
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	[NT]
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]	91	[NT]
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	96	[NT]	[NT]	[NT]	[NT]	95	[NT]

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	321252-1
Date prepared	-			24/04/2023	1	24/04/2023	24/04/2023		24/04/2023	24/04/2023
Date analysed	-			24/04/2023	1	24/04/2023	24/04/2023		24/04/2023	24/04/2023
Perfluorobutanesulfonic acid	µg/L	0.001	Org-029	<0.001	1	0.011	0.011	0	110	121
Perfluoropentanesulfonic acid	µg/L	0.001	Org-029	<0.001	1	0.012	0.012	0	105	131
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.001	Org-029	<0.001	1	0.056	0.054	4	107	101
Perfluoroheptanesulfonic acid	µg/L	0.001	Org-029	<0.001	1	0.003	0.003	0	99	124
Perfluorooctanesulfonic acid PFOS	µg/L	0.001	Org-029	<0.001	1	0.053	0.055	4	107	93
Perfluorodecanesulfonic acid	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	101	109
Perfluorobutanoic acid	µg/L	0.002	Org-029	<0.002	1	0.006	0.006	0	101	109
Perfluoropentanoic acid	µg/L	0.002	Org-029	<0.002	1	0.01	0.01	0	112	143
Perfluorohexanoic acid	µg/L	0.001	Org-029	<0.001	1	0.023	0.024	4	92	96
Perfluoroheptanoic acid	µg/L	0.001	Org-029	<0.001	1	0.008	0.008	0	107	110
Perfluorooctanoic acid PFOA	µg/L	0.001	Org-029	<0.001	1	0.017	0.018	6	104	92
Perfluorononanoic acid	µg/L	0.001	Org-029	<0.001	1	0.001	0.001	0	110	102
Perfluorodecanoic acid	µg/L	0.002	Org-029	<0.002	1	0.003	0.003	0	122	129
Perfluoroundecanoic acid	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	122	121
Perfluorododecanoic acid	µg/L	0.005	Org-029	<0.005	1	<0.005	<0.005	0	111	117
Perfluorotridecanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	86	93
Perfluorotetradecanoic acid	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	98	121
4:2 FTS	µg/L	0.001	Org-029	<0.001	1	<0.001	<0.001	0	120	135
6:2 FTS	µg/L	0.001	Org-029	<0.001	1	<0.001	<0.001	0	101	116
8:2 FTS	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	124	122
10:2 FTS	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	117	85
Perfluorooctane sulfonamide	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	114	124
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	125	113
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	102	87
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	121	105
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	125	130
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	93	81
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.002	Org-029	<0.002	1	<0.002	<0.002	0	108	100
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	95	1	98	93	5	96	97
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	89	1	77	82	6	90	76

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	321252-1
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	73	1	74	73	1	76	70
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	77	1	78	76	3	87	97
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	90	1	111	108	3	95	108
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	95	1	83	61	31	97	77
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	70	1	59	49	19	66	55
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	97	1	105	83	23	100	98
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	93	1	105	103	2	93	98
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	101	1	119	103	14	107	110
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	92	1	103	96	7	92	100
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	86	1	105	99	6	93	102
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	87	1	113	108	5	91	105
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	109	1	138	123	11	113	120
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	76	1	62	92	39	77	83
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	111	1	155	151	3	116	137
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	94	1	109	122	11	106	100
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	102	1	171	166	3	98	159
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	81	1	90	61	38	79	79
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	93	1	96	95	1	98	90
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	97	1	95	93	2	91	88
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	93	1	97	97	0	95	92

Client Reference: 64669 Pyrmont

QUALITY CONTROL: PFAS in Water LOW LEVEL Extend						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	321252-1
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	92	1	90	86	5	91	83
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	122	1	174	164	6	112	149
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	111	1	143	131	9	109	134

QUALITY CONTROL: HM in water - dissolved					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	[NT]
Date prepared	-			21/04/2023	[NT]	[NT]	[NT]	[NT]	21/04/2023	[NT]
Date analysed	-			21/04/2023	[NT]	[NT]	[NT]	[NT]	21/04/2023	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	97	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	97	[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.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

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.

Report Comments

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Matrix spike recovery for PFPeA is outside global acceptance criteria (60-140%). However an acceptable recovery has been obtained for the LCS.

Appendix M – Quality Assurance / Quality Control Results

Groundwater RPD Table
Project Number: 64669
Project Name: Bank St DSI April 2023
Field Duplicates (Water)
Filter: Lab_Report_Numl

			Lab Report Number	981895	981895		981895	321252	
			Field ID	MW01	QAW01	**RPD**	MW01	QCW01	**RPD**
			Sampled Date/Time	13/04/2023	13/04/2023		13/04/2023	13/04/2023	
Chem_Grou	**ChemName**	**Units**	**EQL**						
Metals & M	Arsenic (Filt	mg/l	0.001	**0.001**	**0.002**	**67**	0.001	0.001	0
	Cadmium (F	mg/l	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0002	0	<0.0002	<0.0001	0
	Chromium (	mg/l	0.001	<0.001	<0.001	0	<0.001	0.001	0
	Copper (Filt	mg/l	0.001	0.003	0.003	0	0.003	0.004	29
	Lead (Filtere	mg/l	0.001	0.005	0.004	22	0.005	0.005	0
	Mercury (Fil	mg/l	0.0001 : 5e-005 (Interlab)	<0.0001	<0.0001	0	<0.0001	<0.00005	0
	Nickel (Filte	mg/l	0.001	<0.001	<0.001	0	<0.001	0.001	0
	Zinc (Filtere	mg/l	0.005 : 0.001 (Interlab)	0.031	0.031	0	0.031	0.051	49
etalloids									
TPHs (NEPC	C6-C9 Fracti	mg/l	0.02 : 0.01 (Interlab)	<0.02	<0.02	0	<0.02	<0.01	0
	C10-C14 Fra	mg/l	0.05	<0.05	<0.05	0	<0.05	<0.05	0
	C15-C28 Fra	mg/l	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	C29-C36 Fra	mg/l	0.1	<0.1	<0.1	0	<0.1	<0.1	0
	C10-C36 Fra	mg/l	0.1 : 0.05 (Interlab)	<0.1	<0.1	0	<0.1	<0.05	0
1999)									
TRHs (NEPC	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 (Su	mg/l	0.1 : 0.05 (Interlab)	<0.1	<0.1	0	<0.1	<0.05	0
	F1 (C6-C10 r	mg/l	0.02 : 0.01 (Interlab)	<0.02	<0.02	0	<0.02	<0.01	0
	F2 (C10-C16	mg/l	0.05	<0.05	<0.05	0	<0.05	<0.05	0
2013)									
BTEXN	Benzene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Toluene	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Ethylbenzer	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 &	mg/l	0.002	<0.002	<0.002	0	<0.002	<0.002	0
	Xylene Tota	mg/l	0.003	<0.003	<0.003	0	<0.003		
	Naphthalen	mg/l	0.01 : 0.001 (Interlab)	<0.01	<0.01	0	<0.01	<0.001	0
PAH	Acenaphthe	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Acenaphthy	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)anth	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Benzo(a)pyr	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Benzo(b+j)fl	mg/l	1e-005	<0.00001	<0.00001	0	<0.00001		
	Benzo(g,h,i)	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Benzo(k)fluo	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)a	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Fluoranther	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	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
	Naphthalen	mg/l	1e-005 : 0.0002 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0002	0
	Phenanthre	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 c	mg/l	1e-005 : 0.0001 (Interlab)	<0.00001	<0.00001	0	<0.00001	<0.0001	0
Chlorinated	1,1,1,2-tetra	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1,1-trichlo	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1,2,2-tetra	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1,2-trichlo	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,1-dichloro	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,2,3-trichlo	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,2-dichloro	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,2-dichloro	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,3-dichloro	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Bromochlor	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Carbon tetr	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Chloroethar	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
	Chlorometh	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
	Dichlorodifl	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
	Dichloromet	mg/l	0.005	<0.005	<0.005	0	<0.005		
	Trichloroflu	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
Alkanes									
Chlorinated	1,1-dichloro	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	3-chloropro	mg/l	0.001	<0.001	<0.001	0	<0.001		
	4-chlorotolu	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	cis-1,2-dichl	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	cis-1,3-dichl	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Tetrachloro	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	trans-1,2-di	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	trans-1,3-di	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Trichloroeth	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Vinyl Chlori	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
Alkenes									
Solvents	Acetone	mg/l	0.005	<0.005	<0.005	0	<0.005		

Groundwater RPD Table
Project Number: 64669
Project Name: Bank St DSI April 2023
Field Duplicates (Water)
Filter: Lab_Report_Numl

			Lab Report Number	981895	981895		981895	321252	
			Field ID	MW01	QAW01	**RPD**	MW01	QCW01	**RPD**
			Sampled Date/Time	13/04/2023	13/04/2023		13/04/2023	13/04/2023	
PFAS	Perfluorobu	µg/L	0.005 : 0.002 (Interlab)	<0.005	<0.005	0	<0.005	0.006	18
	Perfluorope	µg/L	0.001 : 0.002 (Interlab)	0.006	0.007	15	0.006	0.01	50
	Perfluorohe	µg/L	0.001	0.019	0.021	10	0.019	0.023	19
	Perfluorohe	µg/L	0.001	0.005	0.006	18	0.005	0.008	46
	Perfluorooc	µg/L	0.001	0.005	0.006	18	**0.005**	**0.017**	**109**
	Perfluorono	µg/L	0.001	<0.001	<0.001	0	<0.001	0.001	0
	Perfluorode	µg/L	0.001 : 0.002 (Interlab)	0.003	0.003	0	0.003	0.003	0
	Perfluoroun	µg/L	0.001 : 0.002 (Interlab)	<0.001	0.001	0	<0.001	<0.002	0
	Perfluorodo	µg/L	0.001 : 0.005 (Interlab)	<0.001	<0.001	0	<0.001	<0.005	0
	Perfluorotri	µg/L	0.001 : 0.01 (Interlab)	<0.001	<0.001	0	<0.001	<0.01	0
	Perfluorotet	µg/L	0.001 : 0.05 (Interlab)	<0.001	<0.001	0	<0.001	<0.05	0
	Perfluorooc	µg/L	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
	N-Methyl pe	µg/L	0.005 : 0.05 (Interlab)	<0.005	<0.005	0	<0.005	<0.05	0
	N-Ethyl perf	µg/L	0.005 : 0.1 (Interlab)	<0.005	<0.005	0	<0.005	<0.1	0
	N-Methylpe	µg/L	0.005 : 0.05 (Interlab)	<0.005	<0.005	0	<0.005	<0.05	0
	N-ethylperfl	µg/L	0.005 : 0.5 (Interlab)	<0.005	<0.005	0	<0.005	<0.5	0
	N-methylpe	µg/L	0.005 : 0.002 (Interlab)	<0.005	<0.005	0	<0.005	<0.002	0
	N-ethyl-perf	µg/L	0.005 : 0.002 (Interlab)	<0.005	<0.005	0	<0.005	<0.002	0
	Perfluoropro	µg/L	0.001	0.001	0.001	0	0.001		
	Perfluorobu	µg/L	0.001	0.008	0.005	46	0.008	0.011	32
	Perfluorope	µg/L	0.001	0.009	0.006	40	0.009	0.012	29
	Perfluorohe	µg/L	0.001	0.095	0.09	5	**0.095**	**0.056**	**52**
	Perfluorohe	µg/L	0.001	0.003	0.002	40	0.003	0.003	0
	Perfluorooc	µg/L	0.001	0.047	0.051	8	0.047	0.053	12
	Perfluorode	µg/L	0.001 : 0.002 (Interlab)	<0.001	<0.001	0	<0.001	<0.002	0
	1H.1H.2H.2I	µg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1H.1H.2H.2I	µg/L	0.005 : 0.001 (Interlab)	<0.005	<0.005	0	<0.005	<0.001	0
	1H.1H.2H.2I	µg/L	0.001 : 0.002 (Interlab)	<0.001	<0.001	0	<0.001	<0.002	0
	1H.1H.2H.2I	µg/L	0.001 : 0.002 (Interlab)	<0.001	<0.001	0	<0.001	<0.002	0
	Sum of PFH›	µg/L	0.001	0.142	0.141	1	0.142	0.11	25
	Sum of enH	µg/L	0.001	0.147	0.147	0	0.147		
	Sum of US E	µg/L	0.001	0.052	0.057	9	0.052	0.069	28
	Sum of WA	UG/L	0.005	0.185	0.186	1	0.185		
	Sum of PFAS	µg/L	0.005 : 0.001 (Interlab)	0.201	0.199	1	0.201	0.21	4
	Perfluorono	µg/L	0.001	<0.001	<0.001	0	<0.001		
MAH	1,2,4-trimet	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,3,5-trimet	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		
	Bromobenz	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Isopropylbe	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
Miscellaneo	1,2-dibromo	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Bromometh	mg/l	0.005 : 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
	Dibromome	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Iodomethar	mg/l	0.001	<0.001	<0.001	0	<0.001		
	4-Methyl-2-	mg/l	0.005	<0.005	<0.005	0	<0.005		
	Methyl Ethy	mg/l	0.005	<0.005	<0.005	0	<0.005		
us Hydrocarbons									
Chlorinated	1,2-Dichloro	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,3-dichloro	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	1,4-dichloro	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Chlorobenz	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
Benzenes									
Trihalometh	Dibromochl	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
	Tribromome	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
	Bromodichl	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
anes									
Organic Sulf	Carbon disu	mg/l	0.001	<0.001	<0.001	0	<0.001		
ur Compounds									
EPA VIC - IW	Chlorinated	mg/l	0.005	<0.005	<0.005	0	<0.005		
	Other Chlor	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 heade

Soil RPD Table
Project Number: 64669
Project Name: Bank St DSI April 2023

Field Duplicates (Soil)			**Lab Report Number**	981107	981107		981107	320926		981107	981107		981107	320926	
Filter: Lab_Report_Numl			**Field ID**	BH11 0.2-0.3	QA01	**RPD**	BH11 0.2-0.3	QC01	**RPD**	BH11 0.2-0.3	QAP01	**RPD**	BH11 0.2-0.3	QCP01	**RPD**
			Sampled Date/Time	13/04/2023	13/04/2023		13/04/2023	13/04/2023		13/04/2023	13/04/2023		13/04/2023	13/04/2023	
Chem_Grou	**ChemName**	**Units**	**EQL**												
Metals & M	Arsenic	mg/kg	2 : 4 (Interlab)	**6.3**	**3**	**71**	**6.3**	**<4**	**104**	6.3			6.3		
	Cadmium	mg/kg	0.4	<0.4	<0.4	0	<0.4	<0.4	0	<0.4			<0.4		
	Chromium (	mg/kg	5 : 1 (Interlab)	**26**	**14**	**60**	**26**	**13**	**67**	26			26		
	Copper	mg/kg	5 : 1 (Interlab)	36	25	36	36	25	36	36			36		
	Lead	mg/kg	5 : 1 (Interlab)	**340**	**25**	**173**	**340**	**20**	**178**	340			340		
	Mercury	mg/kg	0.1	0.1	<0.1	0	0.1	<0.1	0	0.1			0.1		
	Nickel	mg/kg	5 : 1 (Interlab)	21	15	33	**21**	**10**	**71**	21			21		
	Zinc	mg/kg	5 : 1 (Interlab)	**120**	**62**	**64**	**120**	**50**	**82**	120			120		
etalloids															
TPHs (NEPC	C6-C9 Fracti	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<25	0	<20			<20		
	C10-C14 Fra	mg/kg	20 : 50 (Interlab)	<20	<20	0	<20	<50	0	<20			<20		
	C15-C28 Fra	mg/kg	50 : 100 (Interlab)	<50	52	4	<50	<100	0	<50			<50		
	C29-C36 Fra	mg/kg	50 : 100 (Interlab)	61	55	10	61	<100	20	61			61		
	C10-C36 Fra	mg/kg	50	**61**	**107**	**55**	**61**	**<50**	**84**	61			61		
1999)															
TRHs (NEPC	C6-C10	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<25	0	<20			<20		
	C10-C16	mg/kg	50	<50	<50	0	<50	<50	0	<50			<50		
	C16-C34	mg/kg	100	<100	<100	0	<100	<100	0	<100			<100		
	C34-C40	mg/kg	100	<100	<100	0	<100	<100	0	<100			<100		
	C10-C40 (Su	mg/kg	100 : 50 (Interlab)	<100	<100	0	<100	<50	0	<100			<100		
	F1 (C6-C10	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<25	0	<20			<20		
	F2 (C10-C16	mg/kg	50	<50	<50	0	<50	<50	0	<50			<50		
2013)															
BTEXN	Benzene	mg/kg	0.1 : 0.2 (Interlab)	<0.1	<0.1	0	<0.1	<0.2	0	<0.1			<0.1		
	Toluene	mg/kg	0.1 : 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.5	0	<0.1			<0.1		
	Ethylbenzer	mg/kg	0.1 : 1 (Interlab)	<0.1	<0.1	0	<0.1	<1	0	<0.1			<0.1		
	Xylene (o)	mg/kg	0.1 : 1 (Interlab)	<0.1	<0.1	0	<0.1	<1	0	<0.1			<0.1		
	Xylene (m &	mg/kg	0.2 : 2 (Interlab)	<0.2	<0.2	0	<0.2	<2	0	<0.2			<0.2		
	Xylene Tota	mg/kg	0.3 : 1 (Interlab)	<0.3	<0.3	0	<0.3	<1	0	<0.3			<0.3		
	Naphthalen	mg/kg	0.5 : 1 (Interlab)	<0.5	<0.5	0	<0.5	<1	0	<0.5			<0.5		
PAH	Acenaphthe	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5			<0.5		
	Acenaphthy	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5			<0.5		
	Anthracene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5			<0.5		
	Benz(a)anth	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	0.1	0	<0.5			<0.5		
	Benzo(a)pyr	mg/kg	0.5 : 0.05 (Interlab)	<0.5	<0.5	0	<0.5	0.1	0	<0.5			<0.5		
	Benzo(a)pyr	mg/kg	0.5	1.2	1.2	0	**1.2**	**<0.5**	**82**	1.2			1.2		
	Benzo(a)pyr	mg/kg	0.5	0.6	0.6	0	0.6	<0.5	18	0.6			0.6		
	Benzo(a)pyr	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	Benzo(b+j)fl	mg/kg	0.5	<0.5	<0.5	0	<0.5			<0.5			<0.5		
	Benzo(g,h,i)	mg/kg	0.5 : 0.1 (Interlab)	0.5	<0.5	0	**0.5**	**0.2**	**86**	0.5			0.5		
	Benzo(k)fluo	mg/kg	0.5	<0.5	<0.5	0	<0.5			<0.5			<0.5		
	Chrysene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5			<0.5		
	Dibenz(a,h)a	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5			<0.5		
	Fluoranther	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	0.2	0	<0.5			<0.5		
	Fluorene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5			<0.5		
	Indeno(1,2,3	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	0.1	0	<0.5			<0.5		
	Naphthalen	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5			<0.5		
	Phenanthre	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5			<0.5		
	Pyrene	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	0.2	0	<0.5			<0.5		
	PAHs (Sum o	mg/kg	0.5 : 0.05 (Interlab)	0.5	<0.5	0	**0.5**	**1**	**67**	0.5			0.5		
Organochlo	4,4-DDE	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	a-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	b-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	d-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	g-BHC (Lind	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Aldrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Dieldrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Aldrin + Die	mg/kg	0.05	<0.05	<0.5	0	<0.05			<0.05			<0.05		
	Chlordane	mg/kg	0.1	<0.1	<1	0	<0.1			<0.1			<0.1		
	DDT	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	DDD	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	DDT+DDE+D	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Endosulfan	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Endosulfan	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Endosulfan	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Endrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Endrin aldeh	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Endrin ketoı	mg/kg	0.05	<0.05	<0.5	0	<0.05			<0.05			<0.05		
	Heptachlor	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Heptachlor	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Methoxychl	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
	Toxaphene	mg/kg	0.5	<0.5	<10	0	<0.5			<0.5			<0.5		

Soil RPD Table
Project Number: 64669
Project Name: Bank St DSI April 2023

Field Duplicates (Soil)			**Lab Report Number**	981107	981107		981107	320926		981107	981107		981107	320926	
Filter: Lab_Report_Numl			**Field ID**	BH11 0.2-0.3	QA01	**RPD**	BH11 0.2-0.3	QC01	**RPD**	BH11 0.2-0.3	QAP01	**RPD**	BH11 0.2-0.3	QCP01	**RPD**
			Sampled Date/Time	13/04/2023	13/04/2023		13/04/2023	13/04/2023		13/04/2023	13/04/2023		13/04/2023	13/04/2023	
ine Pesticides															
Chlorinated	1,1,1,2-tetra	mg/kg	0.5 : 1 (Interlab)												
	1,1,1-trichlo	mg/kg	0.5 : 1 (Interlab)												
	1,1,2,2-tetra	mg/kg	0.5 : 1 (Interlab)												
	1,1,2-trichlo	mg/kg	0.5 : 1 (Interlab)												
	1,1-dichloro	mg/kg	0.5 : 1 (Interlab)												
	1,2,3-trichlo	mg/kg	0.5 : 1 (Interlab)												
	1,2-dichloro	mg/kg	0.5 : 1 (Interlab)												
	1,2-dichloro	mg/kg	0.5 : 1 (Interlab)												
	1,3-dichloro	mg/kg	0.5 : 1 (Interlab)												
	Bromochlor	mg/kg	0.5 : 1 (Interlab)												
	Carbon tetra	mg/kg	0.5 : 1 (Interlab)												
	Chloroethar	mg/kg	0.5 : 1 (Interlab)												
	Chlorometh	mg/kg	0.5 : 1 (Interlab)												
	Dichlorodifl	mg/kg	0.5 : 1 (Interlab)												
	Dichlorome	mg/kg	0.5												
	Trichloroflu	mg/kg	0.5 : 1 (Interlab)												
Alkanes															
Chlorinated	1,1-dichloro	mg/kg	0.5 : 1 (Interlab)												
	3-chloropro	mg/kg	0.5												
	4-chlorotolu	mg/kg	0.5 : 1 (Interlab)												
	cis-1,2-dichl	mg/kg	0.5 : 1 (Interlab)												
	cis-1,3-dichl	mg/kg	0.5 : 1 (Interlab)												
	Tetrachloro	mg/kg	0.5 : 1 (Interlab)												
	trans-1,2-di	mg/kg	0.5 : 1 (Interlab)												
	trans-1,3-di	mg/kg	0.5 : 1 (Interlab)												
	Trichloroeth	mg/kg	0.5 : 1 (Interlab)												
	Vinyl Chlori	mg/kg	0.5 : 1 (Interlab)												
Alkenes															
Solvents	Acetone	mg/kg	0.5												
Polychlorina	Arochlor 10	mg/kg	0.1	<0.1	<1	0	<0.1	<0.1	0	<0.1			<0.1		
	Arochlor 12	mg/kg	0.1	<0.1	<1	0	<0.1	<0.1	0	<0.1			<0.1		
	Arochlor 12	mg/kg	0.1	<0.1	<1	0	<0.1	<0.1	0	<0.1			<0.1		
	Arochlor 12	mg/kg	0.1	<0.1	<1	0	<0.1	<0.1	0	<0.1			<0.1		
	Arochlor 12	mg/kg	0.1	<0.1	<1	0	<0.1	<0.1	0	<0.1			<0.1		
	Arochlor 12	mg/kg	0.1	<0.1	<1	0	<0.1	<0.1	0	<0.1			<0.1		
	Arochlor 12	mg/kg	0.1	<0.1	<1	0	<0.1	<0.1	0	<0.1			<0.1		
	PCBs (Sum c	mg/kg	0.1	<0.1	<1	0	<0.1	<0.1	0	<0.1			<0.1		
ted Biphenyls															
PFAS	Perfluorobu	mg/kg	0.005 : 0.0002 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0002	0
	Perfluorope	mg/kg	0.005 : 0.0002 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0002	0
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	0.0004	0
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	0.0002	0
	Perfluorooc	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	0.0007	0
	Perfluorono	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0001	0
	Perfluorode	mg/kg	0.005 : 0.0005 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0005	0
	Perfluoroun	mg/kg	0.005 : 0.0005 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0005	0
	Perfluorodo	mg/kg	0.005 : 0.0005 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0005	0
	Perfluorotri	mg/kg	0.005 : 0.0005 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0005	0
	Perfluorotet	mg/kg	0.005	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.005	0
	Perfluorooc	mg/kg	0.005 : 0.001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.001	0
	N-Methyl pe	mg/kg	0.005 : 0.001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.001	0
	N-Ethyl perf	mg/kg	0.005 : 0.001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.001	0
	N-Methylpe	mg/kg	0.005 : 0.001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.001	0
	N-ethylperfl	mg/kg	0.005	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.005	0
	N-methylpe	mg/kg	0.01 : 0.0002 (Interlab)	<0.01			<0.01			<0.01	<0.01	0	<0.01	<0.0002	0
	N-ethyl-perf	mg/kg	0.01 : 0.0002 (Interlab)	<0.01			<0.01			<0.01	<0.01	0	<0.01	<0.0002	0
	Perfluoropr	mg/kg	0.005	<0.005			<0.005			<0.005	<0.005	0	<0.005		
	Perfluorobu	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	0.0001	0
	Perfluorope	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	0.0001	0
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	0.0008	0
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0001	0
	Perfluorooc	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	0.0008	0
	Perfluorode	mg/kg	0.005 : 0.0002 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0002	0
	1H.1H.2H.2	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0001	0
	1H.1H.2H.2	mg/kg	0.01 : 0.0001 (Interlab)	<0.01			<0.01			<0.01	<0.01	0	<0.01	<0.0001	0
	1H.1H.2H.2	mg/kg	0.005 : 0.0002 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0002	0
	1H.1H.2H.2	mg/kg	0.005 : 0.0002 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	<0.0002	0
	Sum of PFH	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	0.0016	0
	Sum of enH	mg/kg	0.005	<0.005			<0.005			<0.005	<0.005	0	<0.005		
	Sum of US E	mg/kg	0.005 : 0.0001 (Interlab)	<0.005			<0.005			<0.005	<0.005	0	<0.005	0.0015	0
	Sum of WA	mg/kg	0.01	<0.01			<0.01			<0.01	<0.01	0	<0.01		
	Sum of PFA	mg/kg	0.05 : 0.0001 (Interlab)	<0.05			<0.05			<0.05	<0.05	0	<0.05	0.0032	0
	Perfluorono	mg/kg	0.005	<0.005			<0.005			<0.005	<0.005	0	<0.005		
MAH	1,2,4-trimet	mg/kg	0.5 : 1 (Interlab)												
	1,3,5-trimet	mg/kg	0.5 : 1 (Interlab)												
	Styrene	mg/kg	0.5 : 1 (Interlab)												
	Total MAH	mg/kg	0.5												
	Bromobenz	mg/kg	0.5 : 1 (Interlab)												
	Isopropylbe	mg/kg	0.5 : 1 (Interlab)												
Miscellaneo	1,2-dibromo	mg/kg	0.5 : 1 (Interlab)												
	Bromometh	mg/kg	0.5 : 1 (Interlab)												
	Dibromome	mg/kg	0.5 : 1 (Interlab)												
	Iodomethar	mg/kg	0.5												
	4-Methyl-2-	mg/kg	0.5												
	Methyl Ethy	mg/kg	0.5												
us Hydrocarbons															
Chlorinated	1,2-Dichloro	mg/kg	0.5 : 1 (Interlab)												
	1,3-dichloro	mg/kg	0.5 : 1 (Interlab)												
	1,4-dichloro	mg/kg	0.5 : 1 (Interlab)												
	Chlorobenze	mg/kg	0.5 : 1 (Interlab)												
	Hexachlorol	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.5	0	<0.05	<0.1	0	<0.05			<0.05		
Benzenes															
Trihalometh	Dibromochl	mg/kg	0.5 : 1 (Interlab)												
	Chloroform	mg/kg	0.5 : 1 (Interlab)												
	Tribromome	mg/kg	0.5 : 1 (Interlab)												
	Bromodichl	mg/kg	0.5 : 1 (Interlab)												

Soil RPD Table
Project Number: 64669
Project Name: Bank St DSI April 2023

Field Duplicates (Soil)
Filter: Lab_Report_Numl

			Lab Report Number	981107	981107		981107	320926		981107	981107		981107	320926	
			Field ID	BH11 0.2-0.3	QA01	**RPD**	BH11 0.2-0.3	QC01	**RPD**	BH11 0.2-0.3	QAP01	**RPD**	BH11 0.2-0.3	QCP01	**RPD**
			Sampled Date/Time	13/04/2023	13/04/2023		13/04/2023	13/04/2023		13/04/2023	13/04/2023		13/04/2023	13/04/2023	
anes															
Organic Sulf	Carbon disu	mg/kg	0.5												
ur Compounds															
EPA VIC - IW	Chlorinated	mg/kg	0.5												
	Other Chlor	mg/kg	0.5												
	Organochlo	mg/kg	0.1	<0.1	<1	0	<0.1			<0.1			<0.1		
	Other Organ	mg/kg	0.1	<0.1	<1	0	<0.1			<0.1			<0.1		
RG621															
Asbestos - E	Approximat	g													
	Mass ACM	g													
	Mass Asbes	g													
	Asbestos frc	% (w/w)													
	Mass FA	g													
	Mass Asbes	g													
	Mass AF	g													
	Mass asbest	g													
	Asbestos frc	% (w/w)													
	Mass Asbes	g													
	ACM - Comi	Comment													
	FA- Comme	Comment													
	AF - Comme	Comment													
	Organic Fibr	Comment													
	Respirable F	Comment													
	Synthetic Fi	Comment													
	Asbestos Re	Comment													
urofins															
Other	Moisture Cc	%	1	**7.4**	**4.5**	**49**	7.4			**7.4**	**5.3**	**33**	7.4		

*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

Soil RPD Table

Project Number: 64669

Project Name: Bank St DSI April 2023

Field Duplicates (Soil)			**Lab Report Number**	981107	981107		981107	320926		981107	981107		981107	320926	
Filter: Lab_Report_Numl			**Field ID**	BH11 0.8-1.0	QAB01	**RPD**	BH11 0.8-1.0	QCB01	**RPD**	BH02 0.2-0.3	QA03	**RPD**	BH02 0.2-0.3	QC03	**RPD**
			Sampled Date/Time	13/04/2023	13/04/2023		13/04/2023	13/04/2023		14/04/2023	14/04/2023		14/04/2023	14/04/2023	
Chem_Grou	**ChemName**	**Units**	**EQL**												
Metals & M	Arsenic	mg/kg	2 : 4 (Interlab)							**21**	**12**	**55**	**21**	**11**	**63**
	Cadmium	mg/kg	0.4							1	0.6	50	1	0.8	22
	Chromium (	mg/kg	5 : 1 (Interlab)							7.4	6.7	10	7.4	8	8
	Copper	mg/kg	5 : 1 (Interlab)							230	360	44	230	370	47
	Lead	mg/kg	5 : 1 (Interlab)							870	570	42	**870**	**430**	**68**
	Mercury	mg/kg	0.1							0.9	0.9	0	0.9	0.9	0
	Nickel	mg/kg	5 : 1 (Interlab)							27	22	20	27	22	20
	Zinc	mg/kg	5 : 1 (Interlab)							1000	690	37	**1000**	**550**	**58**
etalloids															
TPHs (NEPC	C6-C9 Fracti	mg/kg	20 : 25 (Interlab)							<20	<20	0	<20	<25	0
	C10-C14 Fra	mg/kg	20 : 50 (Interlab)							28	23	20	28	<50	0
	C15-C28 Fra	mg/kg	50 : 100 (Interlab)							260	390	40	260	210	21
	C29-C36 Fra	mg/kg	50 : 100 (Interlab)							**250**	**680**	**92**	250	190	27
	C10-C36 Fra	mg/kg	50							**538**	**1093**	**68**	538	390	32
1999)															
TRHs (NEPC	C6-C10	mg/kg	20 : 25 (Interlab)							<20	<20	0	<20	<25	0
	C10-C16	mg/kg	50							<50	<50	0	<50	<50	0
	C16-C34	mg/kg	100							**450**	**910**	**68**	450	340	28
	C34-C40	mg/kg	100							**140**	**570**	**121**	**140**	**<100**	**95**
	C10-C40 (Su	mg/kg	100 : 50 (Interlab)							**590**	**1480**	**86**	**590**	**340**	**54**
	F1 (C6-C10	mg/kg	20 : 25 (Interlab)							<20	<20	0	<20	<25	0
	F2 (C10-C16	mg/kg	50							<50	<50	0	<50	<50	0
2013)															
BTEXN	Benzene	mg/kg	0.1 : 0.2 (Interlab)							<0.1	<0.1	0	<0.1	<0.2	0
	Toluene	mg/kg	0.1 : 0.5 (Interlab)							<0.1	<0.1	0	<0.1	<0.5	0
	Ethylbenzer	mg/kg	0.1 : 1 (Interlab)							<0.1	<0.1	0	<0.1	<1	0
	Xylene (o)	mg/kg	0.1 : 1 (Interlab)							<0.1	<0.1	0	<0.1	<1	0
	Xylene (m &	mg/kg	0.2 : 2 (Interlab)							<0.2	<0.2	0	<0.2	<2	0
	Xylene Tota	mg/kg	0.3 : 1 (Interlab)							<0.3	<0.3	0	<0.3	<1	0
	Naphthalen	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
PAH	Acenaphthe	mg/kg	0.5 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Acenaphthy	mg/kg	0.5 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	0.2	0
	Anthracene	mg/kg	0.5 : 0.1 (Interlab)							<0.5	0.6	18	<0.5	0.3	0
	Benz(a)anth	mg/kg	0.5 : 0.1 (Interlab)							1.3	1.6	21	1.3	2.1	47
	Benzo(a)pyr	mg/kg	0.5 : 0.05 (Interlab)							**1**	**1.8**	**57**	**1**	**2.5**	**86**
	Benzo(a)pyr	mg/kg	0.5							1.9	2.9	42	**1.9**	**3.4**	**57**
	Benzo(a)pyr	mg/kg	0.5							1.7	2.7	45	**1.7**	**3.4**	**67**
	Benzo(a)pyr	mg/kg	0.5							**1.4**	**2.4**	**53**	**1.4**	**3.4**	**83**
	Benzo(b+j)fl	mg/kg	0.5							**1**	**1.7**	**52**	1		
	Benzo(g,h,i)	mg/kg	0.5 : 0.1 (Interlab)							**1.1**	**2**	**58**	1.1	1.3	17
	Benzo(k)fluo	mg/kg	0.5							1.4	1.6	13	1.4		
	Chrysene	mg/kg	0.5 : 0.1 (Interlab)							**1.8**	**2.5**	**33**	1.8	1.4	25
	Dibenz(a,h)a	mg/kg	0.5 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	0.2	0
	Fluoranther	mg/kg	0.5 : 0.1 (Interlab)							2.4	3.1	25	2.4	2.4	0
	Fluorene	mg/kg	0.5 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Indeno(1,2,3	mg/kg	0.5 : 0.1 (Interlab)							**<0.5**	**1.1**	**126**	**<0.5**	**1.7**	**149**
	Naphthalen	mg/kg	0.5 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Phenanthre	mg/kg	0.5 : 0.1 (Interlab)							**0.7**	**1.5**	**73**	0.7	0.9	25
	Pyrene	mg/kg	0.5 : 0.1 (Interlab)							2.9	3.6	22	2.9	2.5	15
	PAHs (Sum o	mg/kg	0.5 : 0.05 (Interlab)							14	21	40	14	19	30
Organochlo	4,4-DDE	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	a-BHC	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	b-BHC	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	d-BHC	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	g-BHC (Linda	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Aldrin	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Dieldrin	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	0.2	0
	Aldrin + Die	mg/kg	0.05							<0.5	<0.5	0	<0.5		
	Chlordane	mg/kg	0.1							<1	<1	0	<1		
	DDT	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	DDD	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	DDT+DDE+D	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Endosulfan	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Endosulfan	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Endosulfan	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Endrin	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Endrin aldeh	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Endrin ketor	mg/kg	0.05							<0.5	<0.5	0	<0.5		
	Heptachlor	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Heptachlor	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Methoxychl	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
	Toxaphene	mg/kg	0.5							<10	<10	0	<10		

Soil RPD Table
Project Number: 64669
Project Name: Bank St DSI April 2023

Field Duplicates (Soil)			**Lab Report Number**	981107	981107		981107	320926		981107	981107		981107	320926	
Filter: Lab_Report_Num			**Field ID**	BH11 0.8-1.0	QAB01	**RPD**	BH11 0.8-1.0	QCB01	**RPD**	BH02 0.2-0.3	QA03	**RPD**	BH02 0.2-0.3	QC03	**RPD**
			Sampled Date/Time	13/04/2023	13/04/2023		13/04/2023	13/04/2023		14/04/2023	14/04/2023		14/04/2023	14/04/2023	
ine Pesticides															
Chlorinated	1,1,1,2-tetra	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,1,1-trichlo	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,1,2,2-tetra	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,1,2-trichlo	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,1-dichloro	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,2,3-trichlo	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,2-dichloro	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,2-dichloro	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,3-dichloro	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Bromochlor	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Carbon tetra	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Chloroethar	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Chlorometh	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Dichlorodifl	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Dichlorome	mg/kg	0.5							<0.5	<0.5	0	<0.5		
	Trichloroflu	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
Alkanes															
Chlorinated	1,1-dichloro	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	3-chloropro	mg/kg	0.5							<0.5	<0.5	0	<0.5		
	4-chlorotolu	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	cis-1,2-dichl	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	cis-1,3-dichl	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Tetrachloro	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	trans-1,2-di	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	trans-1,3-di	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Trichloroeth	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Vinyl Chlori	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
Alkenes															
Solvents	Acetone	mg/kg	0.5							<0.5	<0.5	0	<0.5		
Polychlorina	Arochlor 10	mg/kg	0.1							<1	<1	0	<1	<0.1	0
	Arochlor 12	mg/kg	0.1							<1	<1	0	<1	<0.1	0
	Arochlor 12	mg/kg	0.1							<1	<1	0	<1	<0.1	0
	Arochlor 12	mg/kg	0.1							<1	<1	0	<1	<0.1	0
	Arochlor 12	mg/kg	0.1							<1	<1	0	<1	<0.1	0
	Arochlor 12	mg/kg	0.1							<1	<1	0	<1	<0.1	0
	Arochlor 12	mg/kg	0.1							<1	<1	0	<1	<0.1	0
	PCBs (Sum o	mg/kg	0.1							<1	<1	0	<1	<0.1	0
ted Biphenyls															
PFAS	Perfluorobu	mg/kg	0.005 : 0.0002 (Interlab)												
	Perfluorope	mg/kg	0.005 : 0.0002 (Interlab)												
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)												
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)												
	Perfluorooc	mg/kg	0.005 : 0.0001 (Interlab)												
	Perfluorono	mg/kg	0.005 : 0.0001 (Interlab)												
	Perfluorode	mg/kg	0.005 : 0.0005 (Interlab)												
	Perfluoroun	mg/kg	0.005 : 0.0005 (Interlab)												
	Perfluorodo	mg/kg	0.005 : 0.0005 (Interlab)												
	Perfluorotri	mg/kg	0.005 : 0.0005 (Interlab)												
	Perfluorotet	mg/kg	0.005												
	Perfluorooc	mg/kg	0.005 : 0.001 (Interlab)												
	N-Methyl pe	mg/kg	0.005 : 0.001 (Interlab)												
	N-Ethyl perf	mg/kg	0.005 : 0.001 (Interlab)												
	N-Methylpe	mg/kg	0.005 : 0.001 (Interlab)												
	N-ethylperfl	mg/kg	0.005												
	N-methylpe	mg/kg	0.01 : 0.0002 (Interlab)												
	N-ethyl-perf	mg/kg	0.01 : 0.0002 (Interlab)												
	Perfluoropr	mg/kg	0.005												
	Perfluorobu	mg/kg	0.005 : 0.0001 (Interlab)												
	Perfluorope	mg/kg	0.005 : 0.0001 (Interlab)												
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)												
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)												
	Perfluorooc	mg/kg	0.005 : 0.0001 (Interlab)												
	Perfluorode	mg/kg	0.005 : 0.0002 (Interlab)												
	1H.1H.2H.2	mg/kg	0.005 : 0.0001 (Interlab)												
	1H.1H.2H.2	mg/kg	0.01 : 0.0001 (Interlab)												
	1H.1H.2H.2	mg/kg	0.005 : 0.0002 (Interlab)												
	1H.1H.2H.2	mg/kg	0.005 : 0.0002 (Interlab)												
	Sum of PFH	mg/kg	0.005 : 0.0001 (Interlab)												
	Sum of enH	mg/kg	0.005												
	Sum of US E	mg/kg	0.005 : 0.0001 (Interlab)												
	Sum of WA	mg/kg	0.01												
	Sum of PFA	mg/kg	0.05 : 0.0001 (Interlab)												
	Perfluorono	mg/kg	0.005												
MAH	1,2,4-trimet	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,3,5-trimet	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Styrene	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Total MAH	mg/kg	0.5							<0.5	<0.5	0	<0.5		
	Bromobenz	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Isopropylbe	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
Miscellaneo	1,2-dibromo	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Bromometh	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Dibromome	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Iodomethar	mg/kg	0.5							<0.5	<0.5	0	<0.5		
	4-Methyl-2-	mg/kg	0.5							<0.5	<0.5	0	<0.5		
	Methyl Ethy	mg/kg	0.5							<0.5	<0.5	0	<0.5		
us Hydrocarbons															
Chlorinated	1,2-Dichloro	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,3-dichloro	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	1,4-dichloro	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Chlorobenze	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Hexachlorob	mg/kg	0.05 : 0.1 (Interlab)							<0.5	<0.5	0	<0.5	<0.1	0
Benzenes															
Trihalometh	Dibromochl	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Chloroform	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Tribromome	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0
	Bromodichl	mg/kg	0.5 : 1 (Interlab)							<0.5	<0.5	0	<0.5	<1	0

Soil RPD Table
Project Number: 64669
Project Name: Bank St DSI April 2023

Field Duplicates (Soil)
Filter: Lab_Report_Numl

			Lab Report Number	981107	981107		981107	320926		981107	981107		981107	320926	
			Field ID	BH11 0.8-1.0	QAB01	**RPD**	BH11 0.8-1.0	QCB01	**RPD**	BH02 0.2-0.3	QA03	**RPD**	BH02 0.2-0.3	QC03	**RPD**
			Sampled Date/Time	13/04/2023	13/04/2023		13/04/2023	13/04/2023		14/04/2023	14/04/2023		14/04/2023	14/04/2023	
anes															
Organic Sulf	Carbon disu	mg/kg	0.5							<0.5	<0.5	0	<0.5		
ur Compounds															
EPA VIC - IW	Chlorinated	mg/kg	0.5							<0.5	<0.5	0	<0.5		
	Other Chlor	mg/kg	0.5							<0.5	<0.5	0	<0.5		
	Organochlo	mg/kg	0.1							<1	<1	0	<1		
	Other Orgar	mg/kg	0.1							<1	<1	0	<1		
/RG621															
Asbestos - E	Approximat	g		718	845	16	718								
	Mass ACM	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0						
	Mass Asbes	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0						
	Asbestos frc	% (w/w)		0.0E0	0.0E0	0	0.0E0	0.0E0	0						
	Mass FA	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0						
	Mass Asbes	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0						
	Mass AF	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0						
	Mass asbest	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0						
	Asbestos frc	% (w/w)		0.0E0	0.0E0	0	0.0E0	0.0E0	0						
	Mass Asbes	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0						
	ACM - Comı	Comment		1	1	0	1	1	0						
	FA- Comme	Comment		1	1	0	1	1	0						
	AF - Comme	Comment		1	1	0	1	1	0						
	Organic Fibr	Comment		1	1	0	1	1	0						
	Respirable F	Comment		1	1	0	1	1	0						
	Synthetic Fil	Comment		1	1	0	1	1	0						
	Asbestos Re	Comment		1	1	0	1	1	0						
urofins															
Other	Moisture Cc	%	1							**17**	**9.3**	**59**	**17**		

*RPDs have only been considered where a concentration is grea
**High RPDs are in bold (Acceptable RPDs for each EQL multiplie
***Interlab Duplicates are matched on a per compound basis as

Soil RPD Table

Project Number: 64669

Project Name: Bank St DSI April 2023

Field Duplicates (Soil)			**Lab Report Number**	981107	981107		981107	320926	
Filter: Lab_Report_Numl			**Field ID**	BH02 0.2-1.0	QAB03	**RPD**	BH02 0.2-1.0	QCB03	**RPD**
			Sampled Date/Time	14/04/2023	14/04/2023		14/04/2023	14/04/2023	
Chem_Grou	**ChemName**	**Units**	**EQL**						
Metals & M	Arsenic	mg/kg	2 : 4 (Interlab)						
	Cadmium	mg/kg	0.4						
	Chromium (	mg/kg	5 : 1 (Interlab)						
	Copper	mg/kg	5 : 1 (Interlab)						
	Lead	mg/kg	5 : 1 (Interlab)						
	Mercury	mg/kg	0.1						
	Nickel	mg/kg	5 : 1 (Interlab)						
	Zinc	mg/kg	5 : 1 (Interlab)						
etalloids									
TPHs (NEPC	C6-C9 Fracti	mg/kg	20 : 25 (Interlab)						
	C10-C14 Fra	mg/kg	20 : 50 (Interlab)						
	C15-C28 Fra	mg/kg	50 : 100 (Interlab)						
	C29-C36 Fra	mg/kg	50 : 100 (Interlab)						
	C10-C36 Fra	mg/kg	50						
1999)									
TRHs (NEPC	C6-C10	mg/kg	20 : 25 (Interlab)						
	C10-C16	mg/kg	50						
	C16-C34	mg/kg	100						
	C34-C40	mg/kg	100						
	C10-C40 (Su	mg/kg	100 : 50 (Interlab)						
	F1 (C6-C10	mg/kg	20 : 25 (Interlab)						
	F2 (C10-C16	mg/kg	50						
2013)									
BTEXN	Benzene	mg/kg	0.1 : 0.2 (Interlab)						
	Toluene	mg/kg	0.1 : 0.5 (Interlab)						
	Ethylbenzer	mg/kg	0.1 : 1 (Interlab)						
	Xylene (o)	mg/kg	0.1 : 1 (Interlab)						
	Xylene (m &	mg/kg	0.2 : 2 (Interlab)						
	Xylene Tota	mg/kg	0.3 : 1 (Interlab)						
	Naphthalen	mg/kg	0.5 : 1 (Interlab)						
PAH	Acenaphthe	mg/kg	0.5 : 0.1 (Interlab)						
	Acenaphthy	mg/kg	0.5 : 0.1 (Interlab)						
	Anthracene	mg/kg	0.5 : 0.1 (Interlab)						
	Benz(a)anth	mg/kg	0.5 : 0.1 (Interlab)						
	Benzo(a)pyr	mg/kg	0.5 : 0.05 (Interlab)						
	Benzo(a)pyr	mg/kg	0.5						
	Benzo(a)pyr	mg/kg	0.5						
	Benzo(a)pyr	mg/kg	0.5						
	Benzo(b+j)fl	mg/kg	0.5						
	Benzo(g,h,i)	mg/kg	0.5 : 0.1 (Interlab)						
	Benzo(k)fluo	mg/kg	0.5						
	Chrysene	mg/kg	0.5 : 0.1 (Interlab)						
	Dibenz(a,h)a	mg/kg	0.5 : 0.1 (Interlab)						
	Fluoranther	mg/kg	0.5 : 0.1 (Interlab)						
	Fluorene	mg/kg	0.5 : 0.1 (Interlab)						
	Indeno(1,2,:	mg/kg	0.5 : 0.1 (Interlab)						
	Naphthalen	mg/kg	0.5 : 0.1 (Interlab)						
	Phenanthre	mg/kg	0.5 : 0.1 (Interlab)						
	Pyrene	mg/kg	0.5 : 0.1 (Interlab)						
	PAHs (Sum (	mg/kg	0.5 : 0.05 (Interlab)						
Organochlo	4,4-DDE	mg/kg	0.05 : 0.1 (Interlab)						
	a-BHC	mg/kg	0.05 : 0.1 (Interlab)						
	b-BHC	mg/kg	0.05 : 0.1 (Interlab)						
	d-BHC	mg/kg	0.05 : 0.1 (Interlab)						
	g-BHC (Lind	mg/kg	0.05 : 0.1 (Interlab)						
	Aldrin	mg/kg	0.05 : 0.1 (Interlab)						
	Dieldrin	mg/kg	0.05 : 0.1 (Interlab)						
	Aldrin + Die	mg/kg	0.05						
	Chlordane	mg/kg	0.1						
	DDT	mg/kg	0.05 : 0.1 (Interlab)						
	DDD	mg/kg	0.05 : 0.1 (Interlab)						
	DDT+DDE+D	mg/kg	0.05 : 0.1 (Interlab)						
	Endosulfan	mg/kg	0.05 : 0.1 (Interlab)						
	Endosulfan	mg/kg	0.05 : 0.1 (Interlab)						
	Endosulfan	mg/kg	0.05 : 0.1 (Interlab)						
	Endrin	mg/kg	0.05 : 0.1 (Interlab)						
	Endrin aldel	mg/kg	0.05 : 0.1 (Interlab)						
	Endrin ketol	mg/kg	0.05						
	Heptachlor	mg/kg	0.05 : 0.1 (Interlab)						
	Heptachlor	mg/kg	0.05 : 0.1 (Interlab)						
	Methoxychl	mg/kg	0.05 : 0.1 (Interlab)						
	Toxaphene	mg/kg	0.5						

Soil RPD Table
Project Number: 64669
Project Name: Bank St DSI April 2023

Field Duplicates (Soil)
Filter: Lab_Report_Numl

			Lab Report Number	981107	981107		981107	320926	
			Field ID	BH02 0.2-1.0	QAB03	**RPD**	BH02 0.2-1.0	QCB03	**RPD**
			Sampled Date/Time	14/04/2023	14/04/2023		14/04/2023	14/04/2023	
ine Pesticides									
Chlorinated	1,1,1,2-tetra	mg/kg	0.5 : 1 (Interlab)						
	1,1,1-trichlo	mg/kg	0.5 : 1 (Interlab)						
	1,1,2,2-tetra	mg/kg	0.5 : 1 (Interlab)						
	1,1,2-trichlo	mg/kg	0.5 : 1 (Interlab)						
	1,1-dichloro	mg/kg	0.5 : 1 (Interlab)						
	1,2,3-trichlo	mg/kg	0.5 : 1 (Interlab)						
	1,2-dichloro	mg/kg	0.5 : 1 (Interlab)						
	1,2-dichloro	mg/kg	0.5 : 1 (Interlab)						
	1,3-dichloro	mg/kg	0.5 : 1 (Interlab)						
	Bromochlor	mg/kg	0.5 : 1 (Interlab)						
	Carbon tetra	mg/kg	0.5 : 1 (Interlab)						
	Chloroethar	mg/kg	0.5 : 1 (Interlab)						
	Chlorometh	mg/kg	0.5 : 1 (Interlab)						
	Dichlorodifl	mg/kg	0.5 : 1 (Interlab)						
	Dichloromet	mg/kg	0.5						
	Trichloroflu	mg/kg	0.5 : 1 (Interlab)						
Alkanes									
Chlorinated	1,1-dichloro	mg/kg	0.5 : 1 (Interlab)						
	3-chloropro	mg/kg	0.5						
	4-chlorotolu	mg/kg	0.5 : 1 (Interlab)						
	cis-1,2-dichl	mg/kg	0.5 : 1 (Interlab)						
	cis-1,3-dichl	mg/kg	0.5 : 1 (Interlab)						
	Tetrachloro	mg/kg	0.5 : 1 (Interlab)						
	trans-1,2-di	mg/kg	0.5 : 1 (Interlab)						
	trans-1,3-di	mg/kg	0.5 : 1 (Interlab)						
	Trichloroeth	mg/kg	0.5 : 1 (Interlab)						
	Vinyl Chlori	mg/kg	0.5 : 1 (Interlab)						
Alkenes									
Solvents	Acetone	mg/kg	0.5						
Polychlorina	Arochlor 10	mg/kg	0.1						
	Arochlor 12	mg/kg	0.1						
	Arochlor 12	mg/kg	0.1						
	Arochlor 12	mg/kg	0.1						
	Arochlor 12	mg/kg	0.1						
	Arochlor 12	mg/kg	0.1						
	Arochlor 12	mg/kg	0.1						
	PCBs (Sum c	mg/kg	0.1						
ted Biphenyls									
PFAS	Perfluorobu	mg/kg	0.005 : 0.0002 (Interlab)						
	Perfluorope	mg/kg	0.005 : 0.0002 (Interlab)						
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)						
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)						
	Perfluorooc	mg/kg	0.005 : 0.0001 (Interlab)						
	Perfluorono	mg/kg	0.005 : 0.0001 (Interlab)						
	Perfluorode	mg/kg	0.005 : 0.0005 (Interlab)						
	Perfluoroun	mg/kg	0.005 : 0.0005 (Interlab)						
	Perfluorodo	mg/kg	0.005 : 0.0005 (Interlab)						
	Perfluorotri	mg/kg	0.005 : 0.0005 (Interlab)						
	Perfluorotet	mg/kg	0.005						
	Perfluorooc	mg/kg	0.005 : 0.001 (Interlab)						
	N-Methyl pe	mg/kg	0.005 : 0.001 (Interlab)						
	N-Ethyl perf	mg/kg	0.005 : 0.001 (Interlab)						
	N-Methylpe	mg/kg	0.005 : 0.001 (Interlab)						
	N-ethylperfl	mg/kg	0.005						
	N-methylpe	mg/kg	0.01 : 0.0002 (Interlab)						
	N-ethyl-perf	mg/kg	0.01 : 0.0002 (Interlab)						
	Perfluoropr	mg/kg	0.005						
	Perfluorobu	mg/kg	0.005 : 0.0001 (Interlab)						
	Perfluorope	mg/kg	0.005 : 0.0001 (Interlab)						
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)						
	Perfluorohe	mg/kg	0.005 : 0.0001 (Interlab)						
	Perfluorooc	mg/kg	0.005 : 0.0001 (Interlab)						
	Perfluorode	mg/kg	0.005 : 0.0002 (Interlab)						
	1H.1H.2H.2	mg/kg	0.005 : 0.0001 (Interlab)						
	1H.1H.2H.2	mg/kg	0.01 : 0.0001 (Interlab)						
	1H.1H.2H.2	mg/kg	0.005 : 0.0002 (Interlab)						
	1H.1H.2H.2	mg/kg	0.005 : 0.0002 (Interlab)						
	Sum of PFH	mg/kg	0.005 : 0.0001 (Interlab)						
	Sum of enH	mg/kg	0.005						
	Sum of US E	mg/kg	0.005 : 0.0001 (Interlab)						
	Sum of WA	mg/kg	0.01						
	Sum of PFA	mg/kg	0.05 : 0.0001 (Interlab)						
	Perfluorono	mg/kg	0.005						
MAH	1,2,4-trimet	mg/kg	0.5 : 1 (Interlab)						
	1,3,5-trimet	mg/kg	0.5 : 1 (Interlab)						
	Styrene	mg/kg	0.5 : 1 (Interlab)						
	Total MAH	mg/kg	0.5						
	Bromobenz	mg/kg	0.5 : 1 (Interlab)						
	Isopropylbe	mg/kg	0.5 : 1 (Interlab)						
Miscellaneo	1,2-dibromo	mg/kg	0.5 : 1 (Interlab)						
	Bromometh	mg/kg	0.5 : 1 (Interlab)						
	Dibromome	mg/kg	0.5 : 1 (Interlab)						
	Iodomethar	mg/kg	0.5						
	4-Methyl-2-	mg/kg	0.5						
	Methyl Ethy	mg/kg	0.5						
us Hydrocarbons									
Chlorinated	1,2-Dichloro	mg/kg	0.5 : 1 (Interlab)						
	1,3-dichloro	mg/kg	0.5 : 1 (Interlab)						
	1,4-dichloro	mg/kg	0.5 : 1 (Interlab)						
	Chlorobenze	mg/kg	0.5 : 1 (Interlab)						
	Hexachlorob	mg/kg	0.05 : 0.1 (Interlab)						
Benzenes									
Trihalometh	Dibromochl	mg/kg	0.5 : 1 (Interlab)						
	Chloroform	mg/kg	0.5 : 1 (Interlab)						
	Tribromome	mg/kg	0.5 : 1 (Interlab)						
	Bromodichl	mg/kg	0.5 : 1 (Interlab)						

Soil RPD Table
Project Number: 64669
Project Name: Bank St DSI April 2023

Field Duplicates (Soil)			**Lab Report Number**	981107	981107		981107	320926	
Filter: Lab_Report_Numl			**Field ID**	BH02 0.2-1.0	QAB03	**RPD**	BH02 0.2-1.0	QCB03	**RPD**
			Sampled Date/Time	14/04/2023	14/04/2023		14/04/2023	14/04/2023	
anes									
Organic Sulf	Carbon disu	mg/kg	0.5						
ur Compounds									
EPA VIC - IW	Chlorinated	mg/kg	0.5						
	Other Chlor	mg/kg	0.5						
	Organochlo	mg/kg	0.1						
	Other Organ	mg/kg	0.1						
/RG621									
Asbestos - E	Approximat	g		692	660	5	692		
	Mass ACM	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0
	Mass Asbes	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0
	Asbestos fro	% (w/w)		0.0E0	0.0E0	0	0.0E0	0.0E0	0
	Mass FA	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0
	Mass Asbes	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0
	Mass AF	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0
	Mass asbest	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0
	Asbestos fro	% (w/w)		0.0E0	0.0E0	0	0.0E0	0.0E0	0
	Mass Asbes	g		0.0E0	0.0E0	0	0.0E0	0.0E0	0
	ACM - Comı	Comment		1	1	0	1	1	0
	FA- Comme	Comment		1	1	0	1	1	0
	AF - Comme	Comment		1	1	0	1	1	0
	Organic Fibr	Comment		1	1	0	1	1	0
	Respirable F	Comment		1	1	0	1	1	0
	Synthetic Fi	Comment		1	1	0	1	1	0
	Asbestos Re	Comment		1	1	0	1	1	0
urofins									
Other	Moisture Co	%	1						

*RPDs have only been considered where a concentration is grea

**High RPDs are in bold (Acceptable RPDs for each EQL multiplie

***Interlab Duplicates are matched on a per compound basis as

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