

Appendix O

Detailed Site Investigation



Penrith Zone Substation

2235-2249 Castlereagh Road, Penrith, NSW

Ausconnex

Detailed Site Investigation

JBS&G 67597 | 527164-PEN-400-REP-ED-0013

23 December 2024





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

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

Caring for Country The Journey of JBS&G
Artist: Patrick Caruso, Eastern Arrernte



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Abbreviations

Term	Definition
ACM	Asbestos Containing Materials
AEC	Areas of Environmental Concern
AHD	Australian Height Datum
AMP	Asbestos Management Plan
ARCP	Asbestos Removal Control Plan
ASS	Acid Sulfate Soils
BESS	Battery Energy Storage System
bgl	below ground level
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CLM Act	NSW Contaminated Land Management Act 1997
COC	Chain of Custody
COPC	Contaminants of Potential Concern
CSM	Conceptual Site Model
DBYD	Dial Before You Dig
DP	Deposited Plan
DQI	Data Quality Indicators
DQO	Data Quality Objectives
DSI	Detailed Site Investigation
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
GSW	General Solid Waste
ha	Hectare
HILs	Health Investigation Levels
HSLs	Health Screening Levels
JBS&G	JBS&G Australia Pty Ltd
LFAI	Loose-fill Asbestos Insulation Register
LOR	Limit of Reporting
NATA	National Accreditation Testing Authority
NDD	Non-Destructive Drilling
NEPC	National Environment Protection Council
OCP	Organochlorine Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PARCCS	Precision, Accuracy, Representativeness, Comparability, Completeness and Sensitivity
PCB	Polychlorinated Biphenyls
PID	Photoionisation Detector
PFAS	Per- and Polyfluoroalkyl Substances
POEO Act	NSW Protection of the Environment Operations Act 1997

PSI	Preliminary Site Investigation
QA/QC	Quality Assurance/Quality Control
RPD	Relative Percentage Difference
SAQP	Sampling Analytical and Quality Plan
SWL	Standing Water Level
SWMS	Safe Work Method Statements
TRH	Total Recoverable Hydrocarbons
TS	Transmission Station
UCL	Upper Confidence Limit
VENM	Virgin Excavated Natural Material
VOCs	Volatile Organic Compounds
WHS	Work Health and Safety
ZS	Zone Substation

Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was commissioned by Ausconnex (the client) to conduct a Detailed Site Investigation (DSI) of the area located to the south and southeast of 2235-2249 Castlereagh Road, Penrith NSW (the site). The site is legally identified as part of Lot 5 on deposited plan (DP) 1017480 and occupies a combined area of approximately 7,860 m².

It is understood the site is being considered for the development of a Battery Energy Storage System (BESS) adjacent to an existing electrical zone substation (ZS). A combined PSI and DSI are required to characterise potential contamination at the site and to draw conclusions regarding the suitability of the site for the proposed development as a BESS or make recommendations to enable such conclusions for the site.

The scope of works comprised a review of available site history and background information, development and documentation of a conceptual site model (CSM), soil sampling at 12 locations, laboratory analysis program for representative samples for contaminants of potential concern (COPCs), and preparation of this DSI report documenting the methods and results of the investigation.

The objectives addressed as part of the investigation works are summarised in the table below:

Objectives	Results
Characterisation of the site's condition prior to the commencement of the lease, as required for a pre-condition report	It is considered there are no unacceptable soil contamination risks to the proposed development and use of the site, other than a low risk from visible ACM on/in surface soil at one location, and a site management strategy is required to address identified asbestos on/in soil at the site.
The site suitability for the current and/or proposed land use zoning (including its use as a BESS site), with verification of the absence of detectable per- and polyfluoroalkyl substances (PFAS) and asbestos	The site is suitable for the current and/or proposed land use zoning, including its use as the BESS site, subject to the management of isolated bonded ACM. No PFAS were detected during the current and historical investigation works. Isolated bonded asbestos fragments were identified on or in surface and near-surface fill material.
Confirmation of the absence of any gross environmental contamination liabilities that may unreasonably restrict the ability or increase the cost for Ausconnex to carry out the construction of the BESS and associated works	There are no gross environmental contamination liabilities that would unreasonably restrict the ability or increase the cost for Ausconnex to carry out the construction of the BESS and associated works, as identified during the investigations. Management of isolated bonded ACM is required, and an Unexpected Find Protocol is recommended for development works.

Based on the scope of work completed for this assessment and subject to the limitations in **Section 13**, the following recommendations are provided:

- An asbestos management plan (AMP) and asbestos register are required to manage identified asbestos in soil in accordance with Work Health and Safety (WHS) Regulations.
- The ACM on/in surface soil and ACM conduits identified should be removed by an appropriately licensed asbestos removal contractor, disposed offsite to a suitably licensed facility and validated by a competent person or licensed asbestos assessor (LAA) in accordance with SafeWork NSW requirements. It is recommended this be undertaken prior to site establishment for proposed works to mitigate potential risks to site workers.

- To manage potential contamination risks by ground disturbance activities associated with the future development of the site, JBS&G recommend the development of an Unexpected Find Protocol to guide the assessment and management of any unexpected finds (as relating to contamination).

1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was commissioned by Ausconnex (the client) to conduct a Detailed Site Investigation (DSI) of the area located to the south and southeast of 2235-2249 Castlereagh Road, Penrith NSW (the site). The site is legally identified as part of Lot 5 on deposited plan (DP) 1017480 and occupies a combined area of approximately 7,860 m². The location and layout of the site are shown in **Figures 1 and 2, Attachment A**, respectively.

It is understood the site is being considered for the development of a Battery Energy Storage System (BESS) adjacent to an existing electrical zone substation (ZS). A combined PSI and DSI are required to characterise potential contamination at the site and to draw conclusions regarding the suitability of the site for the proposed development as a BESS or make recommendations to enable such conclusions for the site.

The investigation undertaken was completed in general accordance with the guidelines approved by the NSW Environment Protection Authority including the *National Environment Protection (Assessment of Site Contamination) Measure 1999* as amended 2013 (ASC NEPM) by the National Environment Protection Council (NEPC, 2013¹).

1.2 Objectives

The following objectives were addressed as part of the investigation works:

- Characterisation of the site's condition prior to the commencement of the lease, as required for a pre-condition report;
- The site suitability for the current and/or proposed land use zoning (including its use as a BESS site), with verification of the absence of detectable per- and poly-fluoroalkyl substances (PFAS) and asbestos; and
- Confirmation of the absence of any gross environmental contamination liabilities that may unreasonably restrict the ability or increase the cost for Ausconnex to carry out the construction of the BESS and associated works.

1.3 Scope of Work

To achieve the objectives of the investigation, the following scope of work was conducted:

- A review of available site history, background information, and previous investigation report(s)² to identify potential areas of environmental concern (AECs) and associated contaminants of potential concern (COPCs), including:
 - o Environmental setting, referencing relevant published maps and data such as topography, hydrology, soils, geology, acid sulfate soils (ASS), hydrogeology, and land use;
 - o s10.7 (2 & 5) planning certificates provided by the client's representative source and issued by the Penrith Council;
 - o Current and historical land title records provided by the client;

¹ *National Environmental Protection (Assessment of Site Contamination) Measure 1999, as amended 2013*. National Environment Protection Council, 2013 (NEPC 2013)

² *Detailed Site Investigation – Penrith TS Battery Project – 2231 Castlereagh Road, Penrith NSW*, JBS&G Australia Pty Ltd, 31 October 2022, 63965-148062, Rev A (JBS&G 2022)

- o Records from EPA, State, and Federal government databases regarding heritage, EPA notifications, and contaminated land records;
 - o Review of local business directory records;
 - o Historical aerial photographs and imagery; and
 - o Licensed bores within a 500 m radius of the site.
- A detailed site inspection comprising a site walkover;
- Development and documentation of a conceptual site model (CSM) documenting potential contamination source-pathway-receptor linkages based on the available information;
- Soil sampling at 12 locations to characterise site soils within accessible areas for the COPCs;
- Laboratory analysis program for representative samples for COPCs, with subsequent data evaluation against NSW EPA endorsed guideline values; and
- Preparation of this DSI report documenting the methods and results of the investigation.

2. Site Condition and Surrounding Environment

2.1 Site Identification

The site location is shown on **Figure 1** and the site layout is shown on **Figure 2, Attachment A**. The site details are summarised in **Table 2-1** and described in detail in the following sections.

Table 2-1: Summary of Site Details

Lot/DP	Part of Lot 5 DP 1017480
Address	Southern and southeastern portions of 2235-2249 Castlereagh Road, Penrith NSW
Area	2,800 m ²
Local Government Authority	Penrith City Council
Coordinates	E: 286207, N: 6263479 (approximate centre of the site)
Site Zoning	E4 General Industrial (<i>Penrith Local Environmental Plan 2010</i>)
Current Land Use	Commercial/Industrial
Proposed Land Use	As a BESS (commercial/industrial)

2.2 Site Description

The site was inspected on 9 October 2024 and intrusive fieldwork was completed on 12 October 2024 by suitably qualified and experienced JBS&G Environmental Consultants. The site was observed to be an open grassed approximately “L” shaped area with some trees.

The site was adjacent to the east of the Penrith ZS. A service pit was observed in the northwestern portion of the site. In the southwestern portion of the site were three open trenches approximately 3 m in length, 0.3 m wide, and 0.4-0.5 m deep. In one of the trenches, some demolition-like fill material was observed (inclusions of ceramics and bricks).

2.3 Surrounding Land Use

Surrounding land uses at the time of the site investigation were identified as follows:

- **North:** Penrith ZS infrastructure and buildings, followed by Thornton Drive, various fast food restaurants, car dealerships, self-storage facilities and a BP service station with an adjacent car wash further north on Careen Avenue.
- **East:** A hardstand material storage yard with warehouses and the Museum of Fire, followed by Combewood Avenue and a medium-density residential area along Fernandez Lane and Lord Sheffield Crescent further east.
- **South:** Museum Drive, followed by an industrial/commercial complex comprising warehouses with adjacent hardstand carparks, including a dairy factory. Further south, the area is traversed by the T1 and Blue Mountains rail corridor.
- **West:** Castlereagh Road followed by an industrial/commercial precinct, including concrete mixing suppliers, automotive facilities such as mechanics, repair shops, brake specialists etc., a fast-food restaurant, and a pub.

2.4 Topography

A review of topographic information obtained from Google Earth Pro (Google Earth, 2018³) indicated that the site is relatively flat with an elevation of approximately 26 m Australian Height Datum (AHD).

The surrounding area in all directions is also flat; however, steep slopes are observed approximately 500 metres west of the site, leading down to Peach Tree Creek and further to the Nepean River, and to the northwest of the site, leading to Boundary Creek.

2.5 Geology and Soils

A review of the regional geological map Penrith 1:100 000 Geological Series Sheet (Department of Mines (DOM) 1966⁴) indicated that the site is underlain by Quaternary-aged alluvial terrace deposits, comprising silt, clay, fine- to medium-grained quartz-lithic sand, and polymictic gravel.

A review of the online tool, ESPADE 2.2, hosted by the NSW Office of Environment and Heritage (OEH 2024⁵), indicates the site is located within the Richmond Soil Landscape group. Richmond soils are found on quaternary terraces of the Nepean and Georges Rivers. Mainly flat (slopes < 1%) with splays and levees providing local relief up to 3 m. The landscape is characterised by tree cover, which is almost completely cleared now, and was formerly a low open woodland. The soil profile consists of poorly structured orange to red clay loams, clays, and sands, with texture generally increasing with depth. Ironstone nodules may be present, and Plastic Clays are commonly found in drainage lines. On terrace surfaces, deep acid non-Calcic Brown Soils, Red Earths and Red Podzolic Soils are prevalent, while Earthy Sands are typically observed along terrace edges. Localised flood hazards, localised seasonal waterlogging, and localised water erosion hazards on terrace edges are associated limitations of the landscape.

2.6 Hydrology

The closest water bodies to the site are a dam to the west, on the opposite side of Castlereagh Road and a dam to the northeast in Thornton Common which receives stormwater runoff via Thornton Canal to the east.

Peach Tree Creek is approximately 500 m to the west of the site, and Boundary Creek is approximately 500 m to the north of the site. Both ultimately discharge into the Nepean River (approximately 800 m west of the site).

Given the site is unsealed, precipitation within the site is expected to infiltrate the surface soils. Surface water may flow to the local stormwater catchment system and toward Peach Tree Creek and Boundary Creek during heavy rain events.

2.7 Hydrogeology

A search for registered groundwater bore information was undertaken and records are included in **Attachment C**. Review of this information indicated that there were two registered bores within a 500 m radius of the property. Both groundwater bores were for monitoring purposes, located 430 m and 470 m to the east of the site, respectively. The standing water level (SWL) was identified at 6.7 m and 6.4 m below ground level (m bgl) in gravel intervals.

Based on the reported geology and topography, the groundwater is expected to migrate northwest towards Peach Tree Creek and Boundary Creek, and further to the Nepean River and the Penrith Lakes.

³ Google Earth Pro, accessed 15 October 2024, (Google Earth, 2018)

⁴ Penrith 1:100 000 Geological Series Sheet SI 56-9. NSW Department of Mines, 1966 (DOM 1966)

⁵ ESPADE 2.2. NSW Office of Environment and Heritage, accessed 15 October 2024 (OEH 2024)

2.8 Acid Sulfate Soils

A review of the CSIRO Atlas of Australian Acid Sulfate Soils Data Source, included in **Attachment C**, identified the area of the property as a “low probability of occurrence, 6-70 % chance of occurrence”. Review of the Department of Land and Water Conservation (1997⁶) ‘Acid Sulfate Soil Risk Map 2nd Edition’ for Springwood/Riverstone indicates that the site is within an area classified as “no known occurrence of acid sulfate soil (ASS) materials”. This classification relates to sites where land management activities are not likely to be affected by ASS materials. With due consideration to the geological and soil characteristics, the elevation and the proposed development activities, specific management of acid sulfate conditions onsite is not required. Further, given the works are not proposed to include the disturbance of groundwater conditions underlying the site, no management of the potential for disturbance of known and/or suspected acid sulfate soil conditions beyond the site boundary is required.

2.9 Meteorology

A review of average climatic data for the Bureau of Meteorology monitoring location, Penrith Lakes AWS (Archery Centre⁷), the site is located within the following meteorological setting:

- Average minimum temperatures vary from 5.4°C in July to 18.6°C in January;
- Average maximum temperatures vary from 18.0°C in June to 30.8°C in January;
- The average annual rainfall is approximately 757.9 mm, with rainfall greater than 1 mm occurring on an average of 73.3 days per year; and
- Monthly rainfall varies from 29.7 mm in August to 118.8 mm in February with the wettest periods occurring on average between January and March.

⁶ ‘Acid Sulphate Soil Risk Map – Index, 1997 1:25 000 (NSW DLWC)

⁷ Commonwealth of Australia, 2013 Bureau of Meteorology, http://www.bom.gov.au/climate/averages/tables/cw_067113.shtml accessed 10 October 2024.

3. Site History Summary

3.1 Aerial Photographs

Aerial photographs from regular intervals between 1943 and 2024, sourced from NSW Spatial Services, were reviewed for the property (inclusive of the site area forming part of the southern and southeastern portions of the property) (**Attachment C**). A summary of the findings is provided in **Table 3-1** below.

Table 3-1: Summary of Historical Aerial Observations

Year	Observations
1943	Property: The property appeared to be vacant and covered by grass. A drainage channel appeared running through the approximate centre of the property (the western boundary of the site), which continues north and south of the site. A portion of a rural residential dwelling straddled the boundary in the southeastern corner. Surrounds: The surrounding area also appeared to be vacant. Sealed Castlereagh Road was observed west of the property, largely consistent with its current alignment. On the opposite side of Castlereagh Road, a body of water or a flooded area adjacent to the road was observed. Rural residential properties were present to the north and west of the property. To the south, several structures and warehouses were evident, and prominent linear features indicated the ongoing development of a railroad.
1949	Property: The property appeared similar to the previous aerial photograph. Surrounds: The area north of the property had been transformed into orchards with visible rows of tree plantations, while new warehouses and sheds were constructed to the east. The bodies of water on the opposite side of Castlereagh Road appeared to be separated into two smaller dams, with the majority of the formerly flooded area being used for agricultural/grazing purposes. To the south of the site, several structures and warehouses (currently used as a dairy factory), appeared to have been expanded, and additional structures had been built. The railroad to the south of the property seemed to still be under construction.
1955, 1956	Property: The rural residential dwelling to the southeast had been demolished and substantial earthworks had taken place within the footprint of the former residential dwelling and to the east of the site where construction had occurred. The material in the southeastern corner of the property appears consistent with materials spread on ground surfaces east and southeast associated with the Penrith Power Station, as described below. The drainage channel within the site has been filled in but remains visible to the north of the site. Surrounds: Directly to the east of the site, industrial or utility structures had been under construction, related to the Penrith Power Station with what appeared to be fuel tanks and smaller associated buildings. Significant ground disturbance was visible to the southeast and south of the site. A large amount of material likely ash was stockpiled outside the main power station structure to the southeast (which the present-day museum occupies), as well as on ground to the north of the power station, including parts of the site. The railroad running in the south appeared to be fully constructed, with multiple tracks visible, suggesting active use. The adjacent areas near the tracks showed signs of development, possibly for railway-related infrastructures or maintenance activities.
1961	Property: Penrith substation infrastructure with a switchyard and a substation facility building had been developed in the eastern and southern portions of the property, with two electrical towers located in the northwestern corner. Surrounds: A new rural residential dwelling emerged to the north of the property. To the east of the property, the Penrith Power Station had been constructed. The large ground disturbances to the southeast and south of the property remained but had become more organised. Additional industrial structures had been built to the south of the property around the present-day dairy factory. Castlereagh Road appeared to have been widened in the southwest. To the west of the property, on the opposite side of Castlereagh Road, a possible flooded area was observed once again. A concrete channel appeared in the drainage depression north of the site.

Year	Observations
1965	Property: The main structure in the central portion of the property appeared to have been expanded. A dirt access road appeared to traverse the western portion of the property. Surrounds: The structure to the northeast of the property had been demolished. Additional structures had been built in the south, around the dairy factory. The flooded area on the opposite side of Castlereagh Road had disappeared and had been converted into land used for agricultural or grazing purposes.
1970	Property: The dirt access road on the west had disappeared. Other than that, the property appeared largely unchanged since the previous aerial photograph. Surrounds: The newly constructed Coreen Avenue had been built to the north of the property, and ground disturbance appeared at the corner of Coreen Avenue and Castlereagh Road. The area to the north of the property was no longer used for orchards, as the rows of trees were no longer visible. The area adjacent to the railroad on the south underwent minor changes, with some structures being demolished and new structures having been built. While not evident from the aerial image, it is understood the power station was decommissioned in 1970⁸.
1978	Property: The ground surface of the substation, which had previously been covered with grass, now appeared to be a hardstand or gravel. Additional substation infrastructure had been constructed in the southeastern portion of the property. Surrounds: The northern dam on the opposite side of Castlereagh Road had disappeared, and the newly constructed and sealed Peachtree Road had been developed. The ground disturbance at the corner of Coreen Avenue and Castlereagh Road had been converted into a structure with an adjacent hardstand carpark. To the south and east of the property, some structures and sheds had been demolished.
1982	Property: The western section of the substation appeared to be surrounded by a row of trees. Other than that, the property appeared largely unchanged since the previous aerial photograph. Surrounds: Warehouses with adjacent hardstand car parks had been constructed along the northern side of Peachtree Road, and the north side of Coreen Avenue. Minor changes, such as the demolition and construction of sheds and small structures, were observed along the railroad to the south. New features in the former power station area were apparent to the east, and some of the structures were no longer visible. The area to the north of the site had been changed into a landscaped area.
1986	Property: A ground disturbance was visible in the central portion of the property. It is unclear what this might be, and this feature is not visible in the subsequent image. Surrounds: More warehouses with hardstand carparks had been built along Peachtree Road. Other than that, the surrounding area appeared largely unchanged since the previous photograph.
1991	Property: The ground disturbance in the central portion of the property was no longer visible—other than that, the property appeared largely unchanged since the previous aerial photograph. Surrounds: Newly built warehouses and structures appeared to the east of the property adjacent to the former power station fuel storage area. The dairy factory structures seemed to have been expanded, and new structures had also been built. More sheds were built along the railroad, south of the site.
1994	Property: Black burned or scorched area of irregular shape, possibly from a grass fire appeared in the northern portion of the property and extended further north. Surrounds: More new warehouses had been built around the dairy factory area. The area to the south of the railroad was converted into a hardstand carpark, and additional industrial buildings had been built along the railroad. The dam on the opposite side of Castlereagh Road appeared to have shrunk.

⁸ History in our own backyard - A brief look at Penrith Power Station, Museum of Fire, <https://www.museumoffire.net/single-post/history-in-our-own-backyard-a-brief-look-at-penrith-power-station>, accessed 19 December 2024.

Year	Observations
2002	Property: The row of trees had been partially cleared and new structures adjacent to the Penrith substation had been constructed in their place and further north. Black burned or scorched area was no longer visible. Surrounds: The area currently belonging to the dairy factory had been significantly rebuilt, featuring newly constructed warehouses and a carpark, with smaller buildings being demolished. The area between the structures, which had previously included patches of bare soil and grass, was now fully converted to hardstand. Former power station fuel tanks to the east of the site were no longer visible, leaving only their footprints on the ground.
2014	Property: The new Penrith substation infrastructure, buildings and hardstand carpark had been constructed adjacent to the west of the subject site area. The remaining trees had been cleared, and the area appeared to consist of bare soil. Surrounds: New large warehouses with adjacent carparks had been constructed to the north and northwest of the property, on the opposite side of the newly built Thornton Drive and Castlereagh Road. A hardstand carpark had been built on the opposite side Combewood Avenue. Some additional new structures appeared in the area currently belonging to the dairy factory. Furthermore, some warehouses to the west of the property, on the opposite side of Castlereagh Road, had been rebuilt and/or expanded.
2024	Property: The old infrastructure had been demolished in the eastern and southern portions of the property. The area now appeared grassed and some trees were planted. The site appeared in its current layout. Surrounds: New industrial/commercial structures had been built to the north and east of the property. Additionally, a new dam had been constructed to the northeast of the property.

3.2 Historical Land Title Records

A copy of the historical title documentation obtained from the previous report (JBS&G 2022⁹) for the site is provided in **Attachment D**.

The site was originally privately owned, as indicated by title records since 1881. The private landowner (esquire) was recorded from 1881 to 1955. The site was then acquired by the government entities The Electricity Commission of NSW from 1955 to 1993, then Epsilon Distribution Ministerial Holding Corporation from 1993 to present.

3.3 Section 10.7 (2 & 5) Planning Certificate

Section 10.7 (2) & (5) Planning Certificates for the site were issued by the Council (8 November 2024) and provided by the client (**Attachment D**). The review identified the following:

- The land is zoned Zone E4 General Industrial (*Penrith Local Environmental Plan 2010*).
- The land or part of the land is within the flood planning area and subject to flood-related development controls, however, flood-related development controls for land between the flood planning area and the probable maximum flood do not apply to the land or part of the land.
- The land is affected by the Asbestos Policy adopted by the Council.
- The land is not affected by any other policy adopted by the Council and any other public authority and notified to the Council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the Council that restricts the development of the land because of the

⁹ Detailed Site Investigation – Penrith TS Battery Project – 2231 Castlereagh Road, Penrith NSW, JBS&G Australia Pty Ltd, 31 October 2022, 63965-148062, Rev A (JBS&G 2022)

likelihood of landslip, bushfire, tidal inundation, subsidence, acid sulfate soils, contamination, aircraft noise, salinity, coastal hazards, sea level rise or another risk, other than flooding.

- Within the meaning of the *Contaminated Land Management Act 1997* (CLM Act):
 - o The land is not significantly contaminated land;
 - o The land is not subject to a management order;
 - o The land is not subject to an approved voluntary management proposal;
 - o The land is not subject to an ongoing maintenance order; and
 - o The land is not the subject of a site audit statement.
- The land does not have residential premises listed on the register of residential premises that contain or have contained loose-fill asbestos insulation.

3.4 EPA Searches

A search of the NSW EPA's database was undertaken for the property and immediate surroundings (**Attachment C**). The search comprised a review of the following:

- NSW EPA contaminated land public register of record of notices (under Section 58 of the CLM Act);
- NSW contaminated sites notified to the EPA (under Section 60 of the CLM Act);
- NSW EPA Protection of the *Environment Operations Act 1997* (POEO Act) public register of licences, applications and notices (maintained under Section 308 of the POEO Act); and
- EPA's public per- and poly-fluoroalkyl substances (PFAS) register.

The property has not been notified to the EPA under section 60 of the CLM Act with regards to contamination. The following premises in proximity to the site were notified to the EPA:

- BP Express Service Station located on the corner of Coreen Avenue and Castlereagh Road, Penrith (approximately 180 m to the north and downgradient of the property) was notified to the EPA and regulation under the CLM Act is not required;
- Caltex Penrith Service Station located at 153 Coreen Avenue, Penrith (approximately 270 m to the north and downgradient of the property) was notified to the EPA and regulation under CLM Act is not required; and
- Lowes Petroleum (former Mobil) Depot Penrith located at 174 Coreen Avenue, Penrith (approximately 300 m to the northeast and cross-gradient of the property) was notified to the EPA and regulation under CLM Act is not required.

The abovementioned properties are located some distance from the site and are not upgradient of the site, making it unlikely that they would impact the site or pose a contamination risk.

A review of the EPA's public contaminated land register did not identify any notices issued under Section 58 of the CLM Act for the property or surrounding premises.

A search of the EPA's public register under the POEO Act was undertaken. The search did not identify any prevention, clean-up or prohibition notices; and no transfer, suspension, surrender or revocation of an environment protection licence (EPL) for the property. In the surrounding area, the following have been identified:

- An EPL was issued to BDD Milk Pty Ltd located at 2257 – 2265 Castlereagh Road, Penrith (approximately 20 m to the southwest and cross-gradient of the property) for dairy processing;

- A prevention notice was issued to BDD Milk Pty Ltd located at 2257 – 2265 Castlereagh Road, Penrith (approximately 20 m to the southwest and cross-gradient of the property) for inappropriate storage of dairy products directly on top and next to stormwater drains near the waste storage area;
- An EPL was issued to Sydney Trains located approximately 140 m to the south cross-gradient of the site for railway systems activities. In 2021 Sydney Trains received a penalty notice for contravening the condition of the licence;
- An EPL was issued to BP Service Station on the corner of Coreen Avenue and Castlereagh Road, Penrith (approximately 180 m to the north and cross-gradient of the property) for utilising the container deposit scheme drop-off facility;
- An EPL was issued to Sydney Water Corporation located at Penrith Sewage Treatment System including the STP at Castlereagh Road, Penrith (approximately 450 m to the northeast and downgradient of the property) for sewage treatment processing by large plants;
- An EPL was issued to Boral Concrete located at 4 Peachtree Road, Penrith (approximately 150 m to the west and cross-gradient of the property) for concrete works. The licence is no longer in force;
- An EPL was issued to Gulf Western Premium Quality Lubricating Oils (Manufacturing) Pty Limited located at 1 Coombes Drive, Penrith (approximately 550 m to the northeast and cross-gradient of the property) for petroleum products and fuel production. The licence was surrendered in 2014; and
- EPLs were issued to Luhrmann Environment Management Pty Ltd, Robert Orchard, and Sydney Weed & Pest Management Pty Ltd, all located on waterways throughout NSW, approximately 430 m to the west and cross-gradient of the property, for the application of herbicides. The licences were surrendered in 2000.

A search of the EPA's PFAS register has identified that neither the property nor those in the immediate area are under investigation with regard to PFAS contamination.

3.5 Australian and State Heritage Registers

A search of the Australian and NSW Heritage database was undertaken, and records are included in **Attachment C**.

The search identified the following items in the NSW Heritage database:

- Edward Smith Headquarters Switchboard (1909), Shand Mason 7-inch Manual Fire Engine (1869), NSW Fire Brigades No. 10 Vehicle Number Plates, Ford 21W Fire Brigade Mobile Canteen (1942), Shand Mason Curricule Ladders (1898), and the Fire, Rescue NSW Heritage Fleet, Dennis Big 6 Fire Engine (1939), Ahrens Fox PS2 Fire Engine (1929) and Shand Mason Fire Engine (1891), all located at 1 Museum Drive, Penrith (approximately 65 – 105 m to the southeast of the property); and
- Penrith Railway Station group located at Great Western Railway, Penrith (approximately 185 m to the south of the property).

Located immediately southwest of the site was the Museum of Fire which contained heritage vehicles and is located on the grounds of the former Penrith Power Station. The museum building is within a former power station structure.

The search identified no items in the Australian Heritage list in the surrounding area.

3.6 Waste Management & Liquid Fuel Facilities

A search of waste facilities and liquid fuel facilities was conducted for the property and its immediate surroundings (**Attachment C**), which identified the following:

- Woolworth located at 27-55 Station Street, Penrith (approximately 260 m to the south and cross-gradient of the property). The facility is still operational and is utilised as a soft plastics drop-off;
- Vinnies located at Warehouse 3/137 Coreen Avenue, Penrith (approximately 300 m to the northeast and downgradient or cross-gradient of the property). The facility is still operational and is utilised as the container deposit scheme drop-off;
- BP service station located on the corner of Coreen Avenue and Castlereagh Road, Penrith (approximately 180 m to the north and cross-gradient of the property). The facility is still operational and is classified as a petrol station;
- Caltex service station located at 2195 Castlereagh Road, Penrith (approximately 40 m to the north and cross-gradient of the property). The facility was decommissioned in 2020 and was classified as a fuel depot; and
- Ampol service station located on the corner of 153 Coreen Avenue and Castlereagh Road (approximately 270 m to the north and cross-gradient of the property). The facility is still operational and is classified as a petrol station.

3.7 Business Directory Records

A search of historical business directories was conducted for the property and its immediate surroundings (**Attachment C**), which identified the following:

- Between 1950 and 1991, various manufacturing and commercial businesses were located in the Peachtree Road and Castlereagh Road industrial areas in Penrith. Activities in this area included air conditioning and refrigeration equipment manufacturing, laboratory apparatus production, wrought iron and steel fabrication, and kitchen installation services. Other services included motor panel beating and spray painting, mechanical engineering, furniture manufacturing, and glass tinting. The exact locations of these businesses are unknown; however, it is considered more than likely that they were situated in the industrial area to the west and north of the site, which has been present since the 1980s; and
- Between 1948 and 1993, motor garages & engineers and motor service stations were located 260 m to the south, 310 to the northwest, and 470 m to the northeast of the property.

The likelihood of these former properties, should they have been located cross-gradient or downgradient, being a potential off-site source of contamination is considered low.

3.8 NSW Fair Trading Loose Fill Asbestos Insulation Register

A search of the Fair-Trading NSW Loose-fill Asbestos Insulation Register (LFAI register¹⁰) for the property address indicates that structures previously situated within the property are not currently registered as being affected by the presence of LFAI.

3.9 Naturally Occurring Asbestos Map

A search of the NSW Resources and Geoscience Natural Occurring Asbestos database¹¹ for the property has indicated the site has no presence of naturally occurring asbestos.

⁷ <https://www.fairtrading.nsw.gov.au/loose-fill-asbestos-insulation-register> accessed 31 October 2024

¹¹ <https://trade.maps.arcgis.com/apps/PublicInformation/index.html?appid=87434b6ec7dd4aba8cb664d8e646fb06> accessed 31 October 2024

3.10 Dangerous Goods Records

JBS&G did not propose a Dangerous Goods search be completed for the site as it was not believed that it would reveal information that would alter the investigation method.

3.11 Integrity Assessment and Summary of Site History

Based on a review of historical reports, council information, aerial photographs, and other publicly available information, the site was used for agricultural purposes, likely before the start of early records in the 1940s. The site was subsequently developed as the Penrith substation infrastructure, including a switchyard and substation facility building, between 1956 and 1961. Historical imagery from 1955/1956 suggests that dark-coloured ash from the Penrith Power Station may have been spread across the southeastern portions of the site before its development as a switchyard. Additionally, a drainage channel running through the approximate centre of the property, near the western boundary, appears to have been filled. The Penrith substation infrastructure was demolished, and the soil was spread across the site area between 2014 and 2024, after which the area was grassed, and some trees were planted.

Additional documentation sourced online from the NSW Government Planning Portal¹² for development of land to the east of the site, indicates the power station was constructed in 1953 and was originally powered by coal-fired steam generators and then converted to run on oil in the 1960s until 1970 when it was converted to a switch yard, with powerhouse equipment dismantled in 1974. The Museum of Fire is reported to have begun operating in 1986. These periods are consistent with observations in aerial photographs, as described above.

The EPA searches indicated that no notices are present for the site, and it is not on the published list of NSW contaminated sites. Several properties listed for various items, including EPA notices, were some distance from the site and were considered unlikely to have impacted it. Service stations located to the north and east of the site are situated in an area that is relatively level with the site and given the distance from the site and inferred groundwater flow directions are considered to pose a low risk.

Based on the range of sources and the general consistency of the past records and aerial photographs, the assessment is considered to have an acceptable level of accuracy regarding the potentially contaminating activities that occurred at the site. These appear to relate predominantly to the use of the land for industrial (i.e., use of the site as an electrical transformer switchyard), and the possible introduction of imported fill materials, including power station ash to create site levels.

¹² *North Penrith Army Lands Subdivision and Infrastructure Stage 2b and Stage 2c Works Statement of Heritage Impact*, by Tanner Architects for Landcom, October 2012, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-5346%2120190228T230924.452%20GMT>

4. Review of Previous Site Investigations

4.1 West Sydney Energy Storage System Baseline Assessment (WSP 2022¹³)

The baseline assessment was required as a part of the lease agreement between Shell Energy and the site owner and was completed in June 2022. The scope of works completed as part of the baseline assessment included a desktop study to review the site environmental setting, history and environmental regulatory status.

The WSP baseline assessment referred to a previous investigation conducted by Golder/WSP at the site in 2021/2022 to assess the geotechnical conditions and understand the contamination status of the site prior to the construction of the proposed BESS. The investigation covered the area located in the southwestern portion of the current site boundaries. The scope of the Golder/WSP investigation included test pitting, borehole drilling, hand augering and non-destructive drilling (NDD) to prevent damage to underground services and identify legacy structures, reaching a maximum depth of 7 m below ground surface (m bgs). Sample locations are provided on **Figure 3, Attachment A**.

Subsurface conditions were generally, topsoil consisting of silt, sand and gravel to 0.5 m bgs, fill consisting of clayey silt or silty clay and sandy clay up to 4.0 m bgs, silty sandy gravel and sandy clayey gravel to 5 m bgs and clayey sand thereafter to the maximum investigation depth.

Soil samples were analysed for COPC, such as total recoverable hydrocarbons (TRH), total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, xylene (BTEXN), polycyclic aromatic hydrocarbons (PAHs), total phenols, organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), heavy metals, asbestos (presence/absence) and acid sulfate soils, and the results were assessed against NSW EPA-endorsed NEPC (2013) ASC NEPM investigation/screening levels for commercial/industrial land use. No detectable concentrations of TRHs, BTEXN, OCPs, PCBs, phenols or asbestos were identified in the soil samples. Concentrations of PAHs and metals were either not detected or were present at concentrations below the adopted criteria.

Zinc was identified in one sample, exceeding the adopted ecological criterion; however, this exceedance was not considered significant for the proposed site use.

During the Golder/WSP investigation, ACM conduits were exposed by NDD and observed just below the ground surface. The conduits appeared to be in good condition, showing minimal degradation. Three samples were taken from the immediate vicinity of the conduits, and the results confirmed the presence of asbestos. The conduits were believed to run throughout the site.

Acid sulfate soil (ASS) analysis was undertaken on selected samples, targeting natural soils to determine whether ASS was present within the site. Ten samples were analysed from depths of 1.5 m bgs to 6.5 m bgs. The SPOCAS laboratory analyses indicated that the majority of samples were not ASS with pH_{OX} >4. However, results from locations BH01 and BH03 at a depth of 2.5 m bgs exceeded the ASS action criteria set by ASSMAC of 0.03% sulfur, with results of 0.06 %S and 0.05 %S, respectively. JBS&G notes this is contra to the background information presented in the baseline, whereby WSP report that the site is in an area of no known ASS occurrence, consistent with the current investigation, and noting the Planning Certificate for the site does not identify ASS risks. Laboratory reports were not included in the copy of the baseline report provided for review, as such it was not possible to scrutinise the overall SPOCAS results, however it is considered unlikely the sulfur results reflect actual ASS conditions.

¹³ West Sydney Energy Storage System Baseline Assessment, prepared for Shell Energy, June 2022, WSP (WSP 2022)

During the Golder/WSP investigation, groundwater was encountered at depths of approximately 4.2 m bgs and 5.3 m bgs, though it had not been assessed, and groundwater conditions were unknown. An assessment of groundwater was recommended to evaluate potential risks and allow a comparison of concentrations of potential groundwater contaminants prior to and following the occupation of the site by Shell Energy, even though it was not likely that site occupants would come into contact with groundwater.

The Golder/WSP report and subsequently WSP baseline assessment recommended that an asbestos management plan (AMP) be prepared to provide guidance for the safe management and/or removal of non-friable asbestos within the fill material if required as part of the development. In case of removal works, an asbestos removal control plan (ARCP) was also suggested as a requirement.

4.2 Detailed Site Investigation (JBS&G 2022)

JBS&G completed a DSI for a portion of the site area in 2022 for Endeavour Energy. It is noted the site assessment boundary in the investigation included only the eastern portion of the site and did not extend to the south. Observations made and sample locations are provided on **Figure 3, Attachment A**. The purpose of the investigation was to assess the site for potential contamination prior to the lease of the site.

A detailed site inspection was conducted during the sampling event on 10 and 12 October 2022, and soil samples were collected from 15 locations excavated across the site. The site was identified as a rectangular area covered by grass and clover, along with several small trees. A stormwater pit was observed in the northern part of the site, draining to pipes running north-south and east-west. The northern, eastern and western site boundaries contained metal fences with barbed wire on the top, while the southern boundary was unfenced and opened into a larger area surrounding the Penrith Transmission Station (TS).

Soil samples were analysed for COPC, and the results were assessed against NSW EPA endorsed NEPC (2013) ASC NEPM investigation/screening levels for commercial/industrial land use.

Topsoil comprising sandy soil with organic matter (rootlets) was encountered to a maximum depth of between 0.1 and 0.2 m bgs. Fill material was located beneath the topsoil and consisted of light brown crushed sandstone, road base, brown gravelly sand, dark orange clayey sand and dark grey/blue ash. Trace anthropogenic inclusions, including porcelain, concrete, PVC, glass, plastic, tiles, rubber and metal reinforcing, were also identified in several test pits across the site. Natural material was observed at depths of 0.4 to 1.3 m bgs and comprised orange/brown sand and clayey sand.

The ash material identified in multiple test pits was loose and consistent with 'fly ash' from coal-fired power stations, suggesting this material may have derived from the former Penrith ZS, which was situated adjacent to the site. No elevated COPC concentrations were reported in soil or leachate samples collected from the ash.

An ACM fragment was identified at sample location TP15 (0.2-0.3 m) and returned positive for chrysotile and amosite asbestos. A fragment of an ACM pipe was taken at TP09 and returned positive for chrysotile, amosite, and crocidolite asbestos. Additionally, a small fragment of bonded ACM was found within the material from TP09 (0.2-0.3 m).

All laboratory analysis results were below adopted NEPC (2013) human health and ecological criteria for the proposed commercial/industrial (as a BESS) land use.

Based on the findings of the investigation, it was considered that there were no unacceptable soil contamination risks to the proposed development and use of the site. However, a site management strategy was suggested to address identified asbestos in soil at isolated locations, along with an AMP to manage the identified asbestos in accordance with Work Health and Safety (WHS) Regulations, applicable where the site is a workplace, until such time as the asbestos risks are removed.

5. Conceptual Site Model

5.1 Essential Elements of Conceptual Site Model

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, groundwater, vapours etc.).
- Human and ecological receptors.
- Potential and complete exposure pathways; and
- Any potential preferential pathways.

5.2 Known and Potential Sources of Contamination

Based on the history review and observations made during the JBS&G inspection of the site, areas of environmental concern have been identified and are presented in **Table 5-1**.

Table 5-1 Areas of Environmental Concern (AECs) and Contaminants of Potential Concern (COPC)

Area of Environmental Concern (AEC)	Primary Contaminants of Potential Concern (COPC)
Imported and/or reworked fill materials used to create site levels (comprising material of unknown composition and/or origin), including ash from former coal-fired Penrith Power Station to the southeast	Heavy metals (As, Cr, Cd, Cu, Pb, Hg, Ni, Zn), TRH, BTEX, PAHs, OCPs, PCBs and asbestos
Inappropriate demolition of former structures on the property	Heavy metals, PCBs, asbestos
Former agricultural use and application of fertilisers and pesticides	Heavy metals, OCPs.
Former industrial use of the site	TRH, BTEX, PAHs, heavy metals, OCPs, Per- and polyfluoroalkyl substances (PFAS), phenols and asbestos
Potential impacts associated with migration of contamination from hydrogeological upgradient/cross gradient properties, especially the former power station located approximately 150 m to the southeast of the site, service stations located approximately 200 m to the north of the site, and various manufacturing and car mechanic facilities to the west and north of the site.	Heavy metals, TRH, BTEX, PAH, OCP, PCB, phenols and PFAS

5.3 Potentially Contaminated Media

Potentially contaminated media comprise:

- Fill materials;
- Underlying natural soil;
- Groundwater; and
- Soil vapour

Each of the AECs and corresponding COPCs identified in **Table 5.1** have the potential to impact soil, surface water, groundwater and/or soil gas (where volatile constituents are identified) at the site.

Where fill materials are present to depth, or soils have been disturbed, there is the potential that environmental impact may be present at depths consistent with the depth of the disturbance. Based on a review of the background documentation, there is considered to be a moderate to high risk of fill material contamination being present at the Penrith ZS. Surface soils may be impacted by activities associated with former agricultural land use, such as the application of pesticides, former industrial land use, such as the operation of the site as an electrical transformer switchyard, and importation of fill to level the site for development.

The site previously operated as the infrastructure for the original layout of the substation, which has since been demolished. JBS&G completed an investigation of the eastern portion of the site, during which asbestos fragments were identified in near-surface soils (0.2-0.3m) at two locations. These fragments are likely associated with the former operation and redevelopment of the site. Additionally, during previous investigations, non-friable asbestos fragments and asbestos pipes were identified throughout the site.

Anthropogenic materials are commonly present in impacted fill materials and can serve as an indication of the depth of disturbance. Based on the potential leachability of contaminants within fill material/surface soils and the historical use of the site, vertical migration of the identified COPCs, with the exception of asbestos, from the fill materials/surface soils into the underlying natural soils may have occurred. As such, the natural site soils are a potentially contaminated medium.

With the exception of asbestos, each of the COPCs identified in **Table 5.1** for the site has the potential to migrate from shallow soils into groundwater. Relatively shallow groundwater (<10m) within alluvial sediments is anticipated beneath the site, with migration expected to occur northwest. This creates the potential for impacts from historical activities southeast and upgradient or cross-gradient of the site, such as those associated with the former power station. The risk of groundwater contamination from the service stations, located approximately 180 to 270 m to the north and cross-gradient of the site, is considered low. Based on the findings of previous investigations, the overall risk of groundwater contamination is low. The proposed soil investigation would be expected to identify evidence of soil contamination that may pose a risk to groundwater below the site, or for impacts to have migrated onto the site via groundwater from upgradient sources (e.g. the former power station).

Contaminants including TRH, BTEX, and naphthalene, as can be associated with fill material, also have the potential to result in soil vapour impacts. In the event that soil impacts from volatile organic compounds are identified, further consideration of the potential for soil vapour impacts may be necessary.

Based on the above, fill materials and natural soils at the site are considered as primary potentially impacted media due to historical site use and surrounding activities. The extent of the potential impact on natural soils will be dependent upon the size and severity of any overlying impact to fill materials, as well as the properties of the natural soils and groundwater conditions.

5.4 Potential for Migration from Site

Contaminants generally migrate from the site via a combination of windblown dust, 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
- Topography, geology, hydrology and hydrogeology.

The COPCs identified as part of the site history review and site inspection are generally in solid (e.g. asbestos, PAHs (e.g. from ash and metals), or liquid (e.g. TRH, BTEX, pesticides and PCBs). Dependent upon concentrations, there is the potential for volatile and semi-volatile TRH compound impacts to occur in a vapour form.

As the site is primarily surfaced with grass vegetation, the potential for windblown dust migration of contamination from the site is generally low.

The potential for contamination migration via surface water movement, infiltration of water and subsequent migration through the soil profile is considered moderate given the extent of exposed vegetated areas at the site.

Given the nature of the underlying soils (discussed in **Section 2.5**) migration of contamination via groundwater movement is considered to be a potential migration pathway, however, as discussed above the potential for groundwater contamination as a result of site activities or upgradient sources is considered low. As also discussed above, the potential for volatile contaminants at the site to be present and migrate in vapour form is also considered low.

5.5 Potential Exposure Pathways

Based on the above and the proposed site development activities, along with the low likelihood of deep excavations during the development and future use of the site, the potential exposure pathways are considered to include:

- Potential dermal and oral contact to impacted soils as present at shallow depths and/or accessible by future shallow excavations; and/or
- Potential inhalation of airborne asbestos fibres and/or impacted dust particles generated from exposed ground surfaces/excavations during site redevelopment activities and future use of the site as associated with inground disturbance.

Potential exposure pathways relating to groundwater would be limited to any deep excavations where groundwater may be intersected, noting the low risk of groundwater impact. Vapour inhalation risk is also considered to be low, given the low potential for vapour impacts.

5.6 Receptors

Potential receptors of environmental impact present within the site that need to be addressed with respect to the proposed development include:

- Future users of the non-paved areas of the site who may potentially be exposed to COPCs through direct contact with impacted surficial soils and/or inhalation of dusts/fibres/vapours associated with impacted soils; and/or

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

Due to the low risk of groundwater impact, future workers conducting deep excavations where groundwater may be intersected are considered to be at low risk. As per the *Sampling Analysis and Quality Plan* (SAQP, JBS&G 2024¹⁴), given the proposed development as the BESS, it is not considered that the future ecological receptors would potentially be exposed to COPCs due to the absence of landscaped areas on site.

5.7 Preferential Pathways

For the purpose of this assessment, preferential pathways have been defined as natural and/or man-made pathways that result in the preferential migration of COPC as either solid (sediments, dust, etc) or liquid (surface water and groundwater).

Preferential pathways include:

- Service trenches whereby water/vapour can migrate along more permeable zones where trenches exist or are established. Would only influence groundwater migration if deep enough to intersect groundwater; and
- Surface areas where surface soils are exposed by man-made activities. Limits migration to dust/fibres and sediment-laden runoff water.

¹⁴ L01: *Sampling Analysis and Quality Plan (SAQP) for 11 Proposed Battery Energy Storage Systems (BESS) Sites, NSW*, JBS&G Australia Pty Ltd, 13 November 2024, 67597-163130, Rev 1 (JBS&G 2024)

6. Sampling, Analysis and Quality Plan

6.1 Data Quality Objectives

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

6.1.1 State the Problem

It is understood that the client requires an assessment of the potential contamination risks to human health at the site, which draws conclusions regarding the suitability of the site for the proposed development as the BESS and/or makes recommendations to enable such conclusions.

An assessment including a visual inspection and soil sampling is required to determine if contamination is present at the site that may be potentially unacceptable for the proposed development from a human health perspective and to identify if contamination impacts are present and what management would be required during future development works.

6.1.2 Identify the Decision

Based on the decision-making process for assessing urban redevelopment sites detailed in EPA (2017¹⁵), the following decisions must be made:

- Are there any unacceptable risks to likely future on-site receptors?
- Are there any issues relating to the local area background soil concentrations that exceed appropriate soil criteria?
- Are there any impacts of chemical mixtures?
- Are there any aesthetic issues such as fly-tipping, ACM, stained or odorous soils etc?
- Is there any evidence of, or potential for, the migration of contaminants from the site?
- Is there evidence of migration of impacted media coming from an offsite source?
- Is a site management strategy required?

6.1.3 Identify Inputs to the Decision

Inputs identified to provide sufficient data to make the decisions nominated above include:

- Data from previous site investigations;
- Desktop review of historical and current site uses to identify areas of potential concern;
- Detailed site inspection/walkover;
- Physical observations and interpretation of potentially contaminated media through the collection of soil samples;
- Development of appropriate assessment criteria for evaluation of soil impacts;
- Laboratory analysis of soil samples of potentially contaminated media for COPC; and
- Confirmation that data generated by sampling and analysis are of 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 6.1.6**.

¹⁵ *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme, 3rd Edition*, NSW EPA, 2017 (EPA 2017)

6.1.4 Define the Study Boundaries

The study boundaries are limited to the site boundaries as described in **Section 2.1** and shown on **Figure 2, Attachment A**.

The vertical extent of the soil investigation was to a maximum depth of 1.9 m below ground surface (bgs) via test pitting.

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

6.1.5 Develop a Decision Rule

Analytical data for potentially contaminated media will be assessed against NSW EPA-endorsed criteria as identified in **Section 7**. The decision rules adopted to answer the decisions identified in **Section 6.1.2** are summarised in **Table 6-1**.

Table 6-1 Summary of Decision Rules

Decisions Required to be Made	Decision Rule
1. Are there any unacceptable risks to on-site future receptors?	Analytical data will be compared against EPA endorsed criteria. Statistical analysis of the data will be completed, where necessary, in accordance with relevant guidance documents, as appropriate, to facilitate the decisions. The criteria in Section 6 were adopted with respect to soil. Either: the reported concentrations were all 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 is No. If the criteria were not satisfied, the answer to the decision is Yes.
2. Are there any issues relating to the local area background soil concentrations that exceed appropriate soil criteria?	If COPC concentrations in soils exceeded published background concentrations (NEPC 2013) guidelines, the answer to the decision is Yes. Otherwise, the answer to the decision is No.
3. Are there any impacts of chemical mixtures?	Was there more than one group of contaminants present which increase the risk of harm? If there was, the decision is Yes. Otherwise, the decision is No.
3. Are there any aesthetic issues such as fly-tipping, ACM, stained or odorous soils etc?	Based on observations during site inspections and intrusive investigation into soils, bunds and/or stockpiles, a determination will be made if aesthetic issues may be apparent. Aesthetic issues may include waste, construction/demolition rubble, ACM and stained or odorous soils. If aesthetic impacts are identified during the investigation works, the answer to the decision is Yes. Otherwise, the answer to the decision is No.
4. Is there any evidence of, or potential for, the migration of contaminants from the site?	Based on assessment results, is there any evidence of, or the potential for, migration of unacceptable contaminant concentrations to migrate from the site? If there is, the answer to the decisions is Yes.

Decisions Required to be Made	Decision Rule
	Otherwise, the answer to the decision is No .
5. Is there evidence of migration of impacted media coming from an offsite source?	Based on assessment results, including consideration of nearby land uses, is there evidence of migration of contaminants coming from an offsite source? If there is, the answer to the decisions is Yes . Otherwise, the answer to the decision is No .
6. Is a site management strategy required?	Is the answer to any of the above decisions Yes ? If yes, a site management strategy is required. If no, a site management strategy is not required.

6.1.6 Specific Limits on Decision Errors

This step is to establish the decision maker's tolerable limits on decision errors, which are used to establish performance goals for limiting uncertainty in the data. Data generated during this project 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, NEPC (2013), appropriate indicators of data quality (DQIs used to assess quality assurance / quality control) and standard JBS&G procedures for field sampling and handling.

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

The DQIs and data assessment criteria are summarised in **Table 6-2**.

- **Precision** – measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD) of duplicate samples.
- **Accuracy** – measures the bias in a measurement system. The accuracy of the laboratory data that are generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- **Representativeness** – expresses the degree to 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, and 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. The completeness goal is set at there being sufficient valid data generated during the study.
- **Sensitivity** – expresses the appropriateness of the chosen field and laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted site assessment criteria.

Table 6-2 Summary of Quality Assurance / Quality Control Program

Data Quality Indicators	Frequency	Data Quality Criteria
Precision		
Blind duplicates (intra laboratory)	1 / 20 samples	<50% RPD
Blind duplicates (inter laboratory)	1 / 20 samples	<50% RPD
Laboratory Duplicates	1 / 20 samples	<50% RPD
Accuracy		
Surrogate spikes	All organic samples	PFAS: 50-150% Other: 70-130%
Laboratory control samples	1 per lab batch	PFAS: 50-150% Other: 70-130%
Matrix spikes	1 per lab batch	70-130%
Representativeness		
Sampling appropriate for media and analytes	All samples	-
Samples extracted and analysed within holding times.	-	organics (14 days), inorganics (6 months)
Trip spike	1 per sampling event	70-130% recovery
Trip blank	1 per sampling event	<LOR
Field Blank	1 per laboratory batch	<LOR
Comparability		
Standard operating procedures for sample collection & handling	All Samples	All samples
Standard analytical methods used for all analyses	All Samples	All samples
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	-
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 Analytes	All limits of reporting were less than the adopted site assessment criteria.

If any of the DQIs are not met, further assessment may be necessary to determine whether the non-conformance significantly affected the usefulness of the data. Corrective actions might include requesting further information from samplers and/or analytical laboratories, downgrading of the quality of the data or alternatively, re-collection of the data.

6.2 Optimise the Design of Obtaining Data

Various strategies for developing a statistically based sampling plan are identified in the NSW *Sampling Design Part 1 – Application* (EPA, 2022¹⁶), including judgemental, random, systematic and stratified sampling patterns.

The site occupies approximately 7,900 m² which would require a minimum of 19 sampling locations. Given that JBS&G has previously completed 15 test pit locations within a portion of the site area, it is considered that this data can be relied upon to supplement the current investigation, and the combined sampling densities would then meet the recommended number of sampling locations. The proposed sampling locations and the rationale for those locations were provided in the JBS&G (2024) SAQP.

As part of this investigation, intrusive soil sampling was completed on a targeted basis, infilling site coverage from the previous investigation. A total of 12 sampling locations (P_TP1 – P_TP12) were completed as presented in **Figure 3, Attachment A**.

6.3 Soil Sampling Methodology

6.3.1 General

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

- A detailed site inspection conducted by a qualified JBS&G environmental consultant trained and experienced in the identification of potential sources of land contamination to assist in sample location placement (see **Section 2.2** and **Photographic Log in Attachment B**);
- Development of site-specific Safe Work Method Statements (SWMS);
- Completion of a Before You Dig Australia (BYDA) search; and
- Clearance of sample locations via a professionally accredited service locator

6.3.2 Soil Investigation Program and Methodology

Soil sampling was completed via backhoe to excavate test pits to a maximum depth of 1.9 m bgs under the supervision of an experienced JBS&G environmental consultant. Soil samples were collected from the near-surface (0 to 0.3 m bgs), 0.5 m bgs, 1 m bgs and then 1 m increments thereafter.

Visual inspection of the spoil was undertaken at each location for the presence of discolouration or other indications of potentially contaminated materials. Soil samples were screened for potential volatile organic compounds (VOCs) using a calibrated portable photo-ionisation detector (PID). During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indicators of contamination were noted. Test pits were reinstated using the excavated material, and nominally compacted level with the surrounding surface.

Soil samples were collected with a new pair of disposable nitrile gloves for each sample. Disturbance of the soil sample was minimised where possible during sample collection and placement into laboratory-supplied sample jars and bags to reduce the potential release of volatile organic contaminants.

Soil samples destined for laboratory analysis were immediately transferred to laboratory-supplied sample jars with a Teflon-lined screw closure (or PFAS-free laboratory-supplied containers for PFAS analytical samples), or zip-lock sealed bags. The sample containers were then placed in an ice-chilled esky for sample preservation prior to and during delivery to the testing laboratory. For asbestos in soil samples, bags were utilised to collect 500 mL soil samples for asbestos analysis consistent with NEPC (2013). A chain-of-custody (COC) form was completed and forwarded with the samples to the testing laboratory.

¹⁶ *Sampling Design Part 1 Applications – Contaminated Land Guidelines*. NSW Environment Protection Authority 2022 (EPA 2022)

Not all samples collected were analysed. Based upon field observations (see **Attachment F**), selected samples were analysed in accordance with the laboratory schedule provided in **Table 6.3**. However, all samples remain at the primary laboratory for a period of two months. This allows for future analysis to be completed in the event that further information is required to characterise site conditions, provided that proposed analytes remain within analytical holding times.

6.3.3 Decontamination and Calibration

Soil samples were collected directly from the excavator bucket or the overburden using a new pair of nitrile gloves for each sample. Care was taken to ensure that soils did not come into contact with clothing, plastic food wrappers or other items with the potential to contain PFAS. The PID was calibrated in the field prior to use (see **Attachment G**).

6.3.4 Duplicate and Triplicate Sample Preparation

At selected sample locations, sufficient soil was collected to provide primary, blind (intra-laboratory) duplicate and split (inter-laboratory) duplicate (triplicate) samples using the sampling methodology outlined above.

The collected samples were divided into three samples with minimal disturbance to reduce the potential for loss of volatiles and placed in three clean glass jars, sample bags or 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.

6.4 Laboratory Analysis

JBS&G contracted Eurofins (primary laboratory) and Envirolab (secondary laboratory) for all laboratory analysis of samples. Both laboratories are National Association of Testing Authorities (NATA) registered for the required analyses. In addition, the laboratories are required to meet JBS&G's internal QA/QC requirements. The completed analysis schedule is summarised in **Table 6-3**.

Table 6-3 Summary of Investigation Program and Laboratory Analysis Schedule

Sample Type	No of Sampling Locations	Analyses (exc. QA/QC)
Soil	12 target-based sample locations	Heavy Metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn) - 15 samples
		PAHs - 15 samples
		TRH - 15 samples
		BTEX - 15 samples
		Phenols - 15 samples
		OCPs/PCBs - 15 samples
		PFAS - 10 samples
		Asbestos (500 mL per NEPM) - 15 samples

In addition to the above analyses, for QA/QC purposes field duplicates and triplicates were analysed at a rate of 1/20 primary soil samples. A single trip spike and single trip blank accompanied each soil sampling event.

7. Assessment Criteria

7.1 Regulatory Guidelines

Development of site assessment criteria and the associated scope of the 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 Consultants Reporting on Contaminated Sites*, NSW EPA, 2020 (EPA 2020);
- *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme*, 3rd Edition, NSW EPA, 2017 (EPA 2017);
- *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); and
- *Waste Classification Guidelines, Part 1: Classifying Waste*, November 2014, NSW EPA (EPA 2014).

7.2 Soil Assessment Criteria Selection

As per the decision process for the assessment of urban development sites (EPA 2017), a set of health assessment thresholds derived from NEPC (2013) was used for the evaluation of site contamination data collected for this assessment. Given the proposed land use as BESS, the site was compared to the following guidelines:

- Health Investigation Levels (HILs) for commercial / industrial (HIL-D) land use scenarios;
- Soil Health Screening Levels (HSLs) for Vapour Intrusion, commercial / industrial (HSL-D) land use scenarios;
- HSLs for asbestos levels in soil for commercial / industrial land use scenarios (NEPC 2013);
- Management limits for petroleum hydrocarbons for commercial / industrial land use scenarios. Following the NEPM guidance, Management limits are considered as potential risks to underground services; and
- HEPA NEMP 2.0 Human Health Screening Values and Ecological direct and in-direct exposure for commercial / industrial (HSL-D) land use scenarios were applied for PFAS compounds.

The results of the asbestos analysis were assessed in general accordance with NEPC (2013) guidance.

Where there were no NSW EPA-endorsed thresholds for an individual contaminant compound(s) the laboratory LOR was adopted as an initial screening value for the purposes of this assessment.

Assessment of ecological criteria was not conducted as the site is proposed to be developed into a BESS and is not expected to contain significant landscaping or any sensitive ecological receptors.

The adopted soil assessment criteria are presented in the results summary tables included in **Attachment H**.

Preliminary Waste Classification

Soil results will be assessed against the criteria presented in the NSW EPA (2014) *Waste Classification Guidelines Part 1: Classifying Waste* to provide a preliminary waste classification for site soils, noting waste classification is only required for surplus soils and should be confirmed prior to removal.

Aesthetics

EPA (2017) and NEPC (2013) require consideration of aesthetic issues for all land uses. These can include staining, odours, visible ACM, and substantial anthropogenic materials. Consideration will be given to NEPC's (2013) guidance on aesthetics in the context of the proposed land uses.

8. Quality Assurance / Quality Control

The QA/QC results for samples collected at the site are summarised and discussed in **Attachment J**. Detailed QA/QC results are included in the laboratory reports (**Attachment I**).

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

The NATA-certified laboratory results documentation (**Attachment I**) indicates that the project laboratory was generally achieving levels of performance within its recommended control limits during the period when the samples of this program were analysed.

On the basis of the results of the field and laboratory QA/QC program, the soil data is of an acceptable quality upon which to draw conclusions regarding the environmental condition of the site.

9. Investigation Results

9.1 Soil Field Observations

Soil sampling was conducted on 12 November at the sample locations shown on **Figure 4, Attachment A**. Test pit logs are included in **Attachment F** and a photographic log is presented in **Attachment B**. A summary of soil conditions present at the site is provided as follows. A total of 12 test pits advanced via backhoe (P_TP01 – P_TP12) were used for the purposes of soil sampling.

The ground surface was generally covered with sparse grass. Fill materials were observed at depths that varied from the surface (or directly below the grass) to a maximum depth of 1.4 m bgs. It is noted that all test pits terminated in natural soil.

Fill materials were observed to comprise grey silty gravelly sand topsoil across the whole site with various fill beneath, including gravelly/silty/clayey sand (brown/light brown/grey/yellow, light grey, brown/red), gravelly/sandy/silty clay (brown/grey/white), silty clay (dark grey, black), sandy gravel (grey), sand (dark brown/dark grey/black), with inclusions of ironstone gravels, roots, rootlets, grass, sticks, cobbles. Trace anthropogenic inclusions of tiles, plastic, ash, metal, terracotta, bricks, glass, timber, and fabric were identified in a number of test pits across the site. A layer of ash was identified at P_TP01 and P_TP07. Geofabric material was observed at locations P_TP1, P_TP02, P_TP03, P_TP04, P_TP08, P_TP09, P_TP10, P_TP11, and P_TP12 between 0.2 to 0.4 m bgs.

The ash material identified in multiple test pits was loose and consistent with ‘fly ash’ from coal-fired power stations, suggesting this material may have derived from the former Penrith Power Station, which was situated adjacent to the site, see **Attachment C**, Historical Aerial 1955/1956. The historical aerial photograph shows dark materials stockpiled and spread around the former power station, including the southeastern corner of the site. It is noted that generally the ash layer is spatially consistent with the historically filled drainage line. In this investigation, the ash layer was observed in locations P_TP01 and P_TP07 which builds on the JBS&G (2022) investigation by identifying additional locations with an ash layer and are also located within the former drainage channel. Where observed, the ash was present immediately over natural soil and was overlain by other fill materials.

Natural soils were observed directly underlying fill materials and generally comprised brown, dark grey, brown/red sandy clay, brown/grey clay, and brown/grey/red silty/clayey sand.

One bonded fragment of ACM was identified in test pit P_TP09 at the topsoil (0 to 0.1 m bgs). No odours or staining were observed throughout the soil profile at any of the investigation locations. PID readings (maximum 4.1 ppm) from sampled soils indicated no significant sources of hydrocarbon/VOC contamination existing within site soils. Further, no indicators of potential acid sulfate soils were observed during intrusive works at the site.

9.2 Soil Laboratory Results

Representative soil samples were collected across the site (**Figure 4, Attachment A**) and were analysed for a range of COPCs. Detailed laboratory reports and chain of custody documentation are provided in **Attachment I**. The laboratory results are presented in **Table A, Attachment H** and summarised in **Table 9-1**.

Table 9-1 Summarised soil laboratory results

Contaminant group	Number of samples analysed	Number of Human Health exceedances	Locations of exceedances
Heavy Metals	15	None	N/A
TRH/BTEX	15	None	N/A

PAH	15	None	N/A
OCPs/PCBs	15	None	N/A
Phenols	15	None	N/A
PFAS	10	None	N/A
Asbestos	15	One fragment of ACM in the topsoil (0-0.1 m bgs)	P_TP09

A singular bonded ACM fragment was identified at sample location P_TP09 (0.0-0.1 m) and returned positive for chrysotile asbestos. No other asbestos was detected on site surfaces or within advanced test pits.

9.3 Preliminary Waste Classification

Most concentrations of COPCs in the soil reported below the General Solid Waste (GSW) Contaminant Threshold (CT1) criteria as provided in NSW EPA (2014) *Waste Classification Guidelines Part 1, Classifying Waste (Table B, Attachment H)*. The concentration of lead was above the GSW CT1 (100 mg/kg) at P_TP5_1.0-1.1 (130 mg/kg). Consequently, 95% UCL statistical analysis was completed for the reported lead concentrations, and the calculated mean concentration of 52 mg/kg fell below the lead CT1 criterion. The UCL calculation is included in **Attachment K**.

Preliminary results indicate that should topsoil require off-site disposal it would be classified as GSW (non-putrescible) and could be recyclable (being below CT1 criteria), except where asbestos is present. It is noted samples of the ash material where encountered did not indicate elevated COPC concentrations above GSW CT1 criteria.

Natural undisturbed soils are able to be classified as Virgin Excavated Natural Material (VENM) if surplus to site requirements.

Locations containing ACM would be required to be disposed of as Special (Asbestos) GSW.

Soils need only be classified for disposal should they be surplus and require removal from the site.

10. Site Characterisation

Section 6.1.5 provides decision rules applicable to determine if contamination is present at the site that may be potentially unacceptable for permissible uses from a health perspective. Discussion of each of the decision rules is provided in the following sections.

10.1 Are there any unacceptable risks to likely onsite receptors?

No gross or widespread contamination has been identified that would preclude the site from being suitable for the proposed development as the BESS.

Significant findings from the investigation included:

- A bonded asbestos fragment identified in the topsoil (0-0.1 m bgs) within test pit P_TP09 during the current investigation, which exceeds the NEPC (2013) HSL relating to visible asbestos in surface soil whereby there is a potential risk should the ACM be disturbed such that respirable fibres might be released and become airborne, which is considered a low risk noting the non-friable nature of the ACM;
- Bonded ACM fragments were observed in subsurface soil (0.2-0.3 m bgs) at TP09 and TP15, below the adopted health-based site assessment criterion for commercial/industrial land use during the previous investigation (JBS&G 2022); and
- During the WSP 2022 investigation, ACM conduits were exposed by NDD and was reported by WSP as observed just below the ground surface. The conduits appeared to be in good condition.

Based on the current zoning and future use of the site for commercial/industrial purposes, the findings identified are not considered to represent an unacceptable health risk subject to appropriate management of identified ACM on or in surface soil.

The management of asbestos will be required during redevelopment works.

10.2 Are there any issues relating to background soil concentrations that exceed appropriate site soil criteria?

There were no issues identified relating to background soil contamination presenting an unacceptable risk to human receptors at the site.

10.3 Are there any impacts on chemical mixtures?

There were no potential chemical mixtures identified during the investigation that may increase the risk of harm at the site or require special management.

10.4 Are there any aesthetic issues at the site?

Trace anthropogenic inclusions were observed in the fill material throughout the site. The deposits of ash identified at the site is not considered to pose an aesthetic issue following NEPC (2013) guidance given they are well-covered with soil (and noting the presence of geofabric above most instances of ash) and the site's commercial/industrial land use.

ACM conduits and bonded asbestos fragments identified on or in surface soil and in near-surface fill material are also considered to present an aesthetic issue.

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

The potential for migration of contaminants from the site is low based on the absence of any significant contamination identified in the soil.

10.6 Is a site management strategy required?

Based on the results of the investigation, it is considered that a long term contamination management strategy is not required for the proposed development and use of the site, however, isolated bonded asbestos fragments and ACM conduits were identified on or in surface soils or in near-surface fill material, which pose a potential health risk (surface soil) or aesthetic concern (near surface soil). An asbestos management plan (AMP) and asbestos register are required to manage identified asbestos in accordance with Work Health and Safety (WHS) Regulations. Removal of surface ACM and ACM conduits is recommended prior to development works to mitigate potential risks to workers during site establishment works.

To manage potential contamination risks by ground disturbance activities associated with the future development of the site, JBS&G recommend the development of an Unexpected Find Protocol to guide the assessment and management of any unexpected finds (as relating to contamination).

11. Discussion of Results

The objectives addressed as part of the investigation works are summarised in **Table 11-1**.

Table 11-1 Discussion of the results

Objectives	Results
Characterisation of the site's condition prior to the commencement of the lease, as required for a pre-condition report	Based on the results of the investigation, it is considered there are no unacceptable soil contamination risks to the proposed development and use of the site, other than a low risk from visible ACM on/in surface soil at one location, and a site management strategy is required to address identified asbestos on/in soil at the site.
The site suitability for the current and/or proposed land use zoning (including its use as a BESS site), with verification of the absence of detectable per and polyfluoroalkyl substances (PFAS) and asbestos	The site is suitable for the current and/or proposed land use zoning, including its use as the BESS site, subject to management of isolated bonded ACM. No PFAS were detected during the current and historical investigation works. Isolated bonded asbestos fragments were identified on or in surface and near-surface fill material.
Confirmation of the absence of any gross environmental contamination liabilities that may unreasonably restrict the ability or increase the cost for Ausconnex to carry out the construction of the BESS and associated works	There are no gross environmental contamination liabilities that would unreasonably restrict the ability or increase the cost for Ausconnex to carry out the construction of the BESS and associated works, as identified during the investigations. Management of isolated bonded ACM is required, and an Unexpected Find Protocol is recommended for development works.

12. Conclusions and Recommendations

12.1 Conclusions

Based on the findings of this assessment and subject to the limitations in **Section 13**, the following conclusions have been made for each area:

- Potentially contaminating activities were identified, including historical use of land for agricultural purposes (grazing), possible historic introduction of fill including ash to create site levels and use of the site for industrial purposes (as a substation with a switchyard and a substation facility building);
- Site surfaces comprised of grass cover. Fill materials were observed at depths that varied from the surface (or directly below the grass) to a maximum depth of 1.4 m bgs and comprised clayey sand, gravelly/sandy/silty clay, silty clay, sandy gravel, sand and black ash. Trace anthropogenic inclusions of tiles, plastic, ash, metal, terracotta, bricks, glass, timber, and fabric were identified in a number of test pits across the site. A layer of ash was identified at some locations.
- The ash material identified in multiple test pits was loose and consistent with ‘fly ash’ from coal-fired power stations, suggesting this material may have derived from the former Penrith Power Station, which was situated adjacent to the site. No elevated COPC concentrations were reported in soil samples collected from the ash, and the ash does not pose an aesthetic concern for the development and use of the site given it is well-covered;
- A single bonded ACM fragment was identified in the topsoil (0–0.1 m bgs) within test pit P_TP09 during the current investigation. Additionally, during previous investigations, bonded ACM fragments were observed in subsurface soil (0.2–0.3 m bgs) at TP09 and TP15 (JBS&G, 2022). ACM conduits were exposed by NDD and observed just below the ground surface during the WSP 2022 investigation.
- All laboratory analysis results were below adopted NEPC (2013) human health criteria for the proposed commercial/industrial (as the BESS) land use;
- Comparison of the data to waste classification criteria indicates that should topsoil soil require offsite disposal it would be classified as GSW (non-putrescible) except where asbestos is present, and undisturbed natural soils are likely classifiable as VENM, noting waste classification should be confirmed for any surplus soils prior to removal, which may require further sampling and analysis consistent with EPA guidelines; and
- Based on the results of the investigation, it is considered there are no unacceptable soil contamination risks to the proposed development and use of the site, however, a site management strategy is required to address identified asbestos in soil at isolated locations.

12.2 Recommendations

Based on the scope of work completed for this assessment and subject to the limitations in **Section 13**, the following recommendations are provided:

- An asbestos management plan (AMP) and asbestos register are required to manage identified asbestos in soil in accordance with WHS Regulations.
- The ACM on/in surface soil and ACM conduits identified should be removed by an appropriately licensed asbestos removal contractor, disposed offsite to a suitably licensed facility and validated by a competent person or licensed asbestos assessor in accordance with SafeWork NSW requirements. It is recommended this be undertaken prior to site establishment for proposed works to mitigate potential risks to site workers.

- To manage potential contamination risks by ground disturbance activities associated with the future development of the site, JBS&G recommend the development of an Unexpected Find Protocol to guide the assessment and management of any unexpected finds (as relating to contamination).

13. Limitations

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

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

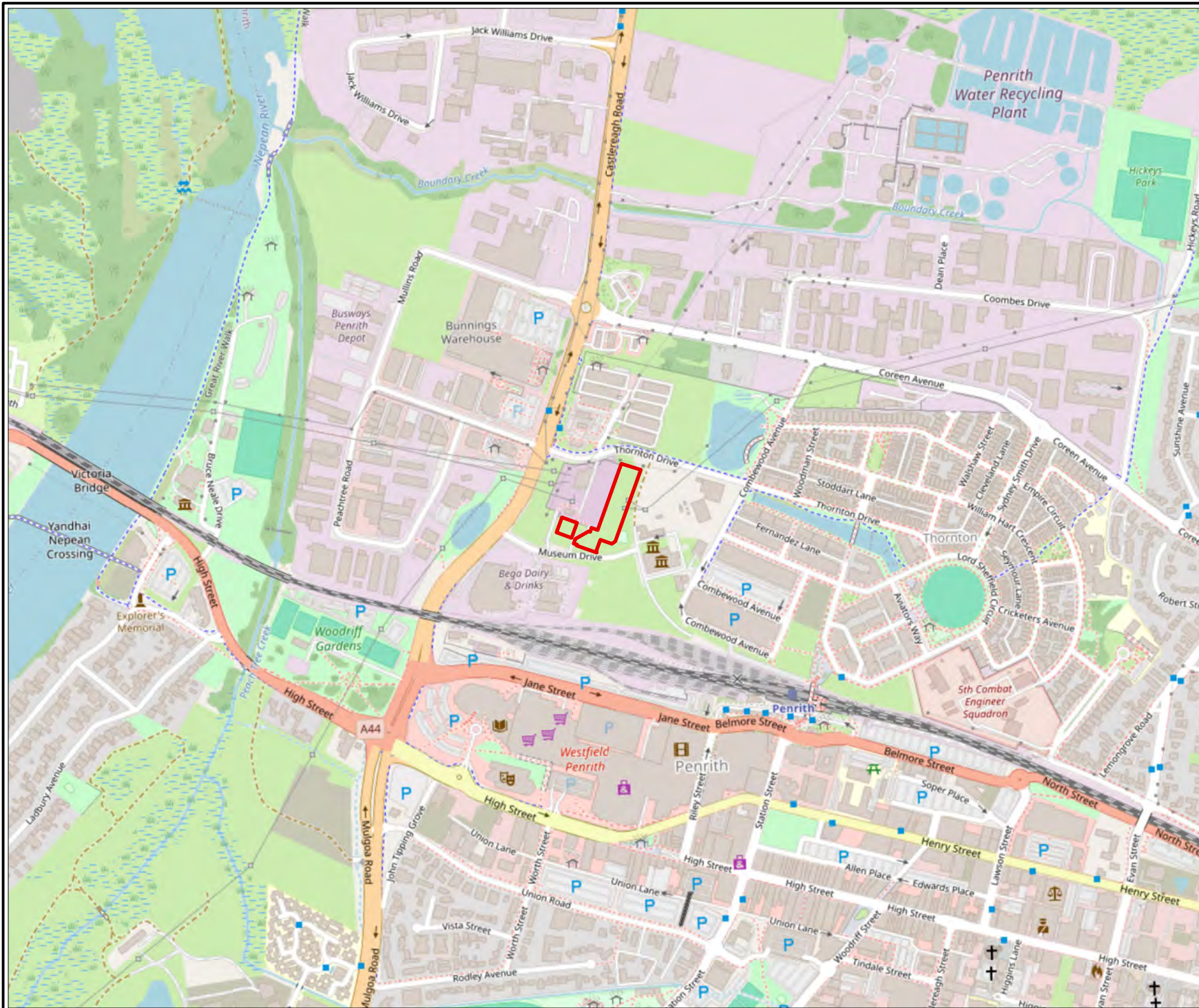
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the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

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

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

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

Attachment A Figures



Legend
 Approximate Site Boundary



Job No: 67597

Client: Ausconnex

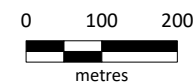
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Date 4/12/2024

Drawn By: RF

Checked By: JB

Scale 1:10,000



Coord. Sys. GDA2020 MGA Zone 56

**2235-2249 Castlereagh Road
 Penrith, NSW**

SITE LOCATION

FIGURE 1



- Legend
- Approximate Site Boundary
 - NSW Cadastre
 - ACM pipe
 - Potential ACM pipe
 - Approximate Ash Extent (JBS&G 2022)
 - Former Sub-Station Building Footprint
 - Former Sub-Station Infrastructure Extent
 - Former Dwelling Footprint
 - Former Shed Footprint



Job No: 67597

Client: Ausconnex

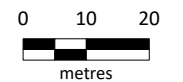
Version: R07 Rev A

Date 20/12/2024

Drawn By: RF

Checked By: JB

Scale 1:1,200



Coord. Sys. GDA2020 MGA Zone 56

**2235-2249 Castlereagh Road
Penrith, NSW**

SITE LAYOUT

FIGURE 2



- Legend
- Approximate Site Boundary
 - NSW Cadastre
 - ACM pipe
 - - - Potential ACM pipe
 - + Sample Locations (JBS&G 2022)
- Historic Sample Locations (Golder and WSP in WSP 2022)
- Historic Sample Location - Borehole
 - Historic Sample Location - Borehole (NDD & NDDT)
 - + Historic Sample Location - Test Pit
 - ACM fragments at 0.2-0.3 m bgs



Job No: 67597

Client: Ausconnex

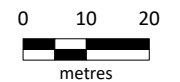
Version: R07 Rev A

Date 20/12/2024

Drawn By: HW

Checked By: JB

Scale 1:1,200



Coord. Sys. GDA2020 MGA Zone 56

**2235-2249 Castlereagh Road
Penrith, NSW**

**HISTORIC SAMPLE LOCATIONS
AND ACM LOCATIONS**

FIGURE 3



- Legend
- Approximate Site Boundary
 - NSW Cadastre
 - Test Pit Location



Job No: 67597

Client: Ausconnex

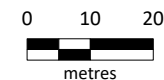
Version: R07 Rev A

Date 20/12/2024

Drawn By: HW

Checked By: JB

Scale 1:1,200



Coord. Sys. GDA2020 MGA Zone 56

2235-2249 Castlereagh Road
Penrith, NSW

**CURRENT INVESTIGATION
SAMPLE LOCATIONS**

FIGURE 4



- Legend
- Approximate Site Boundary
 - NSW Cadastre
 - Updated Approximate Ash Extent
 - Potential ACM pipe
 - ACM exceedance at 0.0-0.1 m bgs
 - ACM fragments at 0.2-0.3 m bgs
 - Test Pit Location
- Historic Sample Locations (Golder and WSP in WSP 2022)
- Historic Sample Location - Borehole
 - Historic Sample Location - Borehole (NDD & NDDT)
 - Historic Sample Location - Test Pit
 - Sample Locations (JBS&G 2022)



Job No: 67597

Client: Ausconnex

Version: R07 Rev A

Date 20/12/2024

Drawn By: HW

Checked By: JB

Scale 1:1,200



Coord. Sys. GDA2020 MGA Zone 56

2235-2249 Castlereagh Road
Penrith, NSW

EXCEEDANCES AND ACM LOCATIONS

FIGURE 5

Attachment B Photographic Log

PHOTO 1: OVERVIEW AND LAYOUT OF SITE FROM THE NORTHEASTERN BORDER



PHOTO 2: OVERVIEW AND LAYOUT OF SITE FROM THE SOUTHEASTERN BORDER



PHOTO 3: OVERVIEW AND LAYOUT OF SITE FROM THE SOUTHWESTERN BORDER



PHOTO 4: OVERVIEW AND LAYOUT OF THE SITE FROM THE NORTHEASTERN BORDER



Job No: 67597

Client: Ausconnex

Version: R07 Rev 0

Date: 10/12/2024

Drawn By: KM

Checked By: EA

Not to Scale

Coord. Sys n/a

Penrith Substation Zone
2235-2249 Castlereagh Road,
Penrith, NSW, 2750,
Australia

ATTACHMENT B

PHOTO 5: PARTIAL AERIAL VIEW OF TEST PIT 01



PHOTO 6: NATURAL CLAY EXCAVATED FROM P_TP06 AT 1.0-1.2 M BGS



PHOTO 7: 'FLY ASH' EXCAVATED FROM P_TP07 AT 0.4-0.7 M BGS



PHOTO 8: EXAMPLE OF LAYER COLORATION AND INCLUSIONS WITHIN P_TP11



Job No: 67597	
Client: Ausconnex	
Version: R07 Rev 0	Date: 10/12/2024
Drawn By: KM	Checked By: EA
Not to Scale	
Coord. Sys n/a	
Penrith Substation Zone 2235-2249 Castlereagh Road, Penrith, NSW, 2750, Australia	
ATTACHMENT B	

PHOTO 9: EXAMPLE OF SAMPLE COLLECTION FROM P_TP11



PHOTO 10: BACKFILL OF P_TP01 ALONG NORTHEASTERN BORDER OF THE SITE



PHOTO 11: BACKFILL OF P_TP09 ALONG THE SOUTHWESTERN BORDER



PHOTO 12: LAYER OF GEOFABRIC AT P_TP04 FROM 0.3 M BGS



Job No: 67597

Client: Ausconnex

Version: R07 Rev 0

Date: 10/12/2024

Drawn By: KM

Checked By: EA

Not to Scale

Coord. Sys n/a

Penrith Substation Zone
2235-2249 Castlereagh Road,
Penrith, NSW, 2750,
Australia

ATTACHMENT B

Attachment C LotSearch Documentation



LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 27 Sep 2024 11:00:40

Reference: LS062416 EP

Address: 2235-2249 Castlereagh Road, Penrith, NSW 2750

Disclaimer:

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

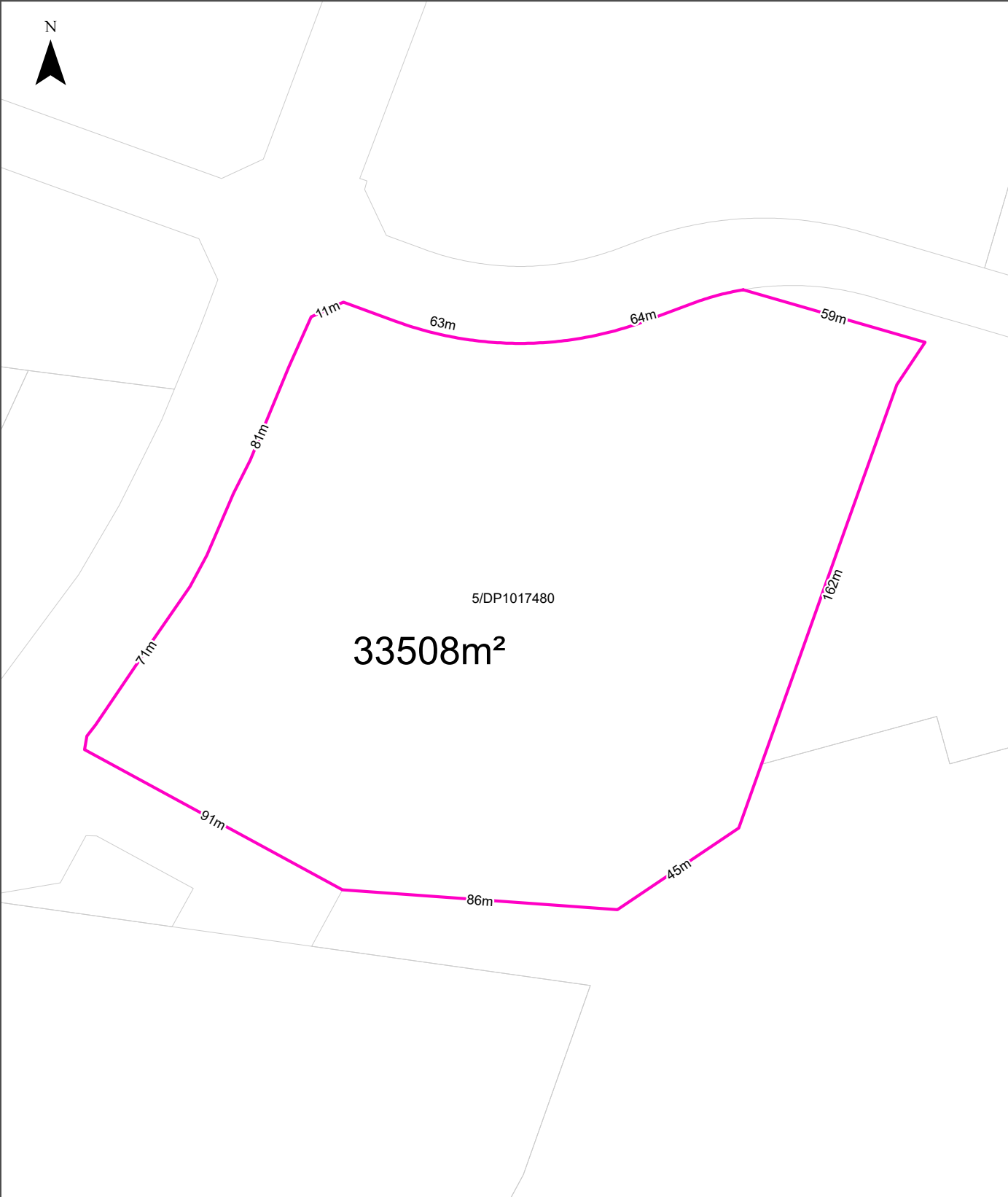
Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Customer Service - Spatial Services	24/07/2024	24/07/2024	Quarterly	-	-	-	-
Topographic Data	NSW Department of Customer Service - Spatial Services	21/05/2024	21/05/2024	Annually	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority NSW	02/09/2024	13/08/2024	Monthly	1000m	0	0	6
Contaminated Land Records of Notice	Environment Protection Authority NSW	02/09/2024	02/09/2024	Monthly	1000m	0	0	1
Former Gasworks	Environment Protection Authority NSW	06/08/2024	14/07/2021	Quarterly	1000m	0	0	0
Notices under the POEO Act 1997	Environment Protection Authority NSW	03/09/2024	03/09/2024	Monthly	1000m	0	1	3
National Waste Management Facilities Database	Geoscience Australia	29/04/2024	29/11/2022	Annually	1000m	0	0	5
National Liquid Fuel Facilities	Geoscience Australia	20/09/2023	07/09/2020	Annually	1000m	0	0	4
EPA PFAS Investigation Program	Environment Protection Authority NSW	24/09/2024	14/06/2024	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Australian Department of Defence	24/09/2024	24/09/2024	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Australian Department of Defence	24/09/2024	24/09/2024	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	24/09/2024	24/09/2024	Monthly	2000m	0	0	0
Defence Controlled Areas	Australian Department of Defence	17/07/2024	17/07/2024	Quarterly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Australian Department of Defence	05/08/2024	02/09/2022	Quarterly	2000m	0	0	0
National Unexploded Ordnance (UXO)	Australian Department of Defence	17/07/2024	17/07/2024	Quarterly	2000m	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority NSW	13/11/2023	15/12/2022	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority NSW	26/08/2024	26/08/2024	Monthly	1000m	0	1	8
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority NSW	26/08/2024	26/08/2024	Monthly	1000m	0	1	2
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority NSW	26/08/2024	26/08/2024	Monthly	1000m	0	1	9
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	0	0	0
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	219	219
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	0	24
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	3	35
Points of Interest	NSW Department of Customer Service - Spatial Services	18/07/2024	18/07/2024	Quarterly	1000m	0	1	70
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	18/07/2024	18/07/2024	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	18/07/2024	18/07/2024	Quarterly	1000m	0	0	0
Major Easements	NSW Department of Customer Service - Spatial Services	09/08/2024	09/08/2024	Quarterly	1000m	0	3	15
State Forest	Forestry Corporation of NSW	12/12/2023	11/12/2023	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Geoscience Australia	17/04/2024	19/08/2019	Annually	1000m	1	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018	NSW Department of Climate Change, Energy, the Environment and Water	28/05/2024	23/02/2018	Quarterly	1000m	0	0	0
National Groundwater Information System (NGIS) Boreholes	Bureau of Meteorology; Water NSW	28/05/2024	20/06/2023	Annually	2000m	0	0	139
NSW Seamless Geology Single Layer: Rock Units	NSW Department of Primary Industries and Regional Development	06/12/2023	31/05/2023	Annually	1000m	1	1	5
NSW Seamless Geology Single Layer: Trendlines	NSW Department of Primary Industries and Regional Development	06/12/2023	31/05/2023	Annually	1000m	0	0	0
NSW Seamless Geology Single Layer: Geological Boundaries and Faults	NSW Department of Primary Industries and Regional Development	06/12/2023	31/05/2023	Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Department of Regional NSW	26/04/2024	14/03/2024	Annually	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	12/01/2024	17/02/2011	Annually	1000m	2	2	2
Soil Landscapes of Central and Eastern NSW	NSW Department of Climate Change, Energy, the Environment and Water	12/12/2023	27/07/2020	Annually	1000m	1	1	4
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Housing and Infrastructure	13/09/2024	16/08/2024	Monthly	500m	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	12/01/2024	21/02/2013	Annually	1000m	1	1	3
Dryland Salinity - National Assessment	Australian Bureau of Agricultural and Resource Economics and Sciences	03/06/2024	24/05/2024	Annually	1000m	0	0	1
Dryland Salinity Potential of Western Sydney	NSW Department of Climate Change, Energy, the Environment and Water	26/04/2024	26/02/2024	Annually	1000m	1	1	4
Mining Subsidence Districts	NSW Department of Customer Service	06/08/2024	06/08/2024	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Regional NSW	26/08/2024	26/08/2024	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Regional NSW	26/08/2024	26/08/2024	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Regional NSW	26/08/2024	26/08/2024	Monthly	1000m	8	8	11
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Housing and Infrastructure	13/09/2024	08/09/2023	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Housing and Infrastructure	13/09/2024	30/08/2024	Monthly	1000m	1	3	59
Commonwealth Heritage List	Australian Department of Climate Change, Energy, the Environment and Water	20/10/2023	13/04/2022	Annually	1000m	0	0	2
National Heritage List	Australian Department of Climate Change, Energy, the Environment and Water	20/10/2023	13/04/2022	Annually	1000m	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	29/07/2024	05/07/2024	Quarterly	1000m	0	8	14
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Housing and Infrastructure	13/09/2024	30/08/2024	Monthly	1000m	0	1	41
Bush Fire Prone Land	NSW Rural Fire Service	26/08/2024	19/07/2024	Monthly	1000m	0	0	3
NSW Native Vegetation Type Map	NSW Department of Climate Change, Energy, the Environment and Water	02/09/2024	30/11/2023	Quarterly	1000m	4	12	144
Ramsar Wetlands of Australia	Australian Department of Climate Change, Energy, the Environment and Water	16/05/2024	11/04/2024	Annually	1000m	0	0	0
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Terrestrial	Australian Department of Climate Change, Energy, The Environment and Water	04/03/2024	30/06/2022	Annually	1000m	0	0	0
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Marine	Australian Department of Climate Change, Energy, The Environment and Water	04/03/2024	30/06/2022	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	28/05/2024	28/05/2024	Annually	1000m	0	0	5

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	28/05/2024	28/05/2024	Annually	1000m	0	0	5
NSW BioNet Species Sightings	NSW Department of Climate Change, Energy, the Environment and Water	10/09/2024	10/09/2024	Monthly	10000m	-	-	-

Site Diagram

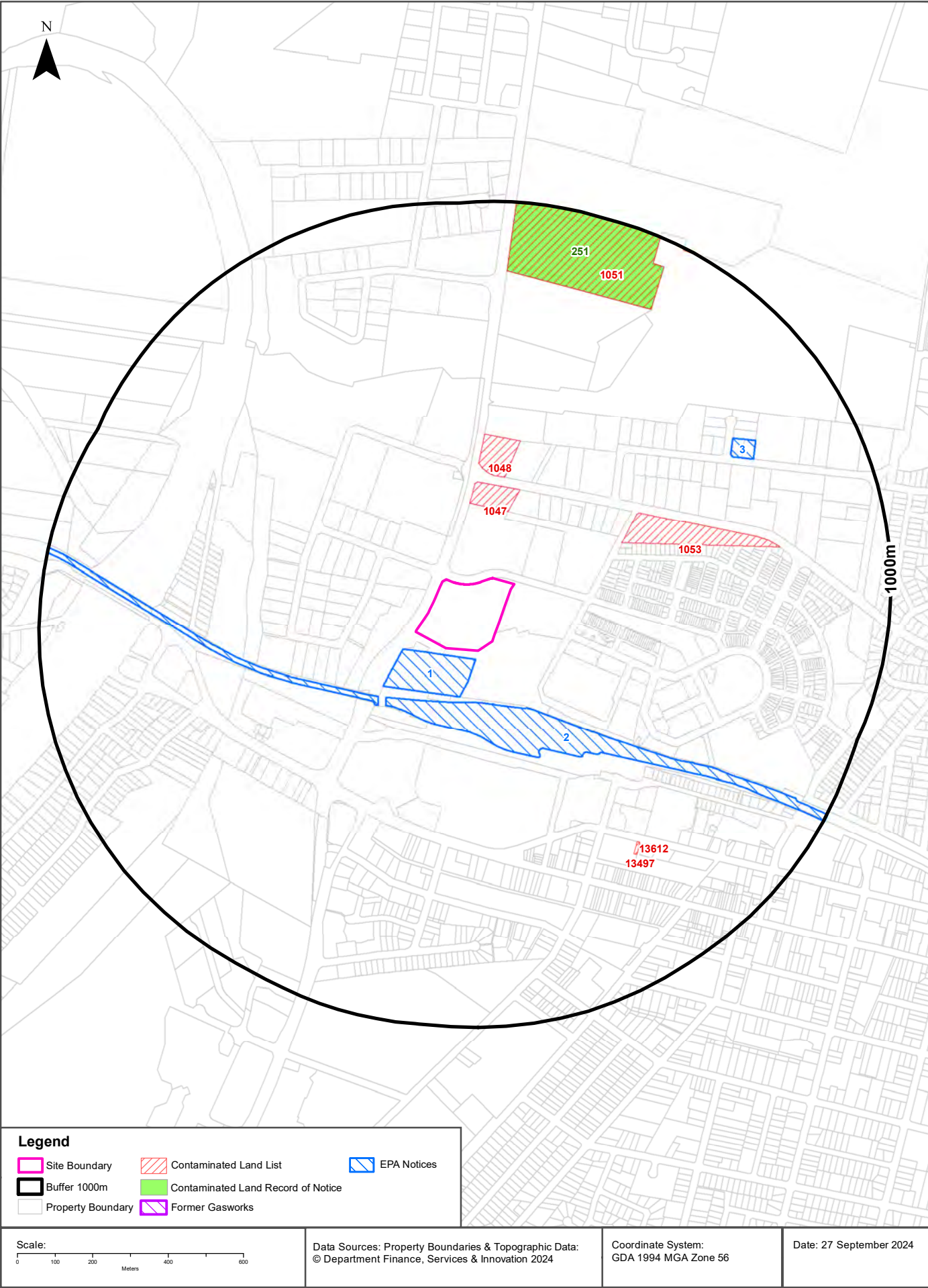
2235-2249 Castlereagh Road, Penrith, NSW 2750



Legend Site Boundary Internal Parcel Boundaries	Total Area: 33508m ² Total Perimeter: 735m		Scale: 02550 Meters	
	Disclaimers: Measurements are approximate only and may have been simplified or smaller lengths removed for readability. Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.		Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2024	
	Coordinate System: GDA 1994 MGA Zone 56		Date: 27 September 2024	

Contaminated Land

2235-2249 Castlereagh Road, Penrith, NSW 2750



Contaminated Land

2235-2249 Castlereagh Road, Penrith, NSW 2750

List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist	Direction
1047	BP Express Service Station	Corner Coreen Avenue and Castlereagh Road	Penrith	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	181m	North
1048	Caltex Penrith Service Station	153 Coreen Avenue	Penrith	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	269m	North
1053	Lowes Petroleum (Former Mobil) Depot Penrith	174 Coreen Avenue	Penrith	Other Petroleum	Regulation under CLM Act not required	Current EPA List	Premise Match	304m	East
13497	Jet 60 Dry Cleaners	Shop 3 134-138 Henry Street	PENRITH	Unclassified	Regulation under CLM Act not required	Current EPA List	Premise Match	656m	South East
13612	Former Dry Cleaners	Shop 3, 134-138 Henry STREET	PENRITH	Other Industry	Regulation under CLM Act not required	Current EPA List	Premise Match	656m	South East
1051	Crane Enfield Metals	2115-2131 Castlereagh ROAD	Penrith	Metal Industry	Contamination formerly regulated under the CLM Act	Current EPA List	Premise Match	798m	North

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
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 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 of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
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 of Notices.

EPA site management class	Explanation
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.
Regulation under the 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.
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. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority
 © State of New South Wales through the Environment Protection Authority

Contaminated Land

2235-2249 Castlereagh Road, Penrith, NSW 2750

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
251	Crane Enfield Metals	2115-2131 Castlereagh ROAD	Penrith	14 former	3147	Premise Match	798m	North

Contaminated Land Records of Notice Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority
Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit
<http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm>

Former Gasworks

Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Contaminated Land

2235-2249 Castlereagh Road, Penrith, NSW 2750

EPA Notices

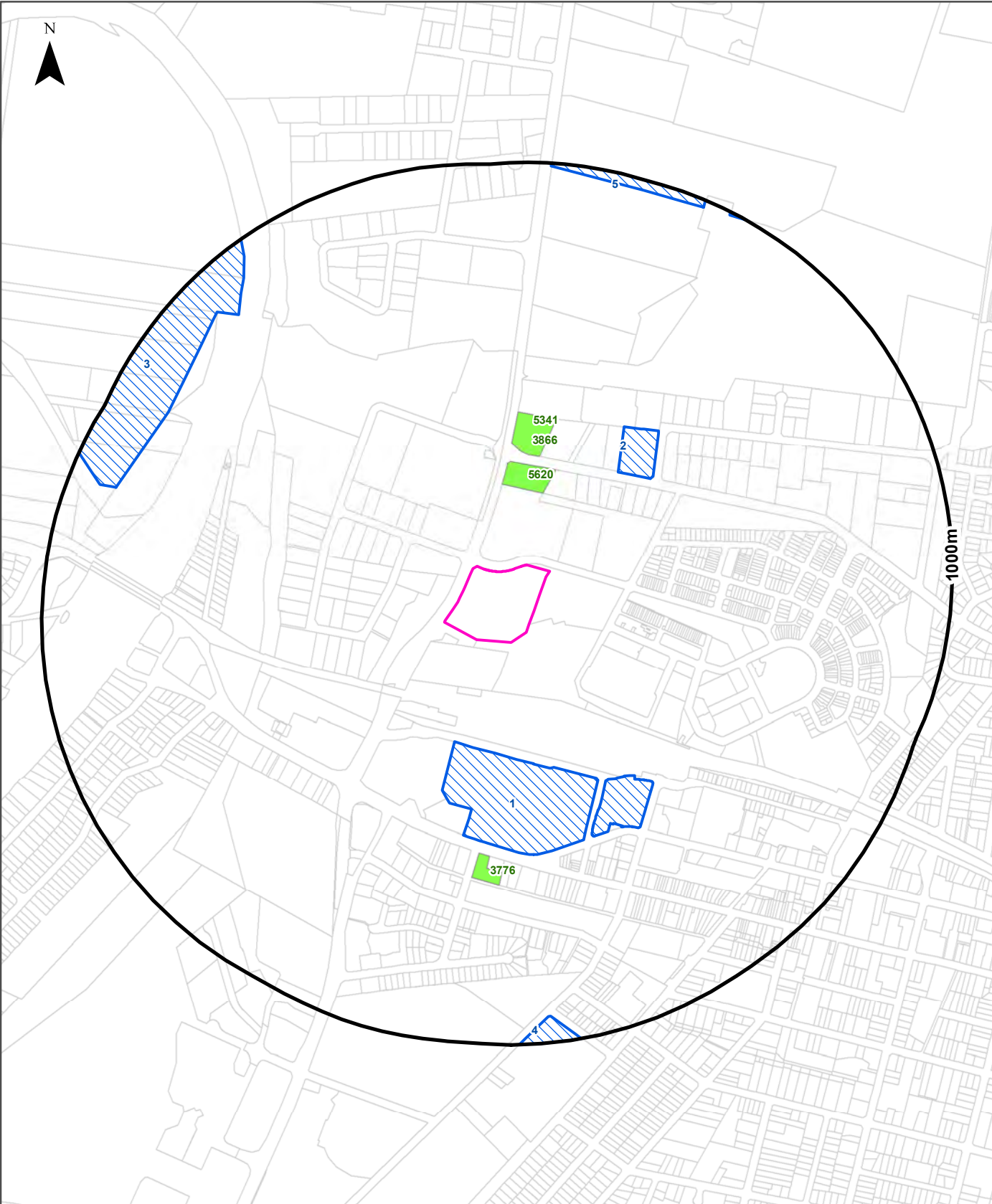
Penalty Notices, s.91 & s.92 Clean up Notices and s.96 Prevention Notices within the dataset buffer:

Map ID	Number	Type	Name	Address	Status	Issued Date	Act	Offence	Offence Date	Loc Conf	Dist	Dir
1	1556498	s.96 Prevention Notice	BDD MILK PTY LTD	2257 - 2265 CASTLEREAGH ROAD, PENRITH, NSW 2750	Issued	08/09/2017				Premise Match	19m	South West
2	3173530755	Penalty Notice	SYDNEY TRAINS	SYDNEY TRAINS, HAYMARKET, NSW 1238	Issued	10/11/2021	Protection of the Environment Operations Act 1997 - 64(1)	Contravene condition of licence - Corporation	31/05/2021	Network of Features	137m	South
3	1591710	s.96 Prevention Notice	MATT EARLY PTY LTD		Issued	24/03/2020				Premise Match	668m	North East

NSW EPA Notice Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

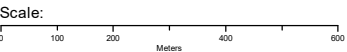
Waste Management & Liquid Fuel Facilities

2235-2249 Castlereagh Road, Penrith, NSW 2750



Legend

- Site Boundary
- Waste Management Facilities
- Buffer 1000m
- National Liquid Fuel Facilities
- Property Boundary



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2024

Coordinate System:
GDA 1994 MGA Zone 56

Date: 27 September 2024

Waste Management & Liquid Fuel Facilities

2235-2249 Castlereagh Road, Penrith, NSW 2750

National Waste Management Facilities Database

Sites on the National Waste Management Facilities Database within the dataset buffer:

Map ID	Owner	Name	Address	Management Type	Facility Type	Status	Loc Conf	Dist	Dir
1	WOOLWORTHS	WOOLWORTHS SUPERMARKET	27-55 STATION STREET, PENRITH	DROP-OFF	SOFT PLASTICS DROP-OFF FACILITY	OPERATIONAL	Premise Match	259m	South
2	VINNIES	VINNIES BULK CONTAINER DEPOSIT CENTRE PENRITH	WAREHOUSE 3/137 COREEN AVENUE, PENRITH	DROP-OFF	CONTAINER DEPOSIT SCHEME DROP-OFF FACILITY	OPERATIONAL	Premise Match	300m	North East
3	BORAL RECYCLING PTY LTD	BORAL EMU PLAINS QUARRY	RAILWAY STREET, EMU PLAINS	NOT CLASSIFIED	OTHER WASTE FACILITY	OPERATIONAL	Premise Match	850m	North West
4	COLES	COLES SUPERMARKET	122 STATION STREET, PENRITH	DROP-OFF	SOFT PLASTICS DROP-OFF FACILITY	OPERATIONAL	Premise Match	934m	South
5	5R SOLUTIONS PTY LTD	5R SOLUTIONS	2115-2131 CASTLEREAGH ROAD, PENRITH	NOT CLASSIFIED	OTHER WASTE FACILITY	OPERATIONAL	Premise Match	974m	North

Source: Waste Management Facilities Database
Creative Commons 4.0 © Commonwealth of Australia (Geoscience Australia) 2022

National Liquid Fuel Facilities

National Liquid Fuel Facilities within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Direction
5620	BP	BP PENRITH	CORNER CASTLEREAGH AND COREEN AVENUE	PENRITH	PETROL STATION	OPERATIONAL			Premise Match	181m	North
3866	Caltex	Penrith	2195 Castlereagh Road	Penrith	Fuel Depot	Decommissioned	W & A Willmington Pty Ltd	24/08/2020	Premise Match	269m	North
5341	AMPOL	AMPOL PENRITH	153 COREEN AVENUE CORNER CASTLEREAGH ROAD	PENRITH	PETROL STATION	OPERATIONAL			Premise Match	269m	North
3776	7-ELEVEN	7-ELEVEN PENRITH	588 HIGH STREET	PENRITH	PETROL STATION	Operational		25/07/2011	Premise Match	527m	South

National Liquid Fuel Facilities Data Source: Geoscience Australia
Creative Commons 4.0 © Commonwealth of Australia

PFAS Investigation & Management Programs

2235-2249 Castlereagh Road, Penrith, NSW 2750

EPA PFAS Investigation Program

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Map ID	Site	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Defence PFAS Investigation Program

Sites being investigated by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Investigation Program Data Custodian: Department of Defence, Australian Government

Defence PFAS Management Program

Sites being managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Management Program Data Custodian: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Loc Conf	Dist	Dir
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites and Unexploded Ordnance

2235-2249 Castlereagh Road, Penrith, NSW 2750

Defence Controlled Areas (DCA)

Defence Controlled Areas provided by the Department of Defence within the dataset buffer:

Site ID	Location Name	Loc Conf	Dist	Dir
N/A	No records in buffer			

Defence Controlled Areas, Data Custodian: Department of Defence, Australian Government

Defence 3 Year Regional Contamination Investigation Program (RCIP)

Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

National Unexploded Ordnance (UXO)

Sites which have been assessed by the Department of Defence for the potential presence of unexploded ordnance within the dataset buffer:

Site ID	Location Name	Category	Area Description	Additional Information	Commonwealth	Loc Conf	Dist	Dir
N/A	No records in buffer							

National Unexploded Ordnance (UXO), Data Custodian: Department of Defence, Australian Government

EPA Other Sites with Contamination Issues

2235-2249 Castlereagh Road, Penrith, NSW 2750

EPA Other Sites with Contamination Issues

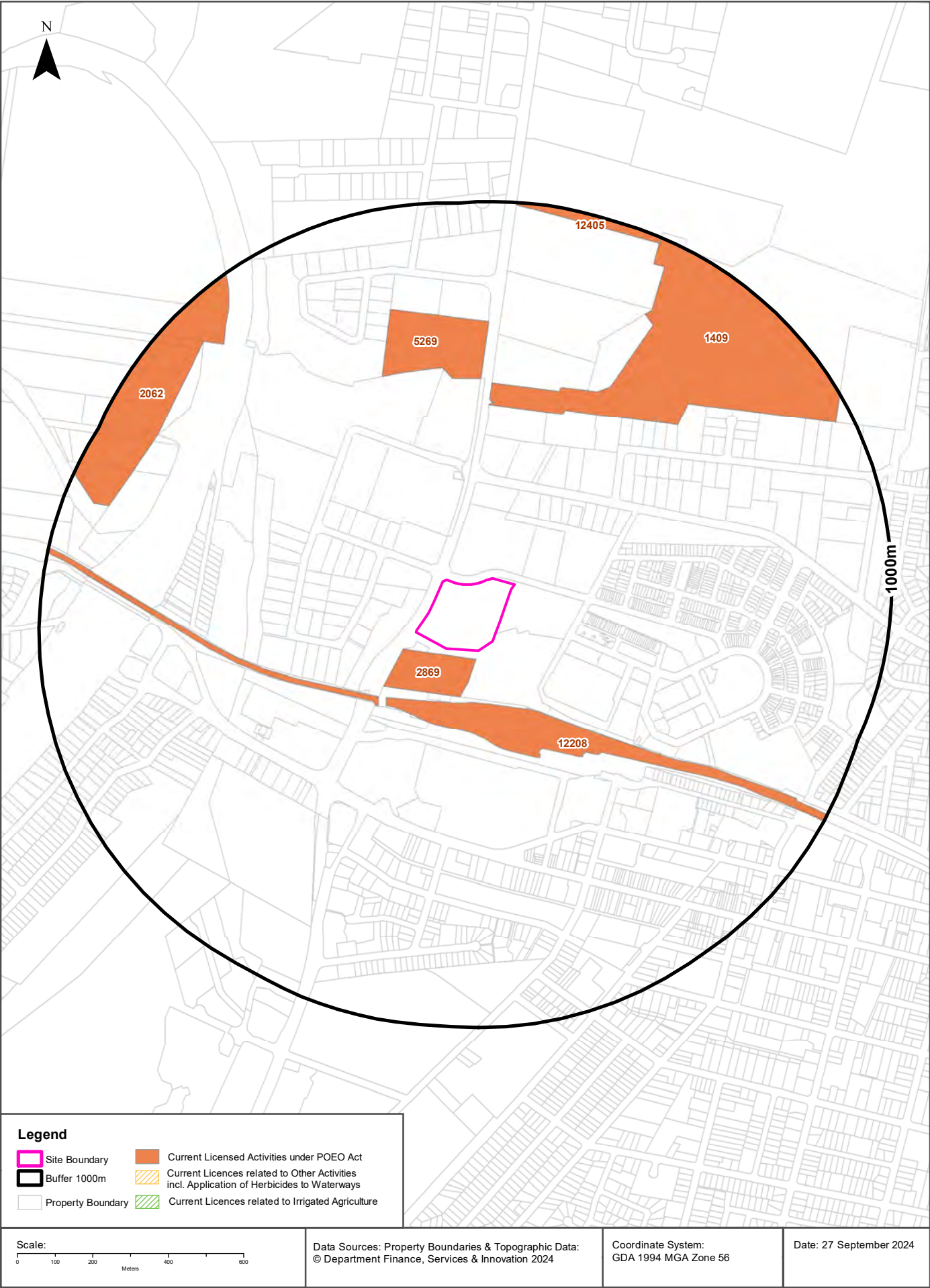
This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill
- Pasminco Lead Abatement Strategy Area

Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority



EPA Activities

2235-2249 Castlereagh Road, Penrith, NSW 2750

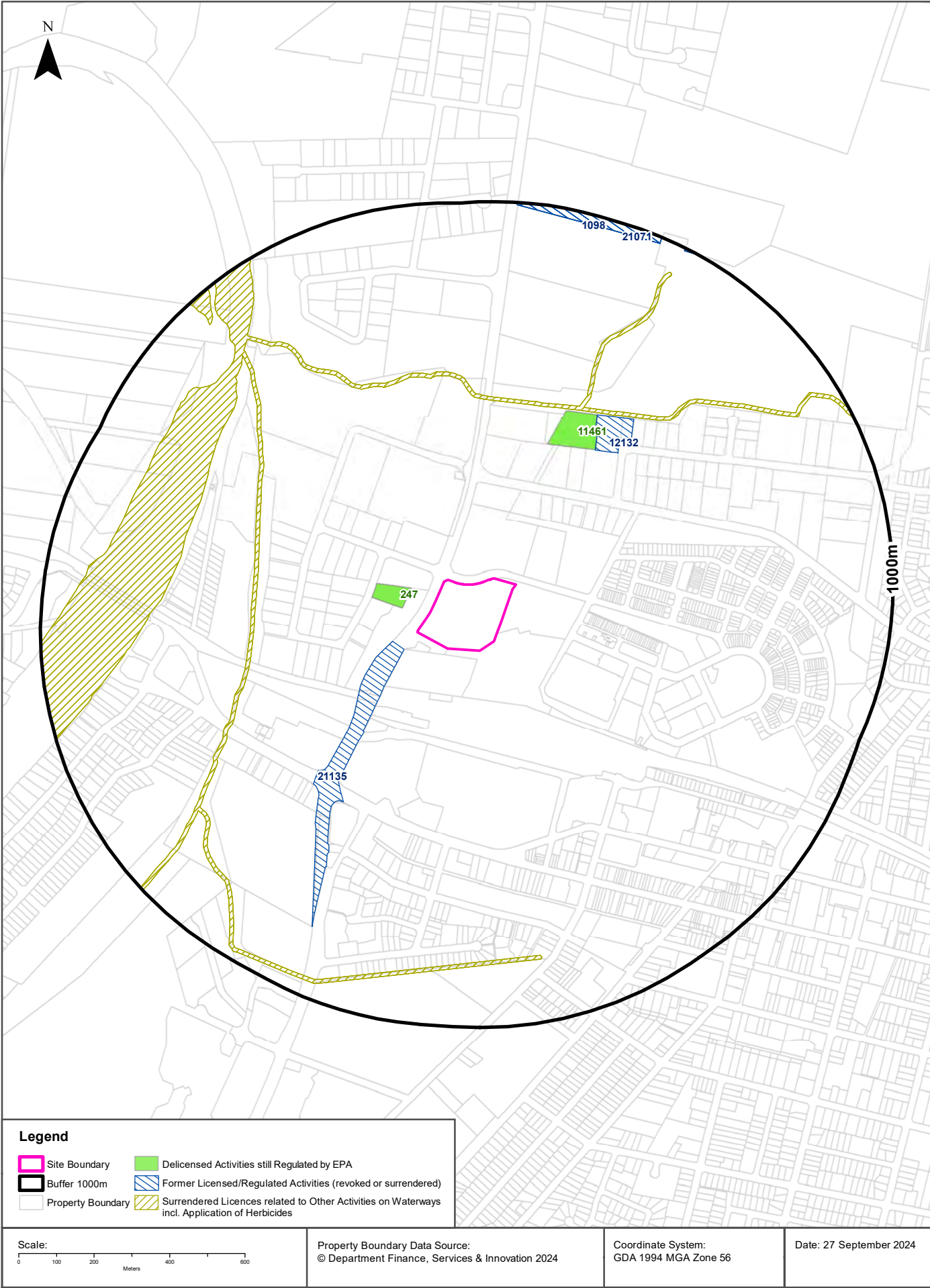
Licensed Activities under the POEO Act 1997

Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
2869	BDD MILK PTY LTD	LD&D MILK	2257 - 2265 CASTLEREAGH ROAD	PENRITH	Dairy processing	Premise Match	19m	South West
12208	SYDNEY TRAINS		SYDNEY TRAINS, HAYMARKET, NSW 1238		Railway systems activities	Network of Features	137m	South
1409	SYDNEY WATER CORPORATION	PENRITH SEWAGE TREATMENT SYSTEM including the STP at CASTLEREAGH ROAD, PENRITH, NSW, 2750	CASTLEREAGH ROAD	PENRITH	Sewage treatment processing by large plants	Premise Match	455m	North East
5269	VIRBAC (AUSTRALIA) PTY LTD	VIRBAC	2152 CASTLEREAGH ROAD	PENRITH	Chemical production waste generation	Premise Match	533m	North
5269	VIRBAC (AUSTRALIA) PTY LTD	VIRBAC	2152 CASTLEREAGH ROAD	PENRITH	Pharmaceutical and veterinary products production	Premise Match	533m	North
2062	BORAL RESOURCES (NSW) PTY LTD	BORAL EMU PLAINS QUARRY	RAILWAY STREET	EMU PLAINS	Crushing, grinding or separating	Premise Match	850m	North West
12405	CAPRAL LIMITED	ALUMINIUM EXTRUSION AND DISTRIBUTION PTY LIMITED	2115 CASTLEREAGH ROAD	PENRITH	Metal processing	Premise Match	974m	North
12405	CAPRAL LIMITED	ALUMINIUM EXTRUSION AND DISTRIBUTION PTY LIMITED	2115 CASTLEREAGH ROAD	PENRITH	Metal waste generation	Premise Match	974m	North

POEO Licence Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority



EPA Activities

2235-2249 Castlereagh Road, Penrith, NSW 2750

Delicensed Activities still regulated by the EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
247	BORAL RESOURCES (NSW) PTY LTD	BORAL CONCRETE	PEACHTREE ROAD	PENRITH	Concrete works	Premise Match	69m	West
11461	TOTAL CONCRETE SOLUTIONS PTY LIMITED	TOTAL CONCRETE SOLUTIONS PTY LTD	261 COOMBES DRIVE	PENRITH	Concrete works	Premise Match	380m	North East

Delicensed Activities Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

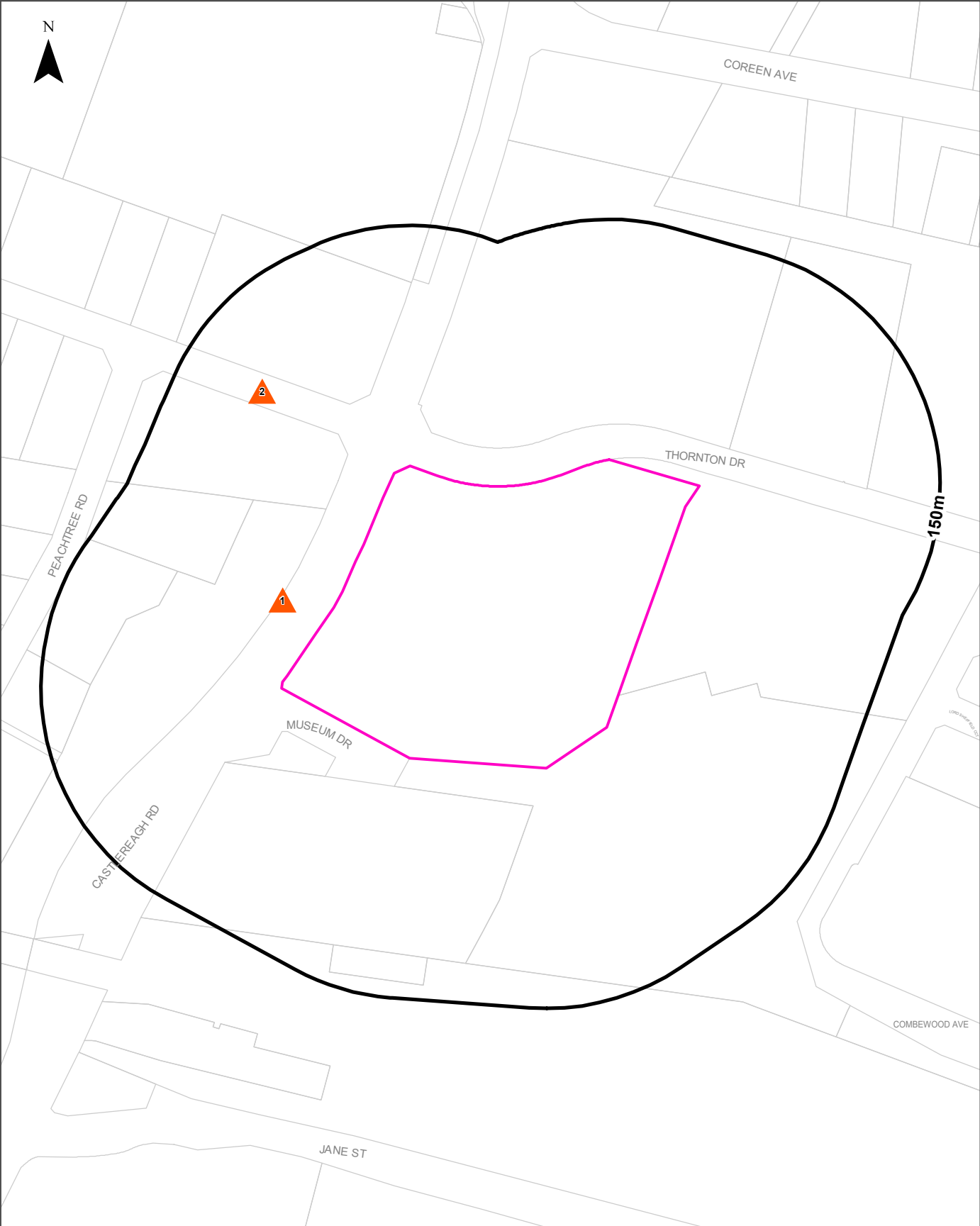
Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
21135	MCCONNELL DOWELL CONSTRUCTOR S (AUST) PTY LTD	, Jane Street and Mulgoa Road Infrastructure Upgrade , PENRITH, NSW 2740,	Surrendered	26/09/2018	Railway systems activities	Network of Features	58m	South West
12132	GULF WESTERN PREMIUM QUALITY LUBRICATING OILS (MANUFACTURING) PTY LIMITED	GULF WESTERN OIL, 1 COOMBES DRIVE, PENRITH	Surrendered	01/10/2004	Petroleum products and fuel production	Premise Match	414m	North East
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	433m	West
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	433m	West
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	433m	West
1098	CRANE ENFIELD METALS PTY. LIMITED	CRANE ENFIELD METALS, 2115 CASTLEREAGH ROAD, PENRITH	Surrendered	26/06/2000	Metal processing	Premise Match	974m	North
1098	CRANE ENFIELD METALS PTY. LIMITED	CRANE ENFIELD METALS, 2115 CASTLEREAGH ROAD, PENRITH	Surrendered	26/06/2000	Metal waste generation	Premise Match	974m	North
21071	5R Solutions Pty Ltd	, 2115-2131 Castlereagh Road , PENRITH, NSW 2750,	Surrendered	29/03/2019	Waste storage - other types of waste	Premise Match	974m	North

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
21071	5R Solutions Pty Ltd	, 2115-2131 Castlereagh Road , PENRITH, NSW 2750,	Surrendered	29/03/2019	Recovery of general waste	Premise Match	974m	North

Former Licensed Activities Data Source: Environment Protection Authority
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Historical Business Directories

2235-2249 Castlereagh Road, Penrith, NSW 2750



Legend		Scale: 0 40 80 120 160 Meters	Coordinate System: GDA 1994 MGA Zone 56
Site Boundary	Business directory records mapped to a specific premise		Date: 27 September 2024
Buffer 150m	Business directory records mapped to a road intersection		
Property Boundary	Business directory records mapped to a road corridor		
	Business directory records mapped to a general area		

Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

Historical Business Directories

2235-2249 Castlereagh Road, Penrith, NSW 2750

Business Directory Records 1950-1991 Premise or Road Intersection Matches

Potentially contaminative business activities extracted from Universal Business Directories from years 1991, 1986, 1982, 1970, 1961 & 1950, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
N/A	No records in buffer						

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Business Directory Records 1950-1991

Road or Area Matches

Potentially contaminative business activities extracted from Universal Business Directories from years 1991, 1986, 1982, 1970, 1961 & 1950, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
1	Tyre Dealers &/or Retreaders &/or Vulcanisers	Beaurepaires For Tyres, Castlereagh Rd Penrith 2750	65223	1991	Road Match	0m
	Hire Services	GKN Rental, Castlereagh Rd., Penrith. 2750	48442	1991	Road Match	0m
	Dairy Product Mfrs &/or W/salers	Nepean Dairies Pty. Ltd., Castlereagh Rd., Penrith 2750	41241	1991	Road Match	0m
	Motor Oil, Spirit & Grease Mfrs &/or Imps &/or Dists	Transpirit, Castlereagh Rd., Penrith 2750	54054	1991	Road Match	0m
	Earth Moving Equipment Hire	Williams, J. K. Contracting Pty. Ltd., Castlereagh Rd., Penrith 2750	41854	1991	Road Match	0m
	Pump & Pumping Equipment Mfrs &/or Dists	Worthington K.L Pumps, Castlereagh Rd Penrith 2750	60004	1991	Road Match	0m
	TYRE DEALERS &/OR RETREADERS &/OR VULCANISERS.	Beaurepaires for Tyres, Castlereagh Rd., Penrith. 2750	96279	1986	Road Match	0m
	EARTH MOVING MACHINERY HIRERS.	Brambles Industrial Services, Castlereagh Rd., Penrith. 2750	25826	1986	Road Match	0m
	MOTOR OIL, SPIRIT & GREASE MFRS. &/OR IMPS. &/OR DIST.	Bryson Diesel Pty, Ltd., Castlereagh Rd., Penrith. 2750	65922	1986	Road Match	0m
	MOTOR SPARE PARTS DEALERS RETAIL.	Bryson Diesel Pty. Ltd., Castlereagh Rd., Penrith. 2750	67244	1986	Road Match	0m
	BRASS FITTINGS &/OR BRASSWARE MFRS.	Crane Taps (A Division of G.E. Crane Pty. Ltd.), Castlereagh Rd., Penrith. 2750	7572	1986	Road Match	0m
	PLUMBERS SUPPLIES.	Crane Taps (A Division of G.E. Crane Pty. Ltd.), Castlereagh Rd., Penrith. 2750	75100	1986	Road Match	0m
	PLUMBERS SUPPLIES.	Crane Taps Castlereagh Road, Penrith. 2750	75047	1986	Road Match	0m
	EARTH MOVING &/OR ROADMAKING CONTRACTORS.	Dixon, K. H., Pty. Ltd., Castlereagh Rd., Penrith. 2750	25932	1986	Road Match	0m
	EARTH MOVING MACHINERY HIRERS.	Dixon, K. H., Pty. Ltd., Castlereagh Rd., Penrith. 2750	25838	1986	Road Match	0m
	GRAVEL, SAND &/OR SOIL SUPPLIES.	Dixon, K. H., Pty. Ltd., Castlereagh Rd., Penrith. 2750	40219	1986	Road Match	0m
	PUMP MFRS. &/OR DIST.	K.L. Worthington Pumps, Castlereagh Rd., Penrith. 2750	78497	1986	Road Match	0m
	CAPSULE MFRS.	Lilly Industries Pty. Ltd., Castlereagh Rd., Penrith. 2750	12206	1986	Road Match	0m
	MILK RECEIVING &/OR CHILLING DEPOTS.	Nepean Milk Co-op. Ltd., Castlereagh Rd., Penrith. 2750	59450	1986	Road Match	0m
	EARTH MOVING &/OR ROADMAKING CONTRACTORS.	Williams, J. K. Contracting Pty. Ltd., Castlereagh Rd., Penrith. 2750	25975	1986	Road Match	0m
	EARTH MOVING MACHINERY HIRERS.	Williams, J. K. Contracting Pty. Ltd., Castlereagh Rd., Penrith. 2750	25879	1986	Road Match	0m
	ENGINEERS – CIVIL	Williams, J. K. Contracting Pty. Ltd., Castlereagh Rd., Penrith. 2750	28696	1986	Road Match	0m
	EARTH MOVING MACHINERYHIRERS. (E0270)	Brambles Industrial Services, Castlereagh Rd., Penrith. 2750.	24331	1982	Road Match	0m
	TRANSPORT SERVICES. (T7335)	Brambles Industrial Services, Castlereagh Rd., Penrith. 2750.	81709	1982	Road Match	0m
	MOTOR SPARE PARTS DEALERS -RETAIL. (M7840)	Bryson Diesel Pty. Ltd., Castlereagh Rd., Penrith. 2750.	59075	1982	Road Match	0m
	BRASS FITTINGS &/OR BRASSWARE MFRS. (B5740)	Crane Taps (A Division of G.E. Crane Pty. Ltd.), Castlereagh Rd., Penrith. 2750.	8387	1982	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
1	PLUMBERS SUPPLIES. (P6700)	Crane Taps (A Division of G.E. Crane Pty. Ltd.), Castlereagh Rd., Penrith. 2750.	65316	1982	Road Match	0m
	EARTH MOVING &/OR ROADMAKING CONTRACTORS.(E0360)	Dixon, K. H., Pty. Ltd., Castlereagh Rd., Penrith. 2750.	24445	1982	Road Match	0m
	EARTH MOVING MACHINERYHIRERS. (E0270)	Dixon, K. H., Pty. Ltd., Castlereagh Rd., Penrith. 2750.	24346	1982	Road Match	0m
	GRAVEL, SAND &/OR SOIL SUPPLIES. (G7050)	Dixon, K. H., Pty. Ltd., Castlereagh Rd., Penrith. 2750.	37173	1982	Road Match	0m
	PUMP MFRS. &/OR DIST. (P9420)	K.L. Worthington Pumps, Castlereagh Rd., Penrith. 2750.	68029	1982	Road Match	0m
	CAPSULE MFRS. (C1095)	Lilly Industries Pty. Ltd., Castlereagh Rd., Penrith. 2750.	13079	1982	Road Match	0m
	MILK RECEIVING &/OR CHILLINGDEPOTS. (M3280)	Nepean Milk Co-op. Ltd., Castlereagh Rd., Penrith. 2750.	52544	1982	Road Match	0m
	EARTH MOVING &/OR ROADMAKING CONTRACTORS.(E0360)	Williams, J. K. Contracting Pty. Ltd., Castlereagh Rd., Penrith. 2750.	24496	1982	Road Match	0m
	EARTH MOVING MACHINERY HIRERS	Dixon, K. H. Pty. Ltd., Castlereagh Rd. Penrith 2750	535825	1970	Road Match	0m
	EARTHMOVING &/OR ROADMAKING CONTRACTORS	Dixon, K. H. Pty. Ltd., Castlereagh Rd. Penrith 2750	535823	1970	Road Match	0m
	GRAVEL, SAND & SOIL SUPPLIES	Dixon, K. H. Pty. Ltd., Castlereagh Rd. Penrith 2750	535896	1970	Road Match	0m
	CAPSULE MFRS.	Eli Lilly (Aust.) Co., Castlereagh Rd. Penrith 2750	535778	1970	Road Match	0m
	WEIGHBRIDGES	Farley & Lewers, Castlereagh St. Penrith 2750	536207	1970	Road Match	0m
	MOTOR RADIATOR SPECIALISTS & REPAIRERS	Hickey Sheet Metal Works, Castlereagh Rd. Penrith 2750	536064	1970	Road Match	0m
	SHEET METAL WORKERS	Hickey Sheet Metal Works, Castlereagh Rd. Penrith 2750	536146	1970	Road Match	0m
	TANK &/OR TANKSTAND MFRS. &/OR DIST.	Hickey Sheet Metal Works, Castlereagh Rd. Penrith 2750	536176	1970	Road Match	0m
	MILK RECEIVING & CHILLING DEPOTS	Nepean Milk Co-op. Ltd., Castlereagh Rd. Penrith 2750	536010	1970	Road Match	0m
	QUARRY PROPRIETORS	Nepean Sand and Gravel Pty. Ltd., Castlereagh St. Penrith 2750	536118	1970	Road Match	0m
	ICE CREAM MANUFACTURERS & DISTRIBUTORS	Streets Ice Cream Pty. Ltd., Castlereagh Rd. Penrith 2750	535937	1970	Road Match	0m
	EARTH MOVING MACHINERY HIRERS	Williams, J. K. Constructions Pty. Ltd., Castlereagh Rd. Penrith 2750	535826	1970	Road Match	0m
	EARTHMOVING &/OR ROADMAKING CONTRACTORS	Williams, J. K. Constructions Pty. Ltd., Castlereagh Rd. Penrith 2750	535824	1970	Road Match	0m
	PUMPS & PUMPING EQUIPMENT- MANUFACTURERS &/OR DISTRIBUTORS	Worthington Aust. Pty. Ltd., Castlereagh Rd. Penrith 2750	536116	1970	Road Match	0m
	VALVES, COCKS, ETC.-MFRS.	Worthington Aust. Pty. Ltd., Castlereagh Rd. Penrith 2750	536198	1970	Road Match	0m
	MOTOR OIL & SPIRIT DEPOTS	Atlantic Union Oil Co., Castlereagh Rd., Penrith	222564	1961	Road Match	0m
	WEIGHBRIDGES	Farley & Lewers, Castlereagh St., Penrith	222726	1961	Road Match	0m
	QUARRY PROPRIETORS	Farley and Lewers, Castlereagh Rd., Penrith	222639	1961	Road Match	0m
	CARRIERS & CARTAGE CONTRACTORS	Field, A., Castlereagh Rd., Penrith	222248	1961	Road Match	0m
	ICE CREAM MANUFACTURERS & DISTRIBUTORS	Lynam's Ice Cream (Penrith Depot), Castlereagh Rd., Penrith	222435	1961	Road Match	0m
	MILK RECEIVING & CHILLING DEPOTS	Nepean Co-operative Dairy and Refrigerating Society Ltd., Castlereagh Rd., Penrith	222509	1961	Road Match	0m
	QUARRY PROPRIETORS	Nepean Sand and Gravel Pty. Ltd., Castlereagh St., Penrith	222640	1961	Road Match	0m
	QUARRY PROPRIETORS	Quarries Pty. Ltd., Castlereagh Rd., Penrith	222641	1961	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
1	FRUIT & VEGETABLE MERCHANTS-WHOLESALE	Stanton Bros., Castlereagh Rd., Penrith	222358	1961	Road Match	0m
	PRODUCT MANUFACTURERS	Stress Crete Pty. Ltd, Castlereagh St., Penrith	222277	1961	Road Match	0m
	BUILDERS & BUILDING CONTRACTORS	Dixon, K. H., Castlereagh Rd., Penrith	151001	1950	Road Match	0m
	QUARRY PROPRIETORS	Farley and Lewers, Castlereagh Rd. Penrith	151449	1950	Road Match	0m
	CARRIERS & CARTAGE CONTRACTORS	Field A., Castlereagh Rd. Penrith	151068	1950	Road Match	0m
	MILK TREATMENT SPECIALISTS	Nepean Co Operative Dairy and Refrigerating Society Ltd, Castlereagh Rd. Penrith	151349	1950	Road Match	0m
	ICE MANUFACTURERS	Nepean Co-operative Dairy and Refrigerating Society Ltd., Castlereagh Rd. Penrith	151256	1950	Road Match	0m
	FRUIT & VEGETABLE MERCHANTS-WHOLESALE	Stanton Bros., Castlereagh Rd. Penrith	151173	1950	Road Match	0m
2	Toolmakers	Almeta Engineering, Unit 2 Lot 10 Peachtree Rd Penrith 2750	64560	1991	Road Match	42m
	Die & Press Tool Makers	Almeta Engineering, Unit 2, Lot 10, Peachtree Rd., Penrith 2750	41392	1991	Road Match	42m
	Timber Merchants &/or Sawmillers	Armstrong Timbers, 45 Peachtree Rd Penrith 2750	64327	1991	Road Match	42m
	Kitchen Units Mfrs &/or Dists &/or Installers	Blue Mountains Built In Furniture, Unit 3 Lot 42, Peachtree Rd., Penrith. 2750	50118	1991	Road Match	42m
	Motor Trimmers	Boss Trim, Unit 8 Lot 10 Peachtree Rd Penrith 2750	55419	1991	Road Match	42m
	Canopy and Cabin Mfrs &/or Dists	Boss Trim, Unit 8, Lot 10 Peachtree Rd., Penrith 2750	38023	1991	Road Match	42m
	Boat, Launch &/or Yacht Equipment	Boss Trim, Unit 8, Lot 10, Peachtree Rd., Penrith 2750	36208	1991	Road Match	42m
	Boat, Launch &/or Yacht Accessories Mfrs &/or Dists	Boss Trim., Unit 8, Lot 10, Peachtree Rd, Penrith 2750	36084	1991	Road Match	42m
	Motor Car Detailers	Car Craft Detailing, Unit 5 Lot 44 Peachtree Rd, Penrith 2750	52699	1991	Road Match	42m
	Motor Panel Beaters &/or Spray Painters	Car Painters, Unit 1, Lot 44, Peach Tree Rd, Penrith 2750	54251	1991	Road Match	42m
	Printers Lithographic (Offset)	Clover Colorprint Pty. Ltd., Unit 2 Lot 39, Peachtree Rd., Penrith. 2750	59073	1991	Road Match	42m
	Printers General	Clover Colorprint Pty. Ltd., Unit 2, Lot 39, Peachtree Rd., Penrith. 2750	58717	1991	Road Match	42m
	Engineers General	Coffey Engineering Services Pty Ltd, Lot 13 Peachtree Rd Penrith 2750	43985	1991	Road Match	42m
	Kitchen Units Mfrs &/or Dists &/or Installers	Country Custom Kitchens, Unit 1, Lot 7, Peachtree Rd., Penrith. 2750	50140	1991	Road Match	42m
	Air Conditioning Sales &/or Service	Da-Mel Air-Conditioning, Unit 1, Lot 3, Peachtree Rd., Penrith 2750	34002	1991	Road Match	42m
	Engineers Machining To The Trade	Dynin Pty Ltd, Lot 44 Peachtree Rd., Penrith 2750	44517	1991	Road Match	42m
	Hydraulic Equipment Mfrs &/or Imps &/or Dists	Enzed Penrith, 1, Lot 31, Peachtree Rd., Penrith. 2750	48745	1991	Road Match	42m
	Hose &/or Hose Fittings Mfrs &/or Dists &/or W/salers	Enzed Penrith., 1, Lot 31, Peachtree Rd., Penrith. 2750	48577	1991	Road Match	42m
	Motor Body Builders Supplies	Goss, Phillip Towing Equipment Pty. Ltd., 37 Peachtree Rd., Penrith. 2750	52159	1991	Road Match	42m
	Screen Printers	Helpam Screen Printers, 41 Peachtree Rd Penrith 2750	61715	1991	Road Match	42m
	Joinery Manufacturers &/or Merchants	J & G Joinery, Unit 7, Lot 3, Peachtree Rd., Penrith. 2750	49989	1991	Road Match	42m
	Cabinet Makers	J & K Kitchens, Unit 3, Lot 39. Peachtree Rd., Penrith 2750	37862	1991	Road Match	42m
	Kitchen Units Mfrs &/or Dists &/or Installers	J & K Kitchens, Unit 3, Lot 39., Peachtree Rd., Penrith. 2750	50204	1991	Road Match	42m
	Cleaning Equipment Supplies &/or Repairs	Klen-All Pty Ltd, Unit 1, lot 10, Peachtree Rd., Penrith 2750	39101	1991	Road Match	42m
	Cleanser &/or Cleaning Preparations Mfrs &/or Dists	Klen-All Pty. Ltd, Unit 1, Lot 10, Peachtree Rd., Penrith 2750	39143	1991	Road Match	42m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
2	Roofing Contractors &/or Repairers	Little Roofing, Unit 5 Lot 10 Peachtree Rd Penrith 2750	61209	1991	Road Match	42m
	Roofing Material Mfrs &/or Dists	Little Roofing, Unit 5 Lot 10 Peachtree Rd Penrith 2750	61243	1991	Road Match	42m
	Motor Engineers	Lonards Automotive Repairs, Unit 3, Lot7, Peachtree Rd, Penrith 2750	53288	1991	Road Match	42m
	Clothing Mfrs &/or W/salers Ladies Dresses &/or Suits	Masa Fashions, 1 /39 Peachtree Rd., Penrith 2750	39412	1991	Road Match	42m
	Produce Merchants Wholesale	Max's Garden Barn Lot 33 Peachtree Rd Penrith 2750	59519	1991	Road Match	42m
	Cabinet Makers	McRae, C. R. Shopfitters., Unit 2. Lot 38, Peachtree Rd., Penrith 2750	37876	1991	Road Match	42m
	Aluminum Fabricators	McRae, C.R. Shopfitters, Unit 2, Lot 38, Peachtree Rd., Penrith 2750	34364	1991	Road Match	42m
	Radio Communication Systems Mfrs &/or Dists	Miles Communications, Unit 9, Lot 3, Peachtree Rd., Penrith. 2750	60060	1991	Road Match	42m
	Communication Systems Mfrs &/or Imps &/or Dists	Miles Communications., Unit 9 Lot 3 Peachtree Rd., Penrith 2750	39765	1991	Road Match	42m
	Motor Wreckers	Nepean Auto Wreckers Unit 5 Lot 7 Peachtree Rd. Penrith. 2750	55716	1991	Road Match	42m
	Blinds Venetian Cleaning &/or Repairing	Nepean Blind Cleaning, Unit 6, Lot 2, Peachtree Rd, Penrith 2750	36065	1991	Road Match	42m
	Clothing Mfrs &/or W/salers - Baby &/or Childrens Wear	O'Hara Fashions., 1/39 Peachtree Rd., Penrith 2750	39207	1991	Road Match	42m
	Computer Accessories &/or Supplies	Omega Data Furniture Pty. Ltd., Lot 20, Peachtree Rd., Penrith 2750	39840	1991	Road Match	42m
	Kitchen Units Mfrs &/or Dists &/or Installers	P.G. Kitchens, Unit 3, Lot 38, Peachtree Rd., Penrith. 2750	50260	1991	Road Match	42m
	Auto Electricians	Peachtree Auto Electrical, Unit 4. Lot 7, Peachtree Rd, Penrith 2750	34995	1991	Road Match	42m
	Motor Wreckers	Penrith Auto Wreckers Lot 43 Peachtree Rd. Penrith. 2750	55723	1991	Road Match	42m
	Motor Wreckers	Penrith Japanese Wreckers Lot 4 Peachtree Rd. Penrith. 2750	55724	1991	Road Match	42m
	Signs Writers	Penrith Signs Pty Ltd, Unit 5 Lot 3 Peachtree Rd Penrith 2750	62673	1991	Road Match	42m
	Upholsterers	Penrith Upholstery, Unit 2 Lot 3 Peachtree Rd Penrith 2750	65459	1991	Road Match	42m
	Wrought Iron Works	Penrith Wrought Iron, Unit 1 Lot 21 Peachtree Rd Penrith 2750	66511	1991	Road Match	42m
	Screen Printers	Poly-Ad Signs, 3/31 Peachtree Rd Penrith 2750	61734	1991	Road Match	42m
	Display & Exhibition Equipment &/or Supplies	Poly-Ad Signs, 3/31 Peachtree Rd., Penrith 2750	41554	1991	Road Match	42m
	Motor Steering Specialists	Potter, Charlie Jnr., Unit 3, lot 44, Peachtree Rd., Penrith 2750	55175	1991	Road Match	42m
	Partition Mfrs &/or Dists	R.M.B. Officer Planners & Alterations Pty. Ltd., Unit 3 Lot 3., Peachtree Rd., Penrith. 2750	56893	1991	Road Match	42m
	Joinery Manufacturers &/or Merchants	R.M.B. Officer Planners & Alternations Pty Ltd, Unit 3 Lot 3., Peachtree Rd., Penrith. 2750	50020	1991	Road Match	42m
	Printers Lithographic (Offset)	Ralph's Print Stop., 4/31 Peachtree Rd., Penrith. 2750	59303	1991	Road Match	42m
	Electric Motor Winding &/or Rewinding Specialists	Riverland Motor Rewinds Pty Ltd, Lot 32, Peachtree Rd, Penrith 2750	42229	1991	Road Match	42m
	Shelving &/or Storage Systems	Shelving & Display Systems, Unit 4 Lot 42 Peachtree Rd Penrith 2750	62224	1991	Road Match	42m
	Motor Car Detailers	Supreme Detailing Services, Unit 3 Lot 21 Peachtree Rd, Penrith 2750	52717	1991	Road Match	42m
	Electrical Contractors	Thurston Services., Unit 5, Lot 35, Peachtree Rd., Penrith 2750	42590	1991	Road Match	42m
	Tube Steel Mfrs &/or Dists	Trans Vent Spiral Tubing Pty Ltd, Unit 5, Lot 34, Peachtree Rd Penrith 2750	65079	1991	Road Match	42m
	Tube Steel Mfrs &/or Dists	Trans Vent Spiral Tubing Pty Ltd, Unit 5, Lot 34, Peachtree Rd Penrith 2750	65076	1991	Road Match	42m
	Concrete Formwork, Form Ties & Accessories Mfrs &/or Suppliers	Trans Vent Spiral Tubing Pty Ltd, Unit 5, Lot 34, Peachtree Rd, Penrith 2750	40490	1991	Road Match	42m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
2	Air Conditioning Equipment & Parts Mfrs &/or Imps &/or Dists	Trans Vent Spiral Tubing Pty. Ltd., Unit 5, Lot 34, Peachtree Rd., Penrith 2750	33893	1991	Road Match	42m
	Dust Collection &/or Fume Extraction Equipment Mfrs &/or Dists	Trans Vent Spiral Tubing Pty. Ltd., Unit 5, Lot 34, Peachtree Rd., Penrith 2750	41764	1991	Road Match	42m
	Refrigeration Component Parts Mfrs &/or Dists	Transcomp Engineering (Aust.) Pty. Ltd., Lot 32, Peachtree Rd., Penrith. 2750	60980	1991	Road Match	42m
	Electrical Accessories Mfrs &/or W/salers	Turk, John R. & Sons (Penrith) Pty. Ltd., Unit 1, Lot 34, Peachtree Rd, Penrith 2750	42393	1991	Road Match	42m
	Electrical Supplies &/or Appliances Mfrs &/or W/salers	Turk, John R. & Sons (Penrith) Pty. Ltd., Unit 1, Lot 34, Peachtree Rd, Penrith 2750	42743	1991	Road Match	42m
	Air Conditioning Industrial, Commercial &/or Domestic Specialists	W-E-S-T Air Conditioning, Unit 5, Lot 2, Peachtree Rd., Penrith 2750	33981	1991	Road Match	42m
	Sheet Metal Workers	W-E-S-T Air Sheet Metal, Unit 5, Lot 2, Peachtree Rd Penrith 2750	62171	1991	Road Match	42m
	Canvas Goods Mfrs &/or Dists	Western Canvas, Unit 6, Lot 10, Peachtree Rd., Penrith 2750	38055	1991	Road Match	42m
	Sheet Metal Workers	Wilson Sheet Metal Pty Ltd, Unit 3, Lot 34 Peachtree Rd Penrith 2750	62178	1991	Road Match	42m
	LABORATORY EQUIPMENT	Almeta Engineering Unit 2, Lot 10 Peachtree Road, Penrith. 2750	50865	1986	Road Match	42m
	LABORATORY APPARATUS &/OR EQUIPMENT MFRS. &/OR IMPS. &/OR DIST.	Almeta Engineering, Unit 2, Lot 10 Peachtree Rd., Penrith. 2750	50822	1986	Road Match	42m
	SCHOOL SUPPLIES MFRS. &/OR DIST.	Almeta Engineering, Unit 2, Lot 10 Peachtree Rd., Penrith. 2750	84685	1986	Road Match	42m
	SCIENTIFIC APPARATUS MFRS. &/OR IMPS. &/OR DIST.	Almeta Engineering, Unit 2, Lot 10 Peachtree Rd., Penrith. 2750	85020	1986	Road Match	42m
	TOOLMAKERS.	Almeta Engineering, Unit 2, Lot 10 Peachtree Rd., Penrith. 2750	94056	1986	Road Match	42m
	TOOLMAKERS.	Almeta Engineering. Unit 2, Lot 10 Peachtree Road, Penrith. 2750	94030	1986	Road Match	42m
	TIMBER MERCHANTS.	Armstrong, H. N. Timbers Pty. Ltd., 45 Peachtree Rd., Penrith. 2750	93497	1986	Road Match	42m
	BUILDERS HARDWARE MFRS. &/OR IMPS. &/OR DIST.	Aussie Steel Cavity, Unit 9, Lot 10 Peachtree Rd., Penrith. 2750	8371	1986	Road Match	42m
	CAVITY SLIDING DOOR FRAMES –ALUMINIUM.	Aussie Steel Cavity, Unit 9, Lot 10 Peachtree Rd., Penrith. 2750	13244	1986	Road Match	42m
	DOOR FITTINGS-MFRS. &/OR DIST.	Aussie Steel Cavity, Unit 9, Lot 10 Peachtree Rd., Penrith. 2750	24558	1986	Road Match	42m
	SLIDING DOOR TRACKS MFRS.	Aussie Steel Cavity, Unit 9, Lot 10 Peachtree Rd., Penrith. 2750	87024	1986	Road Match	42m
	MOTOR WHEELS &/OR RIMS MFRS. &/OR W/SALERS.	B.G.R. Wheel Works, Unit 4/44 Peachtree Rd., Penrith. 2750	68620	1986	Road Match	42m
	FURNITURE-GENERAL-MFRS. &/OR W/SALERS.	Berton Furniture Peachtree Road, Penrith 2750	37386	1986	Road Match	42m
	FURNITURE IMPORTERS.	Berton Furniture, Peachtree Rd., Penrith 2750	37624	1986	Road Match	42m
	FURNITURE MFRS.-DINING ROOM.	Berton Furniture, Peachtree Rd., Penrith 2750	37750	1986	Road Match	42m
	FURNITURE-GENERAL-MFRS. &/OR W/SALERS.	Berton Furniture, Peachtree Rd., Penrith 2750	37423	1986	Road Match	42m
	FURNITURE-OCCASIONAL-MFRS. &/OR W/SALERS.	Berton Furniture, Peachtree Rd., Penrith 2750	37877	1986	Road Match	42m
	FURNITURE-PINE-MFRS. &/OR DIST.	Berton Furniture, Peachtree Rd., Penrith 2750	37961	1986	Road Match	42m
	BOAT, LAUNCH &/OR YACHT ACCESSORIES MFRS. &/OR DIST.	Boss Trim, Unit 8, Lot 10 Peachtree Rd., Penrith. 2750	6190	1986	Road Match	42m
	CANOPY AND CABIN MFRS. &/OR DIST.	Boss Trim, Unit 8, Lot 10 Peachtree Rd., Penrith. 2750	12143	1986	Road Match	42m
	MARINE EQUIPMENT MFRS. &/OR DIST.	Boss Trim, Unit 8, Lot 10 Peachtree Rd., Penrith. 2750	52843	1986	Road Match	42m
	MOTOR TRIMMERS.	Boss Trim, Unit 8, Lot 10 Peachtree Rd., Penrith. 2750	68209	1986	Road Match	42m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
2	MOTOR PANEL BEATERS &/OR SPRAY PAINTERS.	Bradwal Panel & Paint, Unit 4, Lot 7 Peachtree Rd., Penrith. 2750	66128	1986	Road Match	42m
	KITCHEN UNITS MFRS. &/OR DIST. &/OR INSTALLERS.	C & P Kitchens, Unit 1, Lot 7 Peachtree Rd., Penrith. 2750	50338	1986	Road Match	42m
	MOTOR CAR DETAILERS.	Car Craft Detailing, Unit 5, Lot 44 Peachtree Rd., Penrith. 2750	61794	1986	Road Match	42m
	MOTOR PANEL BEATERS &/OR SPRAY PAINTERS.	Car Painters, Peachtree Rd., Penrith. 2750	66163	1986	Road Match	42m
	PRINTERS - LITHOGRAPHIC.	Clover Colorprint Pty. Ltd., Unit 2/Lot 39 Peachtree Rd., Penrith. 2750	76573	1986	Road Match	42m
	ENGINEERS – GENERAL &/ OR MANUFACTURING &/ OR MECHANICAL.	Coffey Engineering Services Pty. Ltd., Lot 13 Peachtree Rd., Penrith. 2750	29855	1986	Road Match	42m
	WORD PROCESSING EQUIPMENT MFRS. &/OR IMPS. &/OR DIST.	Colonial Wrought Iron Unit 9, Lot 1, Peachtree Rd., Penrith. 2750	99996	1986	Road Match	42m
	FENCE &/OR GATE MFRS.	Colonial Wrought Iron Unit 9, Lot 10 Peachtree Road, Penrith. 2750	32164	1986	Road Match	42m
	DOOR MFRS. &/OR DIST. &/OR INSTALLERS.	Colonial Wrought Iron, Unit 9, Lot 10 Peachtree Rd., Penrith. 2750	24631	1986	Road Match	42m
	FENCE &/OR GATE MFRS.	Colonial Wrought Iron, Unit 9, Lot 10 Peachtree Rd., Penrith. 2750	32198	1986	Road Match	42m
	SECURITY DOORS & GRILLES.	Colonial Wrought Iron, Unit 9, Lot 10 Peachtree Rd., Penrith. 2750	85582	1986	Road Match	42m
	STEEL FABRICATORS.	Colonial Wrought Iron, Unit 9, Lot 10 Peachtree Rd., Penrith. 2750	88900	1986	Road Match	42m
	WROUGHT IRON & STEEL PRODUCTS.	Colonial Wrought Iron, Unit 9, Lot 2 Peachtree Rd., Penrith. 2750	100014	1986	Road Match	42m
	WROUGHT IRON WORKERS.	Colonial Wrought Iron, Unit 9, Lot 2 Peachtree Rd., Penrith. 2750	100055	1986	Road Match	42m
	AIR CONDITIONING SALES &/OR SERVICE.	D W. Air Conditioning Pty. Ltd., Unit 8, Lot 3 Peachtree Rd., Penrith 2750	2325	1986	Road Match	42m
	AIR CONDITIONING-INDUSTRIAL &/OR DOMESTIC.	D.W. Air Conditioning Pty. Ltd., Unit 8, Lot 3 Peachtree Rd., Penrith. 2750	2244	1986	Road Match	42m
	REFRIGERATOR DEALERS &/OR SERVICEMEN.	D.W. Air Conditioning Pty. Ltd., Unit 8, Lot 3 Peachtree Rd., Penrith.2750	80754	1986	Road Match	42m
	TANKER MFRS. &/OR DIST.	Gebel Industries Lot 17 Peachtree Road, Penrith. 2750	92037	1986	Road Match	42m
	FIBREGLASS PRODUCTS MFRS.	Gebel Industries, Lot 17 Peachtree Rd., Penrith. 2750	32396	1986	Road Match	42m
	TANK &/OR TANKSTAND MFRS. &/OR DIST.	Gebel Industries, Lot 17 Peachtree Rd., Penrith. 2750	92022	1986	Road Match	42m
	GLASS TINTING.	Glass Tinting Unit 1, 39 Peachtree Road, Penrith. 2750	39897	1986	Road Match	42m
	ENGINEERS – GENERAL &/ OR MANUFACTURING &/ OR MECHANICAL.	Harvey Engineering, Peachtree Rd., Penrith. 2750	30021	1986	Road Match	42m
	BOLT &/OR NUT MFRS. &/OR DIST.	Harvey Engineering, Unit 4, Lot 10 Peachtree Rd., Penrith. 2750	6702	1986	Road Match	42m
	EARTH MOVING EQUIPMENT MAINTENANCE &/OR REPAIRS.	Harvey Engineering, Unit 4, Lot 10 Peachtree Rd., Penrith. 2750	25746	1986	Road Match	42m
	ENGINEERS – GENERAL &/ OR MANUFACTURING &/ OR MECHANICAL.	Harvey Engineering, Unit 4, Lot 10 Peachtree Rd., Penrith. 2750	30022	1986	Road Match	42m
	FASTENERS-INDUSTRIAL.	Harvey Engineering, Unit 4, Lot 10 Peachtree Rd., Penrith. 2750	32152	1986	Road Match	42m
	WELDERS - ALUMINIUM.	Harvey Engineering, Unit 4, Lot 10 Peachtree Rd., Penrith. 2750	98523	1986	Road Match	42m
	WELDERS - CAST IRON &/OR NON-FERROUS METALS.	Harvey Engineering, Unit 4, Lot 10 Peachtree Rd., Penrith. 2750	98775	1986	Road Match	42m
	SCREEN PROCESS PRINTERS.	Helpam Screen Printers, 41 Peachtree Rd., Penrith. 2750	85197	1986	Road Match	42m
	KITCHEN UNITS MFRS. &/OR DIST. &/OR INSTALLERS.	J & K Kitchens, Unit 3, Lot 39 Peachtree Rd., Penrith. 2750	50433	1986	Road Match	42m
	BUILDERS SUPPLIERS.	Kelly's Owner Builder Store, Unit 4, 35 Peachtree Rd., Penrith.2750	8655	1986	Road Match	42m

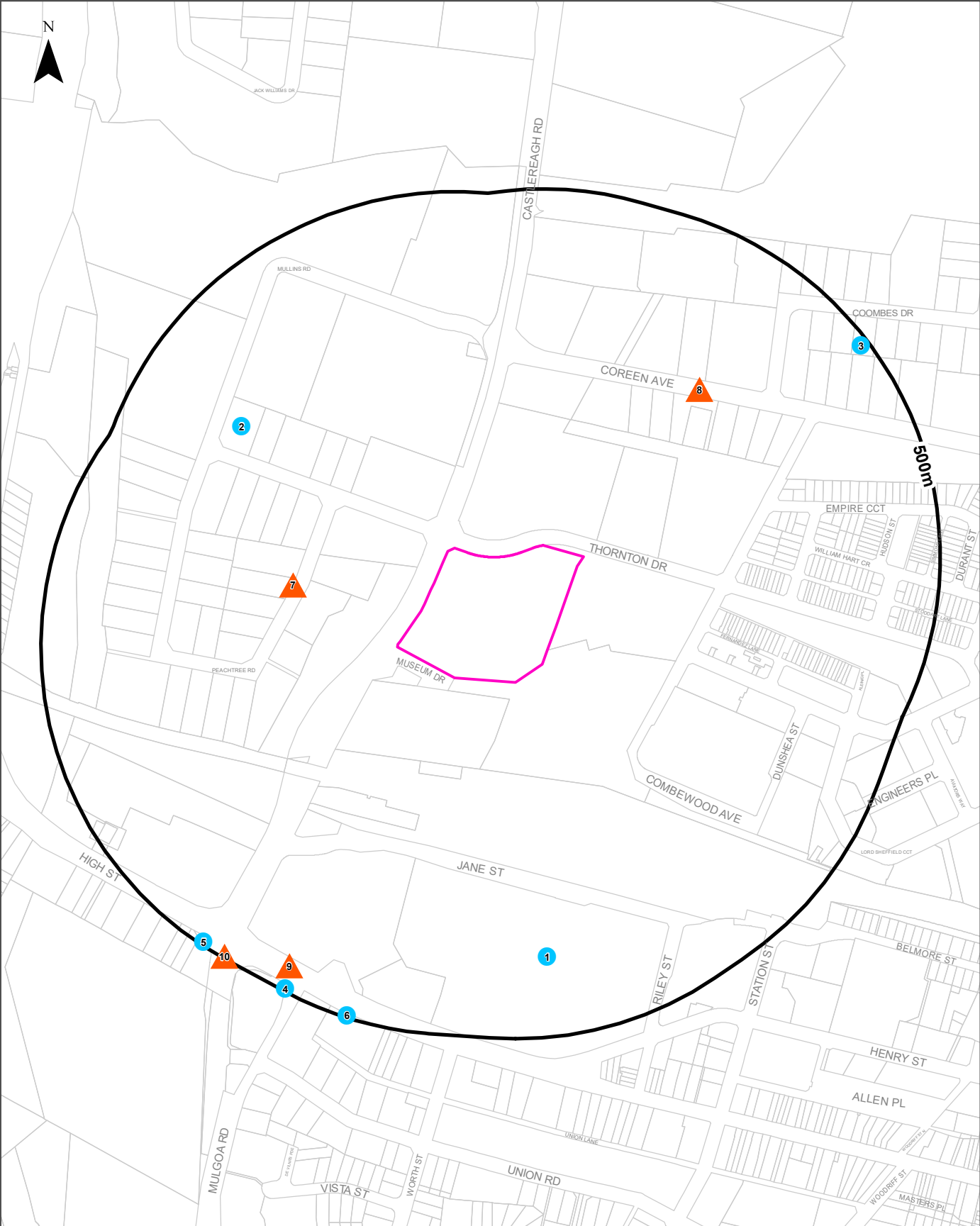
Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
2	MOTOR GARAGES & SERVICE STATIONS.	Lonard's Automotive Repairs, Unit 3, Lot 7 Peachtree Rd., Penrith. 2750	64995	1986	Road Match	42m
	TYPESETTERS - TRADE.	M. & R. Typesetting, Unit 2, Lot 39 Peachtree Rd., Penrith. 2750	96060	1986	Road Match	42m
	NURSERYMEN.	Max's Garden Barn, Lot 33 Peachtree Rd., Penrith. 2750	70046	1986	Road Match	42m
	ALUMINIUM FABRICATORS.	McRae, C. R. Shopfitters, Unit 2, Lot 38 Peachtree Rd., Penrith. 2750	2773	1986	Road Match	42m
	CABINET MAKERS.	McRae, C. R. Shopfitters, Unit 2, Lot 38 Peachtree Rd., Penrith. 2750	11069	1986	Road Match	42m
	JOINERY MANUFACTURERS.	McRae, C. R. Shopfitters, Unit 2, Lot 38 Peachtree Rd., Penrith. 2750	50175	1986	Road Match	42m
	SHOP &/OR OFFICE FITTERS	McRae, C. R. Shopfitters, Unit 2, Lot 38 Peachtree Rd., Penrith. 2750	86518	1986	Road Match	42m
	MOTOR ACCESSORIES – RETAIL .	Nepean Tinting Specialists, Unit 1, Lot 39 Peachtree Rd. Penrith. 2750	61103	1986	Road Match	42m
	BURGLAR ALARM &/OR PROTECTION SYSTEMS MFRS. &/OR DIST. &/OR INSTALLERS	Nepean Tinting Specialists, Unit 1, Lot 39 Peachtree Rd., Penrith. 2750	9255	1986	Road Match	42m
	GLASS TINTING.	Nepean Tinting Specialists, Unit 1, Lot 39 Peachtree Rd., Penrith. 2750	39902	1986	Road Match	42m
	MOTOR GLASS REPLACEMENTS.	Nepean Tinting Specialists, Unit 1, Lot 39 Peachtree Rd., Penrith. 2750	65855	1986	Road Match	42m
	MOTOR WINDSCREENS.	Nepean Tinting Specialists, Unit 1, Lot 39 Peachtree Rd., Penrith. 2750	68644	1986	Road Match	42m
	WINDOW TINTING.	Nepean Tinting Specialists, Unit 1, Lot 39 Peachtree Rd., Penrith. 2750	99090	1986	Road Match	42m
	FURNITURE-GENERAL-MFRS. &/OR W/SALERS.	Panther Pine, Lot 21 Peachtree Rd., Penrith 2750	37554	1986	Road Match	42m
	MOTOR WRECKERS.	Penrith Auto Wreckers, Peachtree Rd., Penrith. 2750	68821	1986	Road Match	42m
	FLY SCREEN DOOR &/OR WINDOW MFRS. &/OR DIST.	Penrith Glass & Aluminium Service Pty. Ltd., 35 Peachtree Rd., Penrith. 2750	34067	1986	Road Match	42m
	SIGNWRITERS.	Penrith Signs Pty. Ltd., Unit 5, Lot 3 Peachtree Rd., Penrith. 2750	86860	1986	Road Match	42m
	UPHOLSTERERS.	Penrith Upholstery, Unit 2, Lot 3 Peachtree Rd., Penrith. 2750.	96634	1986	Road Match	42m
	WROUGHT IRON WORKERS.	Penrith Wrought Iron, Unit 1, Lot 21 Peachtree Rd., Penrith. 2750	100094	1986	Road Match	42m
	MOTOR STEERING SPECIALISTS.	Potter, Charlie Jnr., Unit 3, Lot 44 Peachtree Rd., Penrith. 2750	67802	1986	Road Match	42m
	MOTOR ELECTRICIANS.	Price Craig Auto Electrical, Unit 2/Lot 21 Peachtree Rd., Penrith. 2750	62992	1986	Road Match	42m
	ELECTRICAL CONTRACTORS-LICENSED.	Thurston Services, Unit 5 Lot 35 Peachtree Rd., Penrith. 2750	27216	1986	Road Match	42m
	STEEL TUBING MFRS. &/OR DIST.	Trans Vent Spiral Tubing Pty. Ltd., Unit 5, Lot 34 Peachtree Rd., Penrith. 2750	89277	1986	Road Match	42m
	ENGINEERS – REFRIGERATION.	Transcomp Engineering, Unit 3, Lot 3 Peachtree Rd., Penrith. 2750	31046	1986	Road Match	42m
	REFRIGERATOR UNITS &/OR EQUIPMENT MFRS. &/OR DIST	Transcomp Engineering, Unit 3, Lot 3 Peachtree Rd., Penrith. 2750	80701	1986	Road Match	42m
	AIR CONDITIONING SALES &/OR SERVICE.	W-E-S-T Air Conditioning, Unit 5, Lot 2 Peachtree Rd., Penrith.2750	2394	1986	Road Match	42m
	SHEET METAL WORKERS.	W-E-S-T Air Sheet Metal, Unit 5, Lot 2 Peachtree Rd., Penrith. 2750	86169	1986	Road Match	42m
	CANVAS MFRS.	Western Canvas, Unit 6, Lot 2 Peachtree Rd., Penrith. 2750	12205	1986	Road Match	42m
	SHEET METAL WORKERS.	Wilson Sheet Metal Pty. Ltd., Unit 3, Lot 34 Peachtree Rd., Penrith. 2750	86178	1986	Road Match	42m
	TIMBER MERCHANTS. (T4625)	Armstrong, H. N. Timbers Pty. Ltd., 45 Peachtree Rd., Penrith. 2750.	80250	1982	Road Match	42m
	REFRIGERATION COMMERCIAL & DOMESTIC. * (R3505)	Freeburn Services, Lot 3, Unit 9 Peachtree Road, Penrith. 2750	70126	1982	Road Match	42m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
2	AIR CONDITIONING SALES &/ORSERVICE. (A3660)	Mythand Pty. Ltd., Peachtree Rd., Penrith. 2750.	2078	1982	Road Match	42m
	AIR CONDITIONING- INDUSTRIAL&/OR DOMESTIC. (A3600)	Mythand Pty. Ltd., Peachtree Rd., Penrith. 2750.	2009	1982	Road Match	42m
	REFRIGERATOR DEALERS &/OR SERVICEMEN. (R4130)	Mythand Pty. Ltd., Peachtree Rd., Penrith. 2750.	70203	1982	Road Match	42m

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Dry Cleaners, Motor Garages & Service Stations

2235-2249 Castlereagh Road, Penrith, NSW 2750



Legend		Scale: 0 100 200 300 400 Meters	Coordinate System: GDA 1994 MGA Zone 56
Site Boundary	Business directory records mapped to a specific premise		Date: 27 September 2024
Buffer 500m	Business directory records mapped to a road intersection	Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018	
Property Boundary	Business directory records mapped to a road corridor		
Business directory records mapped to a general area			

Historical Business Directories

2235-2249 Castlereagh Road, Penrith, NSW 2750

Dry Cleaners, Motor Garages & Service Stations 1948-1993 Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer.

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	MOTOR GARAGES & ENGINEERS	Nepean Motors Pty. Ltd., 593 High St., Penrith	222556	1961	Premise Match	259m	South
	MOTOR GARAGES & ENGINEERS	O'Meagher, D, 593 High St., Penrith	222557	1961	Premise Match	259m	South
	MOTOR GARAGES & ENGINEERS	Penrith Tyre Service Pty. Ltd., 593 High St., Penrith	222559	1961	Premise Match	259m	South
	MOTOR GARAGES & ENGINEERS	Ferguson, A. D., 593 High St, Penrith	151372	1950	Premise Match	259m	South
	MOTOR GARAGES & ENGINEERS	Nepean Motor Works, 593 High St. Penrith	151377	1950	Premise Match	259m	South
	MOTOR SERVICE STATIONS	Nepean Motor Works, 593 High St. Penrith	151400	1950	Premise Match	259m	South
2	Motor Garages & Service Stations	Penrith Auto Repairs, Unit 5/42 Peachtree Rd., Penrith 2750	97782	1991	Premise Match	310m	North West
	MOTOR GARAGES & SERVICE STATIONS.	Penrith Auto Repairs, Unit 5/42 Peachtree Rd., Penrith. 2750	11983	1990	Premise Match	310m	North West
	MOTOR GARAGE & SERVICE STATIONS.	Penrith Auto Repairs, 4/42 Peachtree Rd., Penrith. 2750	5399	1989	Premise Match	310m	North West
	MOTOR GARAGES & SERVICE STATIONS.	Penrith Auto Repairs, 4/42 Peachtree Rd., Penrith. 2750	59778	1988	Premise Match	310m	North West
	MOTOR GARAGES & SERVICE STATIONS.	Penrith Auto Repairs, 4/42 Peachtree Rd., Penrith. 2750	65256	1986	Premise Match	310m	North West
	MOTOR GARAGES & SERVICE STATIONS.	Penrith Auto Repairs, 4/42 Peachtree Rd., Penrith. 2750	45365	1985	Premise Match	310m	North West
3	MOTOR GARAGE & SERVICE STATIONS.	Hill Graham Automotive, Unit 1, 8 Coombes Dr., Penrith. 2750	5087	1989	Premise Match	471m	North East
	MOTOR GARAGES & SERVICE STATIONS.	Hill. Graham Automotive., Unit 1, 8 Coombes Dr., Penrith. 2750	59424	1988	Premise Match	471m	North East
	MOTOR GARAGES & SERVICE STATIONS.	Hill, Graham Automotive, Unit 1, 8 Coombes Dr, Penrith. 2750	64864	1986	Premise Match	471m	North East
	MOTOR GARAGES & SERVICE STATIONS.	Hill Graham Automobile., Unit 1, 8 Coombes Dr., Penrith. 2750	44967	1985	Premise Match	471m	North East
4	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Sinclair Ford., 638 High St., Penrith. 2750.	46339	1979	Premise Match	487m	South West
	MOTOR GARAGES & ENGINEERS	Wood, Ken, 638 High St. Penrith 2750	536053	1970	Premise Match	487m	South West
5	MOTOR GARAGES & ENGINEERS	Willington & Knaggs Pty. Ltd., 660 High St., Penrith	222562	1961	Premise Match	488m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Willington & Knaggs Pty. Ltd., 660 High St., Penrith	222582	1961	Premise Match	488m	South West
6	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Central Motors., 616 High St., Penrith. 2750.	41249	1979	Premise Match	491m	South
	MOTOR GARAGES & ENGINEERS	Central Gaarage Penrith Pty. Ltd., 616 High St. Penrith 2750	536047	1970	Premise Match	491m	South

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
6	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Central Motors Pty. Ltd. 616-632 High St., Penrith	222578	1961	Premise Match	491m	South
	MOTOR GARAGES & ENGINEERS	Central Motors Pty. Ltd., 616-632 High St., Penrith	222553	1961	Premise Match	491m	South

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Dry Cleaners, Motor Garages & Service Stations 1948-1993

Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
7	MOTOR GARAGES & SERVICE STATIONS.	Lonard's Automotive Repairs., Unit 3, Lot 7 Peachtree Rd., Penrith. 2750	59536	1988	Road Match	42m
	MOTOR GARAGES & SERVICE STATIONS.	Lonard's Automotive Repairs, Unit 3, Lot 7 Peachtree Rd., Penrith. 2750	64995	1986	Road Match	42m
	MOTOR GARAGES & SERVICE STATIONS.	Brown, Mick Automotive Services, Unit 3, Lot 7 Peachtree Rd., Penrith. 2750	39269	1985	Road Match	42m
8	Motor Garages & Service Stations	Connolly, Herb & Ray Pty Ltd, Unit 22/48 Coreen Ave, Penrith 2750	53660	1991	Road Match	244m
	MOTOR GARAGES & SERVICE STATIONS.	Connolly, Herb & Ray Pty. Ltd, Unit 22/48 Coreen Ave Penrith. 2750	11456	1990	Road Match	244m
	MOTOR GARAGE & SERVICE STATIONS.	Connolly Herb & Ray Pty Ltd., Unit 22, 48 Coreen Ave, Penrith. 2750	64901	1989	Road Match	244m
	MOTOR GARAGES & SERVICE STATIONS.	Connolly, Herb & Ray Pty. Ltd. Unit 22, 48 Coreen Ave., Penrith. 2750	59104	1988	Road Match	244m
	MOTOR GARAGES & SERVICE STATIONS.	Connolly, Herb & Ray Pty. Ltd., Unit 22/48 Coreen Ave., Penrith. 2750	64499	1986	Road Match	244m
	MOTOR GARAGES & SERVICE STATIONS.	Connolly Herb & Ray Pty. Ltd., Unit 22/48 Coreen Ave., Penrith. 2750	39498	1985	Road Match	244m
9	MOTOR GARAGES & SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750	5967	1990	Road Match	429m
	MOTOR GARAGES & SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	11922	1990	Road Match	429m
	MOTOR GARAGE & SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750	64464	1989	Road Match	429m
	MOTOR GARAGE & SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	5331	1989	Road Match	429m
	MOTOR GARAGES & SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750	53567	1988	Road Match	429m
	MOTOR GARAGES & SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	59701	1988	Road Match	429m
	MOTOR GARAGES & SERVICE STATIONS.	Barrett, Ron Pty Ltd., 645 High St., Penrith. 2750	64018	1986	Road Match	429m
	MOTOR GARAGES & SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	65177	1986	Road Match	429m
	MOTOR GARAGES & SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750	39037	1985	Road Match	429m
	MOTOR GARAGES & SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	45279	1985	Road Match	429m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750	27643	1984	Road Match	429m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Nepean Auto Port, High St., Penrith. 2750	33854	1984	Road Match	429m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith 2750	9004	1983	Road Match	429m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Nepean Auto Port., High St., Penrith 2750	15205	1983	Road Match	429m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Barrett, Ron Pty. Ltd., 645 High St., Penrith. 2750.	56096	1982	Road Match	429m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
9	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Nepean Auto Port, High St., Penrith. 2750.	57283	1982	Road Match	429m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Barrett, Ron Pty. Ltd., 645 High St., Penrith. 2750	63766	1981	Road Match	429m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Nepean Auto Port., High St., Penrith 2750	3840	1981	Road Match	429m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Barrett, Ron Pty. Ltd., 645 High St., Penrith. 2750	50237	1980	Road Match	429m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Nepean Auto Port., High St., Penrith. 2750	58584	1980	Road Match	429m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Barrett Ron Pty. Ltd., 645 High St., Penrith. 2750.	40865	1979	Road Match	429m
	MOTOR GARAGES & ENGINEERS	Barrett, Ron Pty. Ltd., 645-649 High St. Penrith 2750	536046	1970	Road Match	429m
	MOTOR GARAGES & ENGINEERS	Barrett, Ron Pty. Ltd., 645-649 High St., Penrith	222552	1961	Road Match	429m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Wood, K., High St., Penrith	222583	1961	Road Match	429m
	MOTOR GARAGES & ENGINEERS	Wood, Ken, High St., Penrith	222563	1961	Road Match	429m
10	MOTOR GARAGES & SERVICE STATIONS.	Field, Kevin & Bruce Automotive Services, 250 Mulgoa Rd., Penrith. 2750	64694	1986	Road Match	493m

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Aerial Imagery 2024

2235-2249 Castlereagh Road, Penrith, NSW 2750



Legend

- Site Boundary
- Buffer 150m

Scale: 0 40 80 120 160 Meters	Data Source Aerial Imagery: © 2024 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.	Coordinate System: GDA 1994 MGA Zone 56	Date: 27 September 2024
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Aerial Imagery 2014

2235-2249 Castlereagh Road, Penrith, NSW 2750



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Aerial Imagery 2002

2235-2249 Castlereagh Road, Penrith, NSW 2750







Aerial Imagery 1986

2235-2249 Castlereagh Road, Penrith, NSW 2750





Legend

 Site Boundary

 Buffer 150m

Scale: 0 30 60 90 120 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 27 September 2024
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Aerial Imagery 1978

2235-2249 Castlereagh Road, Penrith, NSW 2750







Aerial Imagery 1961

2235-2249 Castlereagh Road, Penrith, NSW 2750



Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 27 September 2024
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Aerial Imagery 1949

2235-2249 Castlereagh Road, Penrith, NSW 2750



Data Source Aerial Imagery: ©2024 Geoscience Australia	Coordinate System: GDA 1994 MGA Zone 56	Date: 27 September 2024
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Aerial Imagery 1943

2235-2249 Castlereagh Road, Penrith, NSW 2750



Data Source Aerial Imagery:
© NSW Department of Customer Service

Coordinate System:
GDA 1994 MGA Zone 56

Date: 27 September 2024

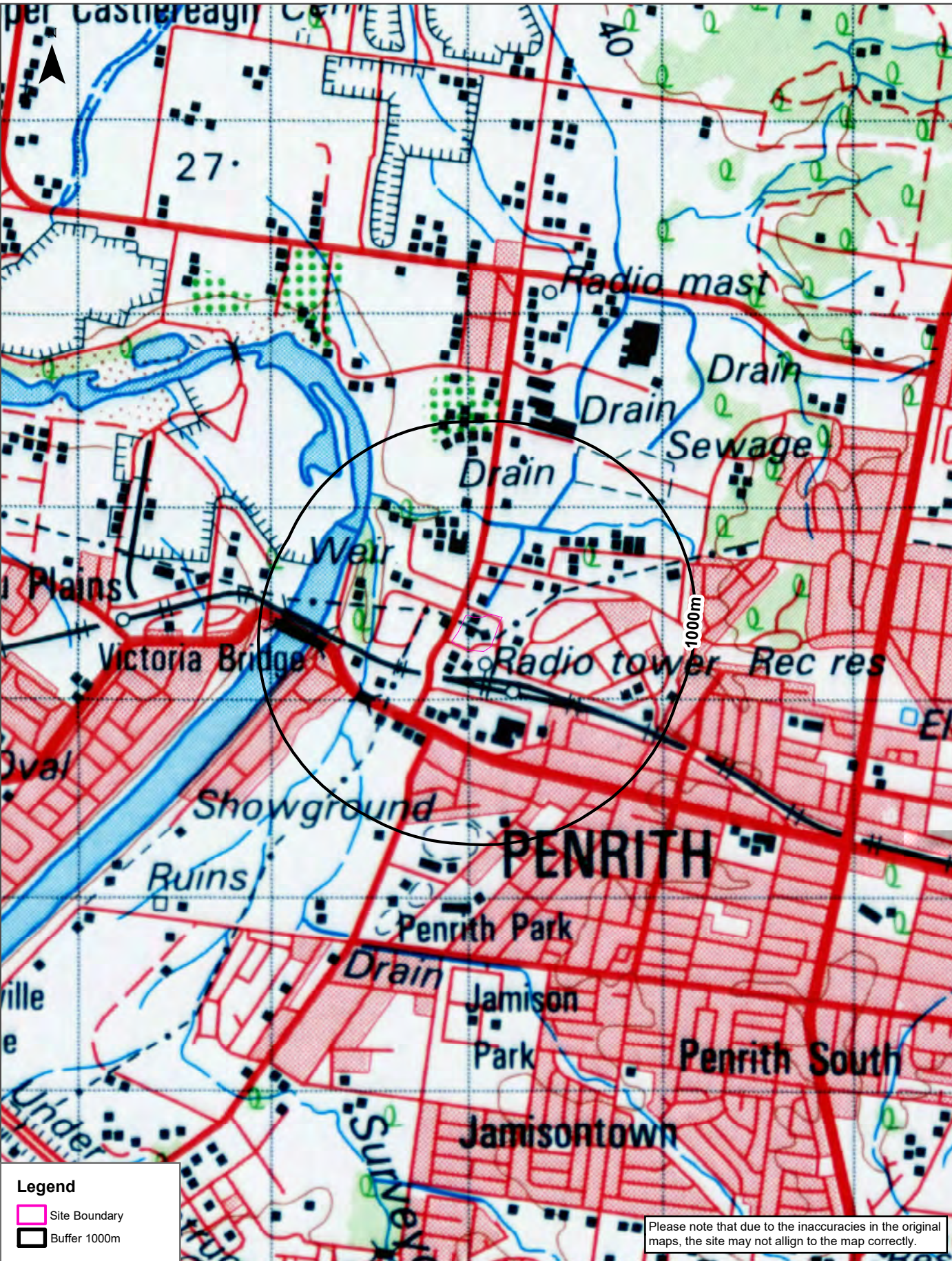
Topographic Map 2015

2235-2249 Castlereagh Road, Penrith, NSW 2750



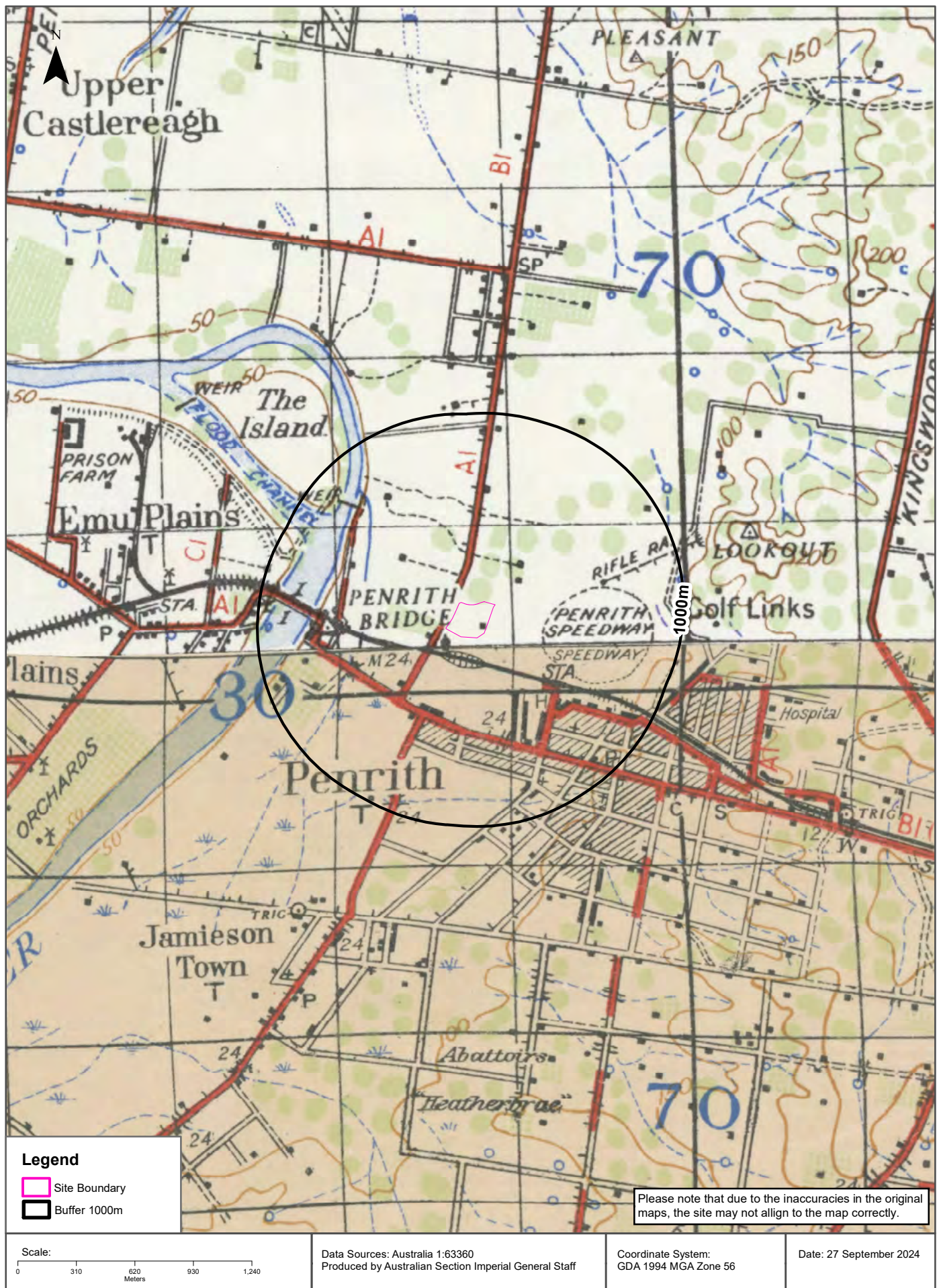
Historical Map 1975

2235-2249 Castlereagh Road, Penrith, NSW 2750



Historical Map c.1942

2235-2249 Castlereagh Road, Penrith, NSW 2750



Historical Map c.1929

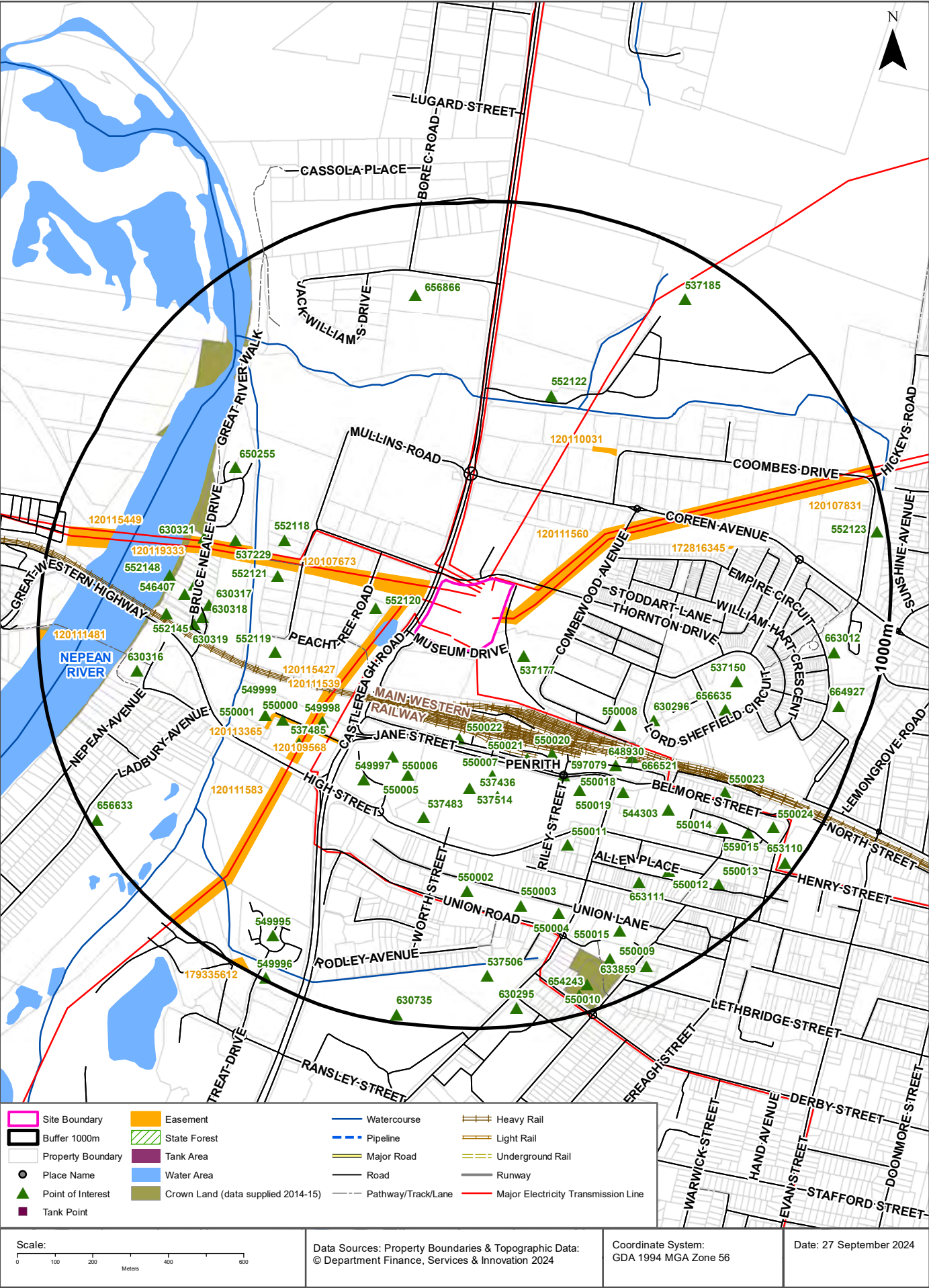
2235-2249 Castlereagh Road, Penrith, NSW 2750



Scale: 0 310 620 930 1,240 Meters	Data Sources: Australia 1:63360 Produced by Australian Section Imperial General Staff	Coordinate System: GDA 1994 MGA Zone 56	Date: 27 September 2024
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Topographic Features

2235-2249 Castlereagh Road, Penrith, NSW 2750



Topographic Features

2235-2249 Castlereagh Road, Penrith, NSW 2750

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
537177	Museum	MUSEUM OF FIRE	92m	South East
552120	Sports Centre	FITNESS WORLD	122m	West
550022	Parking Area	Parking Area	233m	South
550021	Parking Area	Parking Area	313m	South East
550006	Local Government Chambers	PENRITH CITY COUNCIL	319m	South West
550007	Parking Area	Parking Area	332m	South
550020	Parking Area	Parking Area	336m	South East
549998	Sports Court	TENNIS COURTS	342m	South West
550005	Library	PENRITH CITY LIBRARY	348m	South
537514	Shopping Centre	PENRITH PLAZA	364m	South
552119	Sports Centre	Sports Centre	375m	West
537436	Post Office	PENRITH WESTFIELD POST OFFICE	388m	South
552121	Sports Centre	ROLLER SKATING RINK	394m	West
597079	City	PENRITH	401m	South East
550008	Parking Area	Parking Area	404m	South East
549997	Parking Area	Parking Area	408m	South West
549999	Sports Court	TENNIS COURTS	414m	South West
550000	Parking Area	Parking Area	419m	South West
552118	Sports Centre	Sports Centre	423m	North West
537485	Park	WOODRIFF GARDENS	426m	South West
537483	Community Facility	JOAN SUTHERLAND PERFORMING ARTS CENTRE	450m	South
550001	Community Facility	NEPEAN DISTRICT TENNIS ASSOCIATION	454m	South West
550019	Parking Area	Parking Area	457m	South East
648930	Bus Interchange	PENRITH BUS INTERCHANGE	464m	South East
630296	Parking Area	Parking Area	476m	South East
666521	Railway Station	PENRITH RAILWAY STATION	481m	South East
552122	Sewage Works	Sewage Works	510m	North
550018	Parking Area	Parking Area	530m	South East
537229	Park	WEIR RESERVE	535m	West
630317	Parking Area	Parking Area	552m	West
550011	Parking Area	Parking Area	566m	South East

Map Id	Feature Type	Label	Distance	Direction
630318	Parking Area	Parking Area	567m	West
630319	Parking Area	Parking Area	587m	West
630320	Parking Area	Parking Area	598m	West
630321	Parking Area	Parking Area	613m	West
546407	Club	NEPEAN ROWING CLUB	620m	West
650255	Picnic Area	Picnic Area	626m	North West
550002	Parking Area	Parking Area	636m	South
656635	Park	THORNTON PLAYGROUND	644m	East
537150	Sports Field	RON MULOCK OVAL	644m	East
544303	TAFE College	NEPEAN TAFE COLLEGE PENRITH CAMPUS	645m	South East
552145	Park	SANDY BRENNAN RESERVE	663m	West
552148	Boat Ramp	Boat Ramp	669m	West
550003	Parking Area	Parking Area	683m	South
550004	Parking Area	Parking Area	727m	South
550023	Parking Area	Parking Area	736m	South East
630316	Parking Area	Parking Area	745m	West
653111	Community Medical Centre	PENRITH COMMUNITY CHILD AND ADOLESCENT SERVICE	746m	South East
656866	Post Office	NEPEAN POST BUSINESS CENTRE	761m	North
550012	Parking Area	Parking Area	767m	South East
550014	Parking Area	Parking Area	784m	South East
550015	Parking Area	Parking Area	831m	South East
559015	Park	SOPER PLACE	847m	South East
537506	Swimming Pool Facility	PENRITH WAR MEMORIAL SWIMMING POOL	860m	South
663012	Nursing Home	SOUTHERN CROSS CARE THORNTON PARK	867m	East
550013	Parking Area	Parking Area	879m	South East
537185	Sewage Works	PENRITH SEWERAGE TREATMENT PLANT	884m	North East
549995	Retirement Village	MOUNTAINVIEW RETREAT RETIREMENT VILLAGE	886m	South West
550009	Park	JUDGES PARK	887m	South East
550024	Parking Area	Parking Area	894m	South East
664927	Park	THOMAS SMITH RESERVE	919m	East
550010	Sports Field	BOWLING GREENS	931m	South
633859	Place Of Worship	CHRISTIAN SCIENTIST CHURCH	947m	South East
630295	Parking Area	Parking Area	951m	South
654243	Club	PENRITH BOWLING AND REC CLUB	951m	South
653110	Community Medical Centre	PENRITH COMMUNITY HEALTH CENTRE	972m	South East
552123	Park	Park	973m	East
630735	Trotting Track	PENRITH PACEWAY	978m	South

Map Id	Feature Type	Label	Distance	Direction
656633	Park	LADBURY AVENUE RESERVE	979m	South West
549996	Nursing Home	MOUNTAINVIEW NURSING HOME	993m	South West

Topographic Data Source: © Land and Property Information (2015)

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Topographic Features

2235-2249 Castlereagh Road, Penrith, NSW 2750

Tanks (Areas)

What are the Tank Areas located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Tanks (Points)

What are the Tank Points located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Tanks Data Source: © Land and Property Information (2015)

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Major Easements

What Major Easements exist within the dataset buffer?

Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
120111560	Primary	Undefined		0m	North East
120115427	Primary	Undefined		30m	West
120107673	Primary	Undefined		30m	West
169172299	Primary	Right of way	18.2m	215m	East
120111539	Primary	Undefined		266m	South West
120109568	Primary	Undefined		351m	South West
120113365	Primary	Undefined		384m	South West
120110031	Primary	Undefined		414m	North East
120107831	Primary	Undefined		475m	East
120111583	Primary	Undefined		498m	South West
172816345	Primary	Right of way	4.15m	579m	East
120119333	Primary	Undefined		603m	West
120115449	Primary	Undefined		794m	West
120111481	Primary	Undefined		968m	West

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
179335612	Primary	Right of way	Whole Of Lot	977m	South West

Easements Data Source: © Land and Property Information (2015)

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Topographic Features

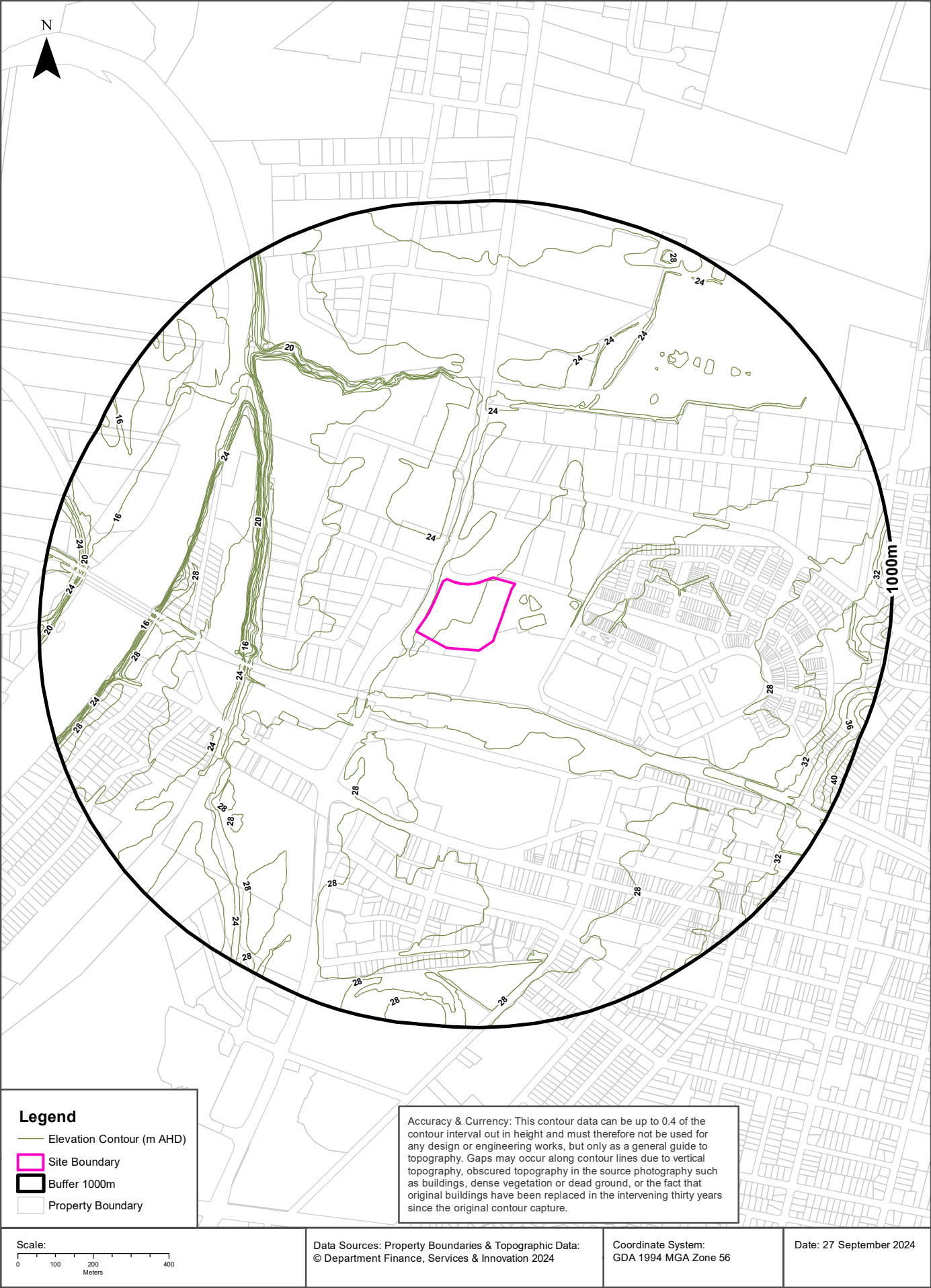
2235-2249 Castlereagh Road, Penrith, NSW 2750

State Forest

What State Forest exist within the dataset buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

State Forest Data Source: © NSW Department of Finance, Services & Innovation (2018)
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Hydrogeology & Groundwater

2235-2249 Castlereagh Road, Penrith, NSW 2750

Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive highly productive aquifers	0m	On-site

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)

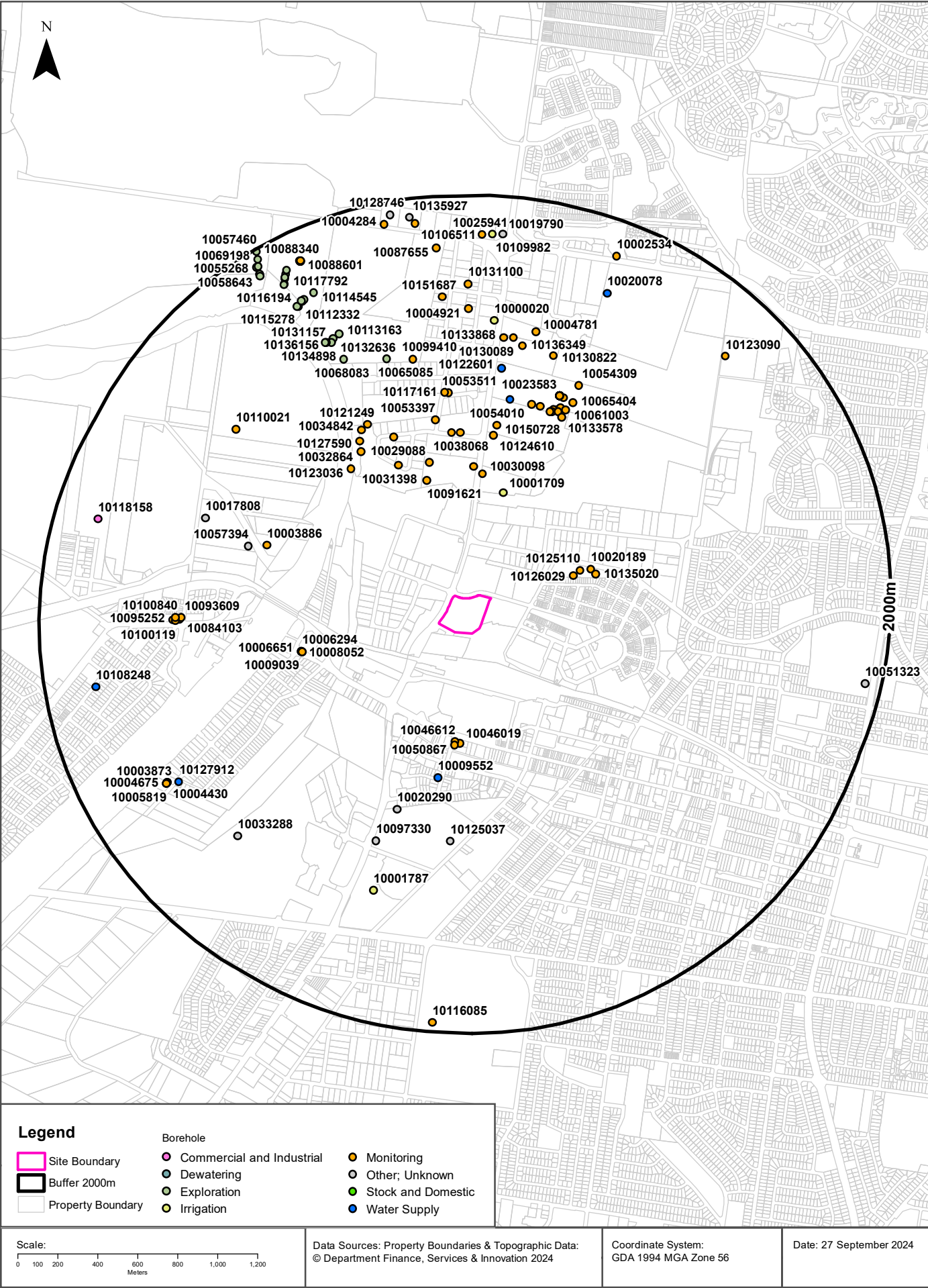
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Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018

Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

Prohibition Area No.	Prohibition	Distance	Direction
N/A	No records in buffer		

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018 Data Source : NSW Department of Primary Industries



Hydrogeology & Groundwater

2235-2249 Castlereagh Road, Penrith, NSW 2750

Groundwater Boreholes

Boreholes within the dataset buffer:

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10126029	GW108041	Monitoring	Unknown	12/04/2006	7.50		AHD			6.70	427m	East
10125110	GW108042	Monitoring	Unknown	22/04/2006	8.00		AHD			6.40	468m	East
10020189	GW108044	Monitoring	Unknown	22/04/2006	9.50		AHD			6.60	521m	East
10001709	GW040458	Irrigation	Unknown		11.00	54.86	AHD				524m	North
10135020	GW108043	Monitoring	Unknown	22/04/2006	9.00		AHD			6.80	538m	East
10046612	GW111988	Monitoring	Functional	24/03/2010	9.00		AHD				547m	South
10046019	GW111989	Monitoring	Functional	24/03/2010	9.00		AHD				553m	South
10050867	GW111987	Monitoring	Functional	24/03/2010	9.00		AHD				564m	South
10091621	GW110649	Monitoring	Unknown	25/11/2009	10.00		AHD			8.70	593m	North
10030098	GW105509	Monitoring	Unknown	27/08/2003	14.10		AHD			7.00	606m	North
10098740	GW110647	Monitoring	Unknown	26/11/2009	10.00		AHD			8.10	643m	North
10088454	GW110648	Monitoring	Unknown	26/11/2009	9.70		AHD			8.20	679m	North
10006294	GW116850	Monitoring	Functioning	11/02/2020	90.20		AHD				698m	West
10009039	GW116850	Monitoring	Functioning	11/02/2020	90.20		AHD				698m	West
10006651	GW116849	Monitoring	Functioning	14/02/2020	13.10		AHD				702m	West
10008052	GW116849	Monitoring	Functioning	14/02/2020	13.10		AHD				702m	West
10031398	GW105512	Monitoring	Unknown	12/05/2003	15.00		AHD			9.60	711m	North West
10009552	GW029710	Water Supply	Unknown	01/04/1969	7.90		AHD				733m	South
10124610	GW108896	Monitoring	Unknown	05/06/2008	13.70		AHD			6.50	802m	North
10038068	GW105510	Monitoring	Unknown	15/05/2003	14.50		AHD			7.00	816m	North
10117555	GW109667	Monitoring	Unknown	02/10/2008	13.70		AHD		0.100	13.40	816m	North
10123036	GW108897	Monitoring	Unknown	05/06/2008	15.50		AHD			11.00	817m	North West
10029088	GW105511	Monitoring	Unknown	14/05/2003	14.10		AHD			8.30	852m	North
10150728	GW040457	Monitoring	Unknown		10.20	55.93	AHD				853m	North
10032864	GW105514	Monitoring	Unknown	29/08/2003	15.65		AHD			5.80	859m	North West
10053397	GW108081	Monitoring	Unknown	02/05/2006	14.35		AHD			7.50	886m	North
10127590	GW109669	Monitoring	Unknown	01/10/2008	15.60		AHD		0.020		906m	North West
10020290	GW101178	Other	Functioning	15/01/1998	11.20		AHD	180	0.600	8.00	932m	South
10003886	GW116854	Monitoring	Functioning	17/04/2020	324.00		AHD				944m	West
10034842	GW105513	Monitoring	Unknown	28/08/2003	15.90		AHD			6.10	950m	North West
10121249	GW108898	Monitoring	Unknown	05/06/2008	14.60		AHD			9.50	960m	North West

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10133578	GW108899	Monitoring	Unknown	05/06/2008	14.60		AHD			7.00	973m	North East
10070977	GW107561	Monitoring	Unknown	03/08/2005	14.30		AHD		0.200	7.50	979m	North East
10125298	GW107761	Water Supply	Unknown	28/11/2005	13.90		AHD	170	0.500	7.80	982m	North East
10052317	GW108071	Monitoring	Unknown	08/03/2006	14.10		AHD				983m	North East
10054010	GW107559	Monitoring	Unknown	02/08/2005	13.60		AHD		0.100	7.50	987m	North
10123304	GW107762	Water Supply	Unknown	25/11/2005	11.60		AHD		0.700	7.00	989m	North
10062118	GW107560	Monitoring	Unknown	02/08/2005	14.20		AHD		0.300	7.50	990m	North
10067790	GW107562	Monitoring	Unknown	04/08/2005	14.60		AHD		0.200	7.50	993m	North East
10050981	GW114759	Monitoring	Functional	17/12/2010	13.70		AHD				995m	North East
10047879	GW114758	Monitoring	Functional	08/12/2010	14.20		AHD				997m	North East
10056018	GW108072	Monitoring	Unknown	05/05/2006	14.20		AHD			6.00	1013m	North East
10061003	GW107563	Monitoring	Unknown	23/11/2005	13.90		AHD				1013m	North East
10053511	GW107307	Monitoring	Unknown	05/08/2005	13.20		AHD		0.100	7.50	1015m	North
10117161	GW110057	Monitoring	Unknown	20/04/2009	13.20		AHD		0.100	7.50	1019m	North
10057394	GW106548	Other	Unknown	02/04/1996	15.40		AHD	190	2.000	6.00	1027m	West
10125037	GW103048	Other	Unknown	01/01/1990	8.00		AHD		1.000	6.00	1045m	South
10065404	GW107564	Monitoring	Unknown	24/11/2005	13.90		AHD				1060m	North East
10049233	GW114760	Monitoring	Functional	30/11/2010	13.80		AHD				1066m	North East
10023583	GW102213	Monitoring	Functional	26/11/1993	12.80		AHD			8.47	1069m	North East
10024998	GW102211	Monitoring	Functional	30/11/1993	10.60		AHD			8.45	1069m	North East
10030740	GW102212	Monitoring	Functional	02/12/1993	11.60		AHD			8.20	1069m	North East
10055356	GW102239	Monitoring	Functional	31/08/1998	9.40		AHD			6.78	1069m	North East
10118952	GW102209	Monitoring	Functional	10/09/1998	13.35		AHD			6.71	1069m	North East
10123226	GW102208	Monitoring	Functional	27/08/1998	14.85		AHD			6.49	1069m	North East
10125157	GW102182	Monitoring	Functional	03/09/1998	9.10		AHD			6.82	1069m	North East
10125179	GW102206	Monitoring	Functional	10/09/1998	12.00		AHD			7.07	1069m	North East
10126334	GW102207	Monitoring	Functional	27/08/1998	9.50		AHD			6.85	1069m	North East
10126724	GW102180	Monitoring	Functional	16/12/1998	9.20		AHD	400	0.200	6.60	1069m	North East
10134583	GW102202	Monitoring	Functional	04/09/1998	9.00		AHD			6.21	1069m	North East
10134668	GW102210	Monitoring	Functional	01/12/1993	11.40		AHD			8.25	1069m	North East
10135923	GW102181	Monitoring	Functional	16/12/1998	9.30		AHD	350	0.100	6.50	1069m	North East
10137869	GW102183	Monitoring	Functional	02/09/1998	10.50		AHD			7.05	1069m	North East
10097330	GW108484	Other	Unknown	06/09/2006	11.00		AHD	550			1115m	South
10122601	GW107763	Water Supply	Unknown	13/06/2006	13.80		AHD		0.700	7.20	1139m	North
10054309	GW107565	Monitoring	Unknown	22/11/2005	13.80		AHD				1152m	North East

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10099410	GW063812	Monitoring	Unknown	01/03/1988	14.60	25.93	AHD				1201m	North
10065085	GW067423	Exploration	Functional	17/07/1990	15.40		AHD				1232m	North
10130822	GW107897	Monitoring	Unknown	14/02/2005	10.10		AHD		0.010	7.00	1251m	North
10136349	GW107898	Monitoring	Unknown	15/05/2005	10.10		AHD		0.010	7.00	1263m	North
10017808	GW065927	Other	Unknown	29/01/1991	15.60		AHD	Excellent			1280m	West
10093609	GW109866	Monitoring	Unknown	11/10/2006	12.50		AHD			9.72	1288m	West
10133868	GW107900	Monitoring	Unknown	17/02/2005	10.00		AHD		0.010	7.00	1291m	North
10084103	GW109865	Monitoring	Unknown	11/10/2006	12.00		AHD			9.59	1296m	West
10130089	GW107899	Monitoring	Unknown	16/02/2005	10.00		AHD		0.010	7.00	1297m	North
10068083	GW067422	Exploration	Functional	17/07/1990	16.20		AHD				1305m	North West
10100119	GW109863	Monitoring	Unknown	11/10/2006	11.60		AHD			9.29	1317m	West
10100840	GW109864	Monitoring	Unknown	12/10/2006	11.85		AHD			9.63	1317m	West
10095252	GW109862	Monitoring	Unknown	10/10/2006	11.00		AHD			9.29	1331m	West
10004781	GW040456	Monitoring	Unknown		8.40	54.41	AHD				1345m	North
10001787	GW026231	Irrigation	Unknown	01/01/1966	8.50		AHD	1001-3000 ppm			1353m	South
10110021	GW115496	Monitoring	Functional	01/11/2012	10.00		AHD				1371m	North West
10000020	GW040455	Irrigation	Unknown		8.90	54.65	AHD				1375m	North
10134898	GW067496	Exploration	Functional	17/07/1990	16.50		AHD				1409m	North West
10131157	GW067495	Exploration	Functional	17/07/1990	7.90		AHD				1413m	North West
10136156	GW067497	Exploration	Functional	17/07/1990	8.90		AHD				1419m	North West
10138494	GW067498	Exploration	Functional	17/07/1990	16.80		AHD				1421m	North West
10132636	GW067494	Exploration	Functional	17/07/1990	16.30		AHD				1422m	North West
10113163	GW067493	Exploration	Functional	17/07/1990	11.80		AHD				1432m	North West
10004921	GW040454	Monitoring	Unknown		12.80	55.08	AHD				1433m	North
10033288	GW105004	Other	Functioning	24/09/2003	183.00		AHD	450	2.200	12.00	1463m	South West
10151687	GW040453	Monitoring	Unknown		9.00	55.29	AHD				1495m	North
10127912	GW111809	Water Supply	Functioning	30/05/2007	15.00		AHD		1.000	13.00	1521m	South West
10131100	GW044015	Monitoring	Unknown	01/01/1880	9.80		AHD				1556m	North
10003873	GW116848	Monitoring	Functioning	03/03/2020	59.00		AHD				1574m	South West
10004430	GW116848	Monitoring	Functioning	03/03/2020	59.00		AHD				1574m	South West
10004675	GW116847	Monitoring	Functioning	12/03/2020	16.00		AHD				1580m	South West
10005819	GW116847	Monitoring	Functioning	12/03/2020	16.00		AHD				1580m	South West
10020078	GW004788	Water Supply	Functioning		9.70		AHD				1632m	North East
10115278	GW067488	Exploration	Functional	17/07/1990	8.50		AHD				1646m	North West
10122503	GW067487	Exploration	Functional	17/07/1990	16.90		AHD				1648m	North West
10112332	GW067490	Exploration	Functional	17/07/1990	9.20		AHD				1658m	North West

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10115108	GW067491	Exploration	Functional	17/07/1990	17.70		AHD				1661m	North West
10124446	GW067489	Exploration	Functional	17/07/1990	17.30		AHD				1662m	North West
10114545	GW067492	Exploration	Functional	17/07/1990	12.50		AHD				1671m	North West
10123090	GW108895	Monitoring	Unknown	04/06/2008	14.70		AHD	9.3	1.100	6.30	1684m	North East
10087655	GW063813	Monitoring	Unknown	01/03/1988	12.60	24.13	AHD				1742m	North
10108248	GW021872	Water Supply	Unknown	01/05/1964	7.90		AHD	Hard			1744m	West
10120432	GW067481	Exploration	Functional	17/07/1990	16.90		AHD				1773m	North West
10116194	GW067482	Exploration	Functional	17/07/1990	10.10		AHD				1776m	North West
10118158	GW102286	Commercial and Industrial	Functioning	06/05/1999	15.45		AHD	423	2.000	7.50	1781m	West
10117792	GW067483	Exploration	Functional	17/07/1990	15.80		AHD				1796m	North West
10025941	GW004793	Monitoring	Unknown	01/01/1958	7.90	53.89	AHD				1803m	North
10121231	GW067484	Exploration	Functional	17/07/1990	8.20		AHD				1803m	North West
10109982	GW014362	Irrigation	Functioning	01/01/1960	6.30		AHD	Domestic			1805m	North
10019790	GW004792	Unknown	Unknown		7.30		AHD	Good			1809m	North
10118570	GW067485	Exploration	Functional	17/07/1990	16.20		AHD				1816m	North West
10002534	GW040452	Monitoring	Unknown		8.30	55.32	AHD				1823m	North East
10120936	GW067486	Exploration	Functional	17/07/1990	13.30		AHD				1832m	North West
10088676	GW102280	Monitoring	Functional	01/05/1990	16.40		AHD				1841m	North West
10090554	GW102279	Monitoring	Functional	07/05/1990	15.50		AHD				1841m	North West
10088632	GW102277	Monitoring	Functional	04/04/1990	16.90		AHD				1842m	North West
10091866	GW102278	Monitoring	Functional	30/04/1990	15.80		AHD				1842m	North West
10099073	GW102276	Monitoring	Functional	14/05/1999			AHD				1843m	North West
10099334	GW102275	Monitoring	Functional	04/04/1990	16.90		AHD				1844m	North West
10088340	GW102274	Monitoring	Functional	30/04/1990	16.50		AHD				1845m	North West
10088601	GW102273	Monitoring	Functional	04/04/1990	16.80		AHD				1846m	North West
10062154	GW067416	Exploration	Functional	17/07/1990	15.50		AHD				1869m	North West
10106511	GW011581	Monitoring	Non-functional	01/12/1955	7.30	53.74	AHD	Good			1871m	North
10058643	GW067417	Exploration	Functional	17/07/1990	8.50		AHD				1880m	North West
10004284	GW040451	Monitoring	Unknown		9.00	55.32	AHD				1891m	North
10135927	GW100913	Unknown	Unknown	01/01/1950	14.02		AHD		0.005	1.22	1905m	North
10064440	GW067419	Exploration	Functional	17/07/1990	4.30		AHD				1917m	North West
10055268	GW067418	Exploration	Functional	17/07/1990	16.40		AHD				1918m	North West
10051323	GW111617	Other	Functioning	20/10/2011	210.00		AHD	2600	1.120	69.00	1920m	East
10128746	GW100914	Unknown	Unknown	01/01/1950	14.00		AHD		6.660	1.50	1932m	North
10069198	GW067420	Exploration	Functional	17/07/1990	13.90		AHD				1948m	North West

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10116085	GW115501	Monitoring	Functional	01/09/2009	9.50		AHD				1955m	South
10057460	GW067421	Exploration	Functional	17/07/1990	11.20		AHD				1986m	North West

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Hydrogeology & Groundwater

2235-2249 Castlereagh Road, Penrith, NSW 2750

Driller's Logs

Drill log data relevant to the boreholes within the dataset buffer:

NGIS Bore ID	Drillers Log	Distance	Direction
10126029	0.00m-0.20m CONCRETE 0.20m-0.40m CLAY L/BROWN 0.40m-3.30m CLAY BECOMING ORANGE,BROWN 3.30m-7.50m GRAVEL,BROWN,WELL GRADED	427m	East
10125110	0.00m-0.20m CONCRETE 0.20m-0.30m FILL,CLAY,GREY/BROWN 0.30m-2.50m CLAY,RED/BROWN 2.50m-7.50m GRAVELS,WELL GRADED 7.50m-8.00m COARSE GRAINED SAND BANDS	468m	East
10020189	0.00m-0.20m CONCRETE 0.20m-0.30m FILL,CLAY,GREY 0.30m-6.40m SILTY CLAYEY SAND,ORANGE,BROWN 6.40m-9.50m GRAVELS,WET,MODERATE	521m	East
10135020	0.00m-4.80m CLAYEY SAND 4.80m-5.40m SAND,BROWN, LOOSE,DDRY 5.40m-9.00m GRAVEL	538m	East
10046612	0.00m-3.00m CLAY MINOR SAND RED BROWN 3.00m-9.00m GRAVEL WITH MINOR SAND	547m	South
10046019	0.00m-3.00m CLAY MINOR SAND RED BROWN 3.00m-9.00m GRAVEL WITH MINOR SAND	553m	South
10050867	0.00m-3.00m CLAY MINOR SAND RED BROWN 3.00m-9.00m GRAVEL WITH MINOR SAND	564m	South
10091621	0.00m-0.20m SILTY LOAM 0.20m-1.70m SILT BROWN 1.70m-4.30m SANDY SILT BROWN LOOSE 4.30m-7.50m CLAYEY SILT DARK BROWN 7.50m-8.80m SILTY CLAY PALE BROWN 8.80m-10.00m CLAYEY SAND,BROWN FINE TO MED GRAINED	593m	North
10030098	0.00m-3.00m BROWN CLAY 3.00m-5.50m GREY CLAY ,STIFF 5.50m-8.00m L/BROWN CLAY 8.00m-9.80m SANDY CLAY 9.80m-10.40m FINE GRAVELS 10.40m-13.90m GRAVELS 13.90m-14.10m SHALE	606m	North
10098740	0.00m-0.60m SILT,SANDY BROWN MINOR GRAVEL 0.60m-2.50m SILT,BROWN,DRY,FINE GRAINED SAND 2.50m-3.30m SILTY CLAY 3.30m-5.60m CLAY BROWN GREY,MOIST 5.60m-8.80m SILTY CLAY ORANGE BROWN,FINE GRAINED SAND 8.80m-10.00m CLAYEY SILTY SAND, PALE BROWN	643m	North
10088454	0.00m-0.70m LOAMY SILT,SAND AND CLAY 0.70m-1.50m SILT BROWN, MOIST,NO ODOUR 1.50m-4.40m CLAYEY SILT,DARK BROWN 4.40m-5.50m CLAY PLALE BROWN,FINE SAND 5.50m-8.40m SILTY CLAY,BROWN,FINE SANDS,MOIST 8.40m-9.70m CLAYEY SILTY SAND,BROWN, M/G	679m	North
10031398	0.00m-0.50m topsoil 0.50m-4.70m sandy clay 4.70m-11.00m stiff clay 11.00m-14.50m large gravels 14.50m-15.00m soft shale	711m	North West
10009552	0.00m-2.74m Loam Red 2.74m-7.92m Sand Gravel Water Supply	733m	South
10124610	0.00m-7.60m SANDY CLAY 7.60m-13.40m GRAVELS 13.40m-13.70m SHALE	802m	North
10038068	0.00m-0.30m TOPSOIL 0.30m-2.70m SANDY CLAY 2.70m-4.50m STIFF CLAY 4.50m-5.70m SMALL GRAVELS 5.70m-14.00m LARGE GRAVELS 14.00m-14.50m SOFT SHALE	816m	North

NGIS Bore ID	Drillers Log	Distance	Direction
10117555	0.00m-4.00m CLAY BROWN 4.00m-5.50m SANDY CLAY 5.50m-13.40m GRAVELS 13.40m-13.70m SHALE GREY	816m	North
10123036	0.00m-5.00m CLAY BROWN 5.00m-12.00m SANDY CLAY 12.00m-15.20m GRAVELS 15.20m-15.50m SHALE	817m	North West
10029088	0.00m-0.50m TOPSOIL 0.50m-2.60m SANDY CLAY 2.60m-9.70m STIFF CLAY 9.70m-10.00m SMALL GRAVELS 10.00m-13.90m LARGE GRAVELS 13.90m-14.50m SOFT SHALE	852m	North
10032864	0.00m-1.00m CLAY D/BROWN 1.00m-2.50m SAND LOAMY 2.50m-3.50m SILT M/HARD 3.50m-4.50m SANDY CLAY 4.50m-7.50m L/B CLAY 7.50m-10.40m SILT HARD 10.40m-10.70m SANDY CLAY 10.70m-15.40m GRAVELS 15.40m-15.65m SHALE	859m	North West
10053397	0.00m-1.00m FILL 1.00m-9.60m SANDY CLAY 9.60m-14.00m GRAVELS 14.00m-14.35m SHALE	886m	North
10127590	0.00m-3.00m CLAY AND ROCKS 3.00m-10.00m SILTY CLAY 10.00m-15.30m GRAVELS 15.30m-15.60m SHALE	906m	North West
10020290	0.00m-2.00m Sandy clay 2.00m-6.00m Grey sand 6.00m-10.50m Coarse gravel and cobbles (water bearing) 10.50m-11.20m Dark grey shale and clay	932m	South
10034842	0.00m-3.50m CLAY DARK BROWN 3.50m-4.20m SILT HARD 4.20m-5.30m CLAY L/BROWN 5.30m-7.00m SILT HARD 7.00m-8.80m CLAY L/BROWN 8.80m-9.80m SILT HARD 9.80m-15.70m GRAVELS 15.70m-16.00m SHALE	950m	North West
10121249	0.00m-11.00m SANDY CLAY 11.00m-14.30m GRAVELS 14.30m-14.60m SHALE	960m	North West
10133578	0.00m-4.50m SANDY CLAY 4.50m-14.30m GRAVELS 14.30m-14.60m SHALE	973m	North East
10070977	0.00m-1.00m FILL 1.00m-4.00m CLAY 4.00m-4.50m GRAVELS 4.50m-6.00m SANDY CLAY 6.00m-14.20m GRAVELS 14.20m-14.30m SHALE	979m	North East
10125298	0.00m-1.00m FILL AND ROCKS 1.00m-5.00m SANDY CLAY 5.00m-7.00m CLAY AND GRAVELS 7.00m-13.60m GRAVELS 13.60m-13.90m SHALE	982m	North East
10052317	0.00m-0.30m BITUMEN/ROAD BASE 0.30m-5.50m LOAMY CLAY 5.50m-13.80m GRAVELS AND SAND 13.80m-14.10m SHALE	983m	North East
10054010	0.00m-0.50m FILL/ROCKS 0.50m-6.80m CLAY 6.80m-13.50m GRAVELS 13.50m-13.60m SHALE	987m	North
10123304	0.00m-0.40m ROAD BASE,FILL 0.40m-5.60m RED,BROWN, SILTY CLAY 5.60m-11.60m GRAVELS	989m	North
10062118	0.00m-0.50m FILL,ROCKS 0.50m-5.70m CLAY 5.70m-14.10m GRAVELS 14.10m-14.20m SHALE	990m	North

NGIS Bore ID	Drillers Log	Distance	Direction
10067790	0.00m-0.20m BITUMEN 0.20m-3.60m CLAY 3.60m-14.50m GRAVELS 14.50m-14.60m SHALE	993m	North East
10050981	0.00m-0.20m CONCRETE 0.20m-1.50m NON DESTRUCTIVE DRILLING PERFORMED WITH AIR KNIFE AND VACUUM TRUCK 1.50m-3.60m SAND WELL GRADED WITH SILT 3.60m-3.80m GRAVEL POORLY GRADED 3.80m-5.10m SAND WELL GRADED WITH SILT 5.10m-13.70m SAND POORLY GRADED WITH GRAVEL	995m	North East
10047879	0.00m-0.20m CONCRETE 0.20m-1.50m NON DESTRUCTIVE DRILLING PERFORMED WITH AIR KNIFE AND VACUUM TRUCK 1.50m-5.50m SAND WELL GRADED WITH CLAY 5.50m-7.00m GRAVEL POORLY GRADED WITH SAND 7.00m-7.50m SAND WELL GRADED WITH SILT 7.50m-13.50m SAND POORLY GRADED WITH GRAVEL 13.50m-14.20m SHALE HIGHLY WEATHERED	997m	North East
10056018	0.00m-0.20m CONCRETE 0.20m-4.50m SANDY CLAY 4.50m-13.90m GRAVELS 13.90m-14.20m SHALE	1013m	North East
10061003	0.00m-0.20m FILL,ROAD BASE 0.20m-4.60m BROWN/RED/SILTY CLAY 4.60m-5.20m LITE BROWN CLAY/GRAVEL 5.20m-13.70m GRAVELS 13.70m-13.90m GREY SHALE	1013m	North East
10053511	0.00m-5.80m CLAY 5.80m-13.10m GRAVELS 13.10m-13.20m SHALE	1015m	North
10117161	0.00m-5.80m CLAY 5.80m-13.10m GRAVELS 13.10m-13.20m SHALE	1019m	North
10057394	0.00m-9.20m SANDY LOAM 9.20m-15.10m ALLUVIAL GRANELS 15.10m-15.40m DARK GREY SILTSTONE	1027m	West
10065404	0.00m-0.30m ROAD BASE 0.30m-5.30m RED BROWN SILTY CLAY 5.30m-5.80m RED BROWN SILTY CLAY/GRAVELS 5.80m-13.60m GRAVELS 13.60m-13.90m GREY SHALE	1060m	North East
10049233	0.00m-0.10m CONCRETE 0.10m-1.50m NON DESTRUCTIVE DRILLING PERFORMED 1.50m-2.30m SAND POORLY GRADED WITH GRAVEL 2.30m-2.90m SAND WELL GRADED 2.90m-4.70m SAND WELL GRADED WITH SILT, GRAVEL AND CLAY 4.70m-7.70m SAND POORLY GRADED AND CLAY WITH COBBLE AND GRAVEL 7.70m-8.90m SAND WELL GRADED WITH GRAVEL 8.90m-9.10m GRANODIORITE COBBLE HARD 9.10m-13.20m SAND POORLY GRADED WITH SILT 13.20m-13.80m SHALE, WEATHERED, FINE GRAINED, HARD	1066m	North East
10023583	0.00m-1.50m SAND, SILTY 1.50m-2.00m SAND, CLAYEY loose< red?brown medium grained 2.00m-3.80m SAND, loose< orange/red, fine to medium grain 3.80m-4.40m GRAVEL, loose, light grey 4.40m-13.60m SAND, loose orange/red, fine to medium grained	1069m	North East
10024998	0.00m-10.60m SAND, SILTY, loose dark red?brown med grained with some clay possible cobbles and boulders	1069m	North East
10030740	0.00m-0.05m Bitumen 0.05m-11.60m SAND, SILTY loose<dark red?brown medgrained with some clay possibly cobbles to boulders	1069m	North East
10118952	0.00m-0.50m SAND, SILTY fine, to medium gained 0.50m-1.50m SAND, SILTY, CLAYEY fine grained 1.50m-3.60m SAND, CLAYEY fine grained 3.60m-4.80m SAND, SILTY, CLAYEY light orange 4.80m-9.80m SAND. GRAVEL AND COBBLES within with possible large granite boulders 9.80m-11.10m POSSIBLE GRANITE BOULDER, fractured granite 11.10m-13.00m Sand and Gravel, Cobbles 13.00m-13.70m Sand, cobbles, Gravel and Shale	1069m	North East
10123226	0.00m-0.30m SAND, SILTY 0.30m-1.50m SAND, SILTY, CLAYEY 1.50m-3.10m SAND, SILTY fine grained 3.10m-4.00m SAND, SILTY, CLAYEY, fine grained 4.00m-5.50m PED like structure banded 5-10% clay 5.50m-5.75m SAND, medium grained 5.75m-9.70m GRAVEL AND COBBLES 9.70m-14.40m GRAVEL AND SAND 14.40m-14.50m GRAVEL AND CLAY 14.50m-14.70m GRAVEL, SANDY 14.70m-14.85m GRAVEL AND SHALE	1069m	North East

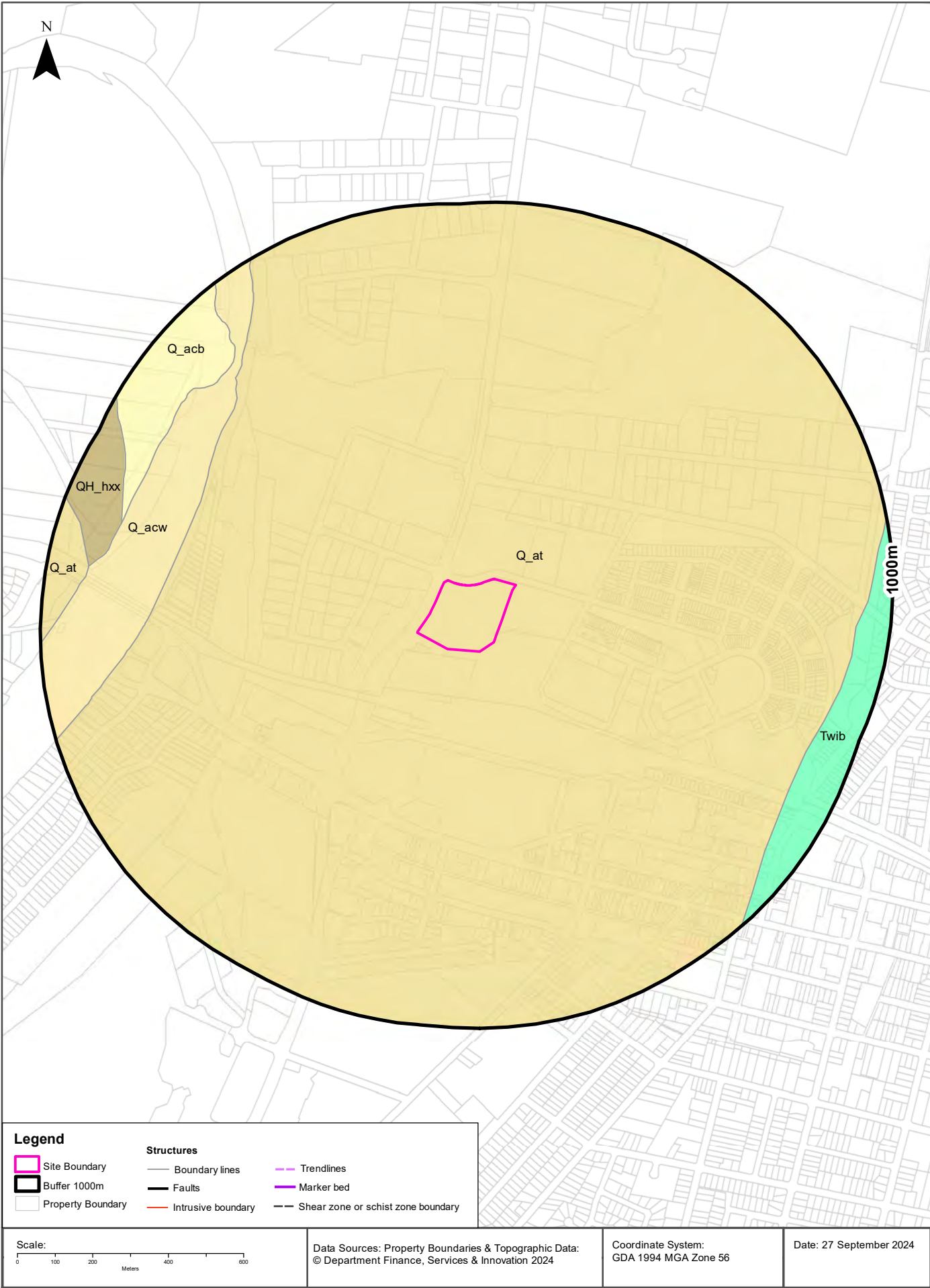
NGIS Bore ID	Drillers Log	Distance	Direction
10125179	0.00m-1.00m FILL,SAND,SILTY,GRAVELLY 1.00m-3.00m SAND, SILTY fine to medium grained trace of clay 3.00m-4.50m SAND, CLAYEY,SILTY fine grained 4.50m-5.50m SAND, SILTY fine to medium grained 5.50m-7.00m GRAVEL AND COBBLES 7.00m-7.40m LARGE COBBLE, BOULDER, GRANITE 7.40m-12.00m GRAVEL AND COBBLES	1069m	North East
10126724	0.00m-6.30m SAND AND SILT 6.30m-9.20m GRAVEL	1069m	North East
10134668	0.00m-0.23m Concrete 0.23m-11.40m SAND, SILTY loose<dark medium grained possible cobbles and boulders	1069m	North East
10135923	0.00m-6.40m SAND, SILT AND CLAY 6.40m-9.30m GRAVEL	1069m	North East
10137869	0.00m-1.00m FILL, SILTY SAND 1.00m-1.10m CONCRETE 1.10m-1.30m FILL, SILTY SAND 1.30m-1.80m SAND, SILTY, CLAYEY 1.80m-3.50m SAND, CLAYEY, ORANGE 3.50m-5.80m SAND,SILTY, CLAYEY 5.80m-6.20m GRAVELS AND COBBLES 6.20m-6.50m BOULDERS, BASALT 6.50m-9.50m GRAVELS AND COBBLES 9.50m-9.70m BOULDER, GRANITE 9.70m-10.50m GRAVELS AND COBBLES	1069m	North East
10097330	0.00m-6.00m CLAY 6.00m-8.50m SAND 8.50m-11.00m GRAVEL	1115m	South
10122601	0.00m-5.30m SANDY CLAY 5.30m-13.30m GAVELS 13.30m-13.80m SHALE	1139m	North
10054309	0.00m-0.30m BITUMEN 0.30m-5.50m SANDY CLAY 5.50m-13.60m GRAVELS 13.60m-13.80m SHALE	1152m	North East
10099410	0.00m-4.20m Topsoil Sandy 4.20m-12.60m Gravel 12.60m-14.60m Shale	1201m	North
10065085	0.00m-2.80m Sandy Silts, Clayey Silts, Alluvium 2.80m-15.35m	1232m	North
10130822	0.00m-4.10m BROWN CLAY 4.10m-10.10m GRAVELS	1251m	North
10136349	0.00m-5.30m SANDY CLAY,DRY, HARD 5.30m-10.10m GRAVELS	1263m	North
10093609	0.00m-0.40m FILL 0.40m-12.50m SAND	1288m	West
10133868	0.00m-5.90m BROWN CLAY 5.90m-10.00m GRAVELS	1291m	North
10084103	0.00m-0.20m CONCRETE 0.20m-0.50m FILL 0.50m-4.20m CLAY 4.20m-12.00m SAND	1296m	West
10130089	0.00m-2.90m SANDY CLAY 2.90m-4.20m CLAY BANDS AND GRAVELS 4.20m-10.00m GRAVELS	1297m	North
10068083	0.00m-3.50m Sandy Silts & Clayey Silts, Alluvium 3.50m-6.00m High Plasticity, Light Brown 6.00m-7.30m Clayey Sand. Fine To Medium Grained, Red-brown. Alluvium. 7.30m-16.20m	1305m	North West
10100119	0.00m-0.20m CONCRETE 0.20m-0.40m FILL 0.40m-5.20m CLAY 5.20m-11.60m SAND	1317m	West
10100840	0.00m-0.15m CONCRETE 0.15m-0.80m FILL 0.80m-5.20m SAND/CLAY 5.20m-11.85m SAND	1317m	West
10095252	0.00m-0.20m CONCRETE 0.20m-0.40m FILL 0.40m-8.20m SAND/CLAY 8.20m-11.00m SAND	1331m	West
10001787	0.00m-4.26m Silt 0.00m-4.26m Loam Clay 4.26m-8.53m Gravel Alluvial Water Supply	1353m	South

NGIS Bore ID	Drillers Log	Distance	Direction
10134898	0.00m-4.00m Clayey Silts & Sandy Silts, Alluvium 4.00m-8.40m High Plasticity, Light Grey-brown 8.40m-16.00m 16.00m-16.50m	1409m	North West
10131157	0.00m-4.00m Clayey Silts & Sandy Silts, Alluvium 4.00m-7.90m High Plasticity, Light Grey-brown	1413m	North West
10136156	0.00m-4.75m Clayey Silts & Sandy Silts, Alluvium 4.75m-8.90m High Plasticity, Grey-brown, Alluvium	1419m	North West
10138494	0.00m-4.75m Clayey Silts & Sandy Silts, Alluvium 4.75m-9.30m High Plasticity, Grey-brown, Alluvium 9.30m-16.30m 16.30m-16.80m	1421m	North West
10132636	0.00m-5.00m Sandy Clay. Low Plasticity, Red-brown Sand Is Fine To Coarse Grained. Fill 5.00m-9.00m Clayey Sand, Fine To Coarse Grained, Red-brown, Moist. Fill 9.00m-15.95m Clayey Sand, Fine To Coarse Grained Brown. Wet. Fill 15.95m-16.30m	1422m	North West
10113163	0.00m-11.50m Sandy Clay Low Plasticity, Red-brown W/ Some .5m Zones Of Sandy Clay, Brown 11.50m-11.80m	1432m	North West
10033288	0.00m-0.50m FILL 0.50m-9.50m CLAY/GRAVEL 9.50m-11.50m GRAVEL 11.50m-50.30m SHALE/SANDSTONE 50.30m-164.60m SANDSTONE/SHALE SEAMS 164.60m-169.50m SANDSTONE/QUARTZITE 169.50m-174.50m SANDSTONE/SHALE 174.50m-183.00m SANDSTONE/QUARTZITE	1463m	South West
10115278	0.00m-4.00m Clayey Silts & Sandy Silts, Alluvium 4.00m-8.50m High Plasticity, Light Brown	1646m	North West
10122503	0.00m-4.00m Clayey Silts & Sandy Silts, Alluvium 4.00m-8.95m High Plasticity, Light Brown 8.95m-16.40m 16.40m-16.90m	1648m	North West
10112332	0.00m-4.00m Clayey Silts & Sandy Silts, Alluvium 4.00m-9.20m High Plasticity, Grey Brown	1658m	North West
10115108	0.00m-17.00m Silty Clay, & Sandy Clay, Medium To High Plasticity, Brown & Red-brown. 17.00m-17.70m	1661m	North West
10124446	0.00m-4.00m Clayey Silts & Sandy Silts, Alluvium 4.00m-9.70m High Plasticity, Grey Brown 9.70m-16.80m 16.80m-17.30m	1662m	North West
10114545	0.00m-4.50m Silty Clay 4.50m-12.10m Clayey Sand Fine To Coarse Grained, Red-brown. Moist Becoming Wet 12.10m-12.50m	1671m	North West
10123090	0.00m-6.50m CLAY BROWN 6.50m-11.30m CLAY GREY 11.30m-11.80m SANDY CLAY 11.80m-12.10m SAND 12.10m-13.60m GRAVELS 13.60m-14.40m SANDSTONE GREY 14.40m-14.60m SANDSTONE D/GREY 14.60m-14.70m SHALE,HARD,BLACK	1684m	North East
10087655	0.00m-3.20m Topsoil Sandy 3.20m-12.30m Gravel 12.30m-12.60m Shale	1742m	North
10108248	0.00m-0.60m Soil 0.60m-7.92m Sand Water Supply	1744m	West
10120432	0.00m-7.50m Clayey Silts & Sandy Silts, With Some Clay Bands. 7.50m-9.50m Light Brown Clay 9.50m-10.55m Silty Sand 10.55m-16.40m 16.40m-16.90m	1773m	North West
10116194	0.00m-7.50m Clayey Silts & Sand Silts With Some Clay Bands 7.50m-7.50m Light Brown Clay 7.50m-10.10m Silty Sand	1776m	North West
10118158	0.00m-0.50m CEMENT SLAB 0.50m-3.50m CLAY, BROWN 3.50m-5.00m CLAY, SANDY 5.00m-6.20m SAND, COARSE 6.20m-15.20m GRAVEL 5 - 15mm 15.20m-15.45m SHALE, BLACK	1781m	West
10117792	0.00m-7.20m Sandy Silts & Silty Sands With Some Clay Bands, Alluvium 7.20m-8.70m Clay And Some Gravel 8.70m-15.30m 15.30m-15.80m	1796m	North West

NGIS Bore ID	Drillers Log	Distance	Direction
10025941	0.00m-1.83m Clay Red Sand 1.83m-7.92m Sand Stones Water Supply 1.83m-7.92m Gravel	1803m	North
10121231	0.00m-7.20m Sandy Silts & Silty Sands With Some Clay Bands, Alluvium 7.20m-8.20m Clay And Gravel	1803m	North West
10109982	0.00m-0.61m Loam 0.61m-6.38m Sand Gravel Water Supply	1805m	North
10118570	0.00m-10.00m Silty Clay Medium To High Plasticity, Red-brown. Fill 10.00m-15.35m Sandy Clay 15.35m-16.20m	1816m	North West
10120936	0.00m-12.90m Silty Clay & Sandy Clay Medium To High Plasticity, Brown. Fill 12.90m-13.30m	1832m	North West
10088676	0.00m-4.80m Sandy Silts an Silty Sands, alluvium 4.80m-7.75m Gravel with Clay zones 7.75m-9.55m Clay with Gravel zones 9.55m-15.90m Gravel with Clay zones 15.90m-16.40m Shale	1841m	North West
10090554	0.00m-9.00m Silty Sands and Sandy Silts, alluvium 9.00m-15.00m Gravel 15.00m-15.50m Shale	1841m	North West
10088632	0.00m-7.50m Clayey Silts and Sandy Silts with some Clay bands 7.50m-9.50m Light brown Clay 9.50m-10.55m Silty Sand, fine to medium 10.55m-16.40m Gravel 16.40m-16.90m Shale	1842m	North West
10091866	0.00m-7.20m Sandy Silts and Silty Sands, with some Clay bands, alluvium 7.20m-8.70m Clay and some Gravel 8.70m-15.30m Gravel 15.30m-15.80m Shale	1842m	North West
10099073	0.00m-4.00m Clayey Silts and Sandy Silts, alluvium 4.00m-9.70m Grey-brown Clay, high plasticity 9.70m-16.80m Gravel 16.80m-17.30m Shale	1843m	North West
10099334	0.00m-4.00m Clayey Silts and Sandy Silts, alluvium 4.00m-8.95m Light brown Clay, high plasticity 8.95m-16.40m Gravel 16.40m-16.90m Shale	1844m	North West
10088340	0.00m-4.00m Clayey Silts and Sandy Silts, alluvium 4.00m-8.40m Light grey-brown Clay, high plasticity. 8.40m-16.00m Gravel 16.00m-16.50m Shale	1845m	North West
10088601	0.00m-4.75m Clayey silts and Sandy Silts, alluvium 4.75m-9.30m Grey-brown Clay, high plasticity, alluvium 9.30m-16.30m Gravel 16.30m-16.80m Shale	1846m	North West
10062154	0.00m-9.00m Silty Sands & Sandy Silts Alluvium 9.00m-15.00m 15.00m-15.50m	1869m	North West
10106511	0.00m-2.43m Topsoil 2.43m-4.87m Soil Clay 2.43m-4.87m Gravel 4.87m-7.31m Gravel Sand Water Supply	1871m	North
10058643	0.00m-8.50m Silty Sands & Sandy Silts Alluvium	1880m	North West
10064440	0.00m-4.30m Sand Silts & Silty Sands Alluvium	1917m	North West
10055268	0.00m-4.80m Sandy Silts & Silty Sands Alluvium 4.80m-7.75m Gravel With Clay Zones 7.75m-9.55m Clay With Gravel Zones 9.55m-15.90m Gravel With Clay Zones 15.90m-16.40m	1918m	North West

NGIS Bore ID	Drillers Log	Distance	Direction
10051323	0.00m-0.50m CLAY BROWN 0.50m-1.00m SHALE BROWN 1.00m-113.00m SHALE GREY 113.00m-130.00m SANDSTONE GREY 130.00m-130.20m SANDSTONE GREY QUARTZ 130.20m-141.00m SANDSTONE GREY 141.00m-142.00m SANDSTONE GREY QUARTZ 142.00m-145.00m SANDSTONE GREY 145.00m-149.00m SANDSTONE GREY QUARTZ 149.00m-154.00m SANDSTONE GREY 154.00m-155.00m SANDSTONE GREY ,SILTSTONE BANDS 155.00m-158.50m SANDSTONE GREY 158.50m-160.00m SANDSTONE GREY QUARTZ 160.00m-161.00m SANDSTONE GREY 161.00m-162.00m SANDSTONE GREY ,SILTSTONE BANDS 162.00m-190.00m SANDSTONE GREY 190.00m-192.00m SANDSTONE GREY ,SILTSTONE BANDS 192.00m-198.50m SANDSTONE GREY 198.50m-200.00m SANDSTONE GREY QUARTZ 200.00m-203.00m SANDSTONE GREY 203.00m-209.00m SANDSTONE GREY QUARTZ 209.00m-210.00m SANDSTONE GREY	1920m	East
10069198	0.00m-13.90m	1948m	North West
10057460	0.00m-8.00m Silty Clay & Sandy Clays 8.00m-11.20m Clayey Sand Fine To Coarse Grained, Red-brown. Wet Fill.	1986m	North West

Drill Log Data Source: Bureau of Meteorology; Water NSW. Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>



Geology

2235-2249 Castlereagh Road, Penrith, NSW 2750

Geological Units

What are the Geological Units within the dataset buffer?

Unit Code	Unit Name	Description	Unit Stratigraphy	Age	Dominant Lithology	Distance
Q_at	Alluvial terrace deposits	Silt, clay, (fluvially-deposited) fine- to medium-grained quartz-lithic sand, polymictic gravel.	\Alluvium\Alluvial terrace deposits\	Quaternary (base) to Now (top)	Clastic sediment	0m
Q_acw	Alluvial channel deposits - subaqueous	Fluvially deposited sand, gravel, silt, clay.	\Alluvium\Alluvial channel deposits\Alluvial channel deposits - subaqueous\	Quaternary (base) to Now (top)	Clastic sediment	665m
Q_acb	Alluvial channel deposits - in-channel bar	Polymictic to lithic to quartz-rich sand and gravel; silt and clay; polymictic pebble- to cobble- in-channel imbricated lag and bar deposits with interstitial sand, silt and clay.	\Alluvium\Alluvial channel deposits\Alluvial channel deposits - in-channel bar\	Quaternary (base) to Now (top)	Clastic sediment	803m
QH_hxx	Anthropogenic deposits - extensive excavation of Quaternary deposits	Extensive excavation of natural Quaternary deposits, including sand mining.	\Anthropogenic deposits\Anthropogenic deposits - disturbed land\Anthropogenic deposits - extensive excavation of Quaternary deposits\	Holocene (base) to Now (top)	Anthropogenic material	836m
Twib	Bringelly Shale	Shale, carbonaceous claystone, laminite, lithic sandstone, rare coal.	\Wianamatta Group\Bringelly Shale\	Middle Triassic (base) to Middle Triassic (top)	Shale	874m

Linear Geological Structures

What are the Dyke, Sill, Fracture, Lineament and Vein trendlines within the dataset buffer?

Map ID	Feature Description	Map Sheet Name	Distance
No Features			

What are the Faults, Shear zones or Schist zones, Intrusive boundaries & Marker beds within the dataset buffer?

Map ID	Boundary Type	Description	Map Sheet Name	Distance
No Features				

Geological Data Source: Statewide Seamless Geology v2.1, Department of Regional NSW
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Naturally Occurring Asbestos Potential

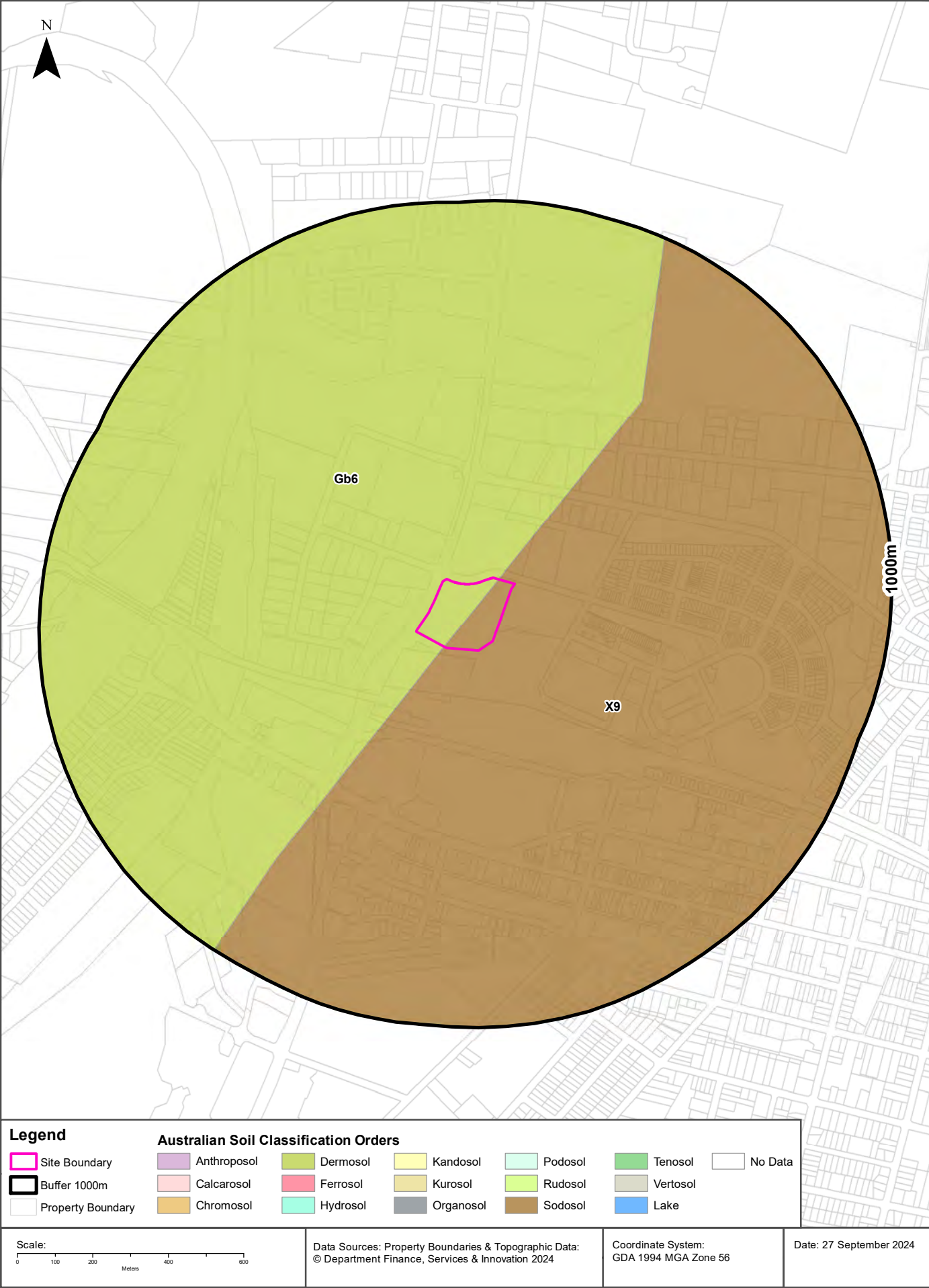
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Naturally Occurring Asbestos Potential

Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Naturally Occurring Asbestos Potential Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy



Soils

2235-2249 Castlereagh Road, Penrith, NSW 2750

Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

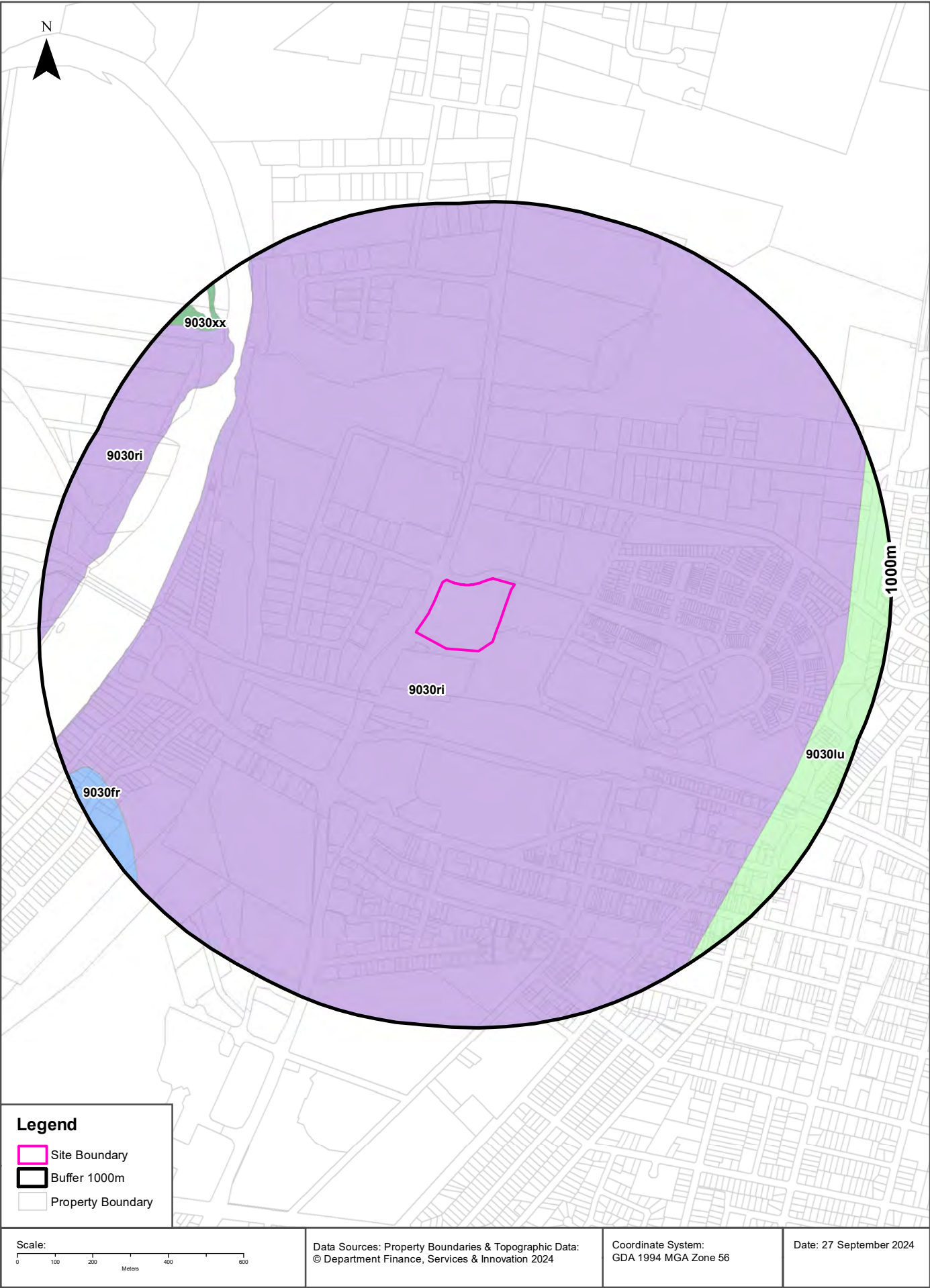
Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Gb6	Dermosol	Younger river terraces, present flood-plain, and swamps: chief soils are dark friable loamy soils (Um6.11), possibly with some (Gn2.8) soils on the terraces. Associated are various (Um) and (Uc) soils on the flood-plains and swamps. Area is subject to periodic inundation. As mapped, areas of units X9, Mb2, and Sp1 are included.	0m	On-site
X9	Sodosol	Plains--former river terraces and levees: chief soils are sandy neutral yellow mottled soils (Dy5.42) with leached sands (Uc2.3) on the broader plains. Associated are (Dy3.41, Dy3.42, and Dy3.43) soils, some containing ironstone gravels, in relatively low-lying areas and depressions, and (Dr2.2), (Gn2.15), and (Gn2.18) soils on levees. Areas of other soils, possibly including (Um4.31), occur throughout what is a complex unit. As mapped, areas of units Gb6 and Sp1 are included.	0m	On-site

Atlas of Australian Soils Data Source: CSIRO

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Soil Landscapes of Central and Eastern NSW

2235-2249 Castlereagh Road, Penrith, NSW 2750



Soils

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Soil Landscapes of Central and Eastern NSW

Soil Landscapes of Central and Eastern NSW within the dataset buffer:

Soil Code	Name	Distance	Direction
9030ri	Richmond	0m	On-site
9030lu	Luddenham	867m	East
9030xx	Disturbed Terrain	892m	North West
9030fr	Freemans Reach	912m	South West

Soil Landscapes of Central and Eastern NSW: NSW Department of Planning, Industry and Environment

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Acid Sulfate Soils

2235-2249 Castlereagh Road, Penrith, NSW 2750

Environmental Planning Instrument - Acid Sulfate Soils

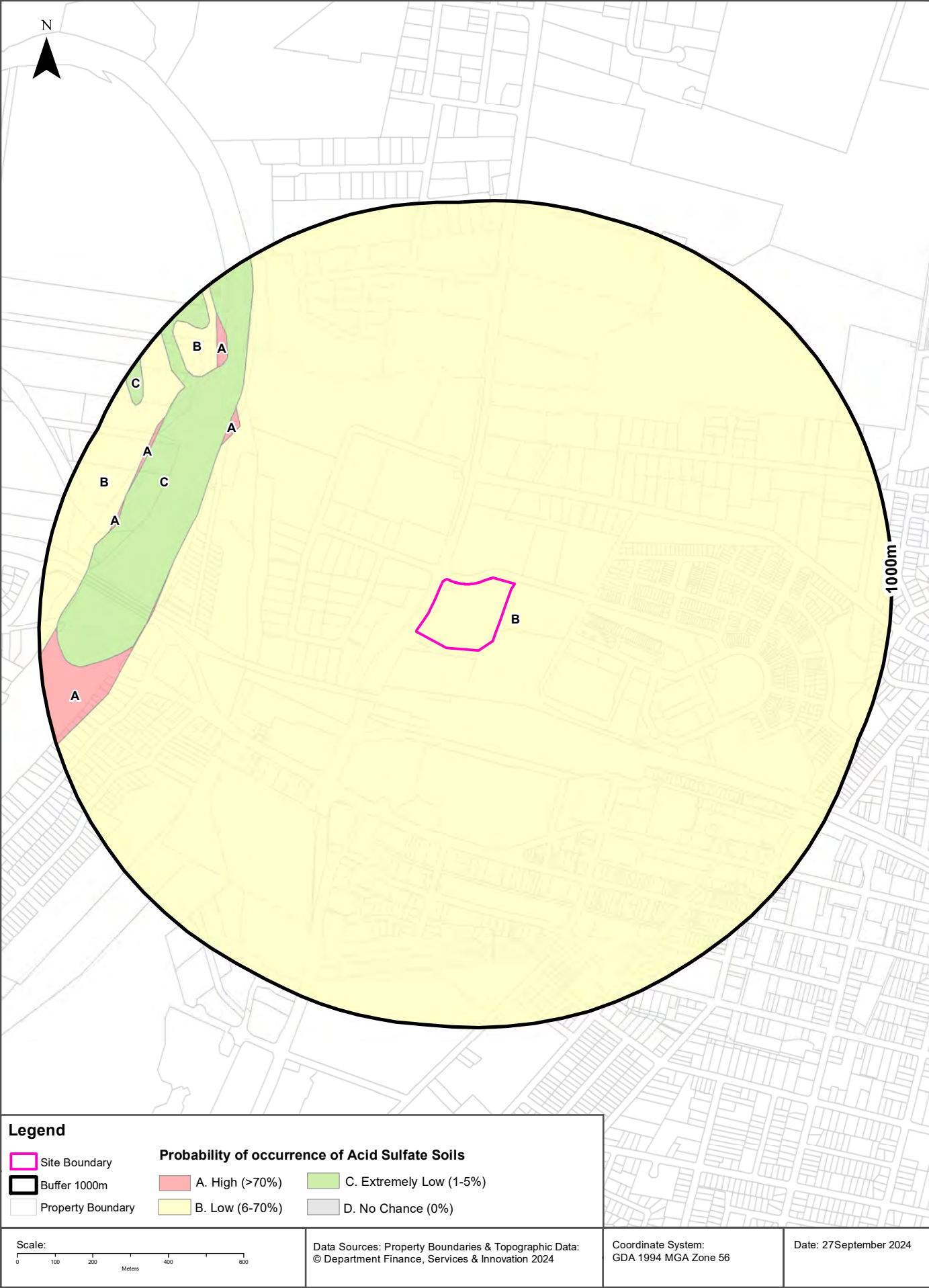
What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

Soil Class	Description	EPI Name
N/A		

If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	EPI Name	Distance	Direction
N/A				

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Acid Sulfate Soils

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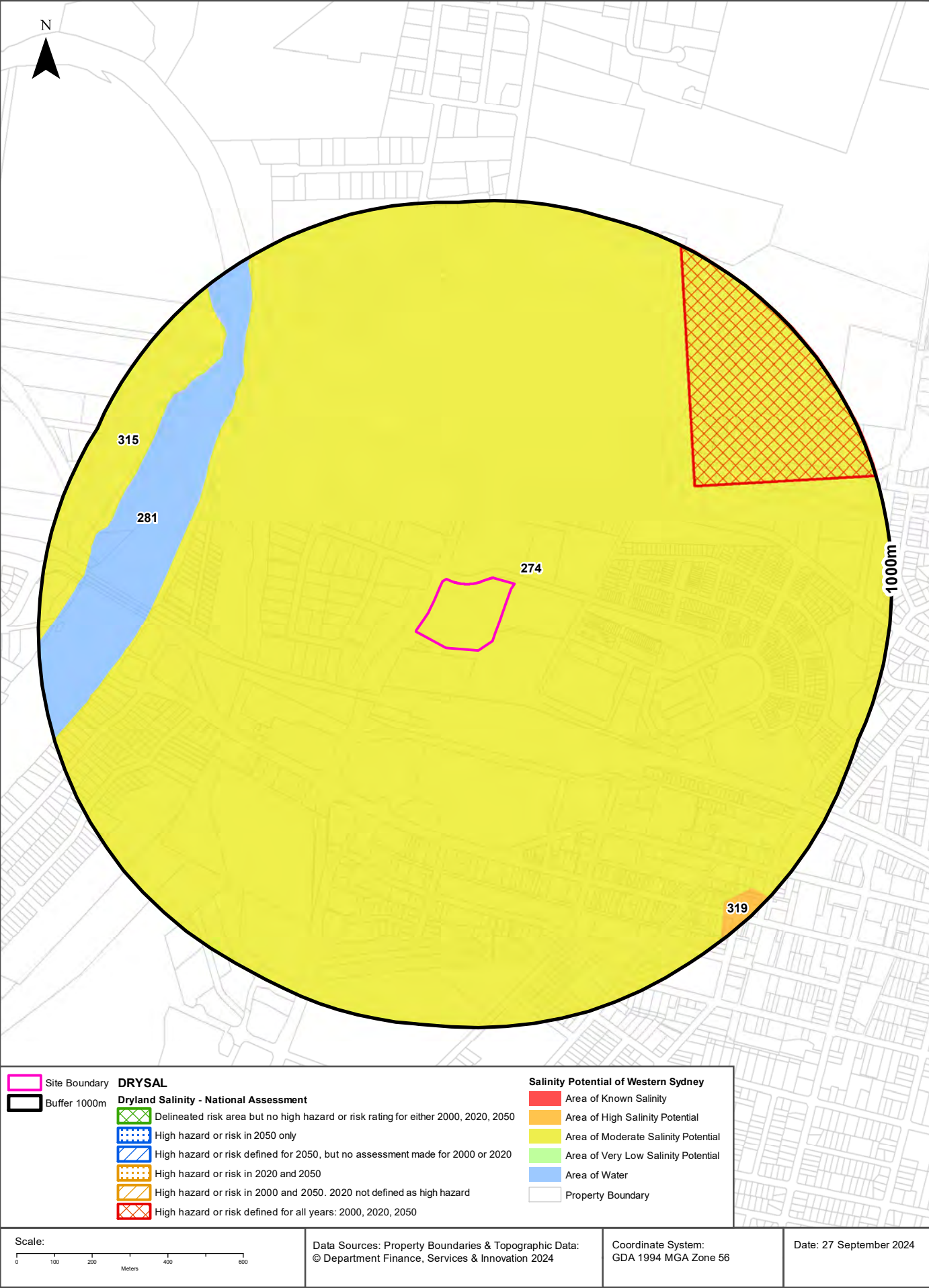
Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance	Direction
B	Low Probability of occurrence. 6-70% chance of occurrence.	0m	On-site
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	658m	North West
A	High Probability of occurrence. >70% chance of occurrence.	669m	West

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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Dryland Salinity

2235-2249 Castlereagh Road, Penrith, NSW 2750

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

Is there Dryland Salinity - National Assessment data within the dataset buffer?

Yes

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
High hazard or risk	High hazard or risk	High hazard or risk	542m	North East

Dryland Salinity Data Source : National Land and Water Resources Audit

The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.

In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

Dryland Salinity Potential of Western Sydney

Dryland Salinity Potential of Western Sydney within the dataset buffer?

Feature Id	Classification	Description	Distance	Direction
274	MODERATE	Area of Moderate Salinity Potential	0m	On-site
281	WATER	Area of Water	665m	West
315	MODERATE	Area of Moderate Salinity Potential	833m	North West
319	HIGH	Area of High Salinity Potential	923m	South East

Dryland Salinity Potential of Western Sydney Data Source : NSW Office of Environment and Heritage

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Mining

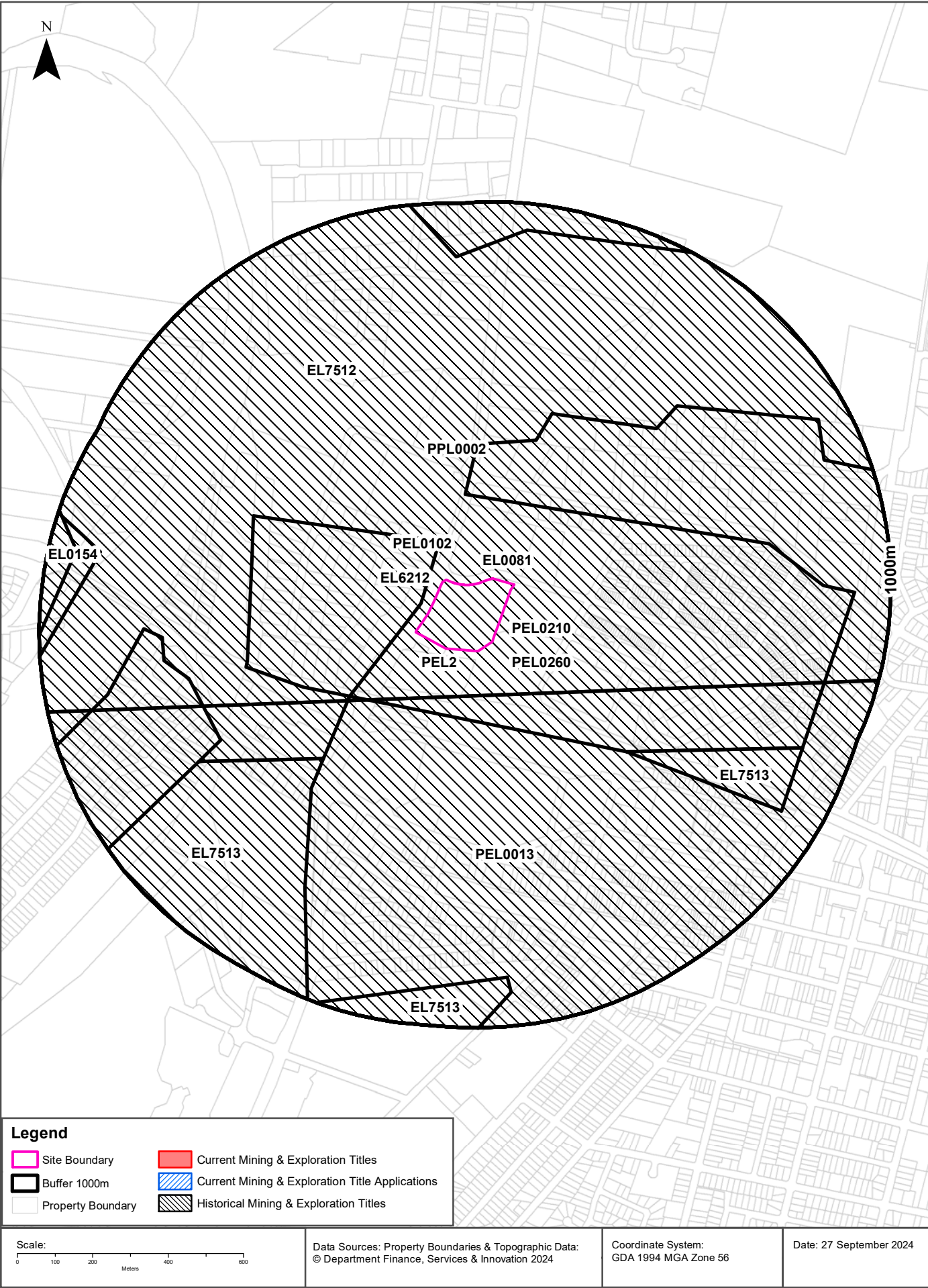
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Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining Subsidence District Data Source: © Land and Property Information (2016)
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Mining

2235-2249 Castlereagh Road, Penrith, NSW 2750

Current Mining & Exploration Titles

Current Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Grant Date	Expiry Date	Last Renewed	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer								

Current Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

Current Mining & Exploration Title Applications

Current Mining & Exploration Title Applications within the dataset buffer:

Application Ref	Applicant	Application Date	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer						

Current Mining & Exploration Title Applications Data Source: © State of New South Wales through NSW Department of Industry

Mining

2235-2249 Castlereagh Road, Penrith, NSW 2750

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
PEL2	AGL UPSTREAM INVESTMENTS PTY LIMITED	20000120	20001108	MINERALS		0m	On-site
PPL0002	AUSTRALIAN OIL AND GAS CORPORATION, EXON N.L.			PETROLEUM	Petroleum	0m	On-site
EL0081	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	19670201	19680201	MINERALS		0m	On-site
PEL0260	NORTH BULLI COLLIERIES PTY LTD, AGL PETROLEUM OPERATIONS PTY LTD, THE AUSTRALIAN GAS LIGHT CO.	19810909	19930803	PETROLEUM	Petroleum	0m	On-site
PEL0210	THE AUSTRALIAN GAS LIGHT COMPANY (AGL), NORTH BULLI COLLIERIES PTY LTD			PETROLEUM	Petroleum	0m	On-site
PEL0102	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
EL6212	HOT ROCK ENERGY PTY LTD, LONGREACH OIL LIMITED	20040304	20130303	MINERALS	Geothermal	0m	On-site
EL7512	GRADIENT ENERGY LIMITED	20100407	20110415	MINERALS	Geothermal	0m	On-site
PEL0013	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	118m	South
EL7513	GRADIENT ENERGY LIMITED	20100407	20110415	MINERALS	Geothermal	415m	South West
EL0154	BRICKWORKS LIMITED	19690501	19700501	MINERALS		927m	West

Historical Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

State Environmental Planning Policy

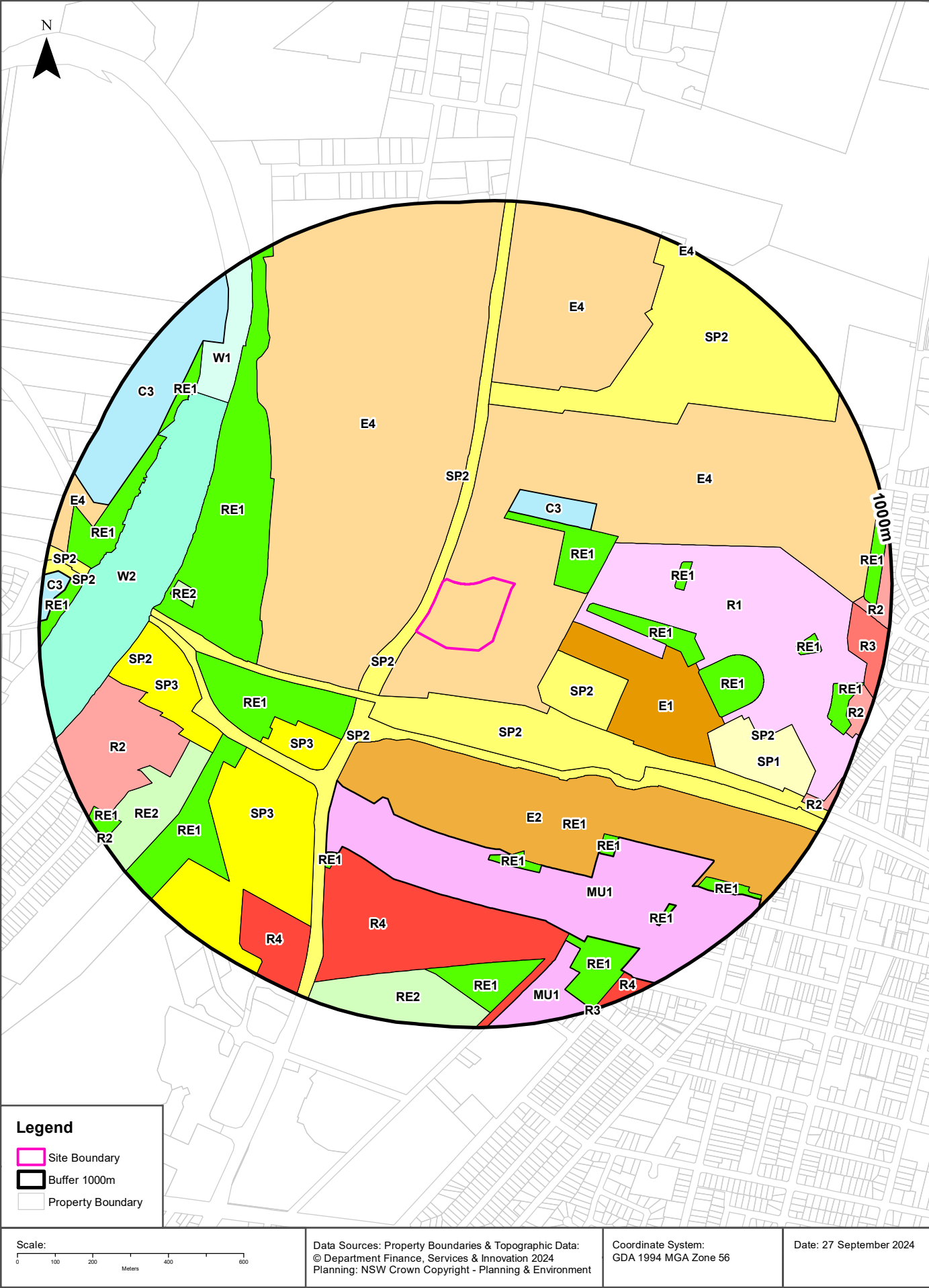
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State Significant Precincts

What SEPP State Significant Precincts exist within the dataset buffer?

Map Id	Precinct	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
N/A	No records in buffer							

State Environment Planning Policy Data Source: NSW Crown Copyright - Planning & Environment
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Environmental Planning Instrument

2235-2249 Castlereagh Road, Penrith, NSW 2750

Land Zoning

What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
E4	General Industrial		Penrith Local Environmental Plan 2010	24/02/2023	26/04/2023	20/05/2024	State Environmental Planning Policy Amendment (Land Use Zones) 2023	0m	On-site
SP2	Infrastructure	Classified Road	Penrith Local Environmental Plan 2010	10/08/2012	10/08/2012	20/05/2024	Amendment No 4	0m	South West
E4	General Industrial		Penrith Local Environmental Plan 2010	24/02/2023	26/04/2023	20/05/2024	State Environmental Planning Policy Amendment (Land Use Zones) 2023	30m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	27/09/2019	27/09/2019	20/05/2024	Amendment No 22	105m	North East
SP2	Infrastructure	Railway	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	122m	South
SP2	Infrastructure	Car Park	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	162m	South East
E1	Local Centre		Penrith Local Environmental Plan 2010	24/02/2023	26/04/2023	20/05/2024	State Environmental Planning Policy Amendment (Land Use Zones) 2023	170m	South East
C3	Environmental Management		Penrith Local Environmental Plan 2010	05/11/2021	01/12/2021	20/05/2024	Standard Instrument (Local Environmental Plans) Amendment (Land Use Zones) Order 2021	181m	North East
R1	General Residential		Penrith Local Environmental Plan 2010	31/03/2021	31/03/2021	20/05/2024	Amendment No 31	183m	East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	27/09/2019	27/09/2019	20/05/2024	Amendment No 22	203m	East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	237m	South West
E2	Commercial Centre		Penrith Local Environmental Plan 2010	24/02/2023	26/04/2023	20/05/2024	State Environmental Planning Policy Amendment (Land Use Zones) 2023	258m	South East
SP2	Infrastructure	Sewerage System	Penrith Local Environmental Plan 2010	31/03/2021	31/03/2021	20/05/2024	Amendment No 31	268m	North
SP3	Tourist		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	348m	South West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	407m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	27/09/2019	27/09/2019	20/05/2024	Amendment No 22	424m	East

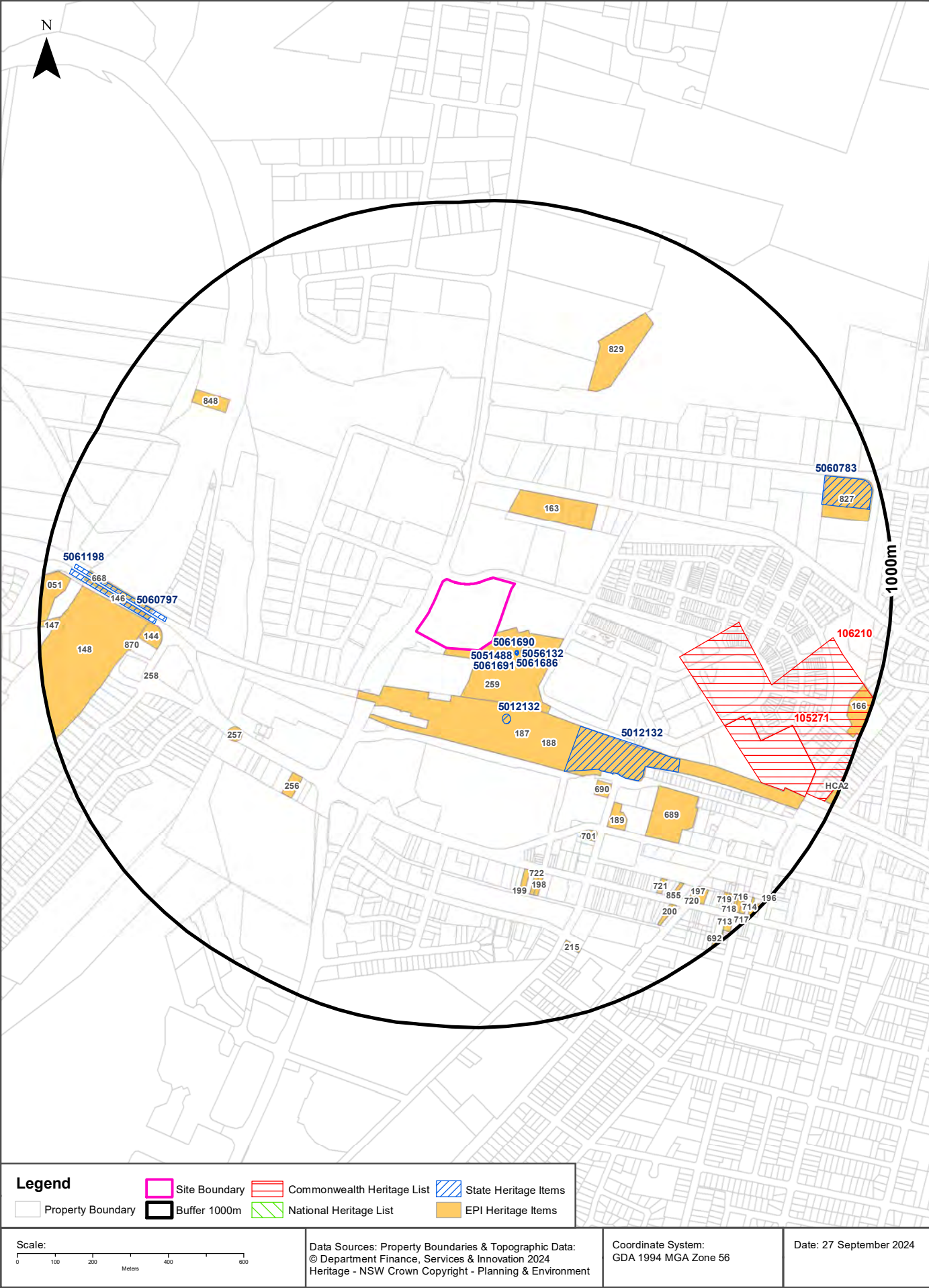
Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
MU1	Mixed Use		Penrith Local Environmental Plan 2010	24/02/2023	26/04/2023	20/05/2024	State Environmental Planning Policy Amendment (Land Use Zones) 2023	429m	South
SP2	Infrastructure	Sewerage System	Penrith Local Environmental Plan 2010	31/03/2021	31/03/2021	20/05/2024	Amendment No 31	455m	North East
SP3	Tourist		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	488m	South West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	513m	South East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	27/09/2019	27/09/2019	20/05/2024	Amendment No 22	541m	East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	31/03/2021	31/03/2021	20/05/2024	Amendment No 31	544m	South
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	545m	South West
SP3	Tourist		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	579m	West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	26/04/2019	26/04/2019	20/05/2024	Amendment No 15	589m	South East
RE2	Private Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	594m	West
R4	High Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	594m	South
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	616m	South West
SP1	Special Activities	Defence	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	619m	South East
RE2	Private Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	628m	South West
W2	Recreational Waterways		Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	20/05/2024		642m	West
R2	Low Density Residential		Penrith Local Environmental Plan 2010	31/03/2021	31/03/2021	20/05/2024	Amendment No 31	665m	West
SP2	Infrastructure	Classified Road	Penrith Local Environmental Plan 2010	14/10/2016	14/10/2016	20/05/2024	Amendment No 11	710m	West
W1	Natural Waterways		Penrith Local Environmental Plan 2010	14/10/2016	14/10/2016	20/05/2024	Amendment No 11	739m	North West
SP2	Infrastructure	Sewerage System	Penrith Local Environmental Plan 2010	31/03/2021	31/03/2021	20/05/2024	Amendment No 31	740m	East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	763m	East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	788m	South
MU1	Mixed Use		Penrith Local Environmental Plan 2010	24/02/2023	26/04/2023	20/05/2024	State Environmental Planning Policy Amendment (Land Use Zones) 2023	802m	South
RE1	Public Recreation		Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	20/05/2024		817m	West
R4	High Density Residential		Penrith Local Environmental Plan 2010	14/10/2016	14/10/2016	20/05/2024	Amendment No 11	819m	South West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	20/12/2019	20/12/2019	20/05/2024	Amendment No 23	828m	South
RE1	Public Recreation		Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	20/05/2024		828m	North West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	839m	South East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	843m	South East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
C3	Environmental Management		Penrith Local Environmental Plan 2010	05/11/2021	01/12/2021	20/05/2024	Standard Instrument (Local Environmental Plans) Amendment (Land Use Zones) Order 2021	850m	North West
RE2	Private Recreation		Penrith Local Environmental Plan 2010	20/12/2019	20/12/2019	20/05/2024	Amendment No 23	853m	South
SP2	Infrastructure	Railway	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	877m	West
E4	General Industrial		Penrith Local Environmental Plan 2010	24/02/2023	26/04/2023	20/05/2024	State Environmental Planning Policy Amendment (Land Use Zones) 2023	881m	West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	885m	East
SP2	Infrastructure	Classified Road	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	888m	West
R3	Medium Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	893m	East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	895m	West
R2	Low Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	897m	East
R2	Low Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	922m	East
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	925m	East
C3	Environmental Management		Penrith Local Environmental Plan 2010	05/11/2021	01/12/2021	20/05/2024	Standard Instrument (Local Environmental Plans) Amendment (Land Use Zones) Order 2021	926m	West
RE1	Public Recreation		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	929m	South West
R4	High Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	936m	South East
R3	Medium Density Residential		Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	20/05/2024	Amendment No 4	999m	South

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Heritage Items

2235-2249 Castlereagh Road, Penrith, NSW 2750



Heritage

2235-2249 Castlereagh Road, Penrith, NSW 2750

Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
106210	Thornton Hall and Surrounds (former Defence land)	11 Mountain View Cr, Penrith NSW	1/14/029/0030	Historic	Place removed from CHL		478m	East
105271	Thornton Hall & Surrounds	11 Mountain View Cr, Penrith NSW	1/14/029/0030	Historic	Place removed from CHL		654m	South East

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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National Heritage List

What are the National Heritage List Items located within the dataset buffer?

Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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State Heritage Register - Curtilages

What are the State Heritage Register Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
5056132	Edward Smith Headquarters Switchboard (1909)	1 Museum Drive, Penrith	PENRITH	25/02/2013	01901	3029	65m	South East
5061686	Shand Mason 7 inch Manual Fire Engine (1869)	1 Museum Drive, Penrith	PENRITH	25/02/2013	01898	3025	66m	South East
5051488	NSW Fire Brigades No 10 Vehicle Number Plates	Castlereagh Road, Penrith	PENRITH	05/04/2002	01519	3035	67m	South East
5061690	Ford 21W Fire Brigade Mobile Canteen (1942)	1 Museum Drive, Penrith	PENRITH	25/02/2013	01900	3027	80m	South East
5056131	Shand Mason Curricule Ladders (1898)	1 Museum Drive, Penrith	PENRITH	25/02/2013	01899	3026	82m	South East
5061691	Fire and Rescue NSW Heritage Fleet	1 Museum Drive, Penrith	PENRITH	25/02/2013	01902	3028	83m	South East
5055581	Dennis Big 6 Fire Engine (1939)	1 Museum Drive, Penrith	PENRITH	03/12/2004	01718	3024	93m	South East
5055580	Ahrens Fox PS2 Fire Engine (1929)	1 Museum Drive, Penrith	PENRITH	03/12/2004	01717	3023	93m	South East
5055579	Shand Mason Fire Engine (1891)	1 Museum Drive, Penrith	PENRITH	03/12/2004	01716	3022	105m	South East

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
5012132	Penrith Railway Station group	Great Western Railway, Penrith	PENRITH	02/04/1999	01222	2401	183m	South
5012132	Penrith Railway Station group	Great Western Railway, Penrith	PENRITH	02/04/1999	01222	2401	325m	South East
5061198	Emu Plains (Nepean River) Underbridge	Great Western Highway, Emu Plains	PENRITH	28/06/2013	01830	2558	663m	West
5060797	Victoria Bridge	Great Western Highway Penrith	PENRITH	27/05/2016	01950	2638	689m	West
5060783	Torin Building	26 Coombes Drive Penrith	PENRITH	15/05/2009	01796	2269	841m	East

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Environmental Planning Instrument - Heritage

What are the EPI Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
259	Museum of Fire (former Penrith Power Station)	Item - General	Local	Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	31/03/2021	0m	South East
188	Penrith Railway Station	Item - General	State	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	124m	South East
187	Station Masters House (former)	Item - General	State	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	124m	South East
163	Combewood - house, garden and original entrance drive	Item - General	State	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	181m	North East
690	Red Cow Hotel	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	461m	South East
256	Penrith Ambulance Station	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	492m	South West
189	Penrith Council Chambers (former)	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	533m	South East
257	Peachtree Creek Bridge	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	534m	South West
829	Bennetts Wagons	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	550m	North East
701	Former Prospect Electricity Building	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	552m	South East
689	Tafe Building	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	583m	South East
199	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	592m	South
722	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	606m	South
198	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	611m	South
144	Pumping station (former)	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	674m	West
668	Railway Bridge	Item - General	Local	Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	31/03/2021	701m	West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
258	Explorers Memorial	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	703m	West
146	Victoria Bridge	Item - General	State	Penrith Local Environmental Plan 2010	14/10/2016	14/10/2016	31/03/2021	707m	West
148	Rowing Course	Item - General	Local	Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	31/03/2021	710m	West
848	Weir	Item - General	Local	Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	31/03/2021	730m	North West
870	Nepean River	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	745m	West
721	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	772m	South East
215	"Broadville", Victorian house	Item - General	Local	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	31/03/2021	802m	South
855	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	810m	South East
827	Marcel Breuer Torin factory building	Item - General	State	Penrith Local Environmental Plan 2010	22/09/2010	22/09/2010	31/03/2021	831m	East
200	Memory Park	Item - General	Local	Penrith Local Environmental Plan 2010	25/02/2015	25/02/2015	31/03/2021	839m	South East
197	High Street Shop - Former Fultons Store	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	847m	South East
720	High Street shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	847m	South East
719	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	904m	South East
718	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	917m	South East
051	Emu Hall , dwelling, outbuildings and trees	Item - General	State	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	926m	West
717	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	930m	South East
716	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	935m	South East
166	Thornton Hall	Item - General	State	Penrith Local Environmental Plan 2010	20/12/2019	20/12/2019	31/03/2021	938m	East
147	Punt Road, Nepean River	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	945m	West
715	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	953m	South East
713	High Street Shop (Former Bank of NSW	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	957m	South East
714	High Street Shop	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	965m	South East
HCA2	Lemongrove	Conservation Area - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	976m	South East
692	Institute of Arts (Former)	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	979m	South East

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
196	Arms of Australia Hotel	Item - General	Local	Penrith Local Environmental Plan 2010	28/01/2015	25/02/2015	31/03/2021	998m	South East

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Natural Hazards

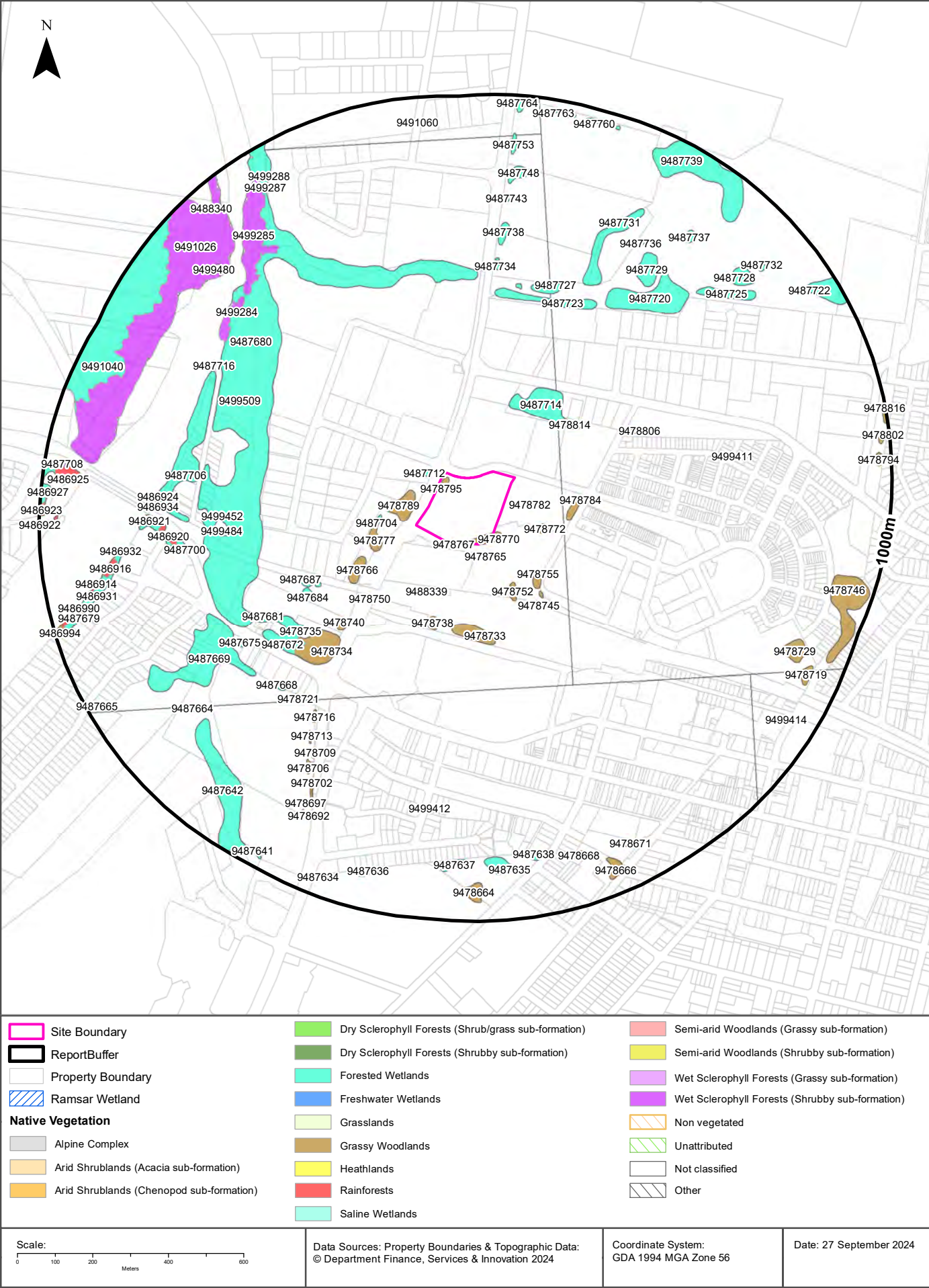
2235-2249 Castlereagh Road, Penrith, NSW 2750

Bush Fire Prone Land

What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	310m	West
Vegetation Category 1	410m	North West
Vegetation Category 2	431m	North West

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Ecological Constraints

2235-2249 Castlereagh Road, Penrith, NSW 2750

Native Vegetation

What native vegetation exists within the dataset buffer?

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
9478767	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	0m	On-site
9478770	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	0m	On-site
9478795	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	0m	On-site
9488339	Not classified	(Not classified) Not classified	Not classified	0m	On-site
9478765	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	24m	South
9478789	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	29m	West
9487712	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	32m	North West
9487711	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	47m	West
9478782	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	60m	East
9487709	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	78m	West
9487704	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	95m	West
9478780	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	100m	West
9478777	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	102m	West
9478772	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	105m	East
9499411	Not classified	(Not classified) Not classified	Not classified	121m	East
9478752	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	132m	South East
9478755	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	152m	South East
9478766	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	161m	South West
9478784	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	164m	East
9487714	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	173m	North East
9478814	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	185m	North East
9478747	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	193m	South East
9478738	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	200m	South
9478745	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	209m	South East
9478733	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	213m	South
9478750	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	222m	South West
9487688	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	296m	South West
9487687	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	312m	South West

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
9478740	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	314m	South West
9478806	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	326m	North East
9487684	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	329m	South West
9478734	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	360m	South West
9499412	Not classified	(Not classified) Not classified	Not classified	387m	South
9487672	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	401m	South West
9487680	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	408m	North West
9478735	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	410m	South West
9487723	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	461m	North
9487681	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	463m	South West
9487730	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	490m	North
9487727	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	491m	North
9499484	Not classified	(Not classified) Not classified	Not classified	494m	West
9499452	Not classified	(Not classified) Not classified	Not classified	510m	West
9487720	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	516m	North East
9487734	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	536m	North
9478721	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	545m	South West
9487731	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	545m	North East
9487666	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	546m	South West
9487675	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	549m	South West
9487667	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	551m	South West
9487668	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	554m	South West
9478716	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	557m	South West
9487735	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	560m	North
9499509	Not classified	(Not classified) Not classified	Not classified	563m	North West
9487669	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	564m	South West
9487706	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	593m	West
9487738	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	600m	North
9487700	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	612m	West
9478713	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	613m	South West
9487729	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	614m	North East
9478712	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	633m	South West
9486917	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	637m	West
9486933	Forested Wetlands	(Forested Wetlands) Central Eastern Ranges River Oak Forest	Eastern Riverine Forests	642m	West

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
9486920	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	652m	West
9478709	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	655m	South West
9486921	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	663m	West
9487716	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	670m	North West
9499284	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Cumberland Bangalay x Blue Gum Riverflat Forest	North Coast Wet Sclerophyll Forests	674m	North West
9486934	Forested Wetlands	(Forested Wetlands) Central Eastern Ranges River Oak Forest	Eastern Riverine Forests	677m	West
9486930	Forested Wetlands	(Forested Wetlands) Central Eastern Ranges River Oak Forest	Eastern Riverine Forests	678m	West
9486924	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	680m	West
9478706	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	684m	South West
9487725	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	687m	North East
9486935	Forested Wetlands	(Forested Wetlands) Central Eastern Ranges River Oak Forest	Eastern Riverine Forests	702m	West
9487736	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	703m	North East
9499285	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Cumberland Bangalay x Blue Gum Riverflat Forest	North Coast Wet Sclerophyll Forests	703m	North West
9478703	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	706m	South West
9487743	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	718m	North
9478702	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	723m	South West
9487642	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	756m	South West
9487664	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	756m	South West
9487748	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	766m	North
9487737	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	773m	North East
9487728	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	775m	North East
9499414	Not classified	(Not classified) Not classified	Not classified	775m	South East
9478697	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	780m	South West
9486932	Forested Wetlands	(Forested Wetlands) Central Eastern Ranges River Oak Forest	Eastern Riverine Forests	781m	West
9491026	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Cumberland Bangalay x Blue Gum Riverflat Forest	North Coast Wet Sclerophyll Forests	790m	North West
9486916	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	799m	West
9478692	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	801m	South West
9499506	Not classified	(Not classified) Not classified	Not classified	801m	North East
9499480	Not classified	(Not classified) Not classified	Not classified	804m	North West
9486931	Forested Wetlands	(Forested Wetlands) Central Eastern Ranges River Oak Forest	Eastern Riverine Forests	811m	West
9478729	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	824m	South East
9487635	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	831m	South
9487638	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	833m	South

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
9487637	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	839m	South
9487753	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	842m	North
9487732	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	849m	North East
9486914	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	854m	West
9478668	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	857m	South
9478671	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	870m	South East
9491040	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	872m	North West
9499286	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Cumberland Bangalay x Blue Gum Riverflat Forest	North Coast Wet Sclerophyll Forests	876m	North West
9487739	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	880m	North East
9491060	Not classified	(Not classified) Not classified	Not classified	882m	North
9478746	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	884m	East
9478719	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	892m	South East
9487636	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	893m	South
9499287	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Cumberland Bangalay x Blue Gum Riverflat Forest	North Coast Wet Sclerophyll Forests	894m	North West
9486996	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	897m	West
9478664	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	898m	South
9478666	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	899m	South
9486925	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	899m	West
9499288	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Cumberland Bangalay x Blue Gum Riverflat Forest	North Coast Wet Sclerophyll Forests	904m	North West
9486990	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	907m	West
9491024	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Cumberland Bangalay x Blue Gum Riverflat Forest	North Coast Wet Sclerophyll Forests	907m	West
9487679	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	915m	West
9487722	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	915m	North East
9487632	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	916m	South
9488340	Not classified	(Not classified) Not classified	Not classified	930m	North West
9491025	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Cumberland Bangalay x Blue Gum Riverflat Forest	North Coast Wet Sclerophyll Forests	931m	West
9486918	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	942m	West
9487634	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	946m	South
9487708	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	946m	West
9486919	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	951m	West
9478794	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	953m	East
9486989	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	953m	West

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
9487764	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	953m	North
9487760	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	958m	North
9487762	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	958m	North
9487758	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	960m	North
9487641	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	961m	South West
9487763	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	963m	North
9487665	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	966m	South West
9478802	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	968m	East
9486994	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	970m	West
9486927	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	974m	West
9486995	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	974m	West
9491023	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Cumberland Bangalay x Blue Gum Riverflat Forest	North Coast Wet Sclerophyll Forests	974m	West
9487678	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	977m	West
9486923	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	981m	West
9478816	Grassy Woodlands	(Grassy Woodlands) Cumberland Shale Plains Woodland	Coastal Valley Grassy Woodlands	987m	East
9487677	Forested Wetlands	(Forested Wetlands) Cumberland Red Gum Riverflat Forest	Coastal Floodplain Wetlands	989m	West
9486922	Rainforests	(Rainforests) Central Coast Gallery Rainforest	Northern Warm Temperate Rainforests	990m	West

Native Vegetation Type Map : NSW Department of Planning and Environment 2022

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Ecological Constraints

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Ramsar Wetlands

What Ramsar Wetland areas exist within the dataset buffer?

Map ID	Ramsar Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ramsar Wetlands Data Source: © Commonwealth of Australia - Department of Agriculture, Water and the Environment

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Collaborative Australian Protected Areas Database - Terrestrial

Protected areas in terrestrial environments identified by the CAPAD within the dataset buffer:

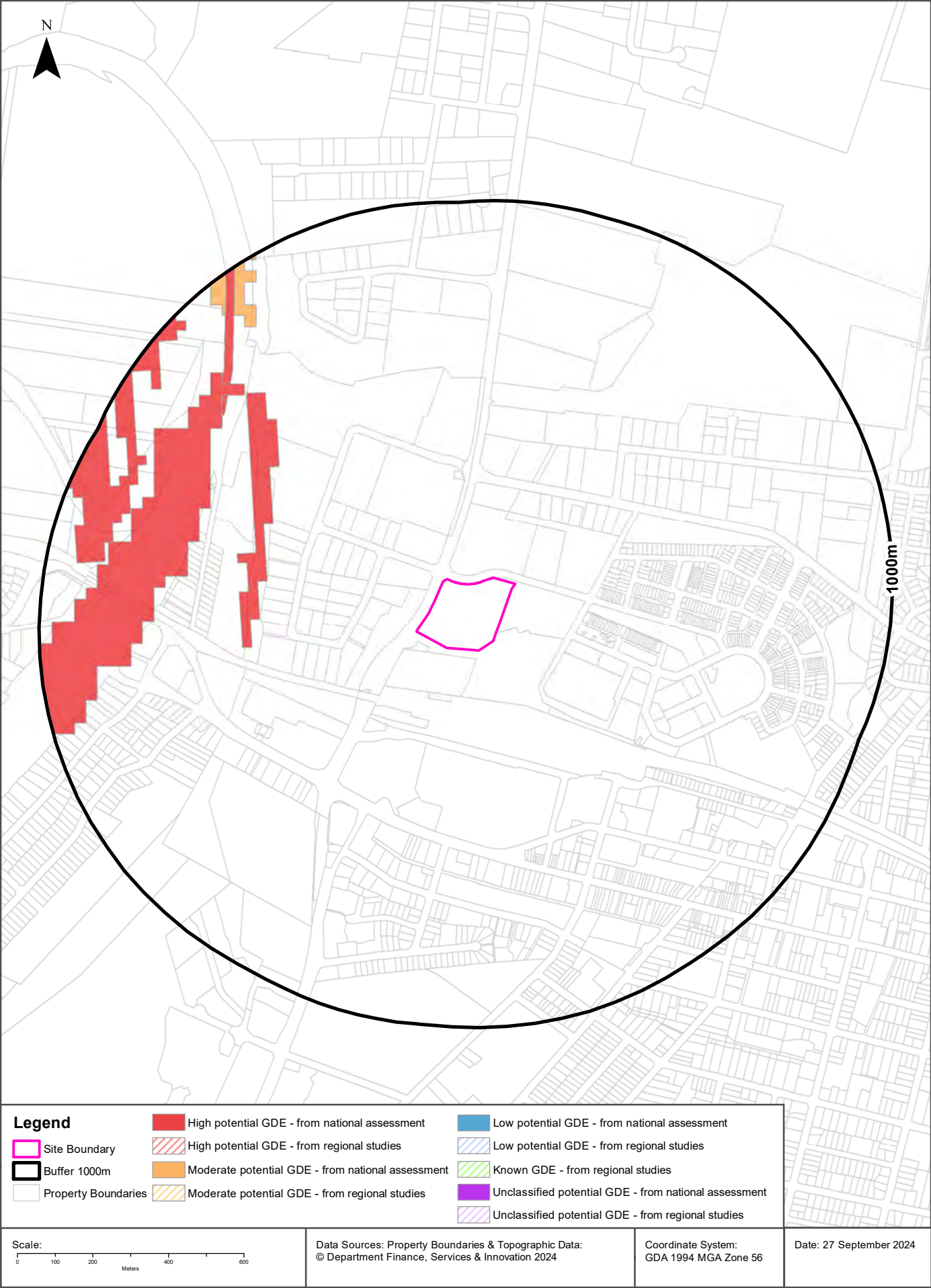
Map ID	Area Name	Area Details	Management Category	Authority	Jurisdiction	Dist	Dir
N/A	No records in buffer						

Collaborative Australian Protected Areas Database - Marine

Protected areas in marine environments identified by the CAPAD within the dataset buffer:

Map ID	Area Name	Area Details	Management Category	Authority	Jurisdiction	Dist	Dir
N/A	No records in buffer						

Source: Collaborative Australian Protected Areas Database (CAPAD) 2022
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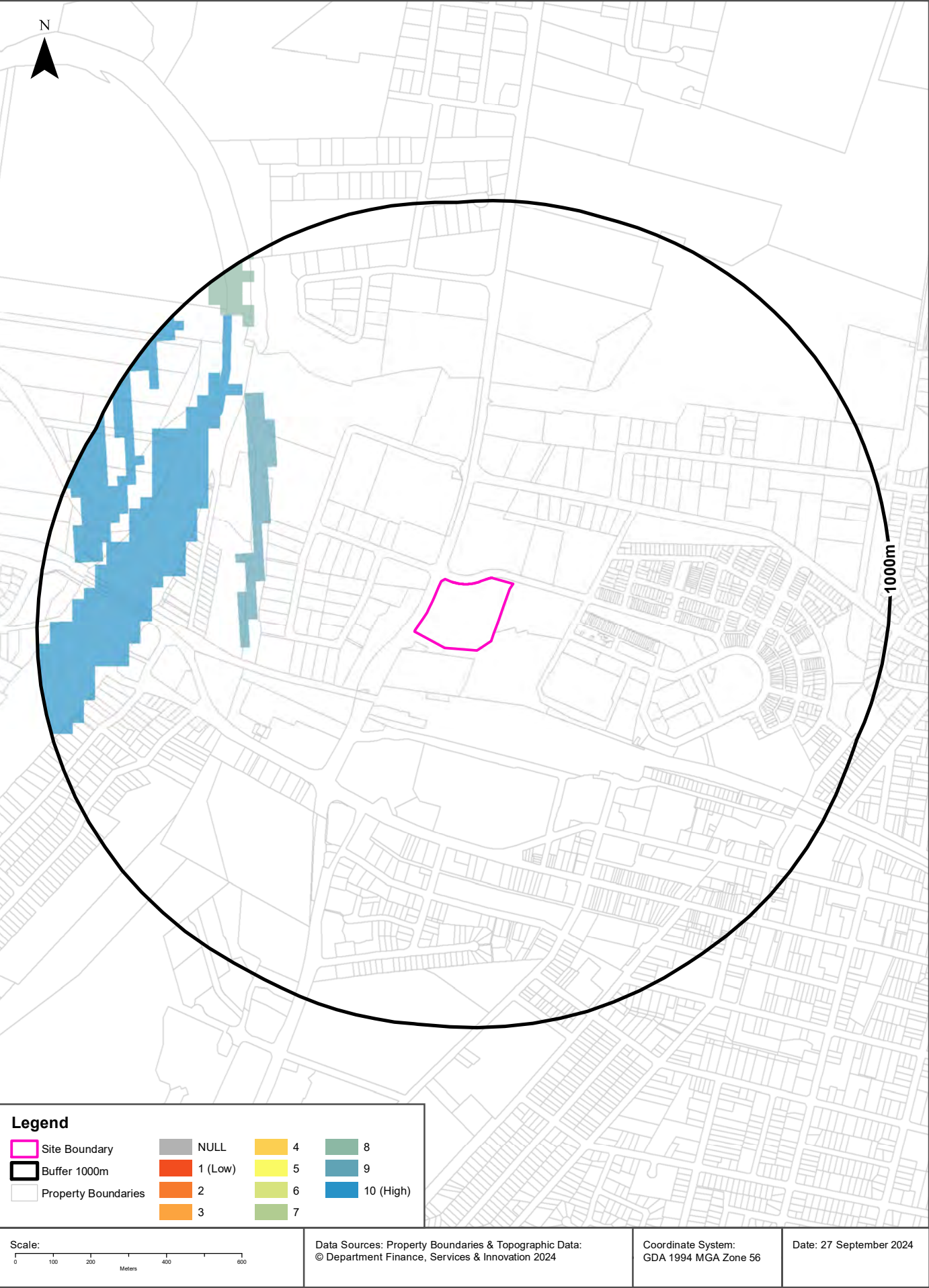
Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	High potential GDE - from national assessment	Undulating to low hilly country, mainly on shale.	Vegetation	Unconsolidated sedimentary	418m	North West
Aquatic	High potential GDE - from national assessment	Undulating to low hilly country, mainly on shale.	Wetland		623m	West
Aquatic	High potential GDE - from national assessment	Undulating to low hilly country, mainly on shale.	River		731m	West
Aquatic	Moderate potential GDE - from national assessment	Undulating to low hilly country, mainly on shale.	River		742m	North West
Aquatic	Moderate potential GDE - from national assessment	Undulating to low hilly country, mainly on shale.	Wetland		836m	North West

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology
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Ecological Constraints - Inflow Dependent Ecosystems Likelihood

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Ecological Constraints

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Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	9	Undulating to low hilly country, mainly on shale.	Vegetation	Unconsolidated sedimentary	418m	North West
Aquatic	10	Undulating to low hilly country, mainly on shale.	Wetland		623m	West
Aquatic	10	Undulating to low hilly country, mainly on shale.	River		731m	West
Terrestrial	10	Undulating to low hilly country, mainly on shale.	Vegetation	Unconsolidated sedimentary	820m	North West
Aquatic	8	Undulating to low hilly country, mainly on shale.	Wetland		836m	North West

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology

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Ecological Constraints

2235-2249 Castlereagh Road, Penrith, NSW 2750

NSW BioNet Species Sightings

Species sightings from the NSW BioNet Repository that have either a state or federal conservation status, or a sensitivity status, and are within 10 km of the site:

Note: This data does not include NSW Category 1 sensitive species.

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Heleioporus australiacus	Giant Burrowing Frog	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Not Sensitive	Endangered	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Amaurornis moluccana	Pale-vented Bush-hen	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Anseranas semipalmata	Magpie Goose	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Category 2	Critically Endangered	Critically Endangered	
Animalia	Aves	Aphelocephala leucopsis	Southern Whiteface	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Not Sensitive	Endangered	Endangered	
Animalia	Aves	Burhinus grallarius	Bush Stone-curlew	Not Sensitive	Endangered	Not Listed	
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Category 3	Endangered	Endangered	
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black-Cockatoo (inland subspecies)	Category 2	Vulnerable	Not Listed	
Animalia	Aves	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo	Category 2	Vulnerable	Vulnerable	
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Circus assimilis	Spotted Harrier	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Not Sensitive	Endangered	Not Listed	
Animalia	Aves	Falco subniger	Black Falcon	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;JAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Grantiella picta	Painted Honeyeater	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Not Sensitive	Vulnerable	Not Listed	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Not Sensitive	Endangered	Critically Endangered	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Neochmia ruficauda	Star Finch	Not Sensitive	Extinct	Endangered	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Onychoprion fuscata	Sooty Tern	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Pachycephala olivacea	Olive Whistler	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Pandion cristatus	Eastern Osprey	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Petroica phoenicea	Flame Robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Petroica rodinogaster	Pink Robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Pycnophilus floccosus	Pilotbird	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Rostratula australis	Australian Painted Snipe	Not Sensitive	Endangered	Endangered	
Animalia	Aves	Stagonopleura guttata	Diamond Firetail	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Sterna hirundo	Common Tern	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Stictonetta naevosa	Freckled Duck	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Not Sensitive	Critically Endangered	Vulnerable	
Animalia	Aves	Todiramphus chloris	Collared Kingfisher	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Tringa glareola	Wood Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto longimembris	Eastern Grass Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Category 3	Vulnerable	Not Listed	
Animalia	Gastropoda	Meridolum corneovirens	Cumberland Plain Land Snail	Not Sensitive	Endangered	Not Listed	
Animalia	Gastropoda	Pommerhelix duralensis	Dural Land Snail	Not Sensitive	Endangered	Endangered	
Animalia	Insecta	Petalura gigantea	Giant Dragonfly	Not Sensitive	Endangered	Not Listed	
Animalia	Mammalia	Bettongia gaimardi	Tasmanian Bettong	Not Sensitive	Extinct	Extinct	
Animalia	Mammalia	Cercartetus nanus	Eastern Pygmy-possum	Not Sensitive	Vulnerable	Not Listed	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Not Sensitive	Vulnerable	Endangered	
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Petauroides volans	Southern Greater Glider	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Mammalia	Petaurus norfolkensis	Squirrel Glider	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheath-tail-bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Vespadelus troungtoni	Eastern Cave Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Antaresia stimsoni	Stimson's Python	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Aspidites ramsayi	Woma	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Not Sensitive	Endangered	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Reptilia	Eulamprus leuraensis	Blue Mountains Water Skink	Not Sensitive	Endangered	Endangered	
Animalia	Reptilia	Hoplocephalus bungaroides	Broad-headed Snake	Category 2	Endangered	Endangered	
Animalia	Reptilia	Tiliqua occipitalis	Western Blue-tongued Lizard	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Uvidicolus sphyrurus	Border Thick-tailed Gecko	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Acacia meiantha		Not Sensitive	Endangered	Endangered	
Plantae	Flora	Acacia pubescens	Downy Wattle	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Allocasuarina glaireicola		Not Sensitive	Endangered	Endangered	
Plantae	Flora	Dillwynia tenuifolia		Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Eucalyptus benthamii	Camden White Gum	Not Sensitive	Critically Endangered	Vulnerable	
Plantae	Flora	Eucalyptus leucoxylon subsp. pruinosa	Yellow Gum	Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Grevillea juniperina subsp. juniperina	Juniper-leaved Grevillea	Not Sensitive	Vulnerable	Not Listed	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Grevillea parviflora subsp. parviflora	Small-flower Grevillea	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Hibbertia fumana		Not Sensitive	Critically Endangered	Not Listed	
Plantae	Flora	Hibbertia procumbens	Spreading Guinea Flower	Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Hibbertia puberula		Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Hibbertia sp. Bankstown		Not Sensitive	Critically Endangered	Critically Endangered	
Plantae	Flora	Isotoma fluviatilis subsp. fluviatilis		Category 3	Not Listed	Extinct	
Plantae	Flora	Leucopogon fletcheri subsp. fletcheri		Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Macadamia integrifolia	Macadamia Nut	Not Sensitive	Not Listed	Vulnerable	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Marsdenia viridiflora subsp. viridiflora	Native Pear	Not Sensitive	Endangered Population	Not Listed	
Plantae	Flora	Melaleuca deanei	Deane's Paperbark	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Micromyrtus minutiflora		Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Category 3	Endangered	Endangered	
Plantae	Flora	Persoonia nutans	Nodding Geebung	Not Sensitive	Endangered	Endangered	
Plantae	Flora	Pimelea spicata	Spiked Rice-flower	Not Sensitive	Endangered	Endangered	
Plantae	Flora	Pterostylis saxicola	Sydney Plains Greenhood	Category 2	Endangered	Endangered	
Plantae	Flora	Pultenaea parviflora		Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Pultenaea villifera		Not Sensitive	Endangered Population	Not Listed	
Plantae	Flora	Senna acclinis	Rainforest Cassia	Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Tetradlea glandulosa		Not Sensitive	Vulnerable	Not Listed	

Source: NSW BioNet Species Sightings

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Area Match	Georeferenced to an approximate or general area
Road Match	Georeferenced to a road or rail corridor
Road Intersection	Georeferenced to a road intersection
Buffered Point	A point feature buffered to x metres
Adjacent Match	Land adjacent to a georeferenced feature
Network of Features	Georeferenced to a network of features
Suburb Match	Georeferenced to a suburb boundary
As Supplied	Spatial data supplied by provider

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- (b) waives any right it may have to claim against Third Party Content Supplier in connection with the Report, or the negotiation of, entry into, performance of, or termination of these Terms; and
 - (c) releases each Third Party Content Supplier from any claim it may have otherwise had in connection with the Report, or the negotiation of, entry into, performance of, or termination of these Terms.
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 12. These Terms are subject to New South Wales law.

Attachment D Historical Land Titles



ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

Address: 2235-2249 Castlereagh Road, Penrith, NSW 2750

Description: - Lot 5 D.P. 1017480

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
21.06.1881 (1881 to 1955)	Francis Henry Woodriff (Esquire)	Book 222 No. 132 (Deed of Partition)
10.06.1955 (1955 to 1987)	The Electricity Commission of New South Wales (Acquisition of land for Penrith Sub-Station)	Government Gazette published 10.06.1955 Folio 1569 Now 1/740326
22.05.1987 (1987 to 1993)	The Electricity Commission of New South Wales (Acquisition of Land for Penrith Power Station)	1/740326 (Government Gazette published 22.05.1987 Folio 2414) Now 102/802578
17.09.1993 (1993 to Date)	# Prospect Electricity (Compulsory Acquisition of Land for the purposes of the Electricity Act 1945) Then # Integral Energy Australia Then # Endeavour Energy Now # Epsilon Distribution Ministerial Holding Corporation	102/802578 (Government Gazette published 17.09.1993 Folio 5891) Then 3/86241 Now 5/1017480

Denotes current registered proprietor

Leases, Excluding Premises: -

- 26.06.2017 (AM475160): Lease to Edwards A Pty Limited, Eric Epsilon Asset Corporation 1 Pty Ltd, Eric Epsilon Asset Corporation 2 Pty Ltd, Eric Epsilon Asset Corporation 3 Pty Ltd & Eric Epsilon Asset Corporation 4 Pty Ltd. Expires: 13.06.2116. Option of Renewal: 99 years.
 - . 26.06.2017 (AM475161): Lease or lease to Edwards O Pty Limited, Eric Epsilon Operator Corporation 1 Pty Ltd, Eric Epsilon Operator Corporation 2 Pty Ltd, Eric Epsilon Operator Corporation 3 Pty Ltd & Eric Epsilon Operator Corporation 4 Pty Ltd. Expires: 12.06.2116.
 - 24.02.2021 (AQ498064: Variation of Lease AM475161.

Continued Over.

Email: mark.groll@infotrack.com.au

Email: taylor.wilson@infotrack.com.au



ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

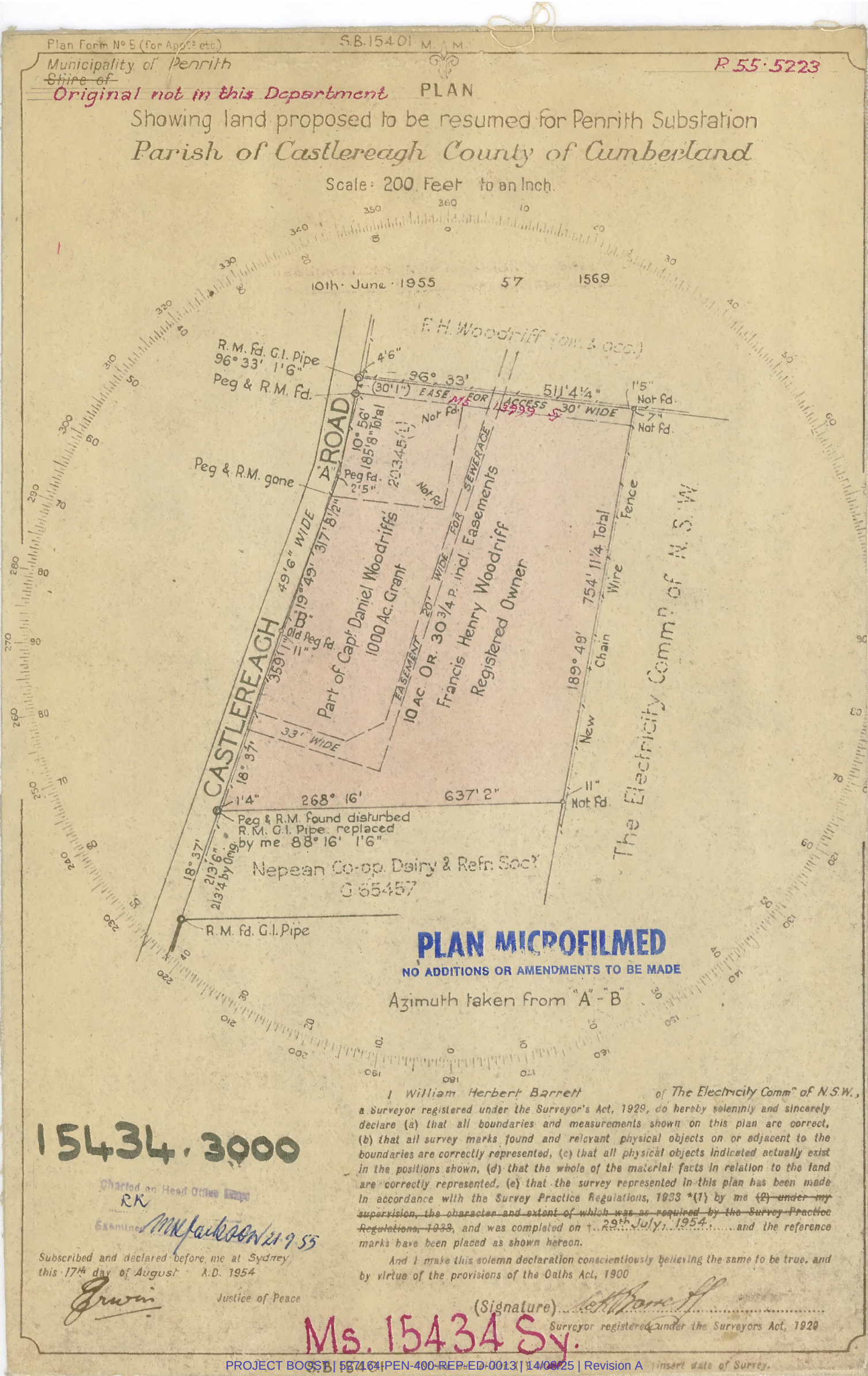
Easements: -

- 10.12.1990 (Z304391): Easement to drain water 3 metre(s) wide affecting the site designated (O) in D.P. 862421.
- 17.08.2004 (D.P. 1071215): Easement for support and batter 2 metres wide designated (G) affecting the part(s) shown so burdened in D.P. 1071215.
- 17.08.2004 (D.P. 1071215): Easement for drainage of water variable width designated (H) affecting the part(s) shown so burdened in D.P. 1071215.

Yours Sincerely
Suman Suri
(Checked By Taylor Wilson)
11 October 2022

	Status	Surv/Comp	Purpose
DP249986 Lot(s): 19			
 DP1133100	REGISTERED	COMPILATION	EASEMENT
Lot(s): 27			
 DP649076	REGISTERED	SURVEY	EASEMENT
DP607528 Lot(s): 10			
 DP1161724	REGISTERED	SURVEY	EASEMENT
DP621863 Lot(s): 61			
 DP649076	REGISTERED	SURVEY	EASEMENT
 DP1170364	PRE-ALLOCATED	UNAVAILABLE	SUBDIVISION
DP739989 Lot(s): 903			
 DP649076	REGISTERED	SURVEY	EASEMENT
 DP1251354	REGISTERED	SURVEY	ROADS ACT, 1993
DP866979 Lot(s): 1			
 DP1254207	REGISTERED	SURVEY	ROADS ACT, 1993
DP1001461 Lot(s): 1, 2			
 DP862624	HISTORICAL	SURVEY	CONSOLIDATION
DP1017480 Lot(s): 5			
 DP862421	HISTORICAL	SURVEY	RESUMPTION OR ACQUISITION
 DP1276451	WITHDRAWN	UNAVAILABLE	SUBDIVISION
 DP1284168	PRE-EXAM	SURVEY	LEASE
Lot(s): 6			
 DP1198718	REGISTERED	SURVEY	EASEMENT
Lot(s): 5, 6			
 DP1071215	REGISTERED	SURVEY	EASEMENT
DP1018325 Lot(s): 103			
 DP862420	HISTORICAL	SURVEY	ROADS ACT, 1993
DP1024431 Lot(s): 100			
 DP249986	HISTORICAL	SURVEY	SUBDIVISION
 DP500166	HISTORICAL	COMPILATION	SUBDIVISION
 DP862420	HISTORICAL	SURVEY	ROADS ACT, 1993
 DP878371	HISTORICAL	SURVEY	RESUMPTION OR ACQUISITION
DP1051278 Lot(s): 4			
 DP739989	HISTORICAL	SURVEY	SUBDIVISION
 DP1251354	REGISTERED	SURVEY	ROADS ACT, 1993
 NSW GAZ. 19-08-2005 Folio : 4886	LOT 1 DP1051278, LOT 3 DP1051278 - PROPOSED EASEMENTS DESIGNATED (A) AND (M), LOT 4 DP1051278 PROPOSED EASEMENTS DESIGNATED (A) AND (J) ACQUIRED FOR THE PURPOSES OF THE SYDNEY WATER ACT, 1994		
DP1067795 Lot(s): 1			
 DP500166	HISTORICAL	COMPILATION	SUBDIVISION
 DP862420	HISTORICAL	SURVEY	ROADS ACT, 1993
 DP878371	HISTORICAL	SURVEY	RESUMPTION OR ACQUISITION
 DP1024431	HISTORICAL	SURVEY	SUBDIVISION
 DP1107841	REGISTERED	SURVEY	EASEMENT
DP1072988 Lot(s): 137			
 DP249986	HISTORICAL	SURVEY	SUBDIVISION

Caution: 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.



15434.3000

Charted on Head Office Maps
RK
Examined by M. Jackson 21.9.55

Subscribed and declared before me at Sydney
this 17th day of August A.D. 1954

Justice of Peace

I William Herbert Barrett of The Electricity Commⁿ of N.S.W.,
a Surveyor registered under the Surveyors Act, 1929, 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 29th July 1954 and the reference
marks have been placed 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) *William Herbert Barrett*
Surveyor registered under the Surveyors Act, 1929

Ms. 15434 Sy.

SCHEDULE.
(Easement only).

All that piece or parcel of land situate in the City of Maitland, parish of Gosforth, county of Northumberland, being part of lot 15 shown in deposited plan No. 2,881 and part of lot 1, section 1, shown in deposited plan No. 21,354: Commencing on the northern side of Second-avenue at the south-eastern corner of the area of 29 acres 1 rood 10 perches of land shown in plan annexed to Instrument of Transfer No. F. 409,164 in the Registrar-General's Office, Sydney; and bounded thence on the west by part of the eastern boundary of the said area of 29 acres 1 rood 10 perches of land bearing 359 degrees 57 minutes 120 feet to the south-western corner of the area of 5 acres 32½ perches of land resumed for housing purposes by notification in Government Gazette dated 5th March, 1954; on the north by part of a southern boundary of that lastmentioned area of 5 acres 32½ perches of land bearing 89 degrees 57 minutes 6 feet; on the east by a line bearing 179 degrees 57 minutes 120 feet to the northern side of Second-avenue, aforesaid; and on the south by that side of that avenue bearing 269 degrees 57 minutes 6 feet to the point of commencement,—having an area of 2½ perches or thereabouts, and said to be in the possession of Norman James Bell.

Dated at Sydney, this 1st day of June, 1955.

J. NORTHCOTT, Governor.

By His Excellency's Command,

(1869)

J. F. McGRATH, Minister for Housing.

METROPOLITAN WATER, SEWERAGE, AND DRAINAGE
ACT, 1924-1949.

WATER SUPPLY PURPOSES: WARRAGAMBA DAM.
Acquisition of Land.

APPLICATION by The Metropolitan Water Sewerage and Drainage Board having been made that the land described in the Schedule hereto be appropriated or resumed for a water storage reservoir, IT IS HEREBY NOTIFIED AND DECLARED by His Excellency the Governor, acting with the advice of the Executive Council, and by the Minister for Public Works, that so much of the said land as is Crown land is hereby appropriated and so much of the said land as is private property is hereby resumed under Division 1 of Part V of the Public Works Act, 1912, for the purposes aforesaid; AND the Minister for Public Works hereby further notifies that the said land is vested in The Metropolitan Water Sewerage and Drainage Board.

Dated at Sydney, this 1st day of June, 1955.

J. NORTHCOTT, Governor.

J. B. RENSHAW, Minister for Public Works.

SCHEDULE.

All that piece or parcel of land adjoining the Cox's River in the Shire of Wollondilly parish Kedumba county Cook and State of New South Wales being parish portion 50.—Said to be in the possession of the Minister for Lands and as shown on plan catalogued as 180, 142 in the Metropolitan Water, Sewerage and Drainage Board.
(Misc. 54-5,920)

(1483)

ELECTRICITY COMMISSION ACT, 1950-1954.—PUBLIC
WORKS ACT, 1912.

PENRITH SUB-STATION.

Acquisition of Land.

APPLICATION by The Electricity Commission of New South Wales having been made that the land described in the Schedule hereto be appropriated or resumed for the construction and maintenance of a substation at Penrith, IT IS HEREBY NOTIFIED AND DECLARED by His Excellency the Governor, acting with the advice of the Executive Council, that so much of the said land as is Crown land is hereby appropriated and so much of the said land as is private property is hereby resumed under Division 1 of Part V of the Public Works Act, 1912, for the purpose aforesaid, AND IT IS HEREBY FURTHER NOTIFIED that the said land is vested in The Electricity Commission of New South Wales.

Dated at Sydney, this 1st day of June, 1955.

J. NORTHCOTT, Governor.

J. B. RENSHAW, Minister for Local Government.

SCHEDULE.

All that piece or parcel of land situate in the Municipality of Penrith, parish of Castlereagh and county of Cumberland, being part of portion 90 REM: Commencing on the south-eastern side of Castlereagh-road at the north-western corner of the land shown on Miscellaneous Plan of Subdivision (O.S.) No. 10,300; and bounded thence on the north-west by the

said south-eastern side of Castlereagh-road, being lines successively bearing 18 degrees 37 minutes 359 feet 1 inch, 19 degrees 49 minutes 317 feet 8½ inches and 10 degrees 56 minutes 185 feet 8 inches to the south-western corner of the land described in Deed, registered Book 2,056, No. 378; on the north-east by part of the south-western boundary of that land bearing 96 degrees 33 minutes 511 feet 4½ inches to the north-western corner of the 15 acres 2 roods 3 perches parcel of land resumed for a Power Station Site at Penrith by notification in Gazette of 1st June, 1951; on the south-east by part of the north-western boundary of that land bearing 189 degrees 49 minutes 754 feet 11½ inches to the north-eastern corner of the aforesaid land shown in Miscellaneous Plan of Subdivision (O.S.) No. 10,300; and on the south by the northern boundary of that land bearing 268 degrees 16 minutes 637 feet 2 inches to the point of commencement,—having an area of 10 acres 30½ perches or thereabouts and said to be in the possession of Francis Henry Woodriff. (Misc. 52-6,171) (1166)

ELECTRICITY COMMISSION ACT, 1950-1954.—PUBLIC
WORKS ACT, 1912.

SYDNEY—PORT KEMBLA ELECTRICITY TRANSMISSION LINE;
DARKES FOREST SUB-STATION CONNECTOR.
ACQUISITION OF EASEMENT.

APPLICATION by the Electricity Commission of New South Wales having been made that an easement or right to use the surface and the subsoil or undersurface of the land described in the Schedule hereto be appropriated or resumed for the construction and maintenance of an electricity transmission line, IT IS HEREBY NOTIFIED AND DECLARED by His Excellency the Governor, acting with the advice of the Executive Council, that an easement or right as aforesaid over so much of the said land as is Crown land is hereby appropriated and an easement or right as aforesaid over so much of the said land as is private property is hereby resumed under Division 1 of part V of the Public Works Act, 1912, for the purpose aforesaid; AND IT IS HEREBY FURTHER NOTIFIED that the said easement or right is vested in The Electricity Commission of New South Wales.

Dated at Sydney, this 1st day of June, 1955.

J. NORTHCOTT, Governor.

J. B. RENSHAW, Minister for Local Government.

SCHEDULE.

All that piece or parcel of land situate in the City of Greater Wollongong, parish of Southend, county of Cumberland, being that part of the land in R. 24,713 for gravel, notified in Gazette of 29th August, 1896, and that part of portions 171 and 172, extending from the south-eastern boundary of the land resumed for Darkes Forest Sub-station by notification in Gazette of 5th November, 1954, generally easterly to the western boundary of the easement resumed for the Sydney to Port Kembla 66kv Transmission line by notification in Gazette of 25th February, 1944, lying within strips of land 50 feet wide on both sides of the centre line of the transmission line, which intersects the said south-eastern boundary of the land resumed for Darkes Forest Sub-station by notification in Gazette of 5th November, 1954, at a point bearing 82 degrees 6 minutes and distant 3 chains 84.5 links from the south-western corner of that land, and thence bears 113 degrees 50 minutes 20 seconds for a distance of 4 chains 68.2 links, 93 degrees 43 minutes 10 seconds 15 chains 2.5 links and thence 90 degrees 25 minutes 20 seconds through a point on the said western boundary of the easement for the Sydney-Port Kembla 66kv transmission line,—and said to be in the possession of The Coal Cliff Collieries Limited and the Crown.
(Misc. 55-5,369) (1545)

HUNTER DISTRICT WATER, SEWERAGE AND
DRAINAGE ACT, 1938-1952.

WATER MAIN: KOTARA.

Acquisition of Easement.

APPLICATION by the Hunter District Water Board having been made that an easement or right to use the surface and the subsoil or undersurface of the land described in the Schedule hereto be appropriated or resumed for the construction and maintenance of a water main, IT IS HEREBY NOTIFIED AND DECLARED by His Excellency the Governor, acting with the advice of the Executive Council, and by the Minister for Public Works, that an easement or right as aforesaid over so much of the said land as is Crown land is hereby appropriated and an easement or right as aforesaid over so much of the said land as is private property is hereby resumed under Division 1 of Part V of the Public Works Act, 1912, for the purposes aforesaid; AND the Minister for Public Works hereby further notifies that the said easement or right is vested in The Hunter District Water Board.

Dated at Sydney, this 1st day of June, 1955.

J. NORTHCOTT, Governor.

J. B. RENSHAW, Minister for Public Works.

ELECTRICITY COMMISSION ACT 1950—THE PUBLIC WORKS ACT 1912

WALLERAWANG—SYDNEY SOUTH 330 kV TRANSMISSION LINE

Acquisition of Easement

APPLICATION by The Electricity Commission of New South Wales having been made that an easement or right to use of the land described in the Schedule hereto for the construction and maintenance of an electricity transmission line be appropriated or resumed, it is hereby notified and declared by His Excellency the Governor, acting with the advice of the Executive Council, that an easement or right as aforesaid to use so much of the said land as is Crown land is hereby appropriated, and an easement or right as aforesaid to use so much of the said land as is private property is hereby resumed, under Division 1 of Part V of the Public Works Act 1912; and it is hereby further notified that the said easement or right is vested in The Electricity Commission of New South Wales.

Dated at Sydney, this 13th day of May, 1987.

J. A. ROWLAND, Governor.

By His Excellency's Command,

PETER COX,
Minister for Energy and Technology.

SCHEDULE

All that piece or parcel of land situate in the City of Campbelltown, Parish of Minto and County of Cumberland, being that part of lot 94, Deposited Plan 263514 (volume 14980, folio 150), comprised within the site of proposed easement for transmission line 60 metres wide as shown in Deposited Plan 635997, and said to be in the possession of S. and R. Lauricella and others. (p. 16980) (116) (file 42470) (Schedule 992) (5073)

ELECTRICITY COMMISSION ACT 1950—THE PUBLIC WORKS ACT 1912

PENRITH POWER STATION

Acquisition of Land

APPLICATION by The Electricity Commission of New South Wales having been made that the land together with all mines and deposits of minerals contained therein described in the Schedule hereto be appropriated or resumed for the purpose of an electricity power station, it is hereby notified and declared by His Excellency the Governor, acting with the advice of the Executive Council, that so much of the said land as is Crown land together with all mines and deposits of minerals contained therein is hereby appropriated, and so much of the said land as is private property together with all mines and deposits of minerals contained herein is hereby resumed, under Division 1 of Part V of the Public Works Act 1912, for the purpose aforesaid; and it is hereby further notified that the said land together with all mines and deposits of minerals contained therein is vested in The Electricity Commission of New South Wales.

Dated at Sydney, this 13th day of May, 1987.

J. A. ROWLAND, Governor.

By His Excellency's Command,

PETER COX,
Minister for Energy and Technology.

SCHEDULE

All that piece or parcel of land situate in the City of Penrith, Parish of Castlereagh and County of Cumberland, being lots 1, 2 and 3, Deposited Plan 740326, having areas of 6.153 hectares, 4.398 hectares and 1 846 square metres respectively or thereabouts, as shown in the said Deposited Plan 740326, and said to be in the possession of The Electricity Commission of New South Wales. (P. 17428) (File 6) (Schedule 1013) (7168)

TECHNICAL AND FURTHER EDUCATION ACT 1974—PUBLIC WORKS ACT 1912

ACQUISITION OF LAND FOR TECHNICAL COLLEGE AT LIDCOMBE

IN pursuance of the provisions of section 28 of the Technical and Further Education Act 1974. It is hereby notified and declared by His Excellency the Governor, acting with the advice of the Executive Council, that so much of the land described in the Schedule hereto as is Crown land is hereby appropriated, and so much of the said land as is private property is hereby resumed, under the Public Works Act 1912, for the purpose of a Technical College at Lidcombe, and that the said land is vested in the Minister for Education as Constructing Authority on behalf of Her Majesty the Queen.

Dated at Sydney, this thirteenth day of May, one thousand nine hundred and eighty-seven.

J. A. ROWLANDS, Governor.

By His Excellency's Command,

R. M. CAVALIER, Minister for Education.

THE SCHEDULE

All that piece or parcel of land situate in the Municipality of Auburn, Parish of Liberty Plains and County of Cumberland, being lot 489, Deposited Plan 48289, having an area of 14.78 hectares or thereabouts, and said to be in the possession of the Crown (S.B. 31222) (84-R-0744). (8098)

NOTIFICATION OF RESUMPTION OF LAND UNDER THE PUBLIC WORKS ACT 1912, AS AMENDED

ACQUISITION OF EASEMENT

IT is hereby notified and declared by His Excellency the Governor, acting with the advice of the Executive Council, that an easement or right to use the surface, subsoil and under surface of the land described in the Schedule hereto for the construction and maintenance of a drainage pipeline is as to so much of the said land as is Crown land, hereby appropriated, and as to so much of the said land as is private property, hereby resumed, under the Public Works Act 1912, as amended, for the following public purpose, namely a drainage pipeline and for access purposes at William Stimson Public School, Wetherill Park, and that the said easement or right is vested in the Minister for Education as Constructing Authority on behalf of Her Majesty the Queen.

Dated this 25th day of March, one thousand nine hundred and eighty-seven.

J. A. ROWLAND, Governor.

By His Excellency's Command,

R. M. CAVALIER, Minister for Education.

SCHEDULE

All that piece or parcel of land situate in the City of Fairfield, Parish of St Luke and County of Cumberland, being the site of the proposed easement 2.0 metres wide for drainage pipeline shown in Deposited Plan 638706, and said to be in the possession of the Council of the City of Fairfield. (SB 83-008146). (7073)

BIOLOGICAL CONTROL ACT 1985

DECLARATION OF RELEVANT LAW

I, JACK ROWLAND HALLAM, being the Minister administering the Biological Control Act 1985 and in my capacity as the New South Wales Biological Control Authority do hereby pursuant to section 5 of the Act declare the Northern Territory Biological Control Act 1986 to be a relevant law for the purposes of this Act.

Dated this 30th day of January, 1987.

(6130)

J. R. HALLAM, Minister for Agriculture.

LEICHHARDT MUNICIPAL COUNCIL

Roads Act 1993, Section 116

Proposed Closure of Cecily Street and O'Neil Street,
Lilyfield

COUNCIL hereby advises that pursuant to Section 116 of the Roads Act 1993, and in accordance with the authority delegated to it by the Roads and Traffic Authority of New South Wales, it proposes to close the following sections of road for the purpose of staging the "Nanny Goat Hill Festival", on Sunday, 5th December, 1993, from 9 a.m. to 6 p.m.: 1. Cecily Street, between Brockley Street and O'Neil Street. 2. O'Neil Street, between Alberto Street and Brockley Street. Barricades will be erected at the extremities of the closures and traffic will be diverted via the surrounding street system. Comments or objections to the proposal should be made in writing to Council and will be accepted until 13th October 1993. When replying, please quote reference C14/3. Telephone enquiries should be directed to Council's Traffic Engineer, Trevor Jennings on tel.: 367 9007. A. W. WOODWARD, Town Clerk, Administrative Centre, 7-15 Wetherill Street, Leichhardt, N.S.W. 2040. [03952]

PROSPECT ELECTRICITY

Electricity Act 1945, Land Acquisition (Just Terms
Compensation) Act 1991

Notice of Compulsory Acquisition of Easement Over Land

PROSPECT Electricity declares, with the approval of His Excellency the Governor and the Executive Council, that the easement over 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 Electricity Act 1945. Dated at Parramatta, 13th September, 1993. G. R. DOUGLASS, General Manager, P.O. Box 389, Parramatta, N.S.W. 2124.

SCHEDULE

All that piece or parcel of land at St Helens Park, situate in the City of Campbelltown, Parish of St Peter, County of Cumberland, being the site of the proposed easement for electricity purposes shown in Deposited Plan Number 646365 and said to be in the possession of the City of Campbelltown. [03953]

PROSPECT ELECTRICITY

Electricity Act 1945, Land Acquisition (Just Terms
Compensation) Act 1991

Notice of Compulsory Acquisition of Land

PROSPECT Electricity declares, with the approval of His Excellency the Governor and the Executive Council, that the lands described in the Schedule below are acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991, for the purposes of the Electricity Act 1945. Dated at Parramatta, 13th September, 1993. G. R. DOUGLASS, General Manager, P.O. Box 389, Parramatta, N.S.W. 2124.

SCHEDULE

All that piece or parcel of land at Toongabbie, situate in the City of Parramatta, Parish of St John, County of Cumberland, being Lot 1 in Deposited Plan 780050 and being the whole of the land comprised in Certificate of Title, Folio Identifier 1/780050 and said to be in the possession of the Electricity Commission of New South Wales but excepting the easement for transmission line created by Dealing G133494 and the easement for sewerage created by Dealing K811389.

All those pieces or parcels of land at Prospect situate in the City of Blacktown, Parish of Prospect, County of Cumberland, being Lots 50, 51 and 52 in Deposited Plan 14084 and being the whole of the land comprised in Certificate of Title Volume 6122, Folio 242 and Lots 53 and 54 in Deposited Plan 14084 and being the whole of the land comprised in Certificate of Title Volume 5701, Folio 57 and Lots 55 and 56 in Deposited Plan 14084 and being the whole of the land comprised in Certificate of Title Volume 5675, Folio 247 and Lots 23 and

24 in Deposited Plan 14084, being the whole of the land comprised in Certificate of Title Volume 8307, Folio 204 and Lot 1 in Deposited Plan 503593 and being the whole of the land comprised in Certificate of Title Volume 9493, Folio 45 and Lot 312 in Deposited Plan 803926 and being the whole of the land comprised in Certificate of Title, Folio Identifier 312/803926 and said to be in the possession of the Electricity Commission of New South Wales. But excepting the easement appurtenant to part of the land created by Dealing F721083 — easement 20.115 and 22.86 wide affecting the land shown in the plan with F721083 and the easement appurtenant to the land created by D.P. 258905 — to drain water.

All that piece or parcel of land at Camellia situate in the City of Parramatta, Parish of St John, County of Cumberland, being Lot 1 in Deposited Plan 507363 and being the whole of the land comprised in Certificate of Title Volume 10259, Folio 111 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Carlingford situate in the Shire of Baulkham Hills, Parish of Field of Mars, County of Cumberland, being Lots 71, 72 and 73 in Deposited Plan 815737 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land situate as aforesaid being Lot C in the plan catalogued Miscellaneous 13637.3000 Sydney and being the whole of the land resumed by notification in *Government Gazette* No. 72 of 5th May, 1950, and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Guildford situate in the Municipality of Holroyd, Parish of St John, County of Cumberland, being part of Lot 35 in the Sherwood Estate, Lot A, D.P. 407949 and being the whole of the land comprised in Certificate of Title Volume 7664, Folio 104 and said to be in the possession of the Electricity Commission of New South Wales but excepting the covenant created by Dealing G990136.

And all that piece or parcel of land situate as aforesaid being part of Lot 35 in the Sherwood Estate, Lot C, D.P. 407949, and being the whole of the land comprised in Conveyance Registered No. 604, Book 2442 and said to be in the possession of the Electricity Commission of New South Wales. All that piece or parcel of land at South Windsor situate in the City of Hawkesbury, Parish of St Matthew, County of Cumberland, being that part of Portion 336 appropriated by notification in the *Government Gazette* of 24th October, 1969, Folio 4292 and being Lots 1 and 2 in Deposited Plan 575488 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Lawson situate in the City of Blue Mountains, Parish of Jamieson, County of Cook, being Allotment 13, Section 5, Village of Lawson, appropriated by notification in the *Government Gazette* of 13th December, 1957, and said to be in the possession of the Electricity Commission of New South Wales but excepting the easement for railway purposes re-created by notification in the *Government Gazette* No. 52 of 7th June, 1963.

All that piece or parcel of land at St Marys situate in the City of Penrith, Parish of Rooty Hill, County of Cumberland, being Lot 2 in Deposited Plan 234409 and being the whole of the land comprised in Certificate of Title Volume 10692, Folio 218 and said to be in the possession of the Electricity Commission of New South Wales but excepting the easement for transmission line and the easement for underground communication cable created by Dealing M537188.

All that piece or parcel of land at Narellan situate in the Municipality of Camden, Parish of Narellan, County of Cumberland, being Lot 1 in Deposited Plan 516583 and being the whole of the land comprised in Certificate of Title Volume 10131, Folio 123 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Penrith situate in the City of Penrith, Parish of Castlereagh, County of Cumberland, being Lot 102 in Deposited Plan 802578 and being the whole of the land comprised in Certificate of Title, Folio Identifier 102/802578 and said to be in the possession of the Electricity Commission of New South Wales but excepting the easement to drain water created by Dealing Z304391 and rights of carriageway appurtenant and affecting Lot 2 in Deposited Plan 740326.

All those pieces or parcels of land at Blaxland in the City of Blue Mountains, Parish of Strathdon, County of Cook, being Lot 1 in Deposited Plan 633838 and being the whole of the land comprised in Certificate of Title Volume 15286, Folio 91 and Lot 4 in Deposited Plan 633838 and being the whole of the land comprised in Certificate of Title Volume 15286, Folio 93 and Lot 1 in Deposited Plan 259279 and being the whole of the land comprised in Certificate of Title, Folio Identifier 1/259279 and part Lot 5 in Deposited Plan 259279 and being the whole of the land comprised in Certificate of Title Volume 15403, Folio 121 and part Lot 1 in Deposited Plan 259279, being the whole of the land comprised in Certificate of Title Volume 15403, Folio 120 and said to be in the possession of the Electricity Commission of New South Wales but excepting the easement for railways created by Dealing D144548, the easement for railways created by Dealing G912207 and the easement for transmission line created by Dealing H546863 affecting Lot 1, D.P. 259279, the easements for transmission line created by Dealings D144548 and D209624 affecting part Lot 5, D.P. 259279, the easements for transmission line created by Dealings D144548, G211475, G912207 and H546863 affecting Lot 1, D.P. 633838, the easements for transmission line created by Dealings G912207 and H546863, the easement for access created by Dealing J21421, the restriction as to user created by Dealing K375387 and the covenant created by Dealing J21402 affecting Lot 4, D.P. 633838.

All those pieces or parcels of land at Hillview situate in the City of Liverpool, Parish of St Luke, County of Cumberland, being Lot 1, D.P. 120059 and being the residue of the land in Certificate of Title Volume 7538, Folio 97 after a resumption for road widening purposes and Lot 2 in Deposited Plan 206094 and being the whole of the land comprised in Certificate of Title Volume 9098, Folio 99 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook being Lot 18 in Deposited Plan 13917, and being the whole of the land comprised in Certificate of Title Volume 4446, Folio 243 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 19 in Deposited Plan 13917 and being the whole of the land comprised in Certificate of Title Volume 7096, Folio 187 and said to be in the possession of the Electricity Commission of New South Wales.

All those pieces or parcels of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lots 66 and 67 in Deposited Plan 13917, Lots 34-50 and 53 in Deposited Plan 14605 and Lot 2 in Deposited Plan 114660 and being the whole of the land comprised in Certificate of Title Volume 8631, Folio 14 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 4 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4501, Folio 126 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 5 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4501, Folio 127 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 51 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4513, Folio 142 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 52 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4588, Folio 200 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 54 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4546, Folio 147 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 55 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 7054, Folio 57 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 56 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 5897, Folio 116 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 57 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 5897, Folio 117 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 58 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4229, Folio 91 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 59 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4437, Folio 189 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Springwood situate in the City of Blue Mountains, Parish of Magdala, County of Cook, being Lot 7 in Deposited Plan 27122 and being the whole of the land comprised in Certificate of Title, Folio Identifier 7/27122 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at North Rocks situate in the Shire of Baulkham Hills, Parish of Field of Mars, County of Cumberland, being Lot 9 in Registered Plan 1846 (Deposited Plan 38846), being the whole of the land comprised in Certificate of Title Volume 10828, Folio 202 and said to be in the possession of the Electricity Commission of New South Wales. [03954]

QUEANBEYAN CITY COUNCIL

Roads Act 1993, Ordinance 30

Naming of Roads

NOTICE is hereby given that the Queanbeyan City Council in pursuance of Section 162 (1) of the abovementioned Act, has renamed the roads as shown hereunder: Previous name—New name: 1. Warrawee Road (between Kinlyside Avenue and what is currently known as Sulman Avenue, Jerrabomberra Heights)—Kinlyside Avenue. 2. Warrawee Road (between Esmond Avenue and O'Sullivan Road)—Esmond Avenue. 3. Sulman Avenue (part of Rue de Paris and part of Jerrabomberra Hill Road (all between Halloran Drive and what is currently known as Warrawee Road, Jerrabomberra Heights)—Halloran Drive. H. A. PERCY, General Manager, 257 Crawford Street, Queanbeyan, N.S.W. 2620. [03954A]

SHOALHAVEN CITY COUNCIL

Roads Act 1993, Section 162

Naming of Road — Windley Road, Wandandian

NOTICE is hereby given that the Shoalhaven City Council in pursuance of Section 162 of the Roads Act 1993, has named the road described hereunder. Location — New name: The access road off Wandean Road for Subdivision SF 7264 — Windley Road. Authorised by resolution of Council dated Tuesday, 6th July, 1993. G. A. NAPPER, General Manager, City Administration Centre, Bridge Road, Nowra, N.S.W. 2541. [03955]



PA
061227 Y

RA

(For land not under the provisions of the
Real Property Act, 1900)

Note (a)

Lot No.	Plan No.	Location
1, 2 and 3 (excepting land in C.T. Vol 8388 Folio 122)	D.P. 740326	Parish of Castlereagh County of Cumberland
Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
	WHOLE	

Note (b)

Note (c)

(c) 

GAZET
Note (d)

(ii) for the issue of a certificate of title in favour of the applicant.

Note (e)

(b) ~~for the issue of a certificate of title in~~

Note (1)

so returned on the folio(s) of the Register, described in the above schedule.

And I, John Alfred McGrath, hereby certify that

Note (c)

- (1) I am authorised to make the within application;
- (2) the said land has not been divested from the applicant The Electricity Commission of New South Wales and no estate or interest therein has been created in favour of any other person.
- (3) the said land is not under the provisions of the Real Property Act, 1900, and no sale, lease or other transaction affecting it is intended to be completed prior to the issue of the folio of the Register; and
- (4) this application is correct for the purposes of the Real Property Act, 1900.

(Copy of Gazette notification.)

SEE ANNEXURE HERETO MARKED "A"

OFFICE USE ONLY

Dated Sydney this 4th day of May, 1989

Signed in my presence

by the said John Alfred McGrath

Signature of Witness

Name of Witness (BLOCK LETTERS) _____

Signed for the Electricity
Commission of New South Wales
pursuant to a Delegation made on
11th December , 1984

Delegate of the Commission

Notes (h)
and (i)

LODGED BY **Morris, Hayes & Edgar**
 LAW STATIONERS
 99 ELIZABETH STREET
 SYDNEY
 DX 420 232-2411

Delivery Box Number **35 D** *AL 5012*

OFFICE USE ONLY

LODGED BY Morris, Hayes & Edgar LAW STATIONERS 99 ELIZABETH STREET SYDNEY DX 420 232-2411 Delivery Box Number 35 D AG 5012		LOCATION OF DOCUMENTS			
		CT	OTHER		
			Letter	Herewith	
				In L.T.O. with	
				Produced by	
Checked	Passed	REGISTERED - 19		Secondary Directions	
Signed	Extra Fee			Delivery Directions	

RP 36
1985

For use where the land and/or easement is not under the provisions of the Real Property Act, 1900.

INSTRUCTIONS FOR COMPLETION

Use this form where the land resumed is not under the Real Property Act, 1900.

Typewriting and handwriting should be clear, legible and in permanent dense black or dark blue non-copying ink.

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialled by the authorized officer in the left hand margin.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the authorised officer and attesting witness.

The following instructions relate to the side notes on the form.

- (a) (i) The lot and plan number or portion.
(ii) Insert the locality shown on the plan, e.g. at Chullora. If the locality is not shown, Insert the Parish and County, e.g. Ph. Lismore Co. Rous.
- (b) (i) Insert the current Folio Identifier or Volume and Folio of the Certificate of Title/Crown Grant of the servient tenement.
(ii) Insert the locality shown on the Certificate of Title/Crown Grant.
(iii) A resumption application may not be made for the creation of a folio of the Register for an easement alone (see section 31A (2B) of the Real Property Act, 1900).
- (c) State the name of the authority in which the land is vested.
- (d) Show date and folio number of Gazette notification.
- (e) (i) Rule through if not applicable. Note the provisions of section 31A (2B) Real Property Act, 1900.
(ii) State the nature of the easement (see e.g. section 181A of the Conveyancing Act, 1919) and delete inappropriate words.
- (f) Name of authorised officer.
- (g) EXECUTION—The certificate of correctness under the Real Property Act, 1900 must be signed by an authorised officer of the applicant. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.
- (h) Insert the name, postal address, Document Exchange reference, telephone number and Delivery Box number of the lodging party.
- (i) If any document is lodged with this application, record in DOCUMENTS LODGED panel.
- (j) Insert a copy of the Gazette notification. If the space provided is insufficient for this purpose, use an annexure sheet (identified as such) of the same size and quality paper as this form.

OFFICE USE ONLY

FIRST SCHEDULE DIRECTIONS				
(A)	FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME	

SECOND SCHEDULE AND OTHER DIRECTIONS					
(D)	FOLIO IDENTIFIER	(E) DIRECTION	(F) NOYFN TYPE	(G) DEALING NUMBER	(H) DETAILS

 L.O. 1749

THIS IS THE ANNEXURE MARKED "A" REFERRED TO IN THE RESUMPTION APPLICATION
BY THE ELECTRICITY COMMISSION OF NEW SOUTH WALES

ELECTRICITY COMMISSION ACT, 1950
THE PUBLIC WORKS ACT, 1912

PENRITH POWER STATION

Acquisition of Land

APPLICATION by The Electricity Commission of New South Wales having been made that the land together with all mines and deposits of minerals contained therein described in the Schedule hereto be appropriated or resumed for the purpose of an electricity power station, it is hereby notified and declared by His Excellency the Governor, acting with the advice of the Executive Council, that so much of the said land as is Crown Land together with all mines and deposits of minerals contained therein is hereby appropriated, and so much of the said land as is private property together with all mines and deposits of minerals contained herein is hereby resumed under Division 1 of Part V of the Public Works Act, 1912, for the purpose aforesaid: and it is hereby further notified that the said land together with all mines and deposits of minerals contained therein is vested in The Electricity Commission of New South Wales.

Dated at Sydney this 13th day of May, 1987.

J.A.ROWLAND, Governor

By His Excellency's Command

PETER COX

Minister for Energy & Technology

SCHEDULE

ALL THAT piece or parcel of land situate in the City of Penrith, Parish of Castlereagh and County of Cumberland, being Lots 1, 2 and 3 Deposited Plan 740326, having an area of 6.153 hectares, 4.398 hectares and 1,846 square metres respectively or thereabouts, as said in the said Deposited Plan 740326 and said to be in the possession of The Electricity Commission of New South Wales (P.17428) (File 6) (Schedule 1013) (7168)



LAND
REGISTRY
SERVICES

Historical Title



NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

11/10/2022 3:00PM

FOLIO: 1/740326

First Title(s): 1/740326

Prior Title(s): PA61227

OLD SYSTEM

CROWN LAND

Recorded	Number	Type of Instrument	C.T. Issue
20/2/1987	DP740326	DEPOSITED PLAN	LOT RECORDED FOLIO NOT CREATED
2/6/1989	PA61227	PRIMARY APPLICATION	FOLIO CREATED EDITION 1
23/5/1990	DP802578	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

2235-2249 Castlereagh Road, Penrith

PRINTED ON 11/10/2022

InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.



LAND
REGISTRY
SERVICES

Historical Title



NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

11/10/2022 3:00PM

FOLIO: 102/802578

First Title(s): OLD SYSTEM

Prior Title(s): 1/740326

Recorded -----	Number -----	Type of Instrument -----	C.T. Issue -----
23/5/1990	DP802578	DEPOSITED PLAN	FOLIO CREATED EDITION 1
10/12/1990	Z304391	TRANSFER	EDITION 2
		Transfer of Easement	
27/10/1993	I750074	DEPARTMENTAL DEALING	
5/12/1994	U736800	RESUMPTION APPLICATION	EDITION 3
16/9/1996	DP862421	DEPOSITED PLAN	
17/12/1996	2671115	CHANGE OF NAME	
17/12/1996	2671116	TRANSFER	FOLIO CANCELLED
17/8/2000	7027260	DEPARTMENTAL DEALING	

*** END OF SEARCH ***

2235-2249 Castlereagh Road, Penrith

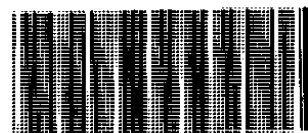
PRINTED ON 11/10/2022

InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

97-10CN LTO Licence Number
10V/0167/95

Application to Record
CHANGE OF NAME

Real Property Act 1900
Crown Lands Consolidation Act 1900
Western Lands Act 1901



2671115 J

(A) **LAND**

Show no more than 20 References to Title.

102/802578

(B) **REGISTERED DEALING**

If applicable.

(C) **LODGED BY**

L.T.O. Box

Name, Address or DX and Telephone

4401

Champion & Partners

REFERENCE (max 15 characters):

JTC:JS

(D) **REGISTERED PROPRIETOR**

whose name is to be changed.

PROSPECT ELECTRICITY

(E) **NEW NAME**

In full.

CN

INTEGRAL ENERGY AUSTRALIA

(F) I, the Registered Proprietor, apply to have my New Name recorded in the Register in respect of the above Land/Registered Dealing.

(G) **STATUTORY DECLARATION BY THE APPLICANT**

I, [New Name] See Annexure A, solemnly and sincerely declare that

~~I am identical with the Registered Proprietor referred to above;~~

~~2. On 19 at in the State of I married;~~

~~3.~~

I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths Act 1900, and I certify this application correct for the purposes of the Real Property Act 1900.

Made and subscribed at CONISTON in the State of NSW
on 4 October 1996 in the presence of

Milly JP.
Signature of Witness

Michelle Allamby
Name of Witness (BLOCK LETTERS)

50 William St Keraville
Address and Qualification of Witness

G. Riethmuller
G K RIETHMULLER
Solicitor
Integral Energy Australia

CHECKED BY (office use only)

44

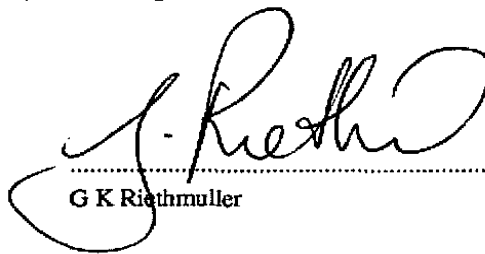
*This is Annexure A referred to in the Application to Record Change of Name by **Integral Energy Australia** dated 4 October 1996*

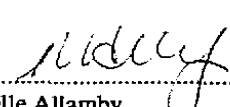
I, Geoffrey Keith Riethmuller of Integral Energy Australia, 51 Huntingwood Drive, Huntingwood, New South Wales, do solemnly and sincerely declare that:

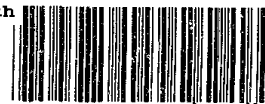
- 1 I am a Solicitor employed by Integral Energy Australia.
- 2 I refer to the Application to Record Change of Name by Integral Energy Australia in relation to folio identifier 102/802578.
- 3 On 1 October 1995, by proclamation published in NSW Government Gazette No 118, Prospect Electricity was dissolved and MetSouth Energy constituted as an electricity distributor pursuant to the Electricity Act 1945.
- 4 Pursuant to clause 7(1)(a) of the Electricity (Amalgamation of Electricity Distributors) Order 1995, any interests held by Prospect Electricity in land situated within MetSouth Energy's distribution district were transferred to MetSouth Energy.
- 5 On 1 March 1996 MetSouth Energy was constituted as an energy distributor by commencement of the Energy Services Corporations Act 1995.
- 6 Pursuant to clause 4 of the Energy Services Corporations (Transfer of Former Distributors' Assets) Order 1996, the assets of the former MetSouth Energy were transferred to the new MetSouth Energy.
- 7 On 24 May 1996 the name of MetSouth Energy was changed to Integral Energy Australia pursuant to the Energy Services Corporation Act 1995 Regulation.

AND I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act 1900.

Declared at Coniston this 4th
day of October 1996
before me:


.....
G K Riethmuller


.....
Michelle Allamby
Justice of the Peace
9503176



U
736800 J

See copies "A" + "B"

RESUMPTION APPLICATION

SECTION 31A (3), REAL PROPERTY ACT, 1900
(For land under the Real Property Act, 1900)

RA

A	1 of 1	X
\$	50	

DESCRIPTION
OF LAND
Note (a)

Torrens Title Reference	If part only, delete Whole and give details	Location
See Annexure "A" hereto	WHOLE	See Annexure "A" hereto
PROSPECT ELECTRICITY of Huntingwood Drive, Huntingwood		OFFICE USE ONLY OVER ANNEXURES "C" & "D"

APPLICANT
Note (b)

Note (c)

(the abovenamed Applicant) in consequence of the resumption notified in Government Gazette dated 17 September, 1993, folios 5891 and 5892 a true copy whereof appears hereunder, hereby applies to the Land Titles Office

Note (d)

(i) to make all such recordings in the Register as may be necessary to give effect to the resumption so far as it relates to the land above described and
(ii) to issue a new Certificate of Title for the resumed land.

Note (e)

COPY OF GAZETTE NOTIFICATION

See Annexure "B" hereto

DATE 25th August 1994

EXECUTION
Note (f)

I hereby certify this application to be correct for the purposes of the Real Property Act, 1900.

Signed in my presence by the authorised officer of the applicant.

Signature of Witness

PETER MCKEN
Name of Witness (BLOCK LETTERS)

44 HUNTINGWOOD DR HUNTINGWOOD
Address and occupation of Witness MANAGER

J W Pearce
for Chief Executive
Signature of authorised officer

TO BE COMPLETED
BY LODGING PARTY
Notes (g)
and (h)

LODGED BY		LOCATION OF DOCUMENTS	
MACHARENS		CT	OTHER
94.00.6122			Herewith
Delivery Box Number 644F			In L.T.O. with
			Produced by
Checked	Passed	REGISTERED - -19	
EM3	R/20	Secondary	
OL6		Directions	
Signed	Extra Fee	Delivery	
006		Directions	
19			

OFFICE USE ONLY

THIS IS THE ANNEXURE MARKED "A" REFERRED TO IN THE RESUMPTION
APPLICATION WHEREIN PROSPECT ELECTRICITY IS THE APPLICANT
DATED THE DAY OF 1994

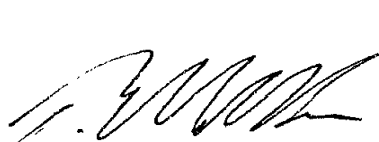
REFERENCE
TO TITLE

WHOLE OR PART

LOCATION

F.I.1/780050	WHOLE		TOONGABBIE
V. 6122 F. 242	WHOLE	NOW BEING <u>A/C 6122-242</u>	PROSPECT
V. 5701 F. 57	WHOLE	NOW BEING <u>A/C 5701-57</u>	PROSPECT
V. 5675 F. 247	WHOLE	NOW BEING <u>A/C 5675-247</u>	PROSPECT
V. 8307 F. 204	WHOLE	NOW BEING <u>A/C 8307-204</u>	PROSPECT
V. 9493 F. 45	WHOLE	NOW BEING <u>1/503593</u>	PROSPECT
F.I. 312/803926	WHOLE		PROSPECT
V. 10259 F. 111	WHOLE	NOW BEING <u>1/507363</u>	CAMELLIA
F.I. 71/815737	WHOLE		CARLINGFORD
F.I. 72/815737	WHOLE		CARLINGFORD
F.I. 73/815737	WHOLE		CARLINGFORD
V. 7664 F. 104	WHOLE	NOW BEING <u>A/407949</u>	GUILDFORD
V. 10692 F. 218	WHOLE	NOW BEING <u>2/234409</u>	ST. MARYS
V. 10131 F. 123	WHOLE	NOW BEING <u>1/516583</u>	NARELLAN
F.I. 102/802578	WHOLE		PENRITH
V. 15286 F.91	WHOLE	NOW BEING <u>1/633838</u>	WARRIMOO
V. 15286 F. 93	WHOLE	NOW BEING <u>4/633838</u>	WARRIMOO
F.I. 1/259279	WHOLE	NOW BEING <u>1/124971</u>	BLAXLAND
V. 15403 F. 121	WHOLE		WARRIMOO
V. 15403 F.120	WHOLE		WARRIMOO
V. 7538 F.97	WHOLE	NOW BEING <u>1/180059</u>	HILLVIEW
V. 9098 F. 99	WHOLE	NOW BEING <u>2/206094</u>	HILLVIEW
V. 4446 F. 243	WHOLE	NOW BEING <u>18/113917</u>	BLACKHEATH
V. 7096 F. 187	WHOLE	NOW BEING <u>19/113917</u>	BLACKHEATH
V. 8631 F. 14	WHOLE	NOW BEING <u>A/C 8631-14</u>	BLACKHEATH

V. 4501 F. 126	WHOLE	NOW BEING...4/14605	BLACKHEATH
V. 4501 F. 127	WHOLE	NOW BEING...5/14605	BLACKHEATH
V. 4513 F. 142	WHOLE	NOW BEING...51/14605	BLACKHEATH
V. 4588 F. 200	WHOLE	NOW BEING...52/14605	BLACKHEATH
V. 4546 F. 147	WHOLE	NOW BEING...54/14605	BLACKHEATH
V. 7054 F. 57	WHOLE	NOW BEING...55/14605	BLACKHEATH
V. 5897 F. 116	WHOLE	NOW BEING...56/14605	BLACKHEATH
V. 5897 F. 117	WHOLE	NOW BEING...57/14605	BLACKHEATH
V. 4229 F. 91	WHOLE	NOW BEING...58/14605	BLACKHEATH
V. 4437 F. 189	WHOLE	NOW BEING...59/14605	BLACKHEATH
F.I. 7/27122	WHOLE		SPRINGWOOD
V. 10828 F. 202	WHOLE	NOW BEING...9/38846	NORTH ROCKS



DATED THE
17 September 1993

DAY OF

PRIVATE ADVERTISEMENTS

1994

5891

LEICHHARDT MUNICIPAL COUNCIL

Roads Act 1993, Section 116

Proposed Closure of Cecily Street and O'Neil Street,
Lillyfield

COUNCIL hereby advises that pursuant to Section 116 of the Roads Act 1993, and in accordance with the authority delegated to it by the Roads and Traffic Authority of New South Wales, it proposes to close the following sections of road for the purpose of staging the "Nanny Goat Hill Festival", on Sunday, 5th December, 1993, from 9 a.m. to 6 p.m.: 1. Cecily Street, between Brockley Street and O'Neil Street. 2. O'Neil Street, between Alberto Street and Brockley Street. Barricades will be erected at the extremities of the closures and traffic will be diverted via the surrounding street system. Comments or objections to the proposal should be made in writing to Council and will be accepted until 13th October 1993. When replying, please quote reference C14/3. Telephone enquiries should be directed to Council's Traffic Engineer, Trevor Jennings on tel.: 367 9007. A. W. WOODWARD, Town Clerk, Administrative Centre, 7-15 Wetherill Street, Leichhardt, N.S.W. 2040. [03952]

PROSPECT ELECTRICITY

Electricity Act 1945, Land Acquisition (Just Terms
Compensation) Act 1991

Notice of Compulsory Acquisition of Easement Over Land

PROSPECT Electricity declares, with the approval of His Excellency the Governor and the Executive Council, that the easement over 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 Electricity Act 1945. Dated at Parramatta, 13th September, 1993. G. R. DOUGLASS, General Manager, P.O. Box 389, Parramatta, N.S.W. 2124.

SCHEDULE

All that piece or parcel of land at St Helens Park, situate in the City of Campbelltown, Parish of St Peter, County of Cumberland, being the site of the proposed easement for electricity purposes shown in Deposited Plan Number 646365 and said to be in the possession of the City of Campbelltown. [03953]

PROSPECT ELECTRICITY

Electricity Act 1945, Land Acquisition (Just Terms
Compensation) Act 1991

Notice of Compulsory Acquisition of Land

PROSPECT Electricity declares, with the approval of His Excellency the Governor and the Executive Council, that the lands described in the Schedule below are acquired by compulsory process under the provisions of the Land Acquisition (Just Terms Compensation) Act 1991, for the purposes of the Electricity Act 1945. Dated at Parramatta, 13th September, 1993. G. R. DOUGLASS, General Manager, P.O. Box 389, Parramatta, N.S.W. 2124.

SCHEDULE

All that piece or parcel of land at Toongabbie, situate in the City of Parramatta, Parish of St John, County of Cumberland, being Lot 1 in Deposited Plan 780050 and being the whole of the land comprised in Certificate of Title, Folio Identifier 1/780050 and said to be in the possession of the Electricity Commission of New South Wales but excepting the easement for transmission line created by Dealing G133494 and the easement for sewerage created by Dealing K811389.

All those pieces or parcels of land at Prospect situate in the City of Blacktown, Parish of Prospect, County of Cumberland, being Lots 50, 51 and 52 in Deposited Plan 14084 and being the whole of the land comprised in Certificate of Title Volume 6122, Folio 242 and Lots 53 and 54 in Deposited Plan 14084 and being the whole of the land comprised in Certificate of Title Volume 5701, Folio 57 and Lots 55 and 56 in Deposited Plan 14084 and being the whole of the land comprised in Certificate of Title Volume 5675, Folio 247 and Lots 23 and

24 in Deposited Plan 14084, being the whole of the land comprised in Certificate of Title Volume 8307, Folio 204 and Lot 1 in Deposited Plan 503593 and being the whole of the land comprised in Certificate of Title Volume 9493, Folio 45 and Lot 312 in Deposited Plan 803926 and being the whole of the land comprised in Certificate of Title, Folio Identifier 312/803926 and said to be in the possession of the Electricity Commission of New South Wales. But excepting the easement appurtenant to part of the land created by Dealing F721083 — easement 20.115 and 22.86 wide affecting the land shown in the plan with F721083 and the easement appurtenant to the land created by D.P. 258905 — to drain water.

All that piece or parcel of land at Camellia situate in the City of Parramatta, Parish of St John, County of Cumberland, being Lot 1 in Deposited Plan 507363 and being the whole of the land comprised in Certificate of Title Volume 10259, Folio 111 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Carlingford situate in the Shire of Baulkham Hills, Parish of Field of Mars, County of Cumberland, being Lots 71, 72 and 73 in Deposited Plan 815737 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land situate as aforesaid being Lot C in the plan catalogued Miscellaneous 13637.3000 Sydney and being the whole of the land resumed by notification in Government Gazette No. 72 of 5th May, 1950, and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Guildford situate in the Municipality of Holroyd, Parish of St John, County of Cumberland, being part of Lot 35 in the Sherwood Estate, Lot A, D.P. 407949 and being the whole of the land comprised in Certificate of Title Volume 7664, Folio 104 and said to be in the possession of the Electricity Commission of New South Wales but excepting the covenant created by Dealing G990136.

And all that piece or parcel of land situate as aforesaid being part of Lot 35 in the Sherwood Estate, Lot C, D.P. 407949, and being the whole of the land comprised in Conveyance Registered No. 604, Book 2442 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at South Windsor situate in the City of Hawkesbury, Parish of St Matthew, County of Cumberland, being that part of Portion 336 appropriated by notification in the Government Gazette of 24th October, 1969, Folio 4292 and being Lots 1 and 2 in Deposited Plan 575488 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Lawson situate in the City of Blue Mountains, Parish of Jamieson, County of Cook, being Allotment 13, Section 5, Village of Lawson, appropriated by notification in the Government Gazette of 13th December, 1957, and said to be in the possession of the Electricity Commission of New South Wales but excepting the easement for railway purposes re-created by notification in the Government Gazette No. 52 of 7th June, 1963.

All that piece or parcel of land at St Marys situate in the City of Penrith, Parish of Rooty Hill, County of Cumberland, being Lot 2 in Deposited Plan 234409 and being the whole of the land comprised in Certificate of Title Volume 10692, Folio 218 and said to be in the possession of the Electricity Commission of New South Wales but excepting the easement for transmission line and the easement for underground communication cable created by Dealing M537188.

All that piece or parcel of land at Narellan situate in the Municipality of Camden, Parish of Narellan, County of Cumberland, being Lot 1 in Deposited Plan 516583 and being the whole of the land comprised in Certificate of Title Volume 10131, Folio 123 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Penrith situate in the City of Penrith, Parish of Castlereagh, County of Cumberland, being Lot 102 in Deposited Plan 802578 and being the whole of the land comprised in Certificate of Title, Folio Identifier 102/802578 and said to be in the possession of the Electricity Commission of New South Wales but excepting the easement to drain water created by Dealing Z304391 and rights of carriageway appurtenant and affecting Lot 2 in Deposited Plan 740326.

All those pieces or parcels of land at Blaxland in the City of Blue Mountains, Parish of Strathdon, County of Cook, being Lot 1 in Deposited Plan 633838 and being the whole of the land comprised in Certificate of Title Volume 15286, Folio 91 and Lot 4 in Deposited Plan 633838 and being the whole of the land comprised in Certificate of Title Volume 15286, Folio 93 and Lot 1 in Deposited Plan 259279 and being the whole of the land comprised in Certificate of Title, Folio Identifier 1/259279 and part Lot 5 in Deposited Plan 259279 and being the whole of the land comprised in Certificate of Title Volume 15403, Folio 121 and part Lot 1 in Deposited Plan 259279, being the whole of the land comprised in Certificate of Title Volume 15403, Folio 120 and said to be in the possession of the Electricity Commission of New South Wales but excepting the easement for railways created by Dealing D144548, the easement for railways created by Dealing G912207 and the easement for transmission line created by Dealing H546863 affecting Lot 1, D.P. 259279, the easements for transmission line created by Dealings D144548 and D209624 affecting part Lot 3, D.P. 259279, the easements for transmission line created by Dealings D144548, G211475, G912207 and H546863 affecting Lot 1, D.P. 633838, the easements for transmission line created by Dealings G912207 and H546863, the easement for access created by Dealing J21421, the restriction as to user created by Dealing K375387 and the covenant created by Dealing J21402 affecting Lot 4, D.P. 633838.

All those pieces or parcels of land at Hillview situate in the City of Liverpool, Parish of St Luke, County of Cumberland, being Lot 1, D.P. 120059 and being the residue of the land in Certificate of Title Volume 7538, Folio 97 after a resumption for road widening purposes and Lot 2 in Deposited Plan 206094 and being the whole of the land comprised in Certificate of Title Volume 9098, Folio 99 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 18 in Deposited Plan 13917, and being the whole of the land comprised in Certificate of Title Volume 4446, Folio 243 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 19 in Deposited Plan 13917 and being the whole of the land comprised in Certificate of Title Volume 7096, Folio 187 and said to be in the possession of the Electricity Commission of New South Wales.

All those pieces or parcels of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lots 66 and 67 in Deposited Plan 13917, Lots 34-50 and 53 in Deposited Plan 14605 and Lot 2 in Deposited Plan 114660 and being the whole of the land comprised in Certificate of Title Volume 8631, Folio 14 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 4 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4501, Folio 126 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 5 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4501, Folio 127 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 51 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4513, Folio 142 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 52 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4588, Folio 200 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 54 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4546, Folio 147 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 55 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 7054, Folio 57 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 56 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 5897, Folio 116 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 57 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 5897, Folio 117 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 58 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4229, Folio 91 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Blackheath situate in the City of Blue Mountains, Parish of Blackheath, County of Cook, being Lot 59 in Deposited Plan 14605 and being the whole of the land comprised in Certificate of Title Volume 4437, Folio 189 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at Springwood situate in the City of Blue Mountains, Parish of Magdala, County of Cook, being Lot 7 in Deposited Plan 27122 and being the whole of the land comprised in Certificate of Title, Folio Identifier 7/27122 and said to be in the possession of the Electricity Commission of New South Wales.

All that piece or parcel of land at North Rocks situate in the Shire of Baulkham Hills, Parish of Field of Mars, County of Cumberland, being Lot 9 in Registered Plan 1846 (Deposited Plan 38846), being the whole of the land comprised in Certificate of Title Volume 10828, Folio 202 and said to be in the possession of the Electricity Commission of New South Wales. [03954]

QUEANBEYAN CITY COUNCIL

Roads Act 1993, Ordinance 30

Naming of Roads

NOTICE is hereby given that the Queanbeyan City Council in pursuance of Section 162 (1) of the abovementioned Act, has renamed the roads as shown hereunder: Previous name—New name: 1. Warrawee Road (between Kinlyside Avenue and what is currently known as Sulman Avenue, Jerrabomberra Heights)—Kinlyside Avenue. 2. Warrawee Road (between Esmond Avenue and O'Sullivan Road)—Esmond Avenue. 3. Sulman Avenue (part of Rue de Paris and part of Jerrabomberra Hill Road (all between Halloran Drive and what is currently known as Warrawee Road, Jerrabomberra Heights)—Halloran Drive. H. A. PERCY, General Manager, 257 Crawford Street, Queanbeyan, N.S.W. 2620. [03954A]

SHOALHAVEN CITY COUNCIL

Roads Act 1993, Section 162

Naming of Road — Windley Road, Wandandian

NOTICE is hereby given that the Shoalhaven City Council in pursuance of Section 162 of the Roads Act 1993, has named the road described hereunder. Location — New name: The access road off Wandean Road for Subdivision SF 7264 — Windley Road. Authorised by resolution of Council dated Tuesday, 6th July, 1993. G. A. NAPPER, General Manager, City Administration Centre, Bridge Road, Nowra, N.S.W. 2541. [03955]

10-1280

REGISTRATION DIRECTION ANNEXURE

Use this side only for First and Second Schedule directions

DO NOT USE BOTH SIDES OF THE FORM

FIRST SCHEDULE DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	DETAILS
6122-242		
5701-57		
5675-247		
8307-204		
1/503593		
312/803926		
A/407949	S	PROSPECT ELECTRICITY
2/234409		
1/120059		
2/206094		
19/13917		
4/14605		
5/14605		

SECOND SCHEDULE AND OTHER DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	NOTFN TYPE	DEALING NUMBER	DETAILS
6122-242				
5701-57				
5675-247				
8307-204				
1/503593				
312/803926				
A/407949				
2/234409	SET			GRN
1/120059				
2/206094				
19/13917				
4/14605				
5/14605				
57/14605				
9/38846				
1/124971				
1/633838				
4/633838	SET			GMN
58/14605				
7/27122				
9/38846	OFF	EA	23500891	
8307-204	OFF	CV	D201164	

REGISTRATION DIRECTION ANNEXURE

Use this side only for First and Second Schedule directions

DO NOT USE BOTH SIDES OF THE FORM

FIRST SCHEDULE DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	DETAILS
57/14605	S	PROSPECT ELECTRICITY
9/38846		
1/124971		
1/633838		
4/633838		
58/14605		
7/27122		

SECOND SCHEDULE AND OTHER DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	NOTFN TYPE	DEALING NUMBER	DETAILS
5701-57	OFF	CV	D619148	
1/124971	SB FOR	EA	D144548	
1/633838	ON	XM	NIL	- see Crown Grant.
4/633838	SB FOR	EA	G912207	
	ON	XM	NIL	- see Crown Grant.
58/14605	SB FOR	EA	J70773	
	ON	XM	NIL	- see Crown Grant.
7/27122	ON	XM	NIL	- see Crown Grant.
6122-242				
5701-57	OFF	NB	I771461	
5675-247				
8307-204				
4/14605	OFF	NB	I750071	
58/14605				
57/14605	OFF	NB	I750072	
5/14605				
1/633838	OFF	NB	I750073	
4/633838				

10-1280

REGISTRATION DIRECTION ANNEXURE

Use this side only for First and Second Schedule directions

DO NOT USE BOTH SIDES OF THE FC.3M.

FIRST SCHEDULE DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	DETAILS
1/780050		
72/815737		
73/815737		
71/815737		
59/14605		
56/14605		
55/14605	S	PROSPECT ELECTRICITY
54/14605		
52/14605		
51/14605		
8631-14		
18/13917		
102/802578		

SECOND SCHEDULE AND OTHER DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	NOTFN TYPE	DEALING NUMBER	DETAILS
1/780050	SET			GRN
71/815737	OFF	L	L300465	
	OFF	L	Y212646	
72/815737	OFF	L	Y212646	
73/815737				
1/780050	OFF	NB	I731667	
8631-14	OFF	NB	I750071	
51/14605				
52/14605				
54/14605	OFF	NB	I750072	
55/14605				
56/14605				
59/14605				
1/516583				
102/802578	OFF	NB	I750074	
18/13917				

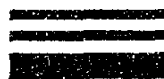
U736800

DO NOT USE BOTH SIDES OF THE FORM.

MANUAL

[illegible]

FOLIO IDENTIFIER	DIRECTION	NOTFN TYPE	DEALING NUMBER	DETAILS
15403-120	ON	AA		Folio cancelled - new folio has been created for lot 1 in DP 128966
15403-121	ON	AA		Folio cancelled - new folio has been created for lot 1 in DP 128967
CT	NOCT			



U
736800
COPY "A"

RESUMPTION APPLICATION

SECTION 31A (3), REAL PROPERTY ACT, 1900
(For land under the Real Property Act, 1900)

RA

A	1 of 1	X
\$ 50		

R1/1

DESCRIPTION
OF LAND
Note (a)

Torrens Title Reference	If part only, delete Whole and give details	Location
See copy "A" over page	WHOLE	See Annexure "A" hereto

APPLICANT
Note (b)

PROSPECT ELECTRICITY of Huntingwood Drive, Huntingwood	OFFICE USE ONLY OVER.
--	------------------------------

Note (c) (the abovenamed Applicant) in consequence of the resumption notified in Government Gazette dated 17 September, 1993, folio 5891
Note (d) a true copy whereof appears hereunder, hereby applies to the Land Titles Office and 5892
Note (e) (i) to make all such recordings in the Register as may be necessary to give effect to the resumption so far as it relates to the land above described and
(ii) to issue a new Certificate of Title for the resumed land.

COPY OF GAZETTE NOTIFICATION

See Annexure "B" hereto

EXECUTION
Note (f)

DATE 25th August 1994

I hereby certify this application to be correct for the purposes of the Real Property Act, 1900.
Signed in my presence by the authorised officer of the applicant.

Signature of Witness

PETER MCKEN
Name of Witness (BLOCK LETTERS)

OF HUNTINGWOOD DR HUNTINGWOOD
Address and occupation of Witness MANAGER

X
J W Pearce
For Chief Executive
Signature of authorised officer

TO BE COMPLETED
BY LODGING PARTY
Notes (g)
and (h)

LODGED BY		LOCATION OF DOCUMENTS			
MACHARENS		CT	OTHER		
			Herewith		
			In L.T.O. with		
			Produced by		
Delivery Box Number 94.00.6122.644F					
Checked	Passed	REGISTERED -19			
	R20.				
Signed	Extra Fee	Secondary Directions			
		Delivery Directions			

OFFICE USE ONLY

10-1280

REGISTRATION DIRECTION ANNEXURE

Use this side only for **Second Schedule** directions

DO NOT USE BOTH SIDES OF THE FORM

U736800 A

SECOND SCHEDULE AND OTHER DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	NOTFN TYPE	DEALING NUMBER	DETAILS
1/780050				
Auto Consol. 6122-242				
" 5701-57				
" 5675-247				
" 8307-204				
1/503593				
312/803926				
1/507363				
71/815737		S		PROSPECT ELECTRICITY
72/815737				
73/815737				
A/407949				
2/234409				
1/516583				
102/802578				
1/633838				
4/633838				
1/124971				
312/803926	OFF	AA		
1/780050				
1/503593				
A/407949				
2/234409				
Auto Consol. 6122-242	SET			GRN
" 5701-57				
" 5675-247				
" 8307-204				
1/124971				
1/633838	SET			GMN
4/633838				
Auto Consol. 8307-204	OFF	CV	D201164	
" 5701-57	OFF	CV	D619148	

10-1280

REGISTRATION DIRECTION ANNEXURE

Use this side only for Second Schedule directions

DO NOT USE BOTH SIDES OF THE FORM

U736800A

SECOND SCHEDULE AND OTHER DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	NOTFN TYPE	DEALING NUMBER	DETAILS
1/124971	BFOR	EA	D144548	
1/633838	ON	XM	NIL	- See crown grant
4/633838	BFOR	EA	G912207	
	ON	XM	NIL	- See crown grant
71/815737	OFF	L	L300465	
"	OFF	L	Y212646	
72/815737				
73/815737	OFF	L	Y212646	
Auto Consol 6122-242				
" " 5701-57				
" " 5675-247	OFF	NB	I771461	
" " 8307-204				
1/633838				
4/633838	OFF	NB	I750073	
1/780050	OFF	NB	I731667	
1/516583				
102/802578	OFF	NB	I750074	
2/234409				
1/124971	OFF	NB		
"	OFF	NB	I750073	
A/407949				
312/803926	OFF	NB	I750075	
1/503593				
1/507363				
71/815737				
72/815737				
73/815737				
ALL	CT		S44 F	



E-RN39/4
✓ - Sni 30/7



U "B"
736800
COPY "B"

RESUMPTION APPLICATION

SECTION 31A (3), REAL PROPERTY ACT, 1900
(For land under the Real Property Act, 1900)

RA

A	1 of 1	X
\$ 50		

R1/1

DESCRIPTION
OF LAND
Note (a)

Torrens Title Reference	If part only, delete Whole and give details	Location
See copy "B" over page	WHOLE	See Annexure "A" hereto

APPLICANT
Note (b)

PROSPECT ELECTRICITY of Huntingwood Drive, Huntingwood

OFFICE USE ONLY

OVER

Note (c)

(the abovenamed Applicant) in consequence of the resumption notified in Government Gazette dated 17 September, 1993, folio 5891 and 5892, a true copy whereof appears hereunder, hereby applies to the Land Titles Office

Note (d)

(i) to make all such recordings in the Register as may be necessary to give effect to the resumption so far as it relates to the land above described and (ii) to issue a new Certificate of Title for the resumed land.

Note (e)

COPY OF GAZETTE NOTIFICATION

See Annexure "B" hereto

DATE 25th August 1994

EXECUTION
Note (f)

I hereby certify this application to be correct for the purposes of the Real Property Act, 1900.

Signed in my presence by the authorised officer of the applicant.

Signature of Witness

PETER McLaren
Name of Witness (BLOCK LETTERS)

OF HUNTINGWOOD DR HUNTINGWOOD
Address and occupation of Witness MANAGER

X
J W Pearce
for Chief Executive
Signature of authorised officer

TO BE COMPLETED
BY LODGING PARTY
Notes (g)
and (h)

LODGED BY		LOCATION OF DOCUMENTS			
MACHARENS		CT		OTHER	
94.00.6122				Herewith	
Delivery Box Number 644F				In L.T.O. with	
				Produced by	
Checked	Passed	REGISTERED		Secondary Directions	
	R/20	- -19			
Signed	Extra Fee			Delivery Directions	

OFFICE USE ONLY

Acceptable
By Lodging Party
R/20
@ P/20

10-1280

REGISTRATION DIRECTION ANNEXURE

Use this side only for **Second Schedule** directions

DO NOT USE BOTH SIDES OF THE FORM.

U736800B

SECOND SCHEDULE AND OTHER DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	NOTFN TYPE	DEALING NUMBER	DETAILS
1/120059				
2/206094				
18/13917				
19/13917				
Auto Consol- 8631-14				
4/14605				
5/14605				
51/14605				
52/14605		S		PROSPECT ELECTRICITY
9/38846				
54/14605				
55/14605				
56/14605				
57/14605				
58/14605				
59/14605				
7/27122				
1/120059				
2/206094				
19/13917				
4/14605	SET			GRN
5/14605				
57/14605				
9/38846				
58/14605				
7/27122	SET			GMN
9/38846	OFF	EA	23500891	
58/14605	BFOR	EA	J70773	
	ON	XM	NIL	- see crown grant
7/27122	ON	XM	NIL	- see crown grant

Use this slide only for **Second Schedule** directions

U736800B

FOILIO IDENTIFIER	DIRECTION	NOTFN TYPE	DEALING NUMBER	DETAILS
4/ 14605				
4/ 14605	OFF	NB	I 750071	
58/ 14605				
57/ 14605				
5/ 14605				
52/ 14605				
54/ 14605	OFF	NB	I 750072	
55/ 14605				
56/ 14605				
59/ 14605				
18/ 13917				
19/ 13917	OFF	NB	I 750074	
2/ 206094				
ALL - CT -			S44F	



LAND
REGISTRY
SERVICES

Historical Title



NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

11/10/2022 2:59PM

FOLIO: 3/862421

First Title(s): OLD SYSTEM
Prior Title(s): 102/802578

Recorded	Number	Type of Instrument	C.T. Issue
16/9/1996	DP862421	DEPOSITED PLAN	LOT RECORDED FOLIO NOT CREATED

~~17/12/1996~~ ~~2671116~~ ~~TRANSFER~~

Transfer of part of
the land

FOLIO CREATED
EDITION 1

13/9/2000 DP1017480 DEPOSITED PLAN

~~15/1/2004~~ ~~AA280600~~ ~~TRANSFER~~

Transfer of part of
the land

FOLIO CANCELLED

*** END OF SEARCH ***

2235-2249 Castlereagh Road, Penrith

PRINTED ON 11/10/2022

InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.



SEARCH DATE

11/10/2022 2:56PM

FOLIO: 5/1017480

First Title(s): OLD SYSTEM

Prior Title(s): 3/862421

Recorded	Number	Type of Instrument	C.T. Issue
13/9/2000	DP1017480	DEPOSITED PLAN	LOT RECORDED FOLIO NOT CREATED
15/1/2004	AA280600	TRANSFER	FOLIO CREATED EDITION 1
21/3/2004	AA501351	DEPARTMENTAL DEALING	
17/8/2004	DP1071215	DEPOSITED PLAN	EDITION 2
20/12/2013	AI253835	APPLICATION FOR REPLACEMENT CERTIFICATE OF TITLE	
20/12/2013	AI253836	CHANGE OF NAME	EDITION 3
26/6/2017	AM475160	LEASE	
26/6/2017	AM475161	SUB-LEASE	
26/6/2017	AM475162	MORTGAGE OF LEASE	
26/6/2017	AM475226	CHANGE OF NAME	EDITION 4
15/5/2018	AM895553	VARIATION OF MORTGAGE	
24/2/2021	AQ498064	VARIATION OF LEASE	
6/5/2022	DP1276451	WITHDRAWN - PROPOSED PLAN	

Transfer of part
of the land

*** END OF SEARCH ***

Form: 10CN
Release: 5.2

CHANGE OF NAME

New South Wales
Real Property Act 1900



AI253836C

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) **TORRENS TITLE**

See Annexure B

(B) **REGISTERED DEALING**

Number

Torrens Title

(C) **LODGED BY**

Document
Collection
Box

Name, Address or DX, Telephone, and Customer Account Number if any
Kieran Poole, Property Officer, Endeavour Energy,
DX 8148, Blacktown

CODE

1W

Reference: property/KP

CN

(D) **REGISTERED PROPRIETOR**

Whose name is to be changed; show the name as it currently appears on the Torrens Title

Integral Energy Australia

(E) **NEW NAME**

Of the above registered proprietor in full

Endeavour Energy

(F) The registered proprietor of the above land applies to have my new name recorded in the Register in respect of that land and hereby consents to the Registrar General contacting the relevant issuing authorities to validate any supporting evidence lodged with this application.

(G) **STATUTORY DECLARATION BY THE APPLICANT***

I, Kieran Poole of 15 Belfast Place, Glendenning in the State of New South Wales solemnly and sincerely declare that—

1. I am a property officer for Endeavour Energy

2. on at in the SELECT >>> >>> >>> >>> >>>

~~I married~~

3.

See Annexure "A" hereto

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act 1900, and I certify this application to be correct for the purposes of the Real Property Act 1900.

Made and subscribed at Glendenning in the State of New South Wales on 26.11.13
in the presence of MARK ANTHONY WHITLEY of 8 BARRETT PLACE CRANE BROOK

☒ Justice of the Peace (J.P. Number: 171821) ☐ Practising Solicitor

☐ Other qualified witness [specify]

** who certifies the following matters concerning the making of this statutory declaration by the person who made it:

1. I saw the face of the person OR I did not see the face of the person because the person was wearing a face covering, but I am satisfied that the person had a special justification for not removing the covering; and

2. I have known the person for at least 12 months OR I have not known the person for at least 12 months, but I have confirmed the person's identity using an identification document and the document I relied on was a [Omit ID No.]

Signature of witness:

Signature of applicant:

* As the services of a qualified witness cannot be provided at lodgment, the declaration should be signed and witnessed prior to lodgment. ** If made outside NSW, cross out the witness certification. If made in NSW, cross out the text which does not apply.

(H) 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:

EXTRA FEE
RAISED

981113864
0505 EV 113864

Annexure B-Integral Energy Australia

71/815737

71/880066

~~312/803926~~

~~1/713641~~

~~1/626058~~

1/516583

~~38/594631~~

~~1/620265~~

~~4/67706~~

~~1/537566~~

4/523335

~~1/561966~~ 1/561996

304/245602

5/1017480

3004/1125930

97/1127512

3/4/16084

1/28679

2/28679

906/36770

~~20/562258~~

~~103/618198~~

~~1/816697~~

~~11/805493~~

~~12/805493~~

~~1/827258~~

Y/412393

~~1/817326~~



FOLIO: 5/1017480

SEARCH DATE	TIME	EDITION NO	DATE
11/10/2022	2:55 PM	4	26/6/2017

LAND

LOT 5 IN DEPOSITED PLAN 1017480

AT PENRITH

LOCAL GOVERNMENT AREA PENRITH

PARISH OF CASTLEREAGH COUNTY OF CUMBERLAND

TITLE DIAGRAM DP1017480

FIRST SCHEDULE

EPSILON DISTRIBUTION MINISTERIAL HOLDING CORPORATION (CN AM475226)

SECOND SCHEDULE (9 NOTIFICATIONS)

- 1 Z304391 RIGHT OF CARRIAGEWAY APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE PART OF LOT 2 IN DP740326 SHOWN AS PROPOSED EASEMENT FOR ACCESS 10 WIDE IN DP802578
- 2 Z304391 RIGHT OF CARRIAGEWAY APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE PART OF LOT 2 IN DP740326 SHOWN AS PROPOSED EASEMENT FOR ACCESS 7.5 WIDE IN DP802578
- 3 Z304391 RIGHT OF CARRIAGEWAY APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE PART OF LOT 2 IN DP740326 SHOWN AS PROPOSED EASEMENT FOR ACCESS VARIABLE WIDTH IN DP740326
- 4 Z304391 EASEMENT TO DRAIN WATER 3 METRE(S) WIDE AFFECTING THE SITE DESIGNATED (O) IN DP862421
- 5 DP1071215 RIGHT OF ACCESS VARIABLE WIDTH DESIGNATED (C) APPURTENANT TO THE LAND ABOVE DESCRIBED
- 6 DP1071215 EASEMENT TO DRAIN WATER 5.85 METRES WIDE AND VARIABLE WIDTH DESIGNATED (E) APPURTENANT TO THE LAND ABOVE DESCRIBED
- 7 DP1071215 EASEMENT FOR SUPPORT AND BATTER 2 METRES WIDE DESIGNATED (G) AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1071215
- 8 DP1071215 EASEMENT FOR DRAINAGE OF WATER VARIABLE WIDTH DESIGNATED (H) AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1071215
- 9 AM475160 LEASE TO EDWARDS A PTY LIMITED, ERIC EPSILON ASSET CORPORATION 1 PTY LTD, ERIC EPSILON ASSET CORPORATION 2 PTY LTD, ERIC EPSILON ASSET CORPORATION 3 PTY LTD & ERIC EPSILON ASSET CORPORATION 4 PTY LTD EXPIRES:

END OF PAGE 1 - CONTINUED OVER

FOLIO: 5/1017480

PAGE 2

SECOND SCHEDULE (9 NOTIFICATIONS) (CONTINUED)

13/6/2116. OPTION OF RENEWAL: 99 YEARS.

AM475161 LEASE OF LEASE AM475160 TO EDWARDS O PTY LIMITED, ERIC EPSILON OPERATOR CORPORATION 1 PTY LTD, ERIC EPSILON OPERATOR CORPORATION 2 PTY LTD, ERIC EPSILON OPERATOR CORPORATION 3 PTY LTD & ERIC EPSILON OPERATOR CORPORATION 4 PTY LTD EXPIRES: 12/6/2116.

AM475162 MORTGAGE OF LEASE AM475160 TO ANZ FIDUCIARY SERVICES PTY LTD

* AM895553 VARIATION OF MORTGAGE AM475162

* AQ498064 VARIATION OF LEASE AM475161

NOTATIONS

UNREGISTERED DEALINGS: PE DP1284168.

*** END OF SEARCH ***

2235-2249 Castlereagh Road, Penrith

PRINTED ON 11/10/2022

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

Attachment E Council Planning Certificates

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Property No: 780886
Your Reference: Sec 10.7 (2)(5) Planning Cert - Penrith
Contact No.

Issue Date: 08 November 2024
Certificate No: 24/05973

Issued to: J Coetzer
49 Glendenning Road
GLENDENNING NSW 2761

PRECINCT 2010

DESCRIPTION OF LAND

County: CUMBERLAND **Parish:** CASTLEREAGH

Location: 2235-2249 Castlereagh Road PENRITH NSW 2750

Land Description: Lot 5 DP 1017480

- PART 1 PRESCRIBED MATTERS -

In accordance with the provisions of Section 10.7 of the Act the following information is furnished in respect of the abovementioned land:

1 NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPs

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

The following Local environmental planning instruments apply to the land:

Penrith Local Environmental Plan 2010, published 22nd September 2010, as amended, applies to the land.

The following State environmental planning instruments apply to the land:

State Environmental Planning Policy (Biodiversity and Conservation) 2021, Chapter 2 - *Vegetation in non-rural areas*.

State Environmental Planning Policy (Biodiversity and Conservation) 2021, Chapter 6 - *Water*

Catchments - (Note: This policy does not apply to land to which State Environmental Planning Policy (Precincts - Western Parkland City) 2021, Chapter 5 - *Penrith Lakes Scheme*, applies.)

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

State Environmental Planning Policy (Housing) 2021.

State Environmental Planning Policy (Industry and Employment) 2021, Chapter 3 - *Advertising and signage*.

State Environmental Planning Policy (Planning Systems) 2021, Chapter 2 - *State and regional development*.

State Environmental Planning Policy (Precincts - Western Parkland City) 2021, Chapter 2 - *State Significant Precincts*.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

State Environmental Planning Policy (Precincts - Western Parkland City) 2021, Chapter 4 - *Western Sydney Aerotropolis*.

State Environmental Planning Policy (Primary Production) 2021, Chapter 2 - *Primary production and rural development*.

State Environmental Planning Policy (Resilience and Hazards) 2021, Chapter 3 - *Hazardous and offensive development*.

State Environmental Planning Policy (Resilience and Hazards) 2021, Chapter 4 - *Remediation of land*.

State Environmental Planning Policy (Resources and Energy) 2021, Chapter 2 - *Mining, petroleum production and extractive industries*.

State Environmental Planning Policy (Resources and Energy) 2021, Chapter 3 - *Extractive industries in Sydney area*.

State Environmental Planning Policy (Transport and Infrastructure) 2021, Chapter 2 - *Infrastructure*.

State Environmental Planning Policy (Transport and Infrastructure) 2021, Chapter 3 - *Educational establishments and childcare facilities*.

State Environmental Planning Policy (Sustainable Buildings) 2022

State Environmental Planning Policy (Biodiversity and Conservation) 2021, *Chapter 13 - Strategic Conservation Planning* applies to the land.

The following Development Control Plans apply to the land:

Penrith Development Control Plan 2014 applies to the land.

1(2) The name of each proposed environmental planning instrument and draft development control plan, which is or has been the subject of community consultation or on public exhibition under the Act, that will apply to the carrying out of development on the land:

(Information is provided in this section only if a proposed environmental planning instrument that is or has been the subject of community consultation or on public exhibition under the Act will apply to the carrying out of development on the land.)

Draft State Environmental Planning Policy (Housing) 2021 applies to this land.

Draft State Environmental Planning Policy (Transport and Infrastructure) 2021 applies to this land.

Draft State Environmental Planning Policy (Planning Systems) 2021 applies to this land.

Draft State Environmental Planning Policy (Precincts - Western Parkland City) 2021 applies to this land.

Draft State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 applies to this land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

2 ZONING AND LAND USE UNDER RELEVANT PLANNING INSTRUMENTS

For each environmental planning instrument or draft environmental planning instrument referred that includes the land in a zone (however described):

2(a)-(b) the identity of the zone; the purposes for which development in the zone may be carried out without development consent; the purposes for which development in the zone may not be carried out except with development consent; and the purposes for which development in the zone is prohibited. Any zone(s) applying to the land is/are listed below and/or in annexures.

Zone E4 General Industrial (Penrith Local Environmental Plan 2010)

1 Objectives of zone

- To provide a range of industrial, warehouse, logistics and related land uses.
- To ensure the efficient and viable use of land for industrial uses.
- To minimise any adverse effect of industry on other land uses.
- To encourage employment opportunities.
- To enable limited non-industrial land uses that provide facilities and services to meet the needs of businesses and workers.

2 Permitted without consent.

Nil

3 Permitted with consent.

Animal boarding or training establishments; Boat building and repair facilities; Car parks; Depots; Environmental facilities; Environmental protection works; Flood mitigation works; Freight transport facilities; Garden centres; General industries; Goods repair and reuse premises; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Industries; Kiosks; Landscaping material supplies; Light industries; Local distribution premises; Neighbourhood shops; Oyster aquaculture; Places of public worship; Plant nurseries; Recreation areas; Roads; Rural industries; Signage; Storage premises; Take away food and drink premises; Tank-based aquaculture; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres.

4 Prohibited

Hazardous industries; Offensive industries; Any development not specified in item 2 or 3

Note: On 26 April 2023, the NSW Government made changes to clause 2.1 Land use zones of the Standard Instrument - Principal Local Environmental Plan (2006). All Business zones B1, B2, B3, B4, B5, B6, B7 and B8 along with Industrial zones IN1, IN2, IN3 and IN4 have now been replaced with Employment zones E1, E2, E3, E4, E5, MU1, SP4, SP5 and W4 respectively. This change occurred across all standardised local environmental plans that are in force across New South Wales.

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

(Information is provided in this section only if environmental planning instruments apply additional permitted use provisions to this land.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Additional information relating to Penrith Local Environmental Plan 2010

Note 1: Under the terms of Clause 2.4 of Penrith Local Environmental Plan 2010 development may be carried out on unzoned land only with development consent.

Note 2: Under the terms of Clause 2.6 of Penrith Local Environmental Plan 2010 land may be subdivided but only with development consent, except for the exclusions detailed in the clause.

Note 3: Under the terms of Clause 2.7 of Penrith Local Environmental Plan 2010 the demolition of a building or work may be carried out only with development consent.

Note 4: A temporary use may be permitted with development consent subject to the requirements of Clause 2.8 of Penrith Local Environmental Plan 2010.

Note 5: Under the terms of Clause 4.1A of Penrith Local Environmental Plan 2010, despite any other provision of this plan, development consent must not be granted for dual occupancy on an internal lot in Zone R2 Low Density Residential.

Note 6: Under the terms of Clause 5.1 of Penrith Local Environmental Plan 2010 development on land acquired by an authority of the State under the owner-initiated acquisition provisions may, before it is used for the purpose for which it is reserved, be carried out, with development consent, for any purpose.

Note 7: Under the terms of Clause 5.3 of Penrith Local Environmental Plan 2010 development consent may be granted to development of certain land for any purpose that may be carried out in an adjoining zone.

Note 8: Clause 5.10 of Penrith Local Environmental Plan 2010 details when development consent is required/not required in relation to heritage conservation.

Note 9: Under the terms of Clause 5.11 of Penrith Local Environmental Plan 2010 bush fire hazard reduction work authorised by the *Rural Fires Act 1997* may be carried out on any land without development consent.

Note 10: Under the terms of Clause 7.1 of Penrith Local Environmental Plan 2010 (PLEP 2010) development consent is required for earthworks unless the work is exempt development under PLEP 2010 or another applicable environmental planning instrument, or the work is ancillary to other development for which development consent has been given.

Note 11: Sex services premises and restricted premises may only be permitted subject to the requirements of Clause 7.23 of Penrith Local Environmental Plan 2010.

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

(Information is provided in this section only if any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed.)

PLANNING CERTIFICATE UNDER SECTION 10.7

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

(Information is provided in this section only if the land is identified in an area of outstanding biodiversity value under the Biodiversity Conservation Act 2016.)

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

(Information is provided in this section only if the land is in a conservation area, however described.)

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

(Information is provided in this section only if an item of environmental heritage, however described, is situated on the land.)

3 CONTRIBUTIONS PLANS

The name of each contributions plan under the Act, Division 7.1 applying to the land, including draft contributions plans:

The Cultural Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith.

The Penrith City Local Open Space Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, excluding industrial areas and the release areas identified in Appendix B of the Plan (Penrith Lakes, Cranebrook, State Environmental Planning Policy (Precincts - Western Parkland City) 2021, Chapter 6 - *St Marys*, Waterside, Thornton, the WELL Precinct, Glenmore Park and Erskine Park).

The Penrith City District Open Space Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, with the exclusion of industrial lands and the Penrith Lakes development site.

Penrith Citywide Section 7.12 Development Contributions Plan for non-residential development applies to non-residential development across Penrith Local Government Area, with the exception of the Mamre and Aerotropolis Precincts.

The Environmental Planning and Assessment (Housing and Productivity Contribution) Order 2023 applies to the Greater Sydney region which includes the Penrith Local Government Area, with the exception of the Western Sydney Aerotropolis Precinct. Please refer to www.legislation.nsw.gov.au for further information.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

4 COMPLYING DEVELOPMENT

HOUSING CODE

(The Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Housing Code may be carried out on the land if the land is within one of the above mentioned zones

RURAL HOUSING CODE

(The Rural Housing Code only applies if the land is within Zones RU1, RU2, RU3, RU4, RU6 or R5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Rural Housing Code may be carried out on the land if the land is within one of the above mentioned zones.

LOW RISE HOUSING DIVERSITY CODE

(The Low Rise Housing Diversity Code only applies if the land is within Zones R1, R2, R3 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Low Rise Housing Diversity Code may be carried out on the land if the land is within one of the abovementioned zones.

GREENFIELD HOUSING CODE

(The Greenfield Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.)

Complying development under the Greenfield Housing Code may be carried out on the land if the land is within one of the abovementioned zones, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.

HOUSING ALTERATIONS CODE

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

GENERAL DEVELOPMENT CODE

Complying development under the General Development Code may be carried out on the land

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

INDUSTRIAL AND BUSINESS BUILDINGS ALTERATIONS CODE

Complying development under the Industrial and Business Alterations Code may be carried out on the land.

INDUSTRIAL AND BUSINESS BUILDINGS CODE

(The Industrial and Business Buildings Code only applies if the land is within E1, E2, E3, E4, E5, MU1, B1, B2, B3, B4, B5, B6, B7, B8, IN1, IN2, IN3, IN4, SP1, SP2, SP3, SP5 or W4 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non-standard template planning instrument.)

Complying development under the Industrial and Business Buildings Code may be carried out on the land.

CONTAINER RECYCLING FACILITIES CODE

(The Container Recycling Facilities Code only applies if the land is within Zones B1, B2, B3, B4, B5, B6, B7, B8, E1, E2, E3, E4, E5, MU1, IN1, IN2, IN3, IN4, SP3, SP5 or W4 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non-standard template planning instrument.)

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

SUBDIVISIONS CODE

Complying development under the Subdivisions Code may be carried out on the land

DEMOLITION CODE

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

AGRITOURISM AND FARM STAY ACCOMMODATION CODE

(The Agritourism and Farm Stay Accommodation Code only applies if the land is within Zones RU1, RU2 and RU4 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non-standard template planning instrument.)

Agritourism and Farm Stay Accommodation Code may be carried out on the land.

FIRE SAFETY CODE

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

NOTE:

(1) Council has relied on Planning and Infrastructure Circulars and Fact Sheets in the preparation of this information. Applicants should seek their own legal advice in relation to this matter with

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

particular reference to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Penrith Local Environmental Plan 2010 (if it applies to the land) contains additional complying development not specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

5 EXEMPT DEVELOPMENT

GENERAL EXEMPT DEVELOPMENT CODE

Exempt development under the General Exempt Development Code may be carried out on the land.

ADVERTISING AND SIGNAGE EXEMPT DEVELOPMENT CODE

Exempt development under the Advertising and Signage Exempt Development Code may be carried out on the land.

TEMPORARY USES AND STRUCTURES EXEMPT DEVELOPMENT CODE

Exempt development under the Temporary Use and Structures Exempt Development Code may be carried out on the land

6 AFFECTED BUILDING NOTICES AND BUILDING PRODUCT RECTIFICATION ORDERS

(Information is provided in this section only if Council is aware that an affected building notice or a building product rectification order in force for the land that has not been fully complied with, or a notice of intention to make a building product rectification order given in relation to the land is outstanding.)

7 LAND RESERVED FOR ACQUISITION

No environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by an authority of the State, as referred to in the Act, section 3.15.

8 ROAD WIDENING AND ROAD REALIGNMENT

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

- (a) Division 2 of Part 3 of the Roads Act 1993, or
- (b) an environmental planning instrument, or
- (c) a resolution of council.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

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.

Yes, the land or part of the land is within the flood planning area and subject to flood related development controls.

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

No, flood related development controls for land between the flood planning area and the probable maximum flood do not apply to the land or part of the land.

Note - The land is subject to Clause 5.21 in Penrith Local Environmental Plan 2010 and Penrith Development Control Plan 2014 Section C3.5 Flood Planning. On application and payment of the prescribed fee Council may be able to provide in writing a range of advice in regard to the extent of flooding affecting the property

10 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

(a) Council Policies

The land is affected by the Asbestos Policy adopted by Council.

The land is not affected by any other policy adopted by the council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulfate soils, contamination, aircraft noise, salinity, coastal hazards, sea level rise or another risk, other than flooding.

(b) Other Public Authority Policies

The Bush Fire Co-ordinating Committee has adopted a Bush Fire Risk Management Plan that covers the local government area of Penrith City Council, and includes public, private and Commonwealth lands.

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 in planning certificates issued by the council, that restricts the development of the land because of the likelihood of land slip, tidal inundation, subsidence, acid sulfate soils, contamination, aircraft noise, salinity, coastal hazards, sea level rise or another risk, other than flooding.

11 BUSH FIRE PRONE LAND

The land is not identified as bush fire prone land, under section 10.3 of the Act.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

12 LOOSE FILL ASBESTOS INSULATION

(Information is provided in this section only if there is a residential premises listed on the register of residential premises that contain or have contained loose-fill asbestos insulation (as required by Division 1A of Part 8 of the Home Building Act 1989).)

13 MINE SUBSIDENCE

The land is not declared to be a mine subsidence district within the meaning of the Coal Mine Subsidence Compensation Act 2017.

14 PAPER SUBDIVISION INFORMATION

(Information is provided in this section only if a development plan adopted by a relevant authority applies to the land or is proposed to be subject to a consent ballot, or a subdivision order applies to the land.)

15 PROPERTY VEGETATION PLANS

(Information is provided in this section only where a property vegetation plan approved and in force under the Native Vegetation Act 2003, Part 3, but only where Council has been notified of the existence of a plan, by the person or body that approved the plan under that Act.)

16 BIODIVERSITY STEWARDSHIP SITES

(Information is provided in this section only if Council has been notified by the Chief Executive of the Office of Environment and Heritage that the land is land to which a biobanking stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016* relates.)

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

17 BIODIVERSITY CERTIFIED LAND

(Information is provided in this section only if the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*.)

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

18 ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

(Information is provided in this section only if Council has been notified that an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

19 ANNUAL CHARGES UNDER LOCAL GOVERNMENT ACT 1993 FOR COASTAL PROTECTION SERVICES THAT RELATE TO EXISTING COASTAL PROTECTION WORKS

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

20 WESTERN SYDNEY AEROTROPOLIS

Whether the land is subject to planning considerations under *State Environmental Planning Policy (Precincts—Western Parkland City) 2021*, Chapter 4:

	Planning Control	Affected?
(a)	Subject to an ANEF or ANEC contour of 20 or greater	No
(b)	Shown on the Lighting Intensity and Wind Shear Map	No
(c)	Shown on the Obstacle Limitation Surface Map	No
(d)	In the “public safety area” on the Public Safety Area Map	No
(e)	In the “3km zone” or the “13km zone” of the Wildlife Buffer Zone Map	No

21 DEVELOPMENT CONSENT FOR SENIORS HOUSING

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

22 SITE COMPATIBILITY CERTIFICATES AND DEVELOPMENT CONSENT CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(Information is provided in this section only if:

(1) there is a current site compatibility certificate under the State Environmental Planning Policy (Housing) 2021, or a former site compatibility certificate, of which the council is aware, in respect of proposed development on the land; and/or

(2) State Environmental Planning Policy (Housing) 2021, Chapter 2, Part 2, Division 1 or 5 applies to the land and a statement setting out terms of a kind referred to in the Policy, section 21(1) or 40(1) have been imposed as a condition of consent in relation to the land.

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

23 WATER OR SEWERAGE SERVICES

Water or sewerage services under the Water Industry Competition Act 2006 (WIC Act) are not required to be provided on this land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

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) (Information is provided in this section only if, as at the date of this certificate, the land (or part of the land) is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997.)

(b) (Information is provided in this section only if, as at the date of this certificate, the land is subject to a management order within the meaning of the Contaminated Land Management Act 1997.)

(c) (Information is provided in this section only if, as at the date of this certificate, the land is the subject of an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997.)

(d) (Information is provided in this section only if, at the date of this certificate, the land subject to an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997.)

(e) (Information is provided in this section only if the land is the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997 - a copy of which has been provided to Council.)

Note: Section 10.7(5) information for this property may contain additional information regarding contamination issues.

PLANNING CERTIFICATE UNDER SECTION 10.7Environmental Planning and Assessment Act, 1979

10.7(5) Certificate**This Certificate is directed to the following
relevant matters affecting the land**

When information pursuant to section 10.7(5) is requested the Council is under no obligation to furnish any of the information supplied herein pursuant to that section. Council draws your attention to section 10.7(6) which states that a council shall not incur any liability in respect of any advice provided in good faith pursuant to sub-section (5). The absence of any reference to any matter affecting the land shall not imply that the land is not affected by any matter not referred to in this certificate.

Note:

- Council's 10.7(5) information does not include development consent or easement information. Details of development consents may be obtained by making enquiries with Council's Development Services Department pursuant to section 12 of the Local Government Act 1993 or (for development applications lodged after January 2007) by viewing the Online Services area at www.penrithcity.nsw.gov.au. Details of any easements may be obtained from a Title Search at Land and Property Information New South Wales.
- This certificate does not contain information relating to Complying Development Certificates.
- This certificate may not provide full details of development rights over the land.

*** Biodiversity Conservation Act 2016**

When considering any development application Council must have regard to the Biodiversity Conservation Act 2016. Please note that this legislation may have application to any land throughout the city. Interested persons should make their own enquiries in regard to the impact that this legislation could have on this land.

*** Scenic and Landscape Values**

The land is identified as "Land with Scenic and Landscape Values" on the Penrith Local Environmental Plan 2010 Scenic and Landscape Values Map. See Clause 7.5 of Penrith Local Environmental Plan 2010 and Chapter C1 Site Planning and Design of Penrith Development Control Plan 2014.

*** Preservation of Trees and Vegetation**

See Chapter C2 of Penrith Development Control Plan 2014 for specific controls relating to the preservation of trees and vegetation.

*** Development Control Plan General Information**

Penrith Development Control Plan 2014 which applies to the land, sets out requirements for a range of issues that apply across the Penrith Local Government Area, including:

- Site Planning and Design Principles
- Vegetation Management
- Water Management
- Land Management
- Waste Management
- Landscape Design
- Culture and Heritage

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

- Public Domain
- Advertising and Signage
- Transport, Access and Parking
- Subdivision
- Noise and Vibration
- Infrastructure and Services, and
- Urban Heat Management.

The Development Control Plan also specifies requirements relating to various types of land uses including:

- Rural Land Uses
- Residential Development
- Commercial and Retail Development, and
- Industrial Development

as well as for a number of specific activities, including child care centres; health consulting rooms; educational establishments; parent friendly amenities; places of public worship; vehicle repair stations; cemeteries, crematoria and funeral homes; extractive industries; and telecommunication facilities.

The Development Control Plan also details requirements relating to key precincts within the Penrith Local Government Area, including:

- Caddens
- Claremont Meadows Stage 2
- Cranebrook
- Emu Heights
- Emu Plains
- Erskine Business Park
- Glenmore Park
- Kingswood
- Luddenham Road Industrial Business Park
- Mulgoa Valley
- Orchard Hills North
- Penrith
- Penrith Health and Education Precinct
- Riverlink Precinct
- St Clair,
- St Marys / St Marys North, and
- Sydney Science Park.

Penrith Development Control Plan 2014 may be accessed at
<https://www.penrithcity.nsw.gov.au/Building-and-Development/Planning-and-Zoning/Planning-Controls/Development-Control-Plans/>

* Roads and Maritime Services have informed Council of an intention to acquire a portion of land on this property for future road widening purposes. Please note that the affected land is not yet zoned for future road widening purposes. For further information on this matter, please contact Roads and Maritime Services.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Western Sydney International (Nancy-Bird Walton) Airport

On 24 October 2023, the Australian Government released a draft Environmental Impact Statement for the preliminary flight paths for the Western Sydney International (Nancy-Bird Walton) Airport. The draft Environmental Impact Statement examines the environmental, health, social and economic impacts of the proposed flight paths.

The Australian Government has also released an Aircraft Overflight Noise Tool which indicates the preliminary flight path design and aircraft overflight and noise information.

Enquiries regarding the Western Sydney Airport should be made with the Australian Government (www.wsiflightpaths.gov.au).

Notes:

The Environmental Planning and Assessment Amendment Act 2017 commenced operation on the 1 March 2018. As a consequence of this Act the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017, and Environmental Planning and Assessment Regulation 2021.

This is a certificate under section 10.7 of the Environmental Planning and Assessment Act, 1979 and is only provided in accordance with that section of the Act.

Information is provided only to the extent that Council has been notified by the relevant government departments.

Andrew Moore
General Manager

per 

Attachment F Test Pit Logs

PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286287
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263603
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 1.80 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill Silty SAND (TOPSOIL), grey, heterogeneous, dry, medium sand loose, with inclusions of gravels, rootlets, and tiles.	DR	P_TP1_0.0-0.1	0.9	No odour, staining, or asbestos.
		0.2		Fill Gravelly SAND, brown/yellow, heterogeneous, dry, loose, with inclusions of geofab towards bottom of layer.	DR	P_TP1_0.2-0.3	1.1	No odour, staining, or asbestos.
		0.3						
		0.4		Fill Gravelly/Silty SAND, brown/red, heterogeneous, dry, loose	DR	P_TP01_0.40-0.50	2.3	No odour, staining, or asbestos.
		0.5						
		0.6		Fill ASH, black				No odour, staining, or asbestos.
		0.7				P_TP1_0.7-0.8	1.4	
		0.8						
		0.9		SW Clayey SAND, brown/red, homogeneous, dry, loose	DR			No odour, staining, or asbestos.
		1				P_TP01_1.00-1.10	0.2	
		1.1						
		1.2						
		1.3						
		1.4						
		1.5				P_TP01_1.50-1.60	1.3	
		1.6						
		1.7						
		1.8						
		1.9		Termination Depth at:1.80 m.				

PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286277
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263580
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 1.30 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill Gravelly SAND (TOPSOIL), grey dry, loose, with inclusions of rootlets, grass, and plastic pieces.	DR	P_TP02_0.00-0.10	4.1	No odour, staining, or asbestos.
		DR					No odour, staining, or asbestos.	
			0.2		Fill Gravelly SAND, yellow/light brown dry, loose, with inclusions of plastic pieces.	P_TP02_0.20-0.30		1.8
		0.3				Fill Gravelly/Silty SAND, brown/gret dry, loose, with inclusions of ash, metal cords, plastic pieces, and tiles.	DR	
		0.4						
		0.5		P_TP2_0.5-0.6	1.5			
		0.6		SW Clayey SAND, brown/red, homogeneous, damp, loose	DP			No odour, staining, or asbestos.
		0.7						
		0.8						
		0.9						
		1				P_TP02_1.00-1.10	1.4	
		1.1						
		1.2						
1.3								
			Termination Depth at:1.30 m.					
		1.4						
		1.5						
		1.6						
		1.7						
		1.8						
		1.9						

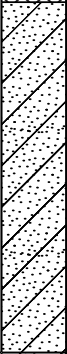
PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286244
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263484
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 0.70 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill Silty SAND (TOPSOIL), grey dry, loose, with inclusions of roots, tiles, gravels, and sticks.	DR	P_TP3_0.0-0.1	2.1	No odour, staining, or asbestos.
		0.2		Fill Gravelly SAND, light grey dry, loose, with inclusions of geofab at the bottom of layer.	DR	P_TP3_0.2-0.3	1.7	No odour, staining, or asbestos.
		0.3		Fill Gravelly SAND, brown/grey dry, loose, with inclusions of iron rocks.	DR	P_TP03_0.30-0.40	1.4	No odour, staining, or asbestos.
		0.4		SW Clayey SAND, brown/red, homogeneous, damp, loose	DP	P_TP3_0.5-0.6	1.4	No odour, staining, or asbestos.
		0.5						
		0.6						
		0.7		Termination Depth at:0.70 m.				
		0.8						
		0.9						
		1						
		1.1						
		1.2						
		1.3						
		1.4						
		1.5						
		1.6						
		1.7						
		1.8						
		1.9						

PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286232
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263500
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 1.30 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill Gravelly SAND, grey dry, loose, with inclusions of root/rootlets.	DR	P_TP04_0.00-0.10	2.3	No odour, staining, or asbestos.
		0.2		Fill Gravelly SAND, light grey dry, loose, with inclusions of ash, gravels, and rootlets.	DR	P_TP04_0.20-0.30	1.5	No odour, staining, or asbestos.
		0.3						
		0.4		Fill Gravelly SAND, brown/grey, heterogeneous, dry, loose, with inclusions of ash.	DR	P_TP4_0.3-0.4	1.6	No odour, staining, or asbestos.
		0.5		Fill Clayey SAND, brown/grey damp, loose, with inclusions of trace ash, and a pipe at the bottom of layer.	DP			No odour, staining, or asbestos.
		0.6				P_TP4_0.5-0.6	1	
		0.7						
		0.8		SW Clayey SAND, brown/red damp, loose	DP			No odour, staining, or asbestos.
		0.9						
		1				P_TP04_1.00-1.10	1.1	
		1.1						
		1.2						
		1.3		Termination Depth at: 1.30 m.				
		1.4						
		1.5						
		1.6						
		1.7						
		1.8						
		1.9						

PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286214
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263465
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 1.80 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations		
Test Pit		0.1		Fill Gravelly SAND (TOPSOIL), brown/grey dry, loose, with inclusions of iron rocks, roots, gravels, and timber.	DR	P_TP5_0.0-0.1	1.8	No odour, staining, or asbestos.		
		0.2		Fill Gravelly SAND, brown dry, loose, with inclusions of ash, and terracotta.	DR			No odour, staining, or asbestos.		
		0.3				P_TP05_0.30-0.40	1.3			
		0.4								
		0.5		Fill Gravelly/Sandy CLAY, brown/grey damp, non-plastic with inclusions of trace ash.	DP	P_TP05_0.50-0.60	1.5	No odour, staining, or asbestos.		
		0.6								
		0.7		Fill SAND, dark brown/black damp, loose, with inclusions of bricks, ash, gravels, and cobbles.	DP			No odour, staining, or asbestos.		
		0.8								
		0.9								
		1	P_TP5_1.0-1.1			1.1				
		1.1		SW SAND, brown damp, loose	DP			No odour, staining, or asbestos.		
		1.2								
		1.3								
		1.4								
		1.5				P_TP05_1.50-1.60	0.9			
		1.6								
		1.7								
		1.8								
		1.9		Termination Depth at:1.80 m.						

PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286189
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263477
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 1.20 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill Silty SAND (TOPSOIL), grey dry, loose, with inclusions of roots, grass, gravels, glass, and tiles.	DR	P_TP06_0.00-0.10	1.4	No odour, staining, or asbestos.
		0.2		Fill Gravelly SAND, brown dry, loose, with inclusions of metal cables and bolts, and ash.	DR			No odour, staining, or asbestos.
		0.3				P_TP6-0.3-0.4	1.3	
		0.4		Fill Sandy CLAY, grey/white dry, non-plastic, stiff, with inclusions of gravels, and glass.	DR	P_TP06_0.40-0.50	1.8	No odour, staining, or asbestos.
		0.5		Fill Gravelly SAND, brown/grey dry, loose, with inclusions of ash.	DR	P_TP06_0.50-0.60	1.6	No odour, staining, or asbestos.
		0.6						
		0.7		Fill Silty SAND, brown/grey dry, loose	DR			No odour, staining, or asbestos.
		0.8						
		0.9				P_TP06_0.90-1.00	1	
		1		SW Clayey SAND, brown/red damp, loose	DP			No odour, staining, or asbestos.
		1.1				P_TP06_1.10-1.20	1.1	
	1.2		Termination Depth at:1.20 m.					
	1.3							
	1.4							
	1.5							
	1.6							
	1.7							
	1.8							
	1.9							

PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286209
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263483
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 1.10 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill Silty SAND, grey dry, loose, with inclusions of metal, bricks, gravels, roots, grass, and tiles.	DR	P_TP07_0.00-0.10	1.7	No odour, staining, or asbestos.
		0.2		Fill Gravelly/Sandy CLAY, white/grey dry, non-plastic, stiff	DR	P_TP07_0.20-0.30	1.6	No odour, staining, or asbestos.
		0.3						
		0.4		Fill ASH, black	DR	P_TP7_0.4-0.5	0.9	No odour, staining, or asbestos.
		0.5						
		0.6						
		0.7		CL Sandy CLAY, brown/red damp, low plasticity	DP			No odour, staining, or asbestos.
		0.8						
		0.9						
		1				P_TP7_1.0-1.1	1.1	
		1.1		Termination Depth at:1.10 m.				
		1.2						
		1.3						
		1.4						
		1.5						
		1.6						
		1.7						
		1.8						
		1.9						

PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286169
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263501
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 1.90 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill Silty SAND (TOPSOIL), grey dry, loose, with inclusions of gravels, timber, roots, and grass.	DR	P_TP08_0.00-0.10	2.2	No odour, staining, or asbestos.
		0.2		Fill Gravelly SAND, yellow/light brown dry, loose	DR	P_TP08_0.20-0.30	1.8	No odour, staining, or asbestos.
		0.3						
		0.4		Fill Silty/Clayey SAND, brown/red dry, loose, with inclusions of metal, gravels, and cobbles. Geofab material on top of layer.	DR			No odour, staining, or asbestos.
		0.5				P_TP8_0.5-0.6	1.8	
		0.6						
		0.7						
		0.8		Fill Silty SAND, grey dry, loose, with inclusions of as, gravels, and metal.	DR	P_TP08_0.70-0.80	1.1	No odour, staining, or asbestos.
		0.9		Fill Silty CLAY, dark grey damp, low plasticity, soft, with inclusions of gravels.	DP			No odour, staining, or asbestos.
		1.0				P_TP08_1.00-1.10	1.4	
		1.1						
		1.2		CL CLAY, brown/grey damp, low plasticity with inclusions of organic material.	DP			No odour, staining, or asbestos.
		1.3						
		1.4						
		1.5				P_TP08_1.50-1.60	1.2	
		1.6						
		1.7						
		1.8						
		1.9		Termination Depth at:1.90 m.				

PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286157
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263495
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 1.80 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1	[Cross-hatched pattern]	Fill Silty SAND (TOPSOIL), grey dry, loose, with inclusions of roots, gravels, timber, and metal.	DR	P_TP9_0.0-0.1	2.2	No odour, or staining. Suspected asbestos containing material (ACM) found (Frag_01). No odour, staining, or asbestos.
		0.2		Fill Gravelly SAND, yellow/light brown dry, loose	DR	P_TP09_0.20-0.30	2.8	
		0.3	[Cross-hatched pattern]	Fill Sandy GRAVEL, grey dry, angular, loose, with inclusions of metal ropes, fabric, and bricks. Geofab material on top of layer.	DR			No odour, staining, or asbestos.
		0.4						
		0.5	[Cross-hatched pattern]	Fill SAND, dark grey/black damp, loose, with inclusions of gravels, and ash.	DP			No odour, staining, or asbestos.
		0.6						
		0.7	[Cross-hatched pattern]	CL Sandy CLAY, dark grey damp, low plasticity	DP			No odour, staining, or asbestos.
		0.8						
		0.9	[Diagonal lines pattern]	CL CLAY, brown/grey damp, low plasticity	DP			No odour, staining, or asbestos.
		1						
		1.1	[Diagonal lines pattern]					
		1.2						
		1.3	[Diagonal lines pattern]					
		1.4						
		1.5	[Diagonal lines pattern]					
		1.6						
		1.7	[Diagonal lines pattern]					
		1.8						
		1.9		Termination Depth at: 1.80 m.				

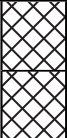
PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286158
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263475
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 1.70 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill Silty SAND (TOPSOIL), grey dry, loose, with inclusions of glass, gravels, grass, and rootlets.	DR	P_TP10_0.00-0.10	2.8	No odour, staining, or asbestos.
		0.2		Fill Gravelly SAND, yellow/light brown dry, loose	DR	P_TP10_0.20-0.30	1	No odour, staining, or asbestos.
		0.3						
		0.4		Fill Sandy GRAVEL, grey dry, angular, loose, with inclusions of ash, and tiles.	DR	P_TP10_0.30-0.40	3.1	No odour, staining, or asbestos.
		0.5		Fill Silty SAND, brown dry, loose, with inclusions of gravels.	DR			No odour, staining, or asbestos.
		0.6				P_TP10_0.50-0.60	2.4	
		0.7		Fill Silty CLAY, black damp, low plasticity with inclusions of gravels.	DP	P_TP10_0.60-0.70	2.1	No odour, staining, or asbestos.
		0.8		Fill Gravelly SAND, grey dry, loose, with inclusions of ash.	DR			No odour, staining, or asbestos.
		0.9				P_TP10_0.90-1.00	1	
		1.0		Fill Clayey SAND, grey damp, loose	DP			No odour, staining, or asbestos.
		1.1						
		1.2				P_TP10_1.20-1.30	1.4	
		1.3						
		1.4		CL Sandy CLAY, brown damp, medium plasticity, soft	DP			No odour, staining, or asbestos.
		1.5				P_TP10_1.50-1.60	1.1	
		1.6						
		1.7						
				Termination Depth at:1.70 m.				
		1.8						
		1.9						

PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286139
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263481
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 0.90 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill Silty SAND, grey dry, loose, with inclusions of gravels, rootlets, and tiles.	DR	P_TP11_0.00-0.10	1.8	No odour, staining, or asbestos.
				Fill Gravelly SAND, yellow/light brown dry, loose	DR	P_TP11_0.10-0.20	1.7	No odour, staining, or asbestos.
		0.2		Fill Sandy GRAVEL, grey dry, angular, loose, with inclusions of metal cable, and cobbles. Geofab material on top of layer.	DR			No odour, staining, or asbestos.
		0.3				P_TP11_0.30-0.40	1.3	
		0.4		CL Sandy CLAY, brown dry, low plasticity	DP			No odour, staining, or asbestos.
		0.5						
		0.6						
		0.7						
		0.8				P_TP11_0.80-0.90	1	
		0.9		Termination Depth at:0.90 m.				
		1						
		1.1						
		1.2						
		1.3						
		1.4						
		1.5						
		1.6						
		1.7						
		1.8						
		1.9						

PROJECT NUMBER 67597	DRILLING COMPANY Ken Coles	EASTING 286155
PROJECT NAME Ausconnex Multiple Site	DRILL RIG Excavator	NORTHING 6263511
CLIENT Ausconnex	DRILLING METHOD Test Pit	COORD SYS
ADDRESS 2235-2249 Castlereagh Road	DIAMETER	TOTAL DEPTH 1.20 m bgl
DRILLING DATE 12 Nov 2024		LOGGED BY Ekaterina Arsenteva

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill Silty SAND, grey dry, loose	DR	P_TP12_0.00-0.10	1.8	No odour, staining, or asbestos. QA/QC20241112_01 taken at 0.0-0.1 m bgs. No odour, staining, or asbestos.
		0.2		Fill Gravelly SAND, yellow/light brown dry, loose	DR	P_TP12_0.20-0.30	0.9	
		0.3						
		0.4		Fill Sandy GRAVEL, grey dry, angular, loose, Geofab material on top of layer.	DR	P_TP12_0.40-0.50	1.3	No odour, staining, or asbestos. QA/QC20241112_02 taken at 0.40-0.50 m bgs.
		0.5					CL Sandy CLAY, brown dry, low plasticity	
		0.6						
		0.7						
		0.8						
		0.9						
		1	P_TP12_1.00-1.10	1.1				
		1.1						
		1.2						
		1.3		Termination Depth at:1.20 m.				
		1.4						
		1.5						
		1.6						
		1.7						
		1.8						
		1.9						

Attachment G Calibration and Decontamination Sheets

Field Equipment Calibration and Decontamination

PROJECT NAME: <i>Pearth-Ausconnex</i>	PROJECT NO: <i>67597</i>
FIELDWORK DATES: <i>12/11/24</i>	SAMPLERS: <i>E. Arsenteva</i>
TYPE OF INVESTIGATION: <i>test pitting</i>	PROJECT MANAGER: <i>J. Braithwaite</i>

CALIBRATION SUMMARY

EQUIPMENT: <i>PID</i>
CALIBRATION STANDARD: <i>100ppm isobutylene</i>

DATE	TIME	READING (ppm)	COMMENTS
<i>12/11</i>	<i>7:15</i>	<i>0</i>	<i>0</i>
<i>↓</i>	<i>7:17</i>	<i>100</i>	<i>100</i>
	<i>7:20</i>	<i>97.8</i>	<i>bump check</i>

DECONTAMINATION SUMMARY

EQUIPMENT:			
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 per sample			

Attachment H Summary Tables





	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	1	1	1	0.1	1	1	20	20	50	50	50	20	50	100	100	50	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	3,000	900	3,600	240,000	1,500	730	6,000	400,000																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=0m, <1m																		260		3						230	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=1m, <2m																			370		3						
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil														700	1,000	3,500	10,000										
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																											
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																											

Field ID	Date	Lab Report Number																											
P_TP1_0.0-0.1	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
P_TP1_0.2-0.3	12 Nov 2024	1159987, 1163472	2.9	<0.4	5.1	9.9	15	<0.1	5.2	30	<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
P_TP1_0.7-0.8	12 Nov 2024	1159987, 1163472	2.2	<0.4	<5	9.4	6.9	<0.1	<5	9.4	<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
P_TP2_0.5-0.6	12 Nov 2024	1159987, 1163472	6.8	1.7	9.0	22	18	<0.1	6.0	180	<20	<20	290	<50	290	<20	<50	260	<100	260	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
P_TP3_0.0-0.1	12 Nov 2024	1159987, 1163472	16	<0.4	5.5	30	85	0.3	<5	87	<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
P_TP3_0.2-0.3	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP3_0.5-0.6	12 Nov 2024	1159987, 1163472	2.8	<0.4	9.5	<5	6.3	<0.1	<5	9.5	<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
P_TP4_0.3-0.4	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP4_0.5-0.6	12 Nov 2024	1159987, 1163472	2.8	<0.4	8.9	11	13	<0.1	<5	24	<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
P_TP5_0.0-0.1	12 Nov 2024	1159987, 1163472	3.8	<0.4	19	23	17	<0.1	23	62	<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
P_TP5_1.0-1.1	12 Nov 2024	1159987, 1163472	6.6	<0.4	6.6	16	130	0.1	5.5	150	<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
P_TP6-0.3-0.4	12 Nov 2024	1159987, 1163472	5.5	<0.4	16	36	20	<0.1	26	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
P_TP7_0.4-0.5	12 Nov 2024	1159987, 1163472	5.4	<0.4	<5	19	8.0	<0.1	25	32	<20	<20	51	<50	51	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
P_TP7_1.0-1.1	12 Nov 2024	1159987, 1163472	6.1	<0.4	14	11	15	<0.1	5.8	29	<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
P_TP8_0.5-0.6	12 Nov 2024	1159987, 1163472	5.3	0.5	15	15	20	<0.1	9.3	88	<20	<20	56	<50	56	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
P_TP9_0.0-0.1	12 Nov 2024	1159987, 1163472	2.4	<0.4	<5	6.0	26	<0.1	<5	26	<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
P_TP9_0.5-0.6	12 Nov 2024	1159987, 1163472	6.6	<0.4	22	60	76	<0.1	19	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
P_TP12_0.0-0.1	12 Nov 2024	366394	6	<0.4	4	13	41	<0.1	3	38	<25	<50	<100	<100	<50	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<1	<1
P_TP12_0.2-0.3	12 Nov 2024	1159987, 1163472	3.8	<0.4	7.3	13	17	<0.1	6.4	45	<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
P_TP12_0.4-0.5 (Primary)	12 Nov 2024	1164327	4.7	<0.4	11	17	23	<0.1	7.7	270	<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
QC20241112_02 (Duplicate)	12 Nov 2024	1159987, 1163472	5.3	<0.4	13	21	21	<0.1	11	54	<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
QA20241112_02 (Triplicate)	12 Nov 2024	366394	6	<0.4	15	19	20	<0.1	10	110	<25	<50	<100	<100	<50	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<1	<1
FRAG_01	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	





	PAH																					
	PAHs (Sum of positives)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(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)
	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	50	0.1	0.1	0.1	0.1	0.05	0.5	0.5	0.5	0.5	0.2	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	4000000						40	40	40													4,000
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=0m, <1m																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=1m, <2m																						
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																						
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																						
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																						

Field ID	Date	Lab Report Number																						
P_TP1_0.0-0.1	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP1_0.2-0.3	12 Nov 2024	1159987, 1163472	-	<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	
P_TP1_0.7-0.8	12 Nov 2024	1159987, 1163472	-	<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	
P_TP2_0.5-0.6	12 Nov 2024	1159987, 1163472	-	<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	
P_TP3_0.0-0.1	12 Nov 2024	1159987, 1163472	-	<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	
P_TP3_0.2-0.3	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP3_0.5-0.6	12 Nov 2024	1159987, 1163472	-	<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	
P_TP4_0.3-0.4	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP4_0.5-0.6	12 Nov 2024	1159987, 1163472	-	<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	
P_TP5_0.0-0.1	12 Nov 2024	1159987, 1163472	-	<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	
P_TP5_1.0-1.1	12 Nov 2024	1159987, 1163472	-	<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	
P_TP6-0.3-0.4	12 Nov 2024	1159987, 1163472	-	<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	
P_TP7_0.4-0.5	12 Nov 2024	1159987, 1163472	-	<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	
P_TP7_1.0-1.1	12 Nov 2024	1159987, 1163472	-	<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	
P_TP8_0.5-0.6	12 Nov 2024	1159987, 1163472	-	<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	
P_TP9_0.0-0.1	12 Nov 2024	1159987, 1163472	-	<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	
P_TP9_0.5-0.6	12 Nov 2024	1159987, 1163472	-	<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	
P_TP12_0.0-0.1	12 Nov 2024	366394	1,000	<0.1	<0.1	<0.1	0.1	0.1	<0.5	<0.5	<0.5	-	0.2	<0.1	-	0.1	<0.1	0.2	<0.1	0.1	<0.1	<0.1	0.2	-
P_TP12_0.2-0.3	12 Nov 2024	1159987, 1163472	-	<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	
P_TP12_0.4-0.5 (Primary)	12 Nov 2024	1164327	-	<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	
QC20241112_02 (Duplicate)	12 Nov 2024	1159987, 1163472	-	<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	
QA20241112_02 (Triplicate)	12 Nov 2024	366394	300	<0.1	<0.1	<0.1	<0.1	0.07	<0.5	<0.5	<0.5	-	<0.2	<0.1	-	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	-
FRAG_01	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

TABLE A: Soil Results Summary

Project Number: 67597
Project Name: Penrith ZS, 2235-2249 Castlereagh Road , Ausconnex





	Organochlorine Pesticides																								Polychlorinated Biphenyls									
	Pentachlorophenol	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)		
EQL	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
	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	0.05	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	660								45	530			3,600				100			50		80	2,500	160									7	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=0m, <1m																																		
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=1m, <2m																																		
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																		
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																		
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																																		

Field ID	Date	Lab Report Number																															
P_TP1_0.0-0.1	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP1_0.2-0.3	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP1_0.7-0.8	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP2_0.5-0.6	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP3_0.0-0.1	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP3_0.2-0.3	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP3_0.5-0.6	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP4_0.3-0.4	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP4_0.5-0.6	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP5_0.0-0.1	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	
P_TP5_1.0-1.1	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP6-0.3-0.4	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP7_0.4-0.5	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP7_1.0-1.1	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP8_0.5-0.6	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP9_0.0-0.1	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP9_0.5-0.6	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP12_0.0-0.1	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP12_0.2-0.3	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP12_0.4-0.5 (Primary)	12 Nov 2024	1164327	-	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
QC20241112_02 (Duplicate)	12 Nov 2024	1159987, 1163472	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
QA20241112_02 (Triplicate)	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
FRAG_01	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



	Phenols																		
	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3&4-Methylphenol (m&p-cresol)	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Chloro-3-Methylphenol	4-nitrophenol	Cresol Total	Phenol	Tetrachlorophenols	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	1	1	0.5	0.5	5	0.5	0.5	0.2	1	0.4	5	20	1	5	0.5	0.5	10	1	20
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil															25,000	240,000			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=0m, <1m																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=1m, <2m																			
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																			
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																			
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																			

Field ID	Date	Lab Report Number																	
P_TP1_0.0-0.1	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP1_0.2-0.3	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP1_0.7-0.8	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP2_0.5-0.6	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP3_0.0-0.1	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP3_0.2-0.3	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP3_0.5-0.6	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP4_0.3-0.4	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP4_0.5-0.6	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP5_0.0-0.1	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP5_1.0-1.1	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP6-0.3-0.4	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP7_0.4-0.5	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP7_1.0-1.1	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP8_0.5-0.6	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP9_0.0-0.1	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP9_0.5-0.6	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP12_0.0-0.1	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP12_0.2-0.3	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP12_0.4-0.5 (Primary)	12 Nov 2024	1164327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC20241112_02 (Duplicate)	12 Nov 2024	1159987, 1163472	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
QA20241112_02 (Triplicate)	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG_01	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A: Soil Results Summary

Project Number: 67597
Project Name: Penrith ZS, 2235-2249 Castlereagh Road , Ausconnex



		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 (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-Ethyl perfluorooctane sulfonamide (NEFOSA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	N-ethylperfluorooctanesulfonamidoethanol (NEFOSE)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEFOSAA)	Perfluoropropanesulfonic acid (PFPS)	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				
EQL		mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.01	mg/kg 0.01	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.01	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.005	mg/kg 0.01	mg/kg 0.005	mg/kg 0.005	mg/Kg 0.01	mg/kg 0.05	mg/kg 0.005
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=0m, <1m																																								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=1m, <2m																																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																								
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																								
PFAS NEMP 2020 Table 2 Health Industrial/Commercial						50																				20		20							20					

Field ID	Date	Lab Report Number																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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	Herbicides & Fungicides	Asbestos - Eurofins																			Other
	Dinoseb	Approximate Sample Mass	Asbestos Sample Dimensions	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Mass Asbestos in FA & AF	ACM - Comment	FA- Comment	AF - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment	Asbestos Reported Result	Asbestos FA & AF in Soil	Moisture Content (dried @ 103°C)	
	mg/kg	g	Comment	g	g	% (w/w)	g	g	g	g	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	% (w/w)	%	
EQL	20																			1	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=0m, <1m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand >=1m, <2m																					
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																					
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil						0.05													0.001		
PFAS NEMP 2020 Table 2 Health Industrial/Commercial																					

Field ID	Date	Lab Report Number																			
P_TP1_0.0-0.1	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
P_TP1_0.2-0.3	12 Nov 2024	1159987, 1163472	<20	1,144	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Organic fibres detected.	0	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 12
P_TP1_0.7-0.8	12 Nov 2024	1159987, 1163472	<20	384	>500ml	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Organic fibres detected.	0	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 40
P_TP2_0.5-0.6	12 Nov 2024	1159987, 1163472	<20	978	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 16
P_TP3_0.0-0.1	12 Nov 2024	1159987, 1163472	<20	946	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 20
P_TP3_0.2-0.3	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2
P_TP3_0.5-0.6	12 Nov 2024	1159987, 1163472	<20	943	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 7.7
P_TP4_0.3-0.4	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
P_TP4_0.5-0.6	12 Nov 2024	1159987, 1163472	<20	770	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 11
P_TP5_0.0-0.1	12 Nov 2024	1159987, 1163472	<20	1,032	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 17
P_TP5_1.0-1.1	12 Nov 2024	1159987, 1163472	<20	667	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 24
P_TP6-0.3-0.4	12 Nov 2024	1159987, 1163472	<20	882	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 8.0
P_TP7_0.4-0.5	12 Nov 2024	1159987, 1163472	<20	382	>500ml	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Organic fibres detected.	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 25
P_TP7_1.0-1.1	12 Nov 2024	1159987, 1163472	<20	776	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 14
P_TP8_0.5-0.6	12 Nov 2024	1159987, 1163472	<20	881	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 6.1
P_TP9_0.0-0.1	12 Nov 2024	1159987, 1163472	<20	948	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 1.4
P_TP9_0.5-0.6	12 Nov 2024	1159987, 1163472	<20	885	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 2.2
P_TP12_0.0-0.1	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
P_TP12_0.2-0.3	12 Nov 2024	1159987, 1163472	<20	946	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 2.6
P_TP12_0.4-0.5 (Primary)	12 Nov 2024	1164327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7
QC20241112_02 (Duplicate)	12 Nov 2024	1159987, 1163472	<20	894	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000 7.2
QA20241112_02 (Triplicate)	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
FRAG_01	12 Nov 2024	1159987	-	9	40X15X5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	Nil	Nil	Chrysotile asbestos detected	0.0000 -





	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	1	1	1	0.1	1	1	20	20	50	50	50	20	50	100	100	50	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.5
NSW 2014 General Solid Waste CT1 (No Leaching)	100	20	100		100	4	40		650				10,000							10	288	600			1,000		
NSW 2014 General Solid Waste SCC1 (with leached)	500	100	1,900		1,500	50	1,050		650				10,000							18	518	1,080			1,800		
NSW 2014 Restricted Solid Waste CT2 (No Leaching)	400	80	400		400	16	160		2,600				40,000							40	1,152	2,400			4,000		
NSW 2014 Restricted Solid Waste SCC2 (with leached)	2,000	400	7,600		6,000	200	4,200		2,600				40,000							72	2,073	4,320			7,200		

Field ID	Date	Lab Report Number																												
P_TP1_0.0-0.1	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
P_TP1_0.2-0.3	12 Nov 2024	1159987	2.9	<0.4	5.1	9.9	15	<0.1	5.2	30	<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	
P_TP1_0.7-0.8	12 Nov 2024	1159987	2.2	<0.4	<5	9.4	6.9	<0.1	<5	9.4	<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	
P_TP2_0.5-0.6	12 Nov 2024	1159987	6.8	1.7	9.0	22	18	<0.1	6.0	180	<20	<20	290	<50	290	<20	<50	260	<100	260	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	
P_TP3_0.0-0.1	12 Nov 2024	1159987	16	<0.4	5.5	30	85	0.3	<5	87	<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	
P_TP3_0.2-0.3	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
P_TP3_0.5-0.6	12 Nov 2024	1159987	2.8	<0.4	9.5	<5	6.3	<0.1	<5	9.5	<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	
P_TP4_0.3-0.4	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
P_TP4_0.5-0.6	12 Nov 2024	1159987	2.8	<0.4	8.9	11	13	<0.1	<5	24	<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	
P_TP5_0.0-0.1	12 Nov 2024	1159987	3.8	<0.4	19	23	17	<0.1	23	62	<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	
P_TP5_1.0-1.1	12 Nov 2024	1159987	6.6	<0.4	6.6	16	130	0.1	5.5	150	<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	
P_TP6-0.3-0.4	12 Nov 2024	1159987	5.5	<0.4	16	36	20	<0.1	26	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	
P_TP7_0.4-0.5	12 Nov 2024	1159987	5.4	<0.4	<5	19	8.0	<0.1	25	32	<20	<20	51	<50	51	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	
P_TP7_1.0-1.1	12 Nov 2024	1159987	6.1	<0.4	14	11	15	<0.1	5.8	29	<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	
P_TP8_0.5-0.6	12 Nov 2024	1159987	5.3	0.5	15	15	20	<0.1	9.3	88	<20	<20	56	<50	56	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	
P_TP9_0.0-0.1	12 Nov 2024	1159987	2.4	<0.4	<5	6.0	26	<0.1	<5	26	<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	
P_TP9_0.5-0.6	12 Nov 2024	1159987	6.6	<0.4	22	60	76	<0.1	19	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	
P_TP12_0.0-0.1	12 Nov 2024	366394	6	<0.4	4	13	41	<0.1	3	38	<25	<50	<100	<100	<50	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<1	<1	
P_TP12_0.2-0.3	12 Nov 2024	1159987	3.8	<0.4	7.3	13	17	<0.1	6.4	45	<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	
P_TP12_0.4-0.5 (Primary)	12 Nov 2024	1164327	4.7	<0.4	11	17	23	<0.1	7.7	270	<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	
QC20241112_02 (Duplicate)	12 Nov 2024	1159987	5.3	<0.4	13	21	21	<0.1	11	54	<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	
QA20241112_02 (Triplicate)	12 Nov 2024	366394	6	<0.4	15	19	20	<0.1	10	110	<25	<50	<100	<100	<50	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<1	<1	
FRAG_01	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		



	PAH																						
	PAHs (Sum of positives)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(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)	
	µg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	50	0.1	0.1	0.1	0.1	0.05	0.5	0.5	0.5	0.5	0.2	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	
NSW 2014 General Solid Waste CT1 (No Leaching)	200000					0.8																200	
NSW 2014 General Solid Waste SCC1 (with leached)						10																	
NSW 2014 Restricted Solid Waste CT2 (No Leaching)	800000					3.2																800	
NSW 2014 Restricted Solid Waste SCC2 (with leached)						23																	

Field ID	Date	Lab Report Number																					
P_TP1_0.0-0.1	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP1_0.2-0.3	12 Nov 2024	1159987	-	<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
P_TP1_0.7-0.8	12 Nov 2024	1159987	-	<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
P_TP2_0.5-0.6	12 Nov 2024	1159987	-	<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
P_TP3_0.0-0.1	12 Nov 2024	1159987	-	<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
P_TP3_0.2-0.3	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP3_0.5-0.6	12 Nov 2024	1159987	-	<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
P_TP4_0.3-0.4	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP4_0.5-0.6	12 Nov 2024	1159987	-	<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
P_TP5_0.0-0.1	12 Nov 2024	1159987	-	<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
P_TP5_1.0-1.1	12 Nov 2024	1159987	-	<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
P_TP6-0.3-0.4	12 Nov 2024	1159987	-	<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
P_TP7_0.4-0.5	12 Nov 2024	1159987	-	<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
P_TP7_1.0-1.1	12 Nov 2024	1159987	-	<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
P_TP8_0.5-0.6	12 Nov 2024	1159987	-	<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
P_TP9_0.0-0.1	12 Nov 2024	1159987	-	<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
P_TP9_0.5-0.6	12 Nov 2024	1159987	-	<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
P_TP12_0.0-0.1	12 Nov 2024	366394	1,000	<0.1	<0.1	<0.1	0.1	0.1	<0.5	<0.5	<0.5	-	0.2	<0.1	-	0.1	<0.1	0.2	<0.1	0.1	<0.1	<0.1	0.2
P_TP12_0.2-0.3	12 Nov 2024	1159987	-	<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
P_TP12_0.4-0.5 (Primary)	12 Nov 2024	1164327	-	<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
QC20241112_02 (Duplicate)	12 Nov 2024	1159987	-	<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
QA20241112_02 (Triplicate)	12 Nov 2024	366394	300	<0.1	<0.1	<0.1	<0.1	0.07	<0.5	<0.5	<0.5	-	<0.2	<0.1	-	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1
FRAG_01	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



	Organochlorine Pesticides																								Polychlorinated Biphenyls							
	Pentachlorophenol	4,4'-DDE	p-BHC	p-BHC	p-BHC	p-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Hexachlorobenzene	Methoxychlor	Toxaphene	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
EQL	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	0.05	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NSW 2014 General Solid Waste CT1 (No Leaching)																																50
NSW 2014 General Solid Waste SCC1 (with leached)																																50
NSW 2014 Restricted Solid Waste CT2 (No Leaching)																																50
NSW 2014 Restricted Solid Waste SCC2 (with leached)																																50

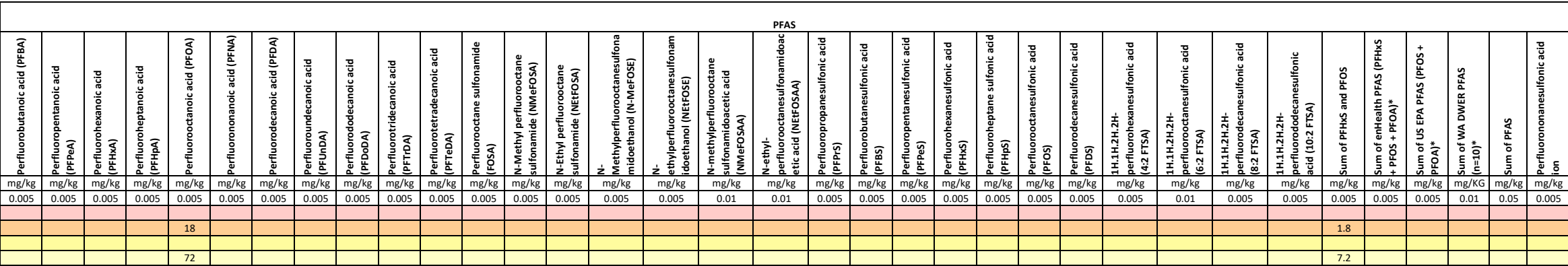
Field ID	Date	Lab Report Number	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP1_0.0-0.1	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP1_0.2-0.3	12 Nov 2024	1159987	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP1_0.7-0.8	12 Nov 2024	1159987	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
P_TP2_0.5-0.6	12 Nov 2024	1159987	<1	<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	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
P_TP3_0.0-0.1	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP3_0.2-0.3	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP3_0.5-0.6	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP4_0.3-0.4	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP4_0.5-0.6	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP5_0.0-0.1	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.1	
P_TP5_1.0-1.1	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP6-0.3-0.4	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP7_0.4-0.5	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP7_1.0-1.1	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP8_0.5-0.6	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP9_0.0-0.1	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP9_0.5-0.6	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP12_0.0-0.1	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P_TP12_0.2-0.3	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
P_TP12_0.4-0.5 (Primary)	12 Nov 2024	1164327	-	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
QC20241112_02 (Duplicate)	12 Nov 2024	1159987	<1	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
QA20241112_02 (Triplicate)	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
FRAG_01	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



	Phenols																		
	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	5,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	2,4-Methylphenol (m&p-cresol)	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Chloro-3-Methylphenol	4-nitrophenol	Cresol Total	Phenol	Tetrachlorophenols	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	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	1	1	0.5	0.5	5	0.5	0.5	0.2	1	0.4	5	20	1	5	0.5	0.5	10	1	20
NSW 2014 General Solid Waste CT1 (No Leaching)	8,000	40						4,000							4,000				
NSW 2014 General Solid Waste SCC1 (with leached)	14,400	72						7,200							7,200	518			
NSW 2014 Restricted Solid Waste CT2 (No Leaching)	32,000	160						16,000							16,000				
NSW 2014 Restricted Solid Waste SCC2 (with leached)	57,600	288						28,800							28,800	2,073			

Field ID	Date	Lab Report Number																	
P_TP1_0.0-0.1	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP1_0.2-0.3	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP1_0.7-0.8	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP2_0.5-0.6	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP3_0.0-0.1	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP3_0.2-0.3	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP3_0.5-0.6	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP4_0.3-0.4	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP4_0.5-0.6	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP5_0.0-0.1	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP5_1.0-1.1	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP6-0.3-0.4	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP7_0.4-0.5	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP7_1.0-1.1	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP8_0.5-0.6	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP9_0.0-0.1	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP9_0.5-0.6	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP12_0.0-0.1	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P_TP12_0.2-0.3	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
P_TP12_0.4-0.5 (Primary)	12 Nov 2024	1164327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC20241112_02 (Duplicate)	12 Nov 2024	1159987	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10
QA20241112_02 (Triplicate)	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG_01	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Project Name: Penrith ZS, 2235-2249 Castlereagh Road, Penrith

[illegible]



	Herbicides & Fungicides	Asbestos - Eurofins																		Other
		Dinoseb	Approximate Sample Mass	Asbestos Sample Dimensions	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Mass Asbestos in FA & AF	ACM - Comment	FA- Comment	AF - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment	Asbestos Reported Result	
	mg/kg	g	Comment	g	% (w/w)	g	g	g	g	g	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	% (w/w)	%
EQL	20																			1
NSW 2014 General Solid Waste CT1 (No Leaching)																				
NSW 2014 General Solid Waste SCC1 (with leached)																				
NSW 2014 Restricted Solid Waste CT2 (No Leaching)																				
NSW 2014 Restricted Solid Waste SCC2 (with leached)																				

Field ID	Date	Lab Report Number																				
P_TP1_0.0-0.1	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	
P_TP1_0.2-0.3	12 Nov 2024	1159987	<20	1,144	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Organic fibres detected.	0	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	12
P_TP1_0.7-0.8	12 Nov 2024	1159987	<20	384	>500ml	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Organic fibres detected.	0	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	40
P_TP2_0.5-0.6	12 Nov 2024	1159987	<20	978	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	16
P_TP3_0.0-0.1	12 Nov 2024	1159987	<20	946	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	20
P_TP3_0.2-0.3	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	
P_TP3_0.5-0.6	12 Nov 2024	1159987	<20	943	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	7.7
P_TP4_0.3-0.4	12 Nov 2024	1159987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	
P_TP4_0.5-0.6	12 Nov 2024	1159987	<20	770	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	11
P_TP5_0.0-0.1	12 Nov 2024	1159987	<20	1,032	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	17
P_TP5_1.0-1.1	12 Nov 2024	1159987	<20	667	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	24
P_TP6-0.3-0.4	12 Nov 2024	1159987	<20	882	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	8.0
P_TP7_0.4-0.5	12 Nov 2024	1159987	<20	382	>500ml	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Organic fibres detected.	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	25
P_TP7_1.0-1.1	12 Nov 2024	1159987	<20	776	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	14
P_TP8_0.5-0.6	12 Nov 2024	1159987	<20	881	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	6.1
P_TP9_0.0-0.1	12 Nov 2024	1159987	<20	948	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	1.4
P_TP9_0.5-0.6	12 Nov 2024	1159987	<20	885	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	2.2
P_TP12_0.0-0.1	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	
P_TP12_0.2-0.3	12 Nov 2024	1159987	<20	946	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	2.6
P_TP12_0.4-0.5 (Primary)	12 Nov 2024	1164327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7	
QC20241112_02 (Duplicate)	12 Nov 2024	1159987	<20	894	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	No trace asbestos detected	Nil	No asbestos detected at the reporting limit of 0.001% w/w	0.0000	7.2
QA20241112_02 (Triplicate)	12 Nov 2024	366394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	
FRAG_01	12 Nov 2024	1159987	-	9	40X15X5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Nil	Nil	Nil	Nil	Nil	Nil	Chrysotile asbestos detected	0.0000	-

Attachment I Laboratory Certificates and COC Documentation

JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth 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: **Ekaterina Arsenteva**

Report **1159987-S**
Project name **PENRITH_AUSCONNEX**
Project ID **67597**
Received Date **Nov 13, 2024**

Client Sample ID			P_TP1_0.0-0.1	P_TP1_0.2-0.3	P_TP1_0.7-0.8	P_TP2_0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24- No0036073	S24- No0036074	S24- No0036075	S24- No0036076
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Sample Properties						
% Moisture	1	%	23	12	40	16
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluorotridecanoic acid (PFTeDA) ^{N15}	5	ug/kg	< 5	-	-	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	-	-	< 5
13C4-PFBA (surr.)	1	%	91	-	-	99
13C5-PFPeA (surr.)	1	%	113	-	-	120
13C5-PFHxA (surr.)	1	%	93	-	-	98
13C4-PFHpA (surr.)	1	%	110	-	-	119
13C8-PFOA (surr.)	1	%	75	-	-	86
13C5-PFNA (surr.)	1	%	91	-	-	93
13C6-PFDA (surr.)	1	%	78	-	-	85
13C2-PFUnDA (surr.)	1	%	88	-	-	109
13C2-PFDoDA (surr.)	1	%	92	-	-	107
13C2-PFTeDA (surr.)	1	%	82	-	-	93
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	-	-	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	-	-	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	-	-	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE) ^{N11}	5	ug/kg	< 5	-	-	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE) ^{N11}	5	ug/kg	< 5	-	-	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	-	-	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	-	-	< 10

Client Sample ID			P_TP1_0.0-0.1	P_TP1_0.2-0.3	P_TP1_0.7-0.8	P_TP2_0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036073	S24-No0036074	S24-No0036075	S24-No0036076
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
13C8-FOSA (surr.)	1	%	77	-	-	99
D3-N-MeFOSA (surr.)	1	%	75	-	-	83
D5-N-EtFOSA (surr.)	1	%	107	-	-	117
D7-N-MeFOSE (surr.)	1	%	106	-	-	117
D9-N-EtFOSE (surr.)	1	%	66	-	-	90
D5-N-EtFOSAA (surr.)	1	%	109	-	-	117
D3-N-MeFOSAA (surr.)	1	%	69	-	-	96
Perfluoroalkyl sulfonic acids (PFSA's)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	-	-	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	-	-	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	-	-	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	-	-	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	-	-	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	-	-	< 5
13C3-PFBS (surr.)	1	%	112	-	-	138
18O2-PFHxS (surr.)	1	%	114	-	-	135
13C8-PFOS (surr.)	1	%	97	-	-	107
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	-	-	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	10	ug/kg	< 10	-	-	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	-	-	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	-	-	< 5
13C2-4:2 FTSA (surr.)	1	%	76	-	-	85
13C2-6:2 FTSA (surr.)	1	%	59	-	-	123
13C2-8:2 FTSA (surr.)	1	%	99	-	-	102
13C2-10:2 FTSA (surr.)	1	%	63	-	-	79
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	-	-	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	-	-	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	-	-	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	-	-	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	-	-	< 50
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	290
TRH C29-C36	50	mg/kg	-	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	-	< 50	< 50	290
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	260
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	< 100	260

Client Sample ID			P_TP1_0.0-0.1	P_TP1_0.2-0.3	P_TP1_0.7-0.8	P_TP2_0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036073	S24-No0036074	S24-No0036075	S24-No0036076
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
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	< 0.2
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	%	-	53	INT	53
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	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)fluoranthene ^{N07}	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	94	90	72
p-Terphenyl-d14 (surr.)	1	%	-	94	83	69
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05

Client Sample ID			P_TP1_0.0-0.1	P_TP1_0.2-0.3	P_TP1_0.7-0.8	P_TP2_0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036073	S24-No0036074	S24-No0036075	S24-No0036076
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	-	114	111	113
Tetrachloro-m-xylene (surr.)	1	%	-	100	96	78
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	-	114	111	113
Tetrachloro-m-xylene (surr.)	1	%	-	100	96	78
Heavy Metals						
Arsenic	2	mg/kg	-	2.9	2.2	6.8
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	1.7
Chromium	5	mg/kg	-	5.1	< 5	9.0
Copper	5	mg/kg	-	9.9	9.4	22
Lead	5	mg/kg	-	15	6.9	18
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	-	5.2	< 5	6.0
Zinc	5	mg/kg	-	30	9.4	180

Client Sample ID			P_TP3_0.0-0.1	P_TP3_0.2-0.3	P_TP3_0.5-0.6	P_TP4_0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036077	S24-No0036078	S24-No0036079	S24-No0036080
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Sample Properties						
% Moisture	1	%	20	2.2	7.7	30
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	-	< 5	-	< 5

Client Sample ID			P_TP3_0.0-0.1	P_TP3_0.2-0.3	P_TP3_0.5-0.6	P_TP4_0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036077	S24-No0036078	S24-No0036079	S24-No0036080
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorotridecanoic acid (PFTrDA) ^{N15}	5	ug/kg	-	< 5	-	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	-	< 5	-	< 5
13C4-PFBA (surr.)	1	%	-	94	-	80
13C5-PFPeA (surr.)	1	%	-	123	-	100
13C5-PFHxA (surr.)	1	%	-	98	-	83
13C4-PFHpA (surr.)	1	%	-	110	-	81
13C8-PFOA (surr.)	1	%	-	85	-	60
13C5-PFNA (surr.)	1	%	-	97	-	73
13C6-PFDA (surr.)	1	%	-	89	-	71
13C2-PFUnDA (surr.)	1	%	-	102	-	77
13C2-PFDoDA (surr.)	1	%	-	101	-	85
13C2-PFTeDA (surr.)	1	%	-	87	-	70
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE) ^{N11}	5	ug/kg	-	< 5	-	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE) ^{N11}	5	ug/kg	-	< 5	-	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	-	< 10	-	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	-	< 10	-	< 10
13C8-FOSA (surr.)	1	%	-	90	-	79
D3-N-MeFOSA (surr.)	1	%	-	79	-	67
D5-N-EtFOSA (surr.)	1	%	-	112	-	95
D7-N-MeFOSE (surr.)	1	%	-	94	-	94
D9-N-EtFOSE (surr.)	1	%	-	74	-	66
D5-N-EtFOSAA (surr.)	1	%	-	110	-	86
D3-N-MeFOSAA (surr.)	1	%	-	82	-	70
Perfluoroalkyl sulfonic acids (PFSA)s						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	-	< 5	-	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	-	< 5	-	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	-	< 5	-	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	-	< 5	-	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	-	< 5	-	< 5
13C3-PFBS (surr.)	1	%	-	124	-	95
18O2-PFHxS (surr.)	1	%	-	120	-	91
13C8-PFOS (surr.)	1	%	-	99	-	84

Client Sample ID			P_TP3_0.0-0.1	P_TP3_0.2-0.3	P_TP3_0.5-0.6	P_TP4_0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036077	S24-No0036078	S24-No0036079	S24-No0036080
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	10	ug/kg	-	< 10	-	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
13C2-4:2 FTSA (surr.)	1	%	-	77	-	54
13C2-6:2 FTSA (surr.)	1	%	-	89	-	77
13C2-8:2 FTSA (surr.)	1	%	-	109	-	75
13C2-10:2 FTSA (surr.)	1	%	-	92	-	73
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	-	< 5	-	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	-	< 5	-	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	-	< 5	-	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	-	< 10	-	< 10
Sum of PFASs (n=30)*	50	ug/kg	-	< 50	-	< 50
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	-	< 50	-
TRH C29-C36	50	mg/kg	< 50	-	< 50	-
TRH C10-C36 (Total)	50	mg/kg	< 50	-	< 50	-
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	%	55	-	54	-
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	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	-
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	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-

Client Sample ID			P_TP3_0.0-0.1	P_TP3_0.2-0.3	P_TP3_0.5-0.6	P_TP4_0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036077	S24-No0036078	S24-No0036079	S24-No0036080
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
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	< 0.5	-	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	88	-	89	-
p-Terphenyl-d14 (surr.)	1	%	89	-	87	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	-
4,4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4,4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4,4'-DDT	0.05	mg/kg	0.05	-	< 0.05	-
α-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
β-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
δ-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	-
γ-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	-
Dibutylchloroendate (surr.)	1	%	INT	-	107	-
Tetrachloro-m-xylene (surr.)	1	%	91	-	93	-
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	-

Client Sample ID			P_TP3_0.0-0.1	P_TP3_0.2-0.3	P_TP3_0.5-0.6	P_TP4_0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036077	S24-No0036078	S24-No0036079	S24-No0036080
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1260	0.1	mg/kg	< 0.1	-	< 0.1	-
Total PCB*	0.1	mg/kg	< 0.1	-	< 0.1	-
Dibutylchloredate (surr.)	1	%	INT	-	107	-
Tetrachloro-m-xylene (surr.)	1	%	91	-	93	-
Heavy Metals						
Arsenic	2	mg/kg	16	-	2.8	-
Cadmium	0.4	mg/kg	< 0.4	-	< 0.4	-
Chromium	5	mg/kg	5.5	-	9.5	-
Copper	5	mg/kg	30	-	< 5	-
Lead	5	mg/kg	85	-	6.3	-
Mercury	0.1	mg/kg	0.3	-	< 0.1	-
Nickel	5	mg/kg	< 5	-	< 5	-
Zinc	5	mg/kg	87	-	9.5	-

Client Sample ID			P_TP4_0.5-0.6	P_TP5_0.0-0.1	P_TP5_1.0-1.1	P_TP6_0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036081	S24-No0036082	S24-No0036083	S24-No0036084
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Sample Properties						
% Moisture	1	%	11	17	24	8.0
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	5	ug/kg	-	< 5	-	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	-	< 5	-	< 5
13C4-PFBA (surr.)	1	%	-	95	-	101
13C5-PFPeA (surr.)	1	%	-	110	-	121
13C5-PFHxA (surr.)	1	%	-	103	-	101
13C4-PFHpA (surr.)	1	%	-	110	-	104
13C8-PFOA (surr.)	1	%	-	78	-	79
13C5-PFNA (surr.)	1	%	-	89	-	91
13C6-PFDA (surr.)	1	%	-	89	-	81
13C2-PFUnDA (surr.)	1	%	-	98	-	97
13C2-PFDoDA (surr.)	1	%	-	102	-	103
13C2-PFTeDA (surr.)	1	%	-	86	-	86

Client Sample ID			P_TP4_0.5-0.6	P_TP5_0.0-0.1	P_TP5_1.0-1.1	P_TP6-0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036081	S24-No0036082	S24-No0036083	S24-No0036084
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE) ^{N11}	5	ug/kg	-	< 5	-	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE) ^{N11}	5	ug/kg	-	< 5	-	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	-	< 10	-	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	-	< 10	-	< 10
13C8-FOSA (surr.)	1	%	-	90	-	90
D3-N-MeFOSA (surr.)	1	%	-	89	-	84
D5-N-EtFOSA (surr.)	1	%	-	116	-	117
D7-N-MeFOSE (surr.)	1	%	-	132	-	99
D9-N-EtFOSE (surr.)	1	%	-	62	-	61
D5-N-EtFOSAA (surr.)	1	%	-	102	-	101
D3-N-MeFOSAA (surr.)	1	%	-	90	-	87
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	-	< 5	-	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	-	< 5	-	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	-	< 5	-	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	-	< 5	-	< 5
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	-	< 5	-	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	-	< 5	-	< 5
13C3-PFBS (surr.)	1	%	-	120	-	121
18O2-PFHxS (surr.)	1	%	-	108	-	120
13C8-PFOS (surr.)	1	%	-	101	-	108
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	10	ug/kg	-	< 10	-	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	-	< 5	-	< 5
13C2-4:2 FTSA (surr.)	1	%	-	76	-	79
13C2-6:2 FTSA (surr.)	1	%	-	88	-	113
13C2-8:2 FTSA (surr.)	1	%	-	89	-	116
13C2-10:2 FTSA (surr.)	1	%	-	58	-	85
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	-	< 5	-	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	-	< 5	-	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	-	< 5	-	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	-	< 10	-	< 10
Sum of PFASs (n=30)*	50	ug/kg	-	< 50	-	< 50

Client Sample ID			P_TP4_0.5-0.6	P_TP5_0.0-0.1	P_TP5_1.0-1.1	P_TP6-0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24- No0036081	S24- No0036082	S24- No0036083	S24- No0036084
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
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	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 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	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	50	79	51	109
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	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	91	83	98	82
p-Terphenyl-d14 (surr.)	1	%	90	86	102	84

Client Sample ID			P_TP4_0.5-0.6	P_TP5_0.0-0.1	P_TP5_1.0-1.1	P_TP6-0.3-0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036081	S24-No0036082	S24-No0036083	S24-No0036084
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloredate (surr.)	1	%	107	98	123	INT
Tetrachloro-m-xylene (surr.)	1	%	97	100	108	81
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	0.1	< 0.1	< 0.1
Dibutylchloredate (surr.)	1	%	107	98	123	INT
Tetrachloro-m-xylene (surr.)	1	%	97	100	108	81
Heavy Metals						
Arsenic	2	mg/kg	2.8	3.8	6.6	5.5
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.9	19	6.6	16
Copper	5	mg/kg	11	23	16	36
Lead	5	mg/kg	13	17	130	20
Mercury	0.1	mg/kg	< 0.1	< 0.1	0.1	< 0.1
Nickel	5	mg/kg	< 5	23	5.5	26
Zinc	5	mg/kg	24	62	150	100

Client Sample ID			P_TP7_0.4-0.5	P_TP7_1.0-1.1	P_TP8_0.5-0.6	P_TP9_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036085	S24-No0036086	S24-No0036088	S24-No0036089
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Sample Properties						
% Moisture	1	%	25	14	6.1	1.4
Perfluoroalkyl carboxylic acids (PFCAs)						
Perfluorobutanoic acid (PFBA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluoropentanoic acid (PFPeA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluorohexanoic acid (PFHxA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluoroheptanoic acid (PFHpA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluorooctanoic acid (PFOA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluorononanoic acid (PFNA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluorodecanoic acid (PFDA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluoroundecanoic acid (PFUnDA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluorododecanoic acid (PFDoDA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluorotridecanoic acid (PFTTrDA) ^{N15}	5	ug/kg	< 5	-	< 5	< 5
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
13C4-PFBA (surr.)	1	%	86	-	95	98
13C5-PFPeA (surr.)	1	%	109	-	117	115
13C5-PFHxA (surr.)	1	%	86	-	95	107
13C4-PFHpA (surr.)	1	%	105	-	87	105
13C8-PFOA (surr.)	1	%	72	-	66	80
13C5-PFNA (surr.)	1	%	79	-	88	95
13C6-PFDA (surr.)	1	%	77	-	84	85
13C2-PFUnDA (surr.)	1	%	88	-	97	104
13C2-PFDoDA (surr.)	1	%	90	-	92	106
13C2-PFTeDA (surr.)	1	%	62	-	69	85
Perfluoroalkyl sulfonamido substances						
Perfluorooctane sulfonamide (FOSA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	10	ug/kg	< 10	-	< 10	< 10
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	10	ug/kg	< 10	-	< 10	< 10
13C8-FOSA (surr.)	1	%	85	-	87	96
D3-N-MeFOSA (surr.)	1	%	71	-	80	89
D5-N-EtFOSA (surr.)	1	%	92	-	95	111
D7-N-MeFOSE (surr.)	1	%	88	-	105	96
D9-N-EtFOSE (surr.)	1	%	50	-	77	80
D5-N-EtFOSAA (surr.)	1	%	103	-	101	113
D3-N-MeFOSAA (surr.)	1	%	78	-	87	83
Perfluoroalkyl sulfonic acids (PFSA's)						
Perfluorobutanesulfonic acid (PFBS) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluorononanesulfonic acid (PFNS) ^{N15}	5	ug/kg	< 5	-	< 5	< 5
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	5	ug/kg	< 5	-	< 5	< 5
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	5	ug/kg	< 5	-	< 5	< 5
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	5	ug/kg	< 5	-	< 5	< 5

Client Sample ID			P_TP7_0.4-0.5	P_TP7_1.0-1.1	P_TP8_0.5-0.6	P_TP9_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036085	S24-No0036086	S24-No0036088	S24-No0036089
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Perfluoroalkyl sulfonic acids (PFASs)						
Perfluorooctanesulfonic acid (PFOS) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
Perfluorodecanesulfonic acid (PFDS) ^{N15}	5	ug/kg	< 5	-	< 5	< 5
13C3-PFBS (surr.)	1	%	120	-	106	118
18O2-PFHxS (surr.)	1	%	105	-	112	119
13C8-PFOS (surr.)	1	%	86	-	98	101
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)						
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	10	ug/kg	< 10	-	< 10	< 10
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	5	ug/kg	< 5	-	< 5	< 5
13C2-4:2 FTSA (surr.)	1	%	79	-	84	86
13C2-6:2 FTSA (surr.)	1	%	58	-	117	88
13C2-8:2 FTSA (surr.)	1	%	80	-	101	123
13C2-10:2 FTSA (surr.)	1	%	57	-	72	115
PFASs Summations						
Sum (PFHxS + PFOS)*	5	ug/kg	< 5	-	< 5	< 5
Sum of US EPA PFAS (PFOS + PFOA)*	5	ug/kg	< 5	-	< 5	< 5
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	5	ug/kg	< 5	-	< 5	< 5
Sum of WA DWER PFAS (n=10)*	10	ug/kg	< 10	-	< 10	< 10
Sum of PFASs (n=30)*	50	ug/kg	< 50	-	< 50	< 50
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	51	< 50	56	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	51	< 50	56	< 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	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	INT	53	95	95
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			P_TP7_0.4-0.5	P_TP7_1.0-1.1	P_TP8_0.5-0.6	P_TP9_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036085	S24-No0036086	S24-No0036088	S24-No0036089
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	87	94	92	100
p-Terphenyl-d14 (surr.)	1	%	88	94	93	103
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	111	108	129	127
Tetrachloro-m-xylene (surr.)	1	%	86	101	102	113

Client Sample ID			P_TP7_0.4-0.5	P_TP7_1.0-1.1	P_TP8_0.5-0.6	P_TP9_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0036085	S24-No0036086	S24-No0036088	S24-No0036089
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloredate (surr.)	1	%	111	108	129	127
Tetrachloro-m-xylene (surr.)	1	%	86	101	102	113
Heavy Metals						
Arsenic	2	mg/kg	5.4	6.1	5.3	2.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.5	< 0.4
Chromium	5	mg/kg	< 5	14	15	< 5
Copper	5	mg/kg	19	11	15	6.0
Lead	5	mg/kg	8.0	15	20	26
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	25	5.8	9.3	< 5
Zinc	5	mg/kg	32	29	88	26

Client Sample ID			P_TP9_0.5-0.6	P_TP12_0.2-0.3	QC20241112_02
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S24-No0036090	S24-No0036091	S24-No0036095
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit			
Sample Properties					
% Moisture	1	%	2.2	2.6	7.2
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 (PFTTrDA) ^{N15}	5	ug/kg	-	< 5	-
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	5	ug/kg	-	< 5	-
13C4-PFBA (surr.)	1	%	-	106	-
13C5-PFPeA (surr.)	1	%	-	135	-
13C5-PFHxA (surr.)	1	%	-	107	-
13C4-PFHpA (surr.)	1	%	-	95	-
13C8-PFOA (surr.)	1	%	-	98	-
13C5-PFNA (surr.)	1	%	-	100	-
13C6-PFDA (surr.)	1	%	-	98	-

Client Sample ID			P_TP9_0.5-0.6	P_TP12_0.2-0.3	QC20241112_02
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S24-No0036090	S24-No0036091	S24-No0036095
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit			
Perfluoroalkyl carboxylic acids (PFCAs)					
13C2-PFUnDA (surr.)	1	%	-	117	-
13C2-PFDoDA (surr.)	1	%	-	113	-
13C2-PFTEdA (surr.)	1	%	-	117	-
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	%	-	97	-
D3-N-MeFOSA (surr.)	1	%	-	97	-
D5-N-EtFOSA (surr.)	1	%	-	121	-
D7-N-MeFOSE (surr.)	1	%	-	105	-
D9-N-EtFOSE (surr.)	1	%	-	69	-
D5-N-EtFOSAA (surr.)	1	%	-	124	-
D3-N-MeFOSAA (surr.)	1	%	-	99	-
Perfluoroalkyl sulfonic acids (PFSA)					
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	%	-	138	-
18O2-PFHxS (surr.)	1	%	-	121	-
13C8-PFOS (surr.)	1	%	-	123	-
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)					
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	%	-	96	-
13C2-6:2 FTSA (surr.)	1	%	-	98	-
13C2-8:2 FTSA (surr.)	1	%	-	111	-
13C2-10:2 FTSA (surr.)	1	%	-	149	-

Client Sample ID			P_TP9_0.5-0.6	P_TP12_0.2-0.3	QC20241112_02
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S24-No0036090	S24-No0036091	S24-No0036095
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit			
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	-
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	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 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	< 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	< 0.1
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	%	132	115	110
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene ^{N02}	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)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5

Client Sample ID			P_TP9_0.5-0.6	P_TP12_0.2-0.3	QC20241112_02
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S24-No0036090	S24-No0036091	S24-No0036095
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	81	65	73
p-Terphenyl-d14 (surr.)	1	%	80	63	73
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	INT	INT	INT
Tetrachloro-m-xylene (surr.)	1	%	82	65	75
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchloroendate (surr.)	1	%	INT	INT	INT
Tetrachloro-m-xylene (surr.)	1	%	82	65	75
Heavy Metals					
Arsenic	2	mg/kg	6.6	3.8	5.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	22	7.3	13
Copper	5	mg/kg	60	13	21
Lead	5	mg/kg	76	17	21

Client Sample ID			P_TP9_0.5-0.6	P_TP12_0.2-0.3	QC20241112_02
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S24-No0036090	S24-No0036091	S24-No0036095
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit			
Heavy Metals					
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	19	6.4	11
Zinc	5	mg/kg	170	45	54

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
% Moisture - Method: LTM-GEN-7080 Moisture	Sydney	Nov 14, 2024	14 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Sydney	Nov 19, 2024	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Sydney	Nov 19, 2024	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Sydney	Nov 19, 2024	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Sydney	Nov 19, 2024	28 Days
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Nov 18, 2024	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Nov 18, 2024	14 Days
BTEX - Method: LTM-ORG-2010 BTEX and Volatile TRH	Sydney	Nov 18, 2024	14 Days
JBS&G Suite 2			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Nov 18, 2024	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Nov 18, 2024	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water	Sydney	Nov 18, 2024	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water	Sydney	Nov 18, 2024	28 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Nov 18, 2024	28 Days



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Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: JBS & G Australia (NSW) P/L

Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: PENRITH_AUSCONNEX

Project ID: 67597

Order No.:

Report #: 1159987

Phone: 02 8245 0300

Fax:

Received: Nov 13, 2024 9:02 PM

Due: Nov 21, 2024

Priority: 5 Day

Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
External Laboratory													
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID								
1	P_TP1_0.0-0.1	Nov 12, 2024		Soil	S24-No0036073				X			X	
2	P_TP1_0.2-0.3	Nov 12, 2024		Soil	S24-No0036074	X			X	X			
3	P_TP1_0.7-0.8	Nov 12, 2024		Soil	S24-No0036075	X			X	X			
4	P_TP2_0.5-0.6	Nov 12, 2024		Soil	S24-No0036076	X			X	X		X	
5	P_TP3_0.0-0.1	Nov 12, 2024		Soil	S24-No0036077	X			X	X			
6	P_TP3_0.2-0.3	Nov 12, 2024		Soil	S24-No0036078				X			X	
7	P_TP3_0.5-0.6	Nov 12, 2024		Soil	S24-No0036079	X			X	X			
8	P_TP4_0.3-0.4	Nov 12, 2024		Soil	S24-No0036080				X			X	
9	P_TP4_0.5-0.6	Nov 12, 2024		Soil	S24-No0036081	X			X	X			
10	P_TP5_0.0-0.1	Nov 12, 2024		Soil	S24-No0036082	X			X	X		X	
11	P_TP5_1.0-1.1	Nov 12, 2024		Soil	S24-No0036083	X			X	X			
12	P_TP6-0.3-0.4	Nov 12, 2024		Soil	S24-No0036084	X			X	X		X	
13	P_TP7_0.4-0.5	Nov 12, 2024		Soil	S24-No0036085	X			X	X		X	
14	P_TP7_1.0-1.1	Nov 12, 2024		Soil	S24-No0036086	X			X	X			



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Order No.:
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Received: Nov 13, 2024 9:02 PM
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Priority: 5 Day
Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
15	FRAG_01	Nov 12, 2024		Building Materials	S24-No0036087		X						
16	P_TP8_0.5-0.6	Nov 12, 2024		Soil	S24-No0036088	X			X	X		X	
17	P_TP9_0.0-0.1	Nov 12, 2024		Soil	S24-No0036089	X			X	X		X	
18	P_TP9_0.5-0.6	Nov 12, 2024		Soil	S24-No0036090	X			X	X			
19	P_TP12_0.2-0.3	Nov 12, 2024		Soil	S24-No0036091	X			X	X		X	
20	TS	Nov 12, 2024		Water	S24-No0036092								X
21	TB	Nov 12, 2024		Water	S24-No0036093						X		
22	BLANK	Nov 12, 2024		Water	S24-No0036094							X	
23	QC20241112_02	Nov 12, 2024		Soil	S24-No0036095	X			X	X			
24	P_TP1_0.4-0.5	Nov 12, 2024		Soil	S24-No0036096			X					
25	P_TP1_1.0-1.1	Nov 12, 2024		Soil	S24-No0036097			X					
26	P_TP1_1.5-1.6	Nov 12, 2024		Soil	S24-No0036098			X					
27	P_TP2_0.0-0.1	Nov 12, 2024		Soil	S24-No0036099			X					
28	P_TP2_0.2-0.3	Nov 12, 2024		Soil	S24-No0036100			X					
29	P_TP2_1.0-1.1	Nov 12, 2024		Soil	S24-No0036101			X					



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Due: Nov 21, 2024

Priority: 5 Day

Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
30	P_TP3_0.3-0.4	Nov 12, 2024		Soil	S24-No0036102			X					
31	P_TP4_0.0-0.1	Nov 12, 2024		Soil	S24-No0036103			X					
32	P_TP4_0.2-0.3	Nov 12, 2024		Soil	S24-No0036104			X					
33	P_TP4_1.0-1.1	Nov 12, 2024		Soil	S24-No0036105			X					
34	P_TP5_0.3-0.4	Nov 12, 2024		Soil	S24-No0036106			X					
35	P_TP5_0.5-0.6	Nov 12, 2024		Soil	S24-No0036107			X					
36	P_TP5_1.5-1.6	Nov 12, 2024		Soil	S24-No0036108			X					
37	P_TP6-0.0-0.1	Nov 12, 2024		Soil	S24-No0036109			X					
38	P_TP6-0.4-0.5	Nov 12, 2024		Soil	S24-No0036110			X					
39	P_TP6-0.5-0.6	Nov 12, 2024		Soil	S24-No0036111			X					
40	P_TP6-0.9-1.0	Nov 12, 2024		Soil	S24-No0036112			X					
41	P_TP6-1.1-1.2	Nov 12, 2024		Soil	S24-No0036113			X					
42	P_TP7_0.0-0.1	Nov 12, 2024		Soil	S24-No0036114			X					
43	P_TP7_0.2-0.3	Nov 12, 2024		Soil	S24-No0036115			X					
44	P_TP8_0.0-0.1	Nov 12, 2024		Soil	S24-No0036116			X					
45	P_TP8_0.2-0.3	Nov 12, 2024		Soil	S24-No0036117			X					
46	P_TP8_0.7-0.8	Nov 12, 2024		Soil	S24-No0036118			X					



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Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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JBS & G Australia (NSW) P/L

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Sydney
NSW 2000

Project Name:

PENRITH_AUSCONNEX

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67597

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Report #:

Phone:

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1159987

02 8245 0300

Received:

Due:

Priority:

Contact Name:

Nov 13, 2024 9:02 PM

Nov 21, 2024

5 Day

Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
47	P_TP8_1.0-1.1	Nov 12, 2024		Soil	S24-No0036119			X					
48	P_TP8_1.5-1.6	Nov 12, 2024		Soil	S24-No0036120			X					
49	P_TP9_0.2-0.3	Nov 12, 2024		Soil	S24-No0036121			X					
50	P_TP9_0.7-0.8	Nov 12, 2024		Soil	S24-No0036122			X					
51	P_TP9_1.0-1.1	Nov 12, 2024		Soil	S24-No0036123			X					
52	P_TP9_1.5-1.6	Nov 12, 2024		Soil	S24-No0036124			X					
53	P_TP10_0.0-0.1	Nov 12, 2024		Soil	S24-No0036125			X					
54	P_TP10_0.2-0.3	Nov 12, 2024		Soil	S24-No0036126			X					
55	P_TP10_0.3-0.4	Nov 12, 2024		Soil	S24-No0036127			X					
56	P_TP10_0.5-0.6	Nov 12, 2024		Soil	S24-No0036128			X					
57	P_TP10_0.6-0.7	Nov 12, 2024		Soil	S24-No0036129			X					
58	P_TP10_0.9-1.0	Nov 12, 2024		Soil	S24-No0036130			X					
59	P_TP10_1.2-	Nov 12, 2024		Soil	S24-No0036131			X					

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Page 24 of 39

Date Reported: Nov 22, 2024

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
59	P_TP10_1.2-1.3	Nov 12, 2024		Soil	S24-No0036131								
60	P_TP10_1.5-1.6	Nov 12, 2024		Soil	S24-No0036132			X					
61	P_TP11_0.0-0.1	Nov 12, 2024		Soil	S24-No0036133			X					
62	P_TP11_0.1-0.2	Nov 12, 2024		Soil	S24-No0036134			X					
63	P_TP11_0.3-0.4	Nov 12, 2024		Soil	S24-No0036135			X					
64	P_TP11_0.8-0.9	Nov 12, 2024		Soil	S24-No0036136			X					
65	P_TP12_0.0-0.1	Nov 12, 2024		Soil	S24-No0036137			X					
66	P_TP12_0.4-0.5	Nov 12, 2024		Soil	S24-No0036138			X					
67	P_TP12_1.0-1.1	Nov 12, 2024		Soil	S24-No0036139			X					
68	QC20241112_01	Nov 12, 2024		Soil	S24-No0036140			X					



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ABN: 91 05 0159 898

Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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NZBN: 9429046024954

Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail	Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X	X	X	X	X
Test Counts	16	1	45	19	16	1	11	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the '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 before sample receipt deadlines as stated on the SRA.

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

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

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

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	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	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
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 moisture has been determined on a solid sample, the result is expressed on a dry weight 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 represents 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 similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -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 6.0
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 only be used as a guide 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. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as 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 are 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							
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 (PFTTrDA)	ug/kg	< 5			5	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	< 5			5	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/kg	< 5			5	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/kg	< 5			5	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/kg	< 5			5	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/kg	< 5			5	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/kg	< 5			5	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/kg	< 10			10	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/kg	< 10			10	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSA)s							
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 FTSA)s							
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							
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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							
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							
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							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	93			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	72			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	103			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	81			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	86			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	92			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	106			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	102			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	100			50-150	Pass	
Perfluorotridecanoic acid (PFTriDA)	%	138			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	96			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	78			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	115			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	92			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	93			50-150	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	135			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	78			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	91			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSA's)							
Perfluorobutanesulfonic acid (PFBS)	%	92			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	101			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	73			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	78			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	92			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	103			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	116			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	92			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	142			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	107			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	77			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	105			50-150	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	94			70-130	Pass	
TRH C10-C14	%	73			70-130	Pass	
TRH C6-C10	%	95			70-130	Pass	
TRH >C10-C16	%	72			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	97			70-130	Pass	
Toluene	%	97			70-130	Pass	
Ethylbenzene	%	108			70-130	Pass	
m&p-Xylenes	%	112			70-130	Pass	
o-Xylene	%	109			70-130	Pass	
Xylenes - Total*	%	111			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	91			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	86			70-130	Pass	
Acenaphthylene	%	81			70-130	Pass	
Anthracene	%	85			70-130	Pass	
Benz(a)anthracene	%	83			70-130	Pass	
Benzo(a)pyrene	%	83			70-130	Pass	
Benzo(b&j)fluoranthene	%	82			70-130	Pass	
Benzo(g,h,i)perylene	%	71			70-130	Pass	
Benzo(k)fluoranthene	%	77			70-130	Pass	
Chrysene	%	82			70-130	Pass	
Dibenz(a,h)anthracene	%	72			70-130	Pass	
Fluoranthene	%	91			70-130	Pass	
Fluorene	%	91			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	73			70-130	Pass	
Naphthalene	%	88			70-130	Pass	
Phenanthrene	%	92			70-130	Pass	
Pyrene	%	90			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	80			70-130	Pass	
4.4'-DDD	%	85			70-130	Pass	
4.4'-DDE	%	81			70-130	Pass	
4.4'-DDT	%	80			70-130	Pass	
a-HCH	%	85			70-130	Pass	
Aldrin	%	77			70-130	Pass	
b-HCH	%	80			70-130	Pass	
d-HCH	%	85			70-130	Pass	
Dieldrin	%	82			70-130	Pass	
Endosulfan I	%	84			70-130	Pass	
Endosulfan II	%	85			70-130	Pass	
Endosulfan sulphate	%	78			70-130	Pass	
Endrin	%	81			70-130	Pass	
Endrin aldehyde	%	72			70-130	Pass	
Endrin ketone	%	83			70-130	Pass	
g-HCH (Lindane)	%	82			70-130	Pass	
Heptachlor	%	81			70-130	Pass	
Heptachlor epoxide	%	85			70-130	Pass	
Hexachlorobenzene	%	84			70-130	Pass	
Methoxychlor	%	81			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	73			70-130	Pass	
Aroclor-1260	%	79			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	105			80-120	Pass	
Cadmium	%	102			80-120	Pass	
Chromium	%	108			80-120	Pass	
Copper	%	109			80-120	Pass	
Lead	%	109			80-120	Pass	
Mercury	%	116			80-120	Pass	
Nickel	%	108			80-120	Pass	
Zinc	%	109			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	109			80-120	Pass	
Cadmium	%	102			80-120	Pass	
Chromium	%	105			80-120	Pass	
Copper	%	106			80-120	Pass	
Lead	%	106			80-120	Pass	
Mercury	%	109			80-120	Pass	
Nickel	%	105			80-120	Pass	
Zinc	%	108			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	97			80-120	Pass	
Cadmium	%	94			80-120	Pass	
Chromium	%	99			80-120	Pass	
Copper	%	100			80-120	Pass	
Lead	%	92			80-120	Pass	
Mercury	%	108			80-120	Pass	

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Nickel				%	107			80-120	Pass	
Zinc				%	103			80-120	Pass	
Test	Lab Sample ID	QA Source		Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)					Result 1					
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S24-No0036150	NCP		%	86			50-150	Pass	
Spike - % Recovery										
Total Recoverable Hydrocarbons					Result 1					
TRH C6-C9	S24-No0042401	NCP		%	75			70-130	Pass	
TRH C6-C10	S24-No0046946	NCP		%	70			70-130	Pass	
Spike - % Recovery										
BTEX					Result 1					
Benzene	S24-No0046946	NCP		%	72			70-130	Pass	
Toluene	S24-No0046946	NCP		%	78			70-130	Pass	
Ethylbenzene	S24-No0046946	NCP		%	84			70-130	Pass	
m&p-Xylenes	S24-No0046946	NCP		%	82			70-130	Pass	
o-Xylene	S24-No0046946	NCP		%	78			70-130	Pass	
Xylenes - Total*	S24-No0046946	NCP		%	81			70-130	Pass	
Spike - % Recovery										
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					Result 1					
Naphthalene	S24-No0042401	NCP		%	73			70-130	Pass	
Spike - % Recovery										
Polycyclic Aromatic Hydrocarbons					Result 1					
Acenaphthene	S24-No0036074	CP		%	90			70-130	Pass	
Acenaphthylene	S24-No0036074	CP		%	89			70-130	Pass	
Anthracene	S24-No0036074	CP		%	87			70-130	Pass	
Benz(a)anthracene	S24-No0036074	CP		%	89			70-130	Pass	
Benzo(a)pyrene	S24-No0036074	CP		%	89			70-130	Pass	
Benzo(b&j)fluoranthene	S24-No0036074	CP		%	91			70-130	Pass	
Benzo(g,h,i)perylene	S24-No0036074	CP		%	88			70-130	Pass	
Benzo(k)fluoranthene	S24-No0036074	CP		%	85			70-130	Pass	
Chrysene	S24-No0036074	CP		%	86			70-130	Pass	
Dibenz(a,h)anthracene	S24-No0036074	CP		%	89			70-130	Pass	
Fluoranthene	S24-No0036074	CP		%	88			70-130	Pass	
Fluorene	S24-No0036074	CP		%	91			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S24-No0036074	CP		%	91			70-130	Pass	
Naphthalene	S24-No0036074	CP		%	90			70-130	Pass	
Phenanthrene	S24-No0036074	CP		%	88			70-130	Pass	
Pyrene	S24-No0036074	CP		%	90			70-130	Pass	
Spike - % Recovery										
Organochlorine Pesticides					Result 1					
Chlordanes - Total	S24-No0036074	CP		%	84			70-130	Pass	
4,4'-DDD	S24-No0036074	CP		%	91			70-130	Pass	
4,4'-DDE	S24-No0036074	CP		%	85			70-130	Pass	
4,4'-DDT	S24-No0036074	CP		%	88			70-130	Pass	
a-HCH	S24-No0036074	CP		%	89			70-130	Pass	
Aldrin	S24-No0036074	CP		%	79			70-130	Pass	
b-HCH	S24-No0036074	CP		%	82			70-130	Pass	
d-HCH	S24-No0036074	CP		%	82			70-130	Pass	
Dieldrin	S24-No0036074	CP		%	89			70-130	Pass	
Endosulfan I	S24-No0036074	CP		%	85			70-130	Pass	
Endosulfan II	S24-No0036074	CP		%	86			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	S24-No0036074	CP	%	87			70-130	Pass	
Endrin	S24-No0036074	CP	%	86			70-130	Pass	
Endrin aldehyde	W24-No0037232	NCP	%	80			70-130	Pass	
Endrin ketone	S24-No0036074	CP	%	87			70-130	Pass	
g-HCH (Lindane)	S24-No0036074	CP	%	83			70-130	Pass	
Heptachlor	S24-No0036074	CP	%	83			70-130	Pass	
Heptachlor epoxide	S24-No0036074	CP	%	89			70-130	Pass	
Hexachlorobenzene	S24-No0036074	CP	%	89			70-130	Pass	
Methoxychlor	S24-No0036074	CP	%	84			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S24-No0036074	CP	%	77			70-130	Pass	
Aroclor-1260	S24-No0036074	CP	%	82			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Zinc	S24-No0041801	NCP	%	109			75-125	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	S24-No0036078	CP	%	93			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S24-No0036078	CP	%	73			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	S24-No0036078	CP	%	103			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S24-No0036078	CP	%	69			50-150	Pass	
Perfluorooctanoic acid (PFOA)	S24-No0036078	CP	%	98			50-150	Pass	
Perfluorononanoic acid (PFNA)	S24-No0036078	CP	%	85			50-150	Pass	
Perfluorodecanoic acid (PFDA)	S24-No0036078	CP	%	100			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	S24-No0036078	CP	%	93			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S24-No0036078	CP	%	97			50-150	Pass	
Perfluorotridecanoic acid (PFTriDA)	S24-No0036078	CP	%	110			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S24-No0036078	CP	%	101			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	S24-No0036078	CP	%	91			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S24-No0036078	CP	%	133			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S24-No0036078	CP	%	98			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S24-No0036078	CP	%	77			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S24-No0036078	CP	%	121			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S24-No0036078	CP	%	84			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S24-No0036078	CP	%	91			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	S24-No0036078	CP	%	95			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	S24-No0036078	CP	%	90			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S24-No0036078	CP	%	77			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoropentanesulfonic acid (PFPeS)	S24-No0036078	CP	%	76			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S24-No0036078	CP	%	103			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S24-No0036078	CP	%	99			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	S24-No0036078	CP	%	109			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	S24-No0036078	CP	%	90			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S24-No0036078	CP	%	119			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S24-No0036078	CP	%	119			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S24-No0036078	CP	%	73			50-150	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S24-No0036084	CP	%	100			75-125	Pass	
Cadmium	S24-No0036084	CP	%	92			75-125	Pass	
Chromium	S24-No0036084	CP	%	103			75-125	Pass	
Copper	S24-No0036084	CP	%	81			75-125	Pass	
Lead	S24-No0036084	CP	%	96			75-125	Pass	
Mercury	S24-No0036084	CP	%	115			75-125	Pass	
Nickel	S24-No0036084	CP	%	93			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S24-No0036085	CP	%	92			70-130	Pass	
TRH >C10-C16	S24-No0036085	CP	%	84			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorononanoic acid (PFNA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotridecanoic acid (PFTrDA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S24-No0036146	NCP	ug/kg	< 10	< 10	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S24-No0036146	NCP	ug/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S24-No0036146	NCP	ug/kg	< 10	< 10	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S24-No0036146	NCP	ug/kg	< 5	< 5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	S24-No0047664	NCP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	S24-No0047664	NCP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	S24-No0047664	NCP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	S24-No0047664	NCP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	S24-No0047664	NCP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	S24-No0047664	NCP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Benzo(a)pyrene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	N24-No0036465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	N24-No0036465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	N24-No0036465	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	S24-No0047465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	N24-No0036465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	N24-No0036465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	N24-No0036465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	N24-No0036465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	N24-No0036465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	N24-No0036465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	N24-No0036465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	N24-No0036465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	S24-No0036075	CP	%	40	42	4.0	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S24-No0036083	CP	mg/kg	6.6	6.3	5.0	30%	Pass
Cadmium	S24-No0036083	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S24-No0036083	CP	mg/kg	6.6	8.1	20	30%	Pass
Copper	S24-No0036083	CP	mg/kg	16	16	1.0	30%	Pass

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Lead	S24-No0036083	CP	mg/kg	130	140	5.0	30%	Pass
Mercury	S24-No0036083	CP	mg/kg	0.1	0.2	47	30%	Fail
Nickel	S24-No0036083	CP	mg/kg	5.5	7.3	28	30%	Pass
Zinc	S24-No0036083	CP	mg/kg	150	150	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	S24-No0036084	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C6-C10	S24-No0036084	CP	mg/kg	< 20	< 20	<1	30%	Pass
Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S24-No0036084	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S24-No0036084	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S24-No0036084	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S24-No0036084	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	S24-No0036084	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total*	S24-No0036084	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S24-No0036084	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	S24-No0036085	CP	%	25	25	<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:

Nileshni Goundar	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-PFAS
Roopesh Rangarajan	Senior Analyst-Sample Properties
Roopesh Rangarajan	Senior Analyst-Volatile
Sayeed Abu	Senior Analyst-Asbestos



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](#).

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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: Ekaterina Arsenteva
Report 1159987-AID
Project Name **PENRITH_AUSCONNEX**
Project ID **67597**
Received Date Nov 13, 2024
Date Reported Nov 22, 2024

Methodology:

Asbestos Fibre
 Identification

Conducted in accordance with the Australian Standard AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004 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.

Man-made vitreous
 fibre (MMVF)

Fibres exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and bio-soluble fibres. NOTE: previously known as "synthetic mineral fibre" (SMF). Simple analytical procedures such as polarised light microscopy cannot detect or reliably identify asbestos in some types of commercial products containing asbestos, either because the fibres are below the resolution of optical microscopy or because the matrix material adheres too strongly to the fibres. For these types of products, electron microscopy may be necessary.

Subsampling Soil
 Samples

The sample submitted is dried and passed through a 10 mm sieve followed by a 2 mm sieve. All fibrous matter greater than 10 mm and greater than 2 mm and the material passing through the 2 mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 g to 60 g, then a subsampling routine based on ISO 3082:2017(E) is employed.

NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be subsampled for trace analysis, in accordance with AS 5370:2024.*

Bonded asbestos-
 containing material
 (ACM)

The material is first examined, and any fibres are 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 5370:2024*.

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
 (LOR)

The performance limitation of the AS 5370:2024* 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, per se. Examination of 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 5370:2024*, and hence, NATA Accreditation does not cover the performance of this service (non-NATA results are shown with an asterisk).

NOTE: NATA News March 2014, p.7, states in relation to AS 4964-2004: "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	PENRITH_AUSCONNEX
Project ID	67597
Date Sampled	Nov 12, 2024
Report	1159987-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
P_TP1_0.2-0.3	24-No0036074	Nov 12, 2024	Approximate Sample 1144g Sample consisted of: Brown coarse-grained sandy soil, sand stone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
P_TP1_0.7-0.8	24-No0036075	Nov 12, 2024	Approximate Sample 314g/>500ml Sample consisted of: Dark-Grey fine-grained clayey soil, coal, debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
P_TP2_0.5-0.6	24-No0036076	Nov 12, 2024	Approximate Sample 978g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
P_TP3_0.0-0.1	24-No0036077	Nov 12, 2024	Approximate Sample 946g Sample consisted of: Brown coarse-grained soil, brick, cement, corroded metal and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
P_TP3_0.5-0.6	24-No0036079	Nov 12, 2024	Approximate Sample 943g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
P_TP4_0.5-0.6	24-No0036081	Nov 12, 2024	Approximate Sample 770g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
P_TP5_0.0-0.1	24-No0036082	Nov 12, 2024	Approximate Sample 1032g Sample consisted of: Brown coarse-grained clayey 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.
P_TP5_1.0-1.1	24-No0036083	Nov 12, 2024	Approximate Sample 667g 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.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
P_TP6-0.3-0.4	24-No0036084	Nov 12, 2024	Approximate Sample 882g Sample consisted of: Brown coarse-grained clayey sandy soil, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
P_TP7_0.4-0.5	24-No0036085	Nov 12, 2024	Approximate Sample 382g/>500ml Sample consisted of: Brown fine-grained clayey soil, coal, debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
P_TP7_1.0-1.1	24-No0036086	Nov 12, 2024	Approximate Sample 776g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
FRAG_01	24-No0036087	Nov 12, 2024	Approximate Sample 9g / 40X15X5mm Sample consisted of: Grey compressed fibre cement material	Chrysotile asbestos detected.
P_TP8_0.5-0.6	24-No0036088	Nov 12, 2024	Approximate Sample 881g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
P_TP9_0.0-0.1	24-No0036089	Nov 12, 2024	Approximate Sample 948g 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.
P_TP9_0.5-0.6	24-No0036090	Nov 12, 2024	Approximate Sample 885g Sample consisted of: Brown coarse-grained 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.
P_TP12_0.2-0.3	24-No0036091	Nov 12, 2024	Approximate Sample 946g Sample consisted of: Brown coarse-grained sandy soil, sand stone and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
QC20241112_02	24-No0036095	Nov 12, 2024	Approximate Sample 894g Sample consisted of: Brown coarse-grained clayey sandy soil, cement 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	Nov 14, 2024	Indefinite
Asbestos - LTM-ASB-8020	Sydney	Nov 14, 2024	Indefinite



Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079
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Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name:

JBS & G Australia (NSW) P/L

Address:

Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name:

PENRITH_AUSCONNEX

Project ID:

67597

Order No.:

Report #:

Phone:

Fax:

1159987

02 8245 0300

Received:

Due:

Priority:

Contact Name:

Nov 13, 2024 9:02 PM

Nov 21, 2024

5 Day

Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
External Laboratory													
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID								
1	P_TP1_0.0-0.1	Nov 12, 2024		Soil	S24-No0036073				X			X	
2	P_TP1_0.2-0.3	Nov 12, 2024		Soil	S24-No0036074	X			X	X			
3	P_TP1_0.7-0.8	Nov 12, 2024		Soil	S24-No0036075	X			X	X			
4	P_TP2_0.5-0.6	Nov 12, 2024		Soil	S24-No0036076	X			X	X		X	
5	P_TP3_0.0-0.1	Nov 12, 2024		Soil	S24-No0036077	X			X	X			
6	P_TP3_0.2-0.3	Nov 12, 2024		Soil	S24-No0036078				X			X	
7	P_TP3_0.5-0.6	Nov 12, 2024		Soil	S24-No0036079	X			X	X			
8	P_TP4_0.3-0.4	Nov 12, 2024		Soil	S24-No0036080				X			X	
9	P_TP4_0.5-0.6	Nov 12, 2024		Soil	S24-No0036081	X			X	X			
10	P_TP5_0.0-0.1	Nov 12, 2024		Soil	S24-No0036082	X			X	X		X	
11	P_TP5_1.0-1.1	Nov 12, 2024		Soil	S24-No0036083	X			X	X			
12	P_TP6-0.3-0.4	Nov 12, 2024		Soil	S24-No0036084	X			X	X		X	
13	P_TP7_0.4-0.5	Nov 12, 2024		Soil	S24-No0036085	X			X	X		X	
14	P_TP7_1.0-1.1	Nov 12, 2024		Soil	S24-No0036086	X			X	X			

Date Reported: Nov 22, 2024

Eurofins Environment Testing 179 Magowar Road, Girraween NSW, Australia, 2145

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PROJECT BOOST | 527164-PEN-400-REP-ED-0013 | 14/08/25 | Revision A

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Report Number: 1159987-AID



Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079
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Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: JBS & G Australia (NSW) P/L

Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: PENRITH_AUSCONNEX

Project ID: 67597

Order No.:

Report #: 1159987

Phone: 02 8245 0300

Fax:

Received: Nov 13, 2024 9:02 PM

Due: Nov 21, 2024

Priority: 5 Day

Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
15	FRAG_01	Nov 12, 2024		Building Materials	S24-No0036087		X						
16	P_TP8_0.5-0.6	Nov 12, 2024		Soil	S24-No0036088	X			X	X		X	
17	P_TP9_0.0-0.1	Nov 12, 2024		Soil	S24-No0036089	X			X	X		X	
18	P_TP9_0.5-0.6	Nov 12, 2024		Soil	S24-No0036090	X			X	X			
19	P_TP12_0.2-0.3	Nov 12, 2024		Soil	S24-No0036091	X			X	X		X	
20	TS	Nov 12, 2024		Water	S24-No0036092								X
21	TB	Nov 12, 2024		Water	S24-No0036093						X		
22	BLANK	Nov 12, 2024		Water	S24-No0036094							X	
23	QC20241112_02	Nov 12, 2024		Soil	S24-No0036095	X			X	X			
24	P_TP1_0.4-0.5	Nov 12, 2024		Soil	S24-No0036096			X					
25	P_TP1_1.0-1.1	Nov 12, 2024		Soil	S24-No0036097			X					
26	P_TP1_1.5-1.6	Nov 12, 2024		Soil	S24-No0036098			X					
27	P_TP2_0.0-0.1	Nov 12, 2024		Soil	S24-No0036099			X					
28	P_TP2_0.2-0.3	Nov 12, 2024		Soil	S24-No0036100			X					
29	P_TP2_1.0-1.1	Nov 12, 2024		Soil	S24-No0036101			X					



Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079
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Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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JBS & G Australia (NSW) P/L

Address:

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Sydney
NSW 2000

Project Name:

PENRITH_AUSCONNEX

Project ID:

67597

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Phone:

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1159987

02 8245 0300

Received:

Due:

Priority:

Contact Name:

Nov 13, 2024 9:02 PM

Nov 21, 2024

5 Day

Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
30	P_TP3_0.3-0.4	Nov 12, 2024		Soil	S24-No0036102			X					
31	P_TP4_0.0-0.1	Nov 12, 2024		Soil	S24-No0036103			X					
32	P_TP4_0.2-0.3	Nov 12, 2024		Soil	S24-No0036104			X					
33	P_TP4_1.0-1.1	Nov 12, 2024		Soil	S24-No0036105			X					
34	P_TP5_0.3-0.4	Nov 12, 2024		Soil	S24-No0036106			X					
35	P_TP5_0.5-0.6	Nov 12, 2024		Soil	S24-No0036107			X					
36	P_TP5_1.5-1.6	Nov 12, 2024		Soil	S24-No0036108			X					
37	P_TP6-0.0-0.1	Nov 12, 2024		Soil	S24-No0036109			X					
38	P_TP6-0.4-0.5	Nov 12, 2024		Soil	S24-No0036110			X					
39	P_TP6-0.5-0.6	Nov 12, 2024		Soil	S24-No0036111			X					
40	P_TP6-0.9-1.0	Nov 12, 2024		Soil	S24-No0036112			X					
41	P_TP6-1.1-1.2	Nov 12, 2024		Soil	S24-No0036113			X					
42	P_TP7_0.0-0.1	Nov 12, 2024		Soil	S24-No0036114			X					
43	P_TP7_0.2-0.3	Nov 12, 2024		Soil	S24-No0036115			X					
44	P_TP8_0.0-0.1	Nov 12, 2024		Soil	S24-No0036116			X					
45	P_TP8_0.2-0.3	Nov 12, 2024		Soil	S24-No0036117			X					
46	P_TP8_0.7-0.8	Nov 12, 2024		Soil	S24-No0036118			X					

Date Reported: Nov 22, 2024

Eurofins Environment Testing 179 Magowar Road, Girraween NSW, Australia, 2145
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Report Number: 1159987-AID



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Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: JBS & G Australia (NSW) P/L

Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: PENRITH_AUSCONNEX

Project ID: 67597

Order No.:

Report #: 1159987

Phone: 02 8245 0300

Fax:

Received: Nov 13, 2024 9:02 PM

Due: Nov 21, 2024

Priority: 5 Day

Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
47	P_TP8_1.0-1.1	Nov 12, 2024		Soil	S24-No0036119			X					
48	P_TP8_1.5-1.6	Nov 12, 2024		Soil	S24-No0036120			X					
49	P_TP9_0.2-0.3	Nov 12, 2024		Soil	S24-No0036121			X					
50	P_TP9_0.7-0.8	Nov 12, 2024		Soil	S24-No0036122			X					
51	P_TP9_1.0-1.1	Nov 12, 2024		Soil	S24-No0036123			X					
52	P_TP9_1.5-1.6	Nov 12, 2024		Soil	S24-No0036124			X					
53	P_TP10_0.0-0.1	Nov 12, 2024		Soil	S24-No0036125			X					
54	P_TP10_0.2-0.3	Nov 12, 2024		Soil	S24-No0036126			X					
55	P_TP10_0.3-0.4	Nov 12, 2024		Soil	S24-No0036127			X					
56	P_TP10_0.5-0.6	Nov 12, 2024		Soil	S24-No0036128			X					
57	P_TP10_0.6-0.7	Nov 12, 2024		Soil	S24-No0036129			X					
58	P_TP10_0.9-1.0	Nov 12, 2024		Soil	S24-No0036130			X					
59	P_TP10_1.2-	Nov 12, 2024		Soil	S24-No0036131			X					



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Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079

ABN: 91 05 0159 898

Perth
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402

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Address: Level 8, 179 Elizabeth St
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NSW 2000

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Project ID: 67597

Order No.:
Report #: 1159987
Phone: 02 8245 0300
Fax:

Received: Nov 13, 2024 9:02 PM
Due: Nov 21, 2024
Priority: 5 Day
Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
59	P_TP10_1.2-1.3	Nov 12, 2024		Soil	S24-No0036131								
60	P_TP10_1.5-1.6	Nov 12, 2024		Soil	S24-No0036132			X					
61	P_TP11_0.0-0.1	Nov 12, 2024		Soil	S24-No0036133			X					
62	P_TP11_0.1-0.2	Nov 12, 2024		Soil	S24-No0036134			X					
63	P_TP11_0.3-0.4	Nov 12, 2024		Soil	S24-No0036135			X					
64	P_TP11_0.8-0.9	Nov 12, 2024		Soil	S24-No0036136			X					
65	P_TP12_0.0-0.1	Nov 12, 2024		Soil	S24-No0036137			X					
66	P_TP12_0.4-0.5	Nov 12, 2024		Soil	S24-No0036138			X					
67	P_TP12_1.0-1.1	Nov 12, 2024		Soil	S24-No0036139			X					
68	QC20241112_01	Nov 12, 2024		Soil	S24-No0036140			X					



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ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079

ABN: 91 05 0159 898

Perth
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
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Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: PENRITH_AUSCONNEX
Project ID: 67597

Order No.:
Report #: 1159987
Phone: 02 8245 0300
Fax:

Received: Nov 13, 2024 9:02 PM
Due: Nov 21, 2024
Priority: 5 Day
Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail	Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X	X	X	X	X
Test Counts	16	1	45	19	16	1	11	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).

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): $\%_{WA} = \sum \frac{(m \times P_A) \times x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix may be derived from knowledge or experience of the material, informed by HSG264 <i>Appendix 2</i> , else assumed to be 15% in accordance with WA DOH <i>Appendix 2</i> (PA). This estimate is not NATA-accredited.
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 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly 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 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly 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 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly 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 distinguish visibly 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 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly 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 the degree of friability.
HSG248	UK HSE HSG248, <i>Asbestos: The Analysts Guide</i> , 2 nd Edition (2021), ISBN: 9780616667079.
HSG264	UK HSE HSG264, <i>Asbestos: The Survey Guide</i> (2012), ISBN: 9780717665020
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, <i>Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres</i> , 2nd Edition [NOHSC:3003(2005)].
MMVF	Man-Made Vitreous Fibre - exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and "bio-soluble fibres". NOTE: previously known as "synthetic mineral fibre" (SMF).
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 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
PCM	Phase Contrast Microscopy. This is used for fibre counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
Sampling	Unless otherwise stated, Eurofins are not responsible for sampling equipment or the sampling process.
SRA	Sample Receipt Advice.
Trace Analysis	An analytical procedure is 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 to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.. It may include (but is not limited to) actinolite, anthophyllite, or tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, <i>Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia</i> (updated 2021), including Appendix Four: <i>Laboratory analysis</i>
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:

Laxman Dias Senior Analyst-Asbestos

Authorised by:

Sayeed Abu Senior Analyst-Asbestos



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.

JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth 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: **Ekaterina Arsenteva**

Report **1159987-W**
Project name **PENRITH_AUSCONNEX**
Project ID **67597**
Received Date **Nov 13, 2024**

Client Sample ID			TS	TB	BLANK
Sample Matrix			Water	Water	Water
Eurofins Sample No.			S24- No0036092	S24- No0036093	S24- No0036094
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit			
TRH C6-C10	1	%	70	-	-
Total Recoverable Hydrocarbons					
Naphthalene	1	%	81	-	-
TRH C6-C9	1	%	70	-	-
BTEX					
Benzene	1	%	83	-	-
Ethylbenzene	1	%	85	-	-
m&p-Xylenes	1	%	84	-	-
o-Xylene	1	%	79	-	-
Toluene	1	%	85	-	-
Xylenes - Total	1	%	81	-	-
4-Bromofluorobenzene (surr.)	1	%	115	-	-
Total Recoverable Hydrocarbons					
TRH C6-C9	0.02	mg/L	-	< 0.02	-
TRH C6-C10	0.02	mg/L	-	< 0.02	-
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	-	< 0.02	-
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	%	-	95	-
BTEX and Naphthalene					
Naphthalene ^{N02}	0.01	mg/L	-	< 0.01	-
Perfluoroalkyl carboxylic acids (PFCAs)					
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	-	-	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	-	-	< 0.01
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	-	-	< 0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	-	-	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	-	-	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	-	-	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	-	-	< 0.01

Client Sample ID Sample Matrix Eurofins Sample No. Date Sampled Test/Reference	LOR	Unit	TS Water S24- No0036092 Nov 12, 2024	TB Water S24- No0036093 Nov 12, 2024	BLANK Water S24- No0036094 Nov 12, 2024
Perfluoroalkyl carboxylic acids (PFCAs)					
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	-	-	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	-	-	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	-	-	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	-	-	< 0.01
13C4-PFBA (surr.)	1	%	-	-	84
13C5-PFPeA (surr.)	1	%	-	-	95
13C5-PFHxA (surr.)	1	%	-	-	97
13C4-PFHpA (surr.)	1	%	-	-	93
13C8-PFOA (surr.)	1	%	-	-	89
13C5-PFNA (surr.)	1	%	-	-	81
13C6-PFDA (surr.)	1	%	-	-	67
13C2-PFUnDA (surr.)	1	%	-	-	65
13C2-PFDoDA (surr.)	1	%	-	-	59
13C2-PFTeDA (surr.)	1	%	-	-	71
Perfluoroalkyl sulfonamido substances					
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	-	-	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	-	-	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	-	-	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE) ^{N11}	0.05	ug/L	-	-	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE) ^{N11}	0.05	ug/L	-	-	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	-	-	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	-	-	< 0.05
13C8-FOSA (surr.)	1	%	-	-	70
D3-N-MeFOSA (surr.)	1	%	-	-	59
D5-N-EtFOSA (surr.)	1	%	-	-	61
D7-N-MeFOSE (surr.)	1	%	-	-	50
D9-N-EtFOSE (surr.)	1	%	-	-	49
D5-N-EtFOSAA (surr.)	1	%	-	-	43
D3-N-MeFOSAA (surr.)	1	%	-	-	44
Perfluoroalkyl sulfonic acids (PFSA's)					
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	-	-	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	-	-	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	-	-	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	-	-	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	-	-	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	-	-	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	-	-	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	-	-	< 0.01
13C3-PFBS (surr.)	1	%	-	-	94
18O2-PFHxS (surr.)	1	%	-	-	86
13C8-PFOS (surr.)	1	%	-	-	83

Client Sample ID			TS	TB	BLANK
Sample Matrix			Water	Water	Water
Eurofins Sample No.			S24- No0036092	S24- No0036093	S24- No0036094
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit			
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	-	-	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	-	-	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	-	-	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	-	-	< 0.01
13C2-4:2 FTSA (surr.)	1	%	-	-	73
13C2-6:2 FTSA (surr.)	1	%	-	-	63
13C2-8:2 FTSA (surr.)	1	%	-	-	47
13C2-10:2 FTSA (surr.)	1	%	-	-	35
PFASs Summations					
Sum (PFHxS + PFOS)*	0.01	ug/L	-	-	< 0.01
Sum of US EPA PFAS (PFOS + PFOA)*	0.01	ug/L	-	-	< 0.01
Sum of enHealth PFAS (PFHxS + PFOS + PFOA)*	0.01	ug/L	-	-	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	-	-	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	-	-	< 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	Nov 14, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Nov 14, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Nov 14, 2024	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs)	Sydney	Nov 15, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonamido substances	Sydney	Nov 15, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
Perfluoroalkyl sulfonic acids (PFSAs)	Sydney	Nov 15, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)	Sydney	Nov 15, 2024	28 Days
- Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)			



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Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000
Project Name: PENRITH_AUSCONNEX
Project ID: 67597

Order No.:
Report #: 1159987
Phone: 02 8245 0300
Fax:

Received: Nov 13, 2024 9:02 PM
Due: Nov 21, 2024
Priority: 5 Day
Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
External Laboratory													
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID								
1	P_TP1_0.0-0.1	Nov 12, 2024		Soil	S24-No0036073				X			X	
2	P_TP1_0.2-0.3	Nov 12, 2024		Soil	S24-No0036074	X			X	X			
3	P_TP1_0.7-0.8	Nov 12, 2024		Soil	S24-No0036075	X			X	X			
4	P_TP2_0.5-0.6	Nov 12, 2024		Soil	S24-No0036076	X			X	X		X	
5	P_TP3_0.0-0.1	Nov 12, 2024		Soil	S24-No0036077	X			X	X			
6	P_TP3_0.2-0.3	Nov 12, 2024		Soil	S24-No0036078				X			X	
7	P_TP3_0.5-0.6	Nov 12, 2024		Soil	S24-No0036079	X			X	X			
8	P_TP4_0.3-0.4	Nov 12, 2024		Soil	S24-No0036080				X			X	
9	P_TP4_0.5-0.6	Nov 12, 2024		Soil	S24-No0036081	X			X	X			
10	P_TP5_0.0-0.1	Nov 12, 2024		Soil	S24-No0036082	X			X	X		X	
11	P_TP5_1.0-1.1	Nov 12, 2024		Soil	S24-No0036083	X			X	X			
12	P_TP6-0.3-0.4	Nov 12, 2024		Soil	S24-No0036084	X			X	X		X	
13	P_TP7_0.4-0.5	Nov 12, 2024		Soil	S24-No0036085	X			X	X		X	
14	P_TP7_1.0-1.1	Nov 12, 2024		Soil	S24-No0036086	X			X	X			



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Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
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Order No.:
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Received: Nov 13, 2024 9:02 PM
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Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
15	FRAG_01	Nov 12, 2024		Building Materials	S24-No0036087		X						
16	P_TP8_0.5-0.6	Nov 12, 2024		Soil	S24-No0036088	X			X	X		X	
17	P_TP9_0.0-0.1	Nov 12, 2024		Soil	S24-No0036089	X			X	X		X	
18	P_TP9_0.5-0.6	Nov 12, 2024		Soil	S24-No0036090	X			X	X			
19	P_TP12_0.2-0.3	Nov 12, 2024		Soil	S24-No0036091	X			X	X		X	
20	TS	Nov 12, 2024		Water	S24-No0036092								X
21	TB	Nov 12, 2024		Water	S24-No0036093						X		
22	BLANK	Nov 12, 2024		Water	S24-No0036094							X	
23	QC20241112_02	Nov 12, 2024		Soil	S24-No0036095	X			X	X			
24	P_TP1_0.4-0.5	Nov 12, 2024		Soil	S24-No0036096			X					
25	P_TP1_1.0-1.1	Nov 12, 2024		Soil	S24-No0036097			X					
26	P_TP1_1.5-1.6	Nov 12, 2024		Soil	S24-No0036098			X					
27	P_TP2_0.0-0.1	Nov 12, 2024		Soil	S24-No0036099			X					
28	P_TP2_0.2-0.3	Nov 12, 2024		Soil	S24-No0036100			X					
29	P_TP2_1.0-1.1	Nov 12, 2024		Soil	S24-No0036101			X					



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Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rourke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: JBS & G Australia (NSW) P/L
Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000
Project Name: PENRITH_AUSCONNEX
Project ID: 67597

Order No.:
Report #: 1159987
Phone: 02 8245 0300
Fax:

Received: Nov 13, 2024 9:02 PM
Due: Nov 21, 2024
Priority: 5 Day
Contact Name: Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
30	P_TP3_0.3-0.4	Nov 12, 2024		Soil	S24-No0036102			X					
31	P_TP4_0.0-0.1	Nov 12, 2024		Soil	S24-No0036103			X					
32	P_TP4_0.2-0.3	Nov 12, 2024		Soil	S24-No0036104			X					
33	P_TP4_1.0-1.1	Nov 12, 2024		Soil	S24-No0036105			X					
34	P_TP5_0.3-0.4	Nov 12, 2024		Soil	S24-No0036106			X					
35	P_TP5_0.5-0.6	Nov 12, 2024		Soil	S24-No0036107			X					
36	P_TP5_1.5-1.6	Nov 12, 2024		Soil	S24-No0036108			X					
37	P_TP6-0.0-0.1	Nov 12, 2024		Soil	S24-No0036109			X					
38	P_TP6-0.4-0.5	Nov 12, 2024		Soil	S24-No0036110			X					
39	P_TP6-0.5-0.6	Nov 12, 2024		Soil	S24-No0036111			X					
40	P_TP6-0.9-1.0	Nov 12, 2024		Soil	S24-No0036112			X					
41	P_TP6-1.1-1.2	Nov 12, 2024		Soil	S24-No0036113			X					
42	P_TP7_0.0-0.1	Nov 12, 2024		Soil	S24-No0036114			X					
43	P_TP7_0.2-0.3	Nov 12, 2024		Soil	S24-No0036115			X					
44	P_TP8_0.0-0.1	Nov 12, 2024		Soil	S24-No0036116			X					
45	P_TP8_0.2-0.3	Nov 12, 2024		Soil	S24-No0036117			X					
46	P_TP8_0.7-0.8	Nov 12, 2024		Soil	S24-No0036118			X					



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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
47	P_TP8_1.0-1.1	Nov 12, 2024		Soil	S24-No0036119			X					
48	P_TP8_1.5-1.6	Nov 12, 2024		Soil	S24-No0036120			X					
49	P_TP9_0.2-0.3	Nov 12, 2024		Soil	S24-No0036121			X					
50	P_TP9_0.7-0.8	Nov 12, 2024		Soil	S24-No0036122			X					
51	P_TP9_1.0-1.1	Nov 12, 2024		Soil	S24-No0036123			X					
52	P_TP9_1.5-1.6	Nov 12, 2024		Soil	S24-No0036124			X					
53	P_TP10_0.0-0.1	Nov 12, 2024		Soil	S24-No0036125			X					
54	P_TP10_0.2-0.3	Nov 12, 2024		Soil	S24-No0036126			X					
55	P_TP10_0.3-0.4	Nov 12, 2024		Soil	S24-No0036127			X					
56	P_TP10_0.5-0.6	Nov 12, 2024		Soil	S24-No0036128			X					
57	P_TP10_0.6-0.7	Nov 12, 2024		Soil	S24-No0036129			X					
58	P_TP10_0.9-1.0	Nov 12, 2024		Soil	S24-No0036130			X					
59	P_TP10_1.2-	Nov 12, 2024		Soil	S24-No0036131			X					



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ABN: 91 05 0159 898

Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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NZBN: 9429046024954

Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X
59	P_TP10_1.2-1.3	Nov 12, 2024		Soil	S24-No0036131								
60	P_TP10_1.5-1.6	Nov 12, 2024		Soil	S24-No0036132			X					
61	P_TP11_0.0-0.1	Nov 12, 2024		Soil	S24-No0036133			X					
62	P_TP11_0.1-0.2	Nov 12, 2024		Soil	S24-No0036134			X					
63	P_TP11_0.3-0.4	Nov 12, 2024		Soil	S24-No0036135			X					
64	P_TP11_0.8-0.9	Nov 12, 2024		Soil	S24-No0036136			X					
65	P_TP12_0.0-0.1	Nov 12, 2024		Soil	S24-No0036137			X					
66	P_TP12_0.4-0.5	Nov 12, 2024		Soil	S24-No0036138			X					
67	P_TP12_1.0-1.1	Nov 12, 2024		Soil	S24-No0036139			X					
68	QC20241112_01	Nov 12, 2024		Soil	S24-No0036140			X					



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Sample Detail	Asbestos - WA guidelines	Asbestos Absence / Presence	HOLD*	Moisture Set	JBS&G Suite 2	BTEXN and Volatile TRH	Per- and Polyfluoroalkyl Substances (PFASs)	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X	X	X	X	X
Test Counts	16	1	45	19	16	1	11	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the '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 before sample receipt deadlines as stated on the SRA.

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

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

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

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	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	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
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 moisture has been determined on a solid sample, the result is expressed on a dry weight 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 represents 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 similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -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 6.0
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 only be used as a guide 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. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as 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 are 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 C6-C10	mg/L	< 0.02			0.02	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							
BTEX and Naphthalene							
Naphthalene	mg/L	< 0.01			0.01	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	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							
BTEX and Naphthalene							
Naphthalene	mg/L	< 0.01			0.01	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 (PFTeDA)	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFASs)							
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 FTSA)							
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	%	88			70-130	Pass	
TRH C6-C10	%	89			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	96			70-130	Pass	
Toluene	%	95			70-130	Pass	
Ethylbenzene	%	97			70-130	Pass	
m&p-Xylenes	%	94			70-130	Pass	
o-Xylene	%	94			70-130	Pass	
Xylenes - Total*	%	94			70-130	Pass	
LCS - % Recovery							
BTEX and Naphthalene							
Naphthalene	%	88			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	86			70-130	Pass	
TRH C6-C10	%	87			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	93			70-130	Pass	
Toluene	%	97			70-130	Pass	
Ethylbenzene	%	95			70-130	Pass	
m&p-Xylenes	%	93			70-130	Pass	
o-Xylene	%	96			70-130	Pass	
Xylenes - Total*	%	94			70-130	Pass	
LCS - % Recovery							
BTEX and Naphthalene							
Naphthalene	%	86			70-130	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCA)							
Perfluorobutanoic acid (PFBA)	%	88			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	88			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	92			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	96			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	101			50-150	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorononanoic acid (PFNA)			%	95			50-150	Pass	
Perfluorodecanoic acid (PFDA)			%	95			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)			%	97			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)			%	102			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)			%	91			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)			%	99			50-150	Pass	
LCS - % Recovery									
Perfluoroalkyl sulfonamido substances									
Perfluorooctane sulfonamide (FOSA)			%	81			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)			%	86			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)			%	88			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)			%	90			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)			%	99			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)			%	91			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)			%	113			50-150	Pass	
LCS - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)									
Perfluorobutanesulfonic acid (PFBS)			%	84			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)			%	87			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)			%	80			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)			%	80			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)			%	84			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)			%	99			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)			%	89			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)			%	86			50-150	Pass	
LCS - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)									
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)			%	90			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)			%	102			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)			%	103			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)			%	102			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 C6-C9	S24-No0039087	NCP	%	94			70-130	Pass	
TRH C6-C10	S24-No0039087	NCP	%	93			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S24-No0039087	NCP	%	89			70-130	Pass	
Toluene	S24-No0039087	NCP	%	89			70-130	Pass	
Ethylbenzene	S24-No0039087	NCP	%	92			70-130	Pass	
m&p-Xylenes	S24-No0039087	NCP	%	96			70-130	Pass	
o-Xylene	S24-No0039087	NCP	%	96			70-130	Pass	
Xylenes - Total*	S24-No0039087	NCP	%	96			70-130	Pass	
Spike - % Recovery									
BTEX and Naphthalene				Result 1					
Naphthalene	S24-No0039087	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	S24-No0036021	NCP	%	92			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S24-No0036021	NCP	%	91			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	S24-No0036021	NCP	%	98			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S24-No0036021	NCP	%	95			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluorooctanoic acid (PFOA)	S24-No0036021	NCP	%	95			50-150	Pass	
Perfluorononanoic acid (PFNA)	S24-No0036021	NCP	%	93			50-150	Pass	
Perfluorodecanoic acid (PFDA)	S24-No0036021	NCP	%	95			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	S24-No0036021	NCP	%	102			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S24-No0036021	NCP	%	94			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	S24-No0036021	NCP	%	96			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S24-No0036021	NCP	%	95			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	S24-No0036021	NCP	%	91			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S24-No0036021	NCP	%	91			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S24-No0036021	NCP	%	90			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S24-No0036021	NCP	%	93			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S24-No0036021	NCP	%	109			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S24-No0036021	NCP	%	88			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S24-No0036021	NCP	%	95			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	S24-No0036021	NCP	%	93			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	S24-No0036021	NCP	%	84			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S24-No0036021	NCP	%	90			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S24-No0036021	NCP	%	84			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S24-No0036021	NCP	%	95			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S24-No0036021	NCP	%	108			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	S24-No0036021	NCP	%	100			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	S24-No0036021	NCP	%	89			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S24-No0036021	NCP	%	97			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S24-No0036021	NCP	%	95			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S24-No0036021	NCP	%	112			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S24-No0036021	NCP	%	103			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	W24-No0033240	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10	W24-No0033240	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	W24-No0033240	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	W24-No0033240	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	W24-No0033240	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	W24-No0033240	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	W24-No0033240	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	W24-No0033240	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
BTEX and Naphthalene				Result 1	Result 2	RPD			
Naphthalene	S24-No0037648	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD			
Perfluorobutanoic acid (PFBA)	S24-No0032551	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Perfluoropentanoic acid (PFPeA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorohexanoic acid (PFHxA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroheptanoic acid (PFHpA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorooctanoic acid (PFOA)	S24-No0032551	NCP	ug/L	0.01	0.01	17	30%	Pass	
Perfluorononanoic acid (PFNA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorodecanoic acid (PFDA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoroundecanoic acid (PFUnDA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorododecanoic acid (PFDoDA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotridecanoic acid (PFTTrDA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD			
Perfluorooctane sulfonamide (FOSA)	S24-No0032551	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S24-No0032551	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S24-No0032551	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S24-No0032551	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S24-No0032551	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S24-No0032551	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S24-No0032551	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1	Result 2	RPD			
Perfluorobutanesulfonic acid (PFBS)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluorononanesulfonic acid (PFNS)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass	

Duplicate								
Perfluoroalkyl sulfonic acids (PFASs)				Result 1	Result 2	RPD		
Perfluorohexanesulfonic acid (PFHxS)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	R24-No0028857	NCP	ug/L	0.45	0.45	1.0	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid (6:2 FTSA)	S24-No0032551	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S24-No0032551	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S24-No0032551	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
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.
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).

Authorised by:

Nileshni Goundar	Analytical Services Manager
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-PFAS
Roopesh Rangarajan	Senior Analyst-Volatile



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](#).

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Eurofins Environment Testing Australia Pty Ltd

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Eurofins Environment Testing NZ Ltd

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Sample Receipt Advice

Company name: JBS & G Australia (NSW) P/L
Contact name: Ekaterina Arsenteva
Project name: PENRITH_AUSCONNEX
Project ID: 67597
Turnaround time: 5 Day
Date/Time received: Nov 13, 2024 9:02 PM
Eurofins reference: 1159987

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 : 3.1 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.

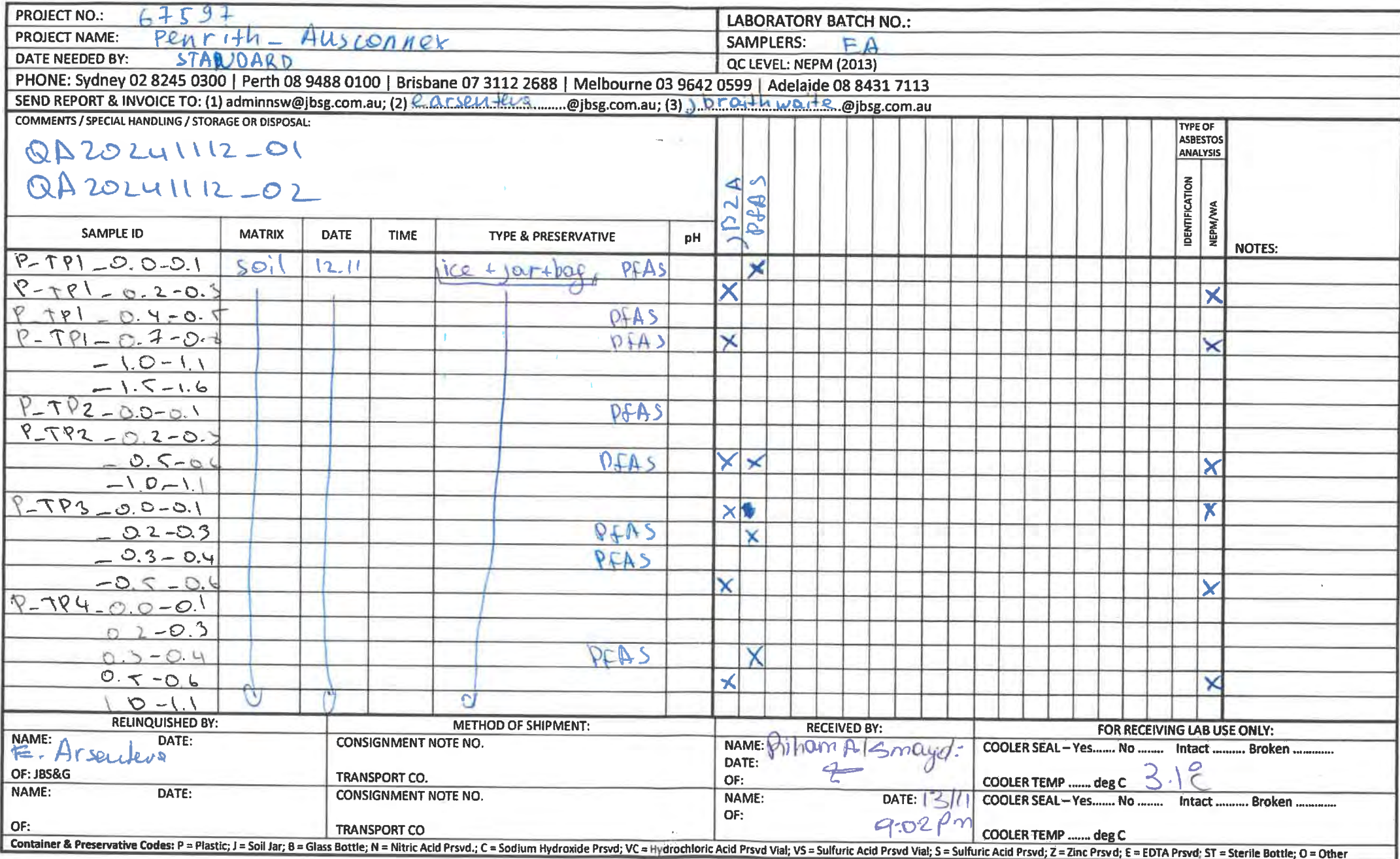
Contact

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 Ekaterina Arsenteva - earsenteva@jbsg.com.au.

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[illegible]

115998-

Chain of Custody

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PROJECT NO.: 67597						LABORATORY BATCH NO.:													
PROJECT NAME:						SAMPLERS:													
DATE NEEDED BY:						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)@jbsg.com.au; (3)@jbsg.com.au																			
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:						152A PFAS TYPE OF ASBESTOS ANALYSIS IDENTIFICATION NEPM/NA													
SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH														
P-TP8-0.0-0.1	Soil	12-11		Wor & boy tice															
0.2-0.3																			
0.5-0.6																			
0.7-0.8																			
1.0-1.1																			
1.5-1.6																			
P-TP9-0.0-0.1																			
0.2-0.3																			
0.5-0.6																			
0.7-0.8																			
1.0-1.1																			
1.5-1.6																			
P-TP10-0.0-0.1																			
0.2-0.3																			
0.3-0.4																			
0.5-0.6																			
0.6-0.7																			
0.9-1.0																			
1.2-1.3																			

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

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

1159987

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1159987

JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth 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: **Ekaterina Arsenteva**

Report **1164327-S**
Project name **ADDITIONAL: PENRITH_AUSCONNEX**
Project ID **67597**
Received Date **Nov 26, 2024**

Client Sample ID			P_TP12_0.4-0.5
Sample Matrix			Soil
Eurofins Sample No.			S24-No0071894
Date Sampled			Nov 12, 2024
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	108
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene ^{N02}	0.5	mg/kg	< 0.5
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5

Client Sample ID			P_TP12_0.4-0.5
Sample Matrix			Soil
Eurofins Sample No.			S24-No0071894
Date Sampled			Nov 12, 2024
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	84
p-Terphenyl-d14 (surr.)	1	%	96
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05
α-HCH	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
β-HCH	0.05	mg/kg	< 0.05
δ-HCH	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
γ-HCH (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.5	mg/kg	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1
Dibutylchloroendate (surr.)	1	%	111
Tetrachloro-m-xylene (surr.)	1	%	88
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB*	0.1	mg/kg	< 0.1

Client Sample ID			P_TP12_0.4-0.5
Sample Matrix			Soil
Eurofins Sample No.			S24-No0071894
Date Sampled			Nov 12, 2024
Test/Reference	LOR	Unit	
Polychlorinated Biphenyls			
Dibutylchloredate (surr.)	1	%	111
Tetrachloro-m-xylene (surr.)	1	%	88
Heavy Metals			
Arsenic	2	mg/kg	4.7
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	11
Copper	5	mg/kg	17
Lead	5	mg/kg	23
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	7.7
Zinc	5	mg/kg	270
Sample Properties			
% Moisture	1	%	7.7

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
JBS&G Suite 2			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Nov 30, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 30, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 30, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Nov 30, 2024	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Nov 30, 2024	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Nov 30, 2024	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Nov 30, 2024	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Nov 30, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Nov 26, 2024	14 Days
- Method: LTM-GEN-7080 Moisture			



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Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name:

Address:

Project Name:

Project ID:

JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth St
Sydney
NSW 2000

ADDITIONAL: PENRITH_AUSCONNEX
67597

Order No.:

Report #:

Phone:

Fax:

1164327

02 8245 0300

Received:

Due:

Priority:

Contact Name:

Nov 26, 2024 1:48 PM

Dec 3, 2024

5 Day

Ekaterina Arsenteva

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Moisture Set	JBS&G Suite 2
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	P_TP12_0.4-0.5	Nov 12, 2024		Soil	S24-No0071894	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 follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the '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 before sample receipt deadlines as stated on the SRA.

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

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

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

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	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	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
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 moisture has been determined on a solid sample, the result is expressed on a dry weight 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 represents 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 similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -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 6.0
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 only be used as a guide 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. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as 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 are 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	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	97			70-130	Pass	
TRH C10-C14	%	72			70-130	Pass	
TRH C6-C10	%	96			70-130	Pass	
TRH >C10-C16	%	71			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	90			70-130	Pass	
Toluene	%	102			70-130	Pass	
Ethylbenzene	%	99			70-130	Pass	
m&p-Xylenes	%	95			70-130	Pass	
o-Xylene	%	96			70-130	Pass	
Xylenes - Total*	%	95			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	121			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	101			70-130	Pass	
Acenaphthylene	%	98			70-130	Pass	
Anthracene	%	103			70-130	Pass	
Benz(a)anthracene	%	75			70-130	Pass	
Benzo(a)pyrene	%	99			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(b&j)fluoranthene			%	73			70-130	Pass	
Benzo(g,h,i)perylene			%	99			70-130	Pass	
Benzo(k)fluoranthene			%	126			70-130	Pass	
Chrysene			%	123			70-130	Pass	
Dibenz(a,h)anthracene			%	110			70-130	Pass	
Fluoranthene			%	96			70-130	Pass	
Fluorene			%	99			70-130	Pass	
Indeno(1,2,3-cd)pyrene			%	96			70-130	Pass	
Naphthalene			%	99			70-130	Pass	
Phenanthrene			%	81			70-130	Pass	
Pyrene			%	100			70-130	Pass	
LCS - % Recovery									
Organochlorine Pesticides									
Chlordanes - Total			%	93			70-130	Pass	
4,4'-DDD			%	88			70-130	Pass	
4,4'-DDE			%	98			70-130	Pass	
4,4'-DDT			%	97			70-130	Pass	
a-HCH			%	91			70-130	Pass	
Aldrin			%	93			70-130	Pass	
b-HCH			%	83			70-130	Pass	
d-HCH			%	85			70-130	Pass	
Dieldrin			%	98			70-130	Pass	
Endosulfan I			%	105			70-130	Pass	
Endosulfan II			%	95			70-130	Pass	
Endosulfan sulphate			%	96			70-130	Pass	
Endrin			%	101			70-130	Pass	
Endrin aldehyde			%	91			70-130	Pass	
Endrin ketone			%	99			70-130	Pass	
g-HCH (Lindane)			%	99			70-130	Pass	
Heptachlor			%	94			70-130	Pass	
Heptachlor epoxide			%	93			70-130	Pass	
Hexachlorobenzene			%	89			70-130	Pass	
Methoxychlor			%	93			70-130	Pass	
LCS - % Recovery									
Polychlorinated Biphenyls									
Aroclor-1016			%	86			70-130	Pass	
Aroclor-1260			%	92			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	102			80-120	Pass	
Cadmium			%	109			80-120	Pass	
Chromium			%	112			80-120	Pass	
Copper			%	116			80-120	Pass	
Lead			%	111			80-120	Pass	
Mercury			%	115			80-120	Pass	
Nickel			%	114			80-120	Pass	
Zinc			%	114			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	S24-No0081335	NCP	%	98			70-130	Pass	
TRH C10-C14	S24-No0082686	NCP	%	71			70-130	Pass	
TRH C6-C10	S24-No0081335	NCP	%	98			70-130	Pass	
TRH >C10-C16	S24-No0082686	NCP	%	71			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	S24-No0081335	NCP	%	99			70-130	Pass	
Toluene	S24-No0081335	NCP	%	97			70-130	Pass	
Ethylbenzene	S24-No0081335	NCP	%	98			70-130	Pass	
m&p-Xylenes	S24-No0081335	NCP	%	94			70-130	Pass	
o-Xylene	S24-No0081335	NCP	%	89			70-130	Pass	
Xylenes - Total*	S24-No0081335	NCP	%	92			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S24-No0081335	NCP	%	102			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	N24-No0066858	NCP	%	87			70-130	Pass	
Acenaphthylene	N24-No0066858	NCP	%	76			70-130	Pass	
Anthracene	N24-No0066858	NCP	%	86			70-130	Pass	
Benzo(a)pyrene	N24-No0066858	NCP	%	78			70-130	Pass	
Benzo(b&j)fluoranthene	S24-No0062647	NCP	%	71			70-130	Pass	
Benzo(g,h,i)perylene	N24-No0066858	NCP	%	84			70-130	Pass	
Benzo(k)fluoranthene	N24-No0066858	NCP	%	104			70-130	Pass	
Chrysene	N24-No0066858	NCP	%	111			70-130	Pass	
Dibenz(a,h)anthracene	N24-No0066858	NCP	%	95			70-130	Pass	
Fluoranthene	N24-No0066858	NCP	%	76			70-130	Pass	
Fluorene	N24-No0066858	NCP	%	85			70-130	Pass	
Indeno(1,2,3-cd)pyrene	N24-No0066858	NCP	%	85			70-130	Pass	
Naphthalene	N24-No0066858	NCP	%	83			70-130	Pass	
Pyrene	S24-No0062647	NCP	%	78			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S24-No0062647	NCP	%	82			70-130	Pass	
4,4'-DDE	S24-No0062647	NCP	%	89			70-130	Pass	
a-HCH	S24-No0062647	NCP	%	79			70-130	Pass	
Aldrin	S24-No0062647	NCP	%	78			70-130	Pass	
d-HCH	S24-No0062647	NCP	%	74			70-130	Pass	
Dieldrin	S24-No0062647	NCP	%	76			70-130	Pass	
Endosulfan I	S24-No0062647	NCP	%	80			70-130	Pass	
Endosulfan II	S24-No0062647	NCP	%	72			70-130	Pass	
Endosulfan sulphate	S24-No0062647	NCP	%	79			70-130	Pass	
Endrin	S24-No0062647	NCP	%	96			70-130	Pass	
Endrin aldehyde	S24-No0062647	NCP	%	86			70-130	Pass	
Endrin ketone	S24-No0062647	NCP	%	88			70-130	Pass	
g-HCH (Lindane)	S24-No0062647	NCP	%	99			70-130	Pass	
Heptachlor	S24-No0062647	NCP	%	76			70-130	Pass	
Hexachlorobenzene	S24-No0062647	NCP	%	77			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S24-No0062647	NCP	%	72			70-130	Pass	
Aroclor-1260	S24-No0062647	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S24-No0074267	NCP	%	117			75-125	Pass	
Cadmium	S24-No0074267	NCP	%	120			75-125	Pass	
Chromium	S24-De0000484	NCP	%	100			75-125	Pass	
Copper	S24-De0000484	NCP	%	106			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Lead	S24-De0000484	NCP	%	100			75-125	Pass	
Mercury	S24-De0000484	NCP	%	108			75-125	Pass	
Nickel	S24-No0074267	NCP	%	111			75-125	Pass	
Zinc	S24-No0074267	NCP	%	116			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	S24-No0082685	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S24-No0081157	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S24-No0081157	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S24-No0081157	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C6-C10	S24-No0082685	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S24-No0081157	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S24-No0081157	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S24-No0081157	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S24-No0082685	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S24-No0082685	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S24-No0082685	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S24-No0082685	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S24-No0082685	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S24-No0082685	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S24-No0082685	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S24-No0081156	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S24-No0081156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4,4'-DDD	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDE	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDT	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Dieldrin	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S24-No0081156	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	S24-No0072234	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S24-No0081156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	S24-No0081156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S24-No0081156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	S24-No0081156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	S24-No0081156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	S24-No0081156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	S24-No0081156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	S24-No0081156	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S24-No0074302	NCP	mg/kg	5.2	5.0	4.0	30%	Pass
Cadmium	S24-De0000483	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S24-No0074302	NCP	mg/kg	16	14	14	30%	Pass
Copper	S24-No0074302	NCP	mg/kg	10	14	29	30%	Pass
Lead	S24-No0074302	NCP	mg/kg	74	110	37	30%	Fail
Mercury	S24-No0074302	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S24-No0074302	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Zinc	S24-No0074302	NCP	mg/kg	62	74	18	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	S24-No0074264	NCP	%	13	15	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
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
Q02	The duplicate %RPD is outside the recommended acceptance criteria. Further analysis indicates sample heterogeneity as the cause
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:

Nileshni Goundar	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Sample Properties
Roopesh Rangarajan	Senior Analyst-Volatile



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](#).

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Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Ekaterina Arsenteva
Project name:	ADDITIONAL: PENRITH_AUSCONNEX
Project ID:	67597
Turnaround time:	5 Day
Date/Time received	Nov 26, 2024 1:48 PM
Eurofins reference	1164327

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 : 3.1 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

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 Ekaterina Arsenteva - earsenteva@jbsg.com.au.

Report 1159987 : Site PENRITH_AUSCONNEX (67597)_ additional analysis

From Ekaterina Arsenteva <earsenteva@jbsg.com.au>

Date Tue 26/11/2024 1:48 PM

To Andrew Black <andrewblack@eurofins.com>; SH_AU25_Enviro_Sample_NSW <EnviroSampleNSW@eurofinsanz.com>

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Here I am again, Andrew!

Could you please organise the analysis for the sample P_TP12_0.4-0.5, JB2 suit, standard TAT.

Thanks



Ekaterina Arsenteva | Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0473 108 157 | E: earsenteva@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

Please note I am available in the office Tuesday to Friday

From: NileshniGoundar@eurofins.com <NileshniGoundar@eurofins.com>

Sent: Friday, 22 November 2024 7:59 PM

To: Ekaterina Arsenteva <earsenteva@jbsg.com.au>

Cc: Jack Braithwaite <jbraithwaite@jbsg.com.au>; JBSG Labresults <jbsglabresults@jbsg.com.au>

Subject: Eurofins Test Results - Report 1159987 : Site PENRITH_AUSCONNEX (67597)

*****[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.*****

Please find the attached reports.

Kind Regards,

Nileshni (Neena) Goundar

Assistant Analytical Services Manager

*Please note my work hours are **2pm-10pm**, anything outside of that please contact your ASM for anything urgent.*

Eurofins Environment Testing Australia Pty Ltd

179 Magowar Road

Girraween, NSW, 2145

Email: Nileshni.Goundar@eurofinsanz.com

Website: www.eurofins.com.au/environmental-testing

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JBS & G Australia (NSW) P/L
Level 8, 179 Elizabeth St
Sydney
NSW 2000



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Accreditation Number 1261
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 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: **Jack Braithwaite**

Report **1163472-S-V3**
 Project name **ADDITIONAL: CRANEBROOK_AUSCONNEX**
 Project ID **67597**
 Received Date **Nov 22, 2024**

Client Sample ID			P_TP1_0.2-0.3	P_TP1_0.7-0.8	P_TP2_0.5-0.6	P_TP3_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24- No0063644	S24- No0063645	S24- No0063646	S24- No0063647
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	89	72	89	79
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Sample Properties						
% Moisture	1	%	21	40	14	23

Client Sample ID			P_TP3_0.5-0.6	P_TP4_0.5-0.6	P_TP5_0.0-0.1	P_TP5_1.0-1.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0063648	S24-No0063649	S24-No0063650	S24-No0063651
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	42	100	93	76
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Sample Properties						
% Moisture	1	%	7.0	11	23	28

Client Sample ID			P_TP6-0.3-0.4	P_TP7_0.4-0.5	P_TP7_1.0-1.1	P_TP8_0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0063652	S24-No0063653	S24-No0063654	S24-No0063655
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5

Client Sample ID			P_TP6-0.3-0.4	P_TP7_0.4-0.5	P_TP7_1.0-1.1	P_TP8_0.5-0.6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0063652	S24-No0063653	S24-No0063654	S24-No0063655
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	94	< 1	81	84
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Sample Properties						
% Moisture	1	%	5.8	26	13	7.4

Client Sample ID			P_TP9_0.0-0.1	P_TP9_0.5-0.6	P_TP12_0.2-0.3	QC20241112_02
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-No0063656	S24-No0063657	S24-No0063658	S24-No0063659
Date Sampled			Nov 12, 2024	Nov 12, 2024	Nov 12, 2024	Nov 12, 2024
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	85	74	101	87
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Sample Properties						
% Moisture	1	%	1.5	3.3	2.8	6.4

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
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Nov 23, 2024	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Nov 23, 2024	14 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Sydney	Nov 22, 2024	14 Days



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Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name:

Address:

Project Name:

Project ID:

JBS & G Australia (NSW) P/L

Level 8, 179 Elizabeth St

Sydney

NSW 2000

ADDITIONAL: CRANEBROOK_AUSCONNEX

67597

Order No.:

Report #:

Phone:

Fax:

1163472

02 8245 0300

Received:

Due:

Priority:

Contact Name:

Nov 22, 2024 3:20 PM

Nov 27, 2024

3 Day

Jack Braithwaite

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Phenols (Speciated)	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	EM_TP01_0.2_0.3	Nov 13, 2024		Soil	S24-No0063631	X	X
2	EM_TP01_1_1.1	Nov 13, 2024		Soil	S24-No0063632	X	X
3	EM_TP02_0_0.1	Nov 13, 2024		Soil	S24-No0063633	X	X
4	EM_TP03_0.2_0.3	Nov 13, 2024		Soil	S24-No0063634	X	X
5	EM_TP04_0_0.1	Nov 13, 2024		Soil	S24-No0063635	X	X
6	EM_TP04_0.2_0.3	Nov 13, 2024		Soil	S24-No0063636	X	X
7	EM_TP05_0_0.1	Nov 13, 2024		Soil	S24-No0063637	X	X
8	EM_TP05_0.5_0.6	Nov 13, 2024		Soil	S24-No0063638	X	X
9	EM_TP06_0_0	Nov 13, 2024		Soil	S24-No0063639	X	X



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Company Name: JBS & G Australia (NSW) P/L

Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: ADDITIONAL: CRANE BROOK_AUSCONNEX

Project ID: 67597

Order No.:

Report #: 1163472

Phone: 02 8245 0300

Fax:

Received: Nov 22, 2024 3:20 PM

Due: Nov 27, 2024

Priority: 3 Day

Contact Name: Jack Braithwaite

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Phenols (Speciated)	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
	.1						
10	EM_TP07_0.2_0.3	Nov 13, 2024		Soil	S24-No0063640	X	X
11	EM_TP08_0.2_0.3	Nov 13, 2024		Soil	S24-No0063641	X	X
12	EM_TP08_0.5_0.6	Nov 13, 2024		Soil	S24-No0063642	X	X
13	QC20241113_01	Nov 13, 2024		Soil	S24-No0063643	X	X
14	P_TP1_0.2-0.3	Nov 12, 2024		Soil	S24-No0063644	X	X
15	P_TP1_0.7-0.8	Nov 12, 2024		Soil	S24-No0063645	X	X
16	P_TP2_0.5-0.6	Nov 12, 2024		Soil	S24-No0063646	X	X
17	P_TP3_0.0-0.1	Nov 12, 2024		Soil	S24-No0063647	X	X
18	P_TP3_0.5-0.6	Nov 12, 2024		Soil	S24-No0063648	X	X
19	P_TP4_0.5-0.6	Nov 12, 2024		Soil	S24-No0063649	X	X
20	P_TP5_0.0-0.1	Nov 12, 2024		Soil	S24-No0063650	X	X
21	P_TP5_1.0-1.1	Nov 12, 2024		Soil	S24-No0063651	X	X
22	P_TP6-0.3-0.4	Nov 12, 2024		Soil	S24-No0063652	X	X



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Company Name: JBS & G Australia (NSW) P/L

Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: ADDITIONAL: CRANE BROOK_AUSCONNEX

Project ID: 67597

Order No.:

Report #: 1163472

Phone: 02 8245 0300

Fax:

Received: Nov 22, 2024 3:20 PM

Due: Nov 27, 2024

Priority: 3 Day

Contact Name: Jack Braithwaite

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Phenols (Speciated)	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
23	P_TP7_0.4-0.5	Nov 12, 2024		Soil	S24-No0063653	X	X
24	P_TP7_1.0-1.1	Nov 12, 2024		Soil	S24-No0063654	X	X
25	P_TP8_0.5-0.6	Nov 12, 2024		Soil	S24-No0063655	X	X
26	P_TP9_0.0-0.1	Nov 12, 2024		Soil	S24-No0063656	X	X
27	P_TP9_0.5-0.6	Nov 12, 2024		Soil	S24-No0063657	X	X
28	P_TP12_0.2-0.3	Nov 12, 2024		Soil	S24-No0063658	X	X
29	QC20241112_02	Nov 12, 2024		Soil	S24-No0063659	X	X
30	CB_TP01_0.0-0.1	Nov 14, 2024		Soil	S24-No0063660	X	X
31	CB_TP01_0.5-0.6	Nov 14, 2024		Soil	S24-No0063661	X	X
32	CB_TP02_0.0-0.1	Nov 14, 2024		Soil	S24-No0063662	X	X
33	CB_TP02_0.5-0.6	Nov 14, 2024		Soil	S24-No0063663	X	X
34	QC20241114_01	Nov 14, 2024		Soil	S24-No0063664	X	X



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ABN: 50 005 085 521

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NZBN: 9429046024954

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: JBS & G Australia (NSW) P/L

Address: Level 8, 179 Elizabeth St
Sydney
NSW 2000

Project Name: ADDITIONAL: CRANE BROOK_AUSCONNEX

Project ID: 67597

Order No.:

Report #: 1163472

Phone: 02 8245 0300

Fax:

Received: Nov 22, 2024 3:20 PM

Due: Nov 27, 2024

Priority: 3 Day

Contact Name: Jack Braithwaite

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Phenols (Speciated)	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
35	CB_TP03_0.2-0.3	Nov 14, 2024		Soil	S24-No0063665	X	X
36	CB_TP04_0.4-0.5	Nov 14, 2024		Soil	S24-No0063666	X	X
37	CB_TP04_1.3-1.4	Nov 14, 2024		Soil	S24-No0063667	X	X
38	CB_TP08_0.5-0.6	Nov 14, 2024		Soil	S24-No0063668	X	X
39	CB_TP05_0.0-0.1	Nov 14, 2024		Soil	S24-No0063669	X	X
40	CB_TP07_0.2-0.3	Nov 14, 2024		Soil	S24-No0063670	X	X
41	CB_TP06_0.2-0.3	Nov 14, 2024		Soil	S24-No0063671	X	X
42	CB_TP06_1.0-1.1	Nov 14, 2024		Soil	S24-No0063672	X	X
43	CB_TP06_1.6-1.7	Nov 14, 2024		Soil	S24-No0063673	X	X
Test Counts						43	43

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the '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 before sample receipt deadlines as stated on the SRA.

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

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

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

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	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	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
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 moisture has been determined on a solid sample, the result is expressed on a dry weight 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 represents 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 similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -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 6.0
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 only be used as a guide 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. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as 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 are 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							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	86			25-140	Pass	
2.4-Dichlorophenol	%	80			25-140	Pass	
2.4.5-Trichlorophenol	%	83			25-140	Pass	
2.4.6-Trichlorophenol	%	87			25-140	Pass	
2.6-Dichlorophenol	%	89			25-140	Pass	
4-Chloro-3-methylphenol	%	85			25-140	Pass	
Pentachlorophenol	%	112			25-140	Pass	
Tetrachlorophenols - Total	%	93			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	95			25-140	Pass	
2-Methyl-4.6-dinitrophenol	%	84			25-140	Pass	
2-Nitrophenol	%	94			25-140	Pass	
2.4-Dimethylphenol	%	85			25-140	Pass	
2.4-Dinitrophenol	%	89			25-140	Pass	
2-Methylphenol (o-Cresol)	%	82			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	83			25-140	Pass	
4-Nitrophenol	%	77			25-140	Pass	
Dinoseb	%	84			25-140	Pass	
Phenol	%	87			25-140	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
Pentachlorophenol	%	112			25-140	Pass	
Tetrachlorophenols - Total	%	93			25-140	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	88			25-140	Pass	
2.4-Dichlorophenol	%	88			25-140	Pass	
2.4.5-Trichlorophenol	%	71			25-140	Pass	
2.4.6-Trichlorophenol	%	83			25-140	Pass	
2.6-Dichlorophenol	%	94			25-140	Pass	
4-Chloro-3-methylphenol	%	89			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	103			25-140	Pass	
2-Methyl-4.6-dinitrophenol	%	85			25-140	Pass	
2-Nitrophenol	%	94			25-140	Pass	
2.4-Dimethylphenol	%	85			25-140	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2,4-Dinitrophenol			%	104			25-140	Pass	
2-Methylphenol (o-Cresol)			%	86			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)			%	90			25-140	Pass	
4-Nitrophenol			%	79			25-140	Pass	
Dinoseb			%	91			25-140	Pass	
Phenol			%	89			25-140	Pass	
LCS - % Recovery									
Phenols (Halogenated)									
2-Chlorophenol			%	80			25-140	Pass	
2,4-Dichlorophenol			%	71			25-140	Pass	
2,4,6-Trichlorophenol			%	73			25-140	Pass	
2,6-Dichlorophenol			%	86			25-140	Pass	
4-Chloro-3-methylphenol			%	81			25-140	Pass	
LCS - % Recovery									
Phenols (non-Halogenated)									
2-Cyclohexyl-4,6-dinitrophenol			%	75			25-140	Pass	
2-Nitrophenol			%	79			25-140	Pass	
2,4-Dimethylphenol			%	75			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)			%	84			25-140	Pass	
Phenol			%	85			25-140	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S24-No0063640	CP	%	91			30-130	Pass	
2,4-Dichlorophenol	S24-No0063640	CP	%	80			30-130	Pass	
2,4,5-Trichlorophenol	S24-No0063640	CP	%	90			30-130	Pass	
2,4,6-Trichlorophenol	S24-No0063640	CP	%	91			30-130	Pass	
2,6-Dichlorophenol	S24-No0063640	CP	%	92			30-130	Pass	
4-Chloro-3-methylphenol	S24-No0063640	CP	%	91			30-130	Pass	
Pentachlorophenol	S24-No0063640	CP	%	75			30-130	Pass	
Tetrachlorophenols - Total	S24-No0063640	CP	%	87			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4,6-dinitrophenol	S24-No0063640	CP	%	83			30-130	Pass	
2-Methyl-4,6-dinitrophenol	S24-No0063640	CP	%	71			30-130	Pass	
2-Nitrophenol	S24-No0063640	CP	%	90			30-130	Pass	
2,4-Dimethylphenol	S24-No0063640	CP	%	73			30-130	Pass	
2-Methylphenol (o-Cresol)	S24-No0063640	CP	%	83			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S24-No0063640	CP	%	84			30-130	Pass	
4-Nitrophenol	S24-No0063640	CP	%	70			30-130	Pass	
Dinoseb	S24-No0063640	CP	%	77			30-130	Pass	
Phenol	S24-No0063640	CP	%	90			30-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S24-No0055124	NCP	%	86			30-130	Pass	
2,4-Dichlorophenol	S24-No0055124	NCP	%	86			30-130	Pass	
2,4,5-Trichlorophenol	S24-No0055124	NCP	%	73			30-130	Pass	
2,4,6-Trichlorophenol	S24-No0055124	NCP	%	92			30-130	Pass	
2,6-Dichlorophenol	S24-No0055124	NCP	%	93			30-130	Pass	
4-Chloro-3-methylphenol	S24-No0055124	NCP	%	88			30-130	Pass	
Tetrachlorophenols - Total	S24-No0055124	NCP	%	79			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4,6-dinitrophenol	S24-No0057780	NCP	%	83			30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-Methyl-4.6-dinitrophenol	S24-No0057780	NCP	%	76			30-130	Pass	
2-Nitrophenol	S24-No0055124	NCP	%	91			30-130	Pass	
2.4-Dimethylphenol	S24-No0055124	NCP	%	93			30-130	Pass	
2-Methylphenol (o-Cresol)	S24-No0055124	NCP	%	84			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S24-No0055124	NCP	%	88			30-130	Pass	
4-Nitrophenol	S24-No0055122	NCP	%	74			30-130	Pass	
Dinoseb	S24-No0057780	NCP	%	84			30-130	Pass	
Phenol	S24-No0055124	NCP	%	79			30-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S24-No0063668	CP	%	75			30-130	Pass	
2.6-Dichlorophenol	S24-No0063668	CP	%	72			30-130	Pass	
4-Chloro-3-methylphenol	S24-No0063668	CP	%	72			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
3&4-Methylphenol (m&p-Cresol)	S24-No0063668	CP	%	71			30-130	Pass	
Phenol	S24-No0063668	CP	%	76			30-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S24-No0057455	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	S24-No0057455	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S24-No0057455	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S24-No0057455	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S24-No0057455	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S24-No0057455	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	S24-No0057455	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	S24-No0057455	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S24-No0057455	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S24-No0057455	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	S24-No0057455	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	S24-No0057455	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	S24-No0057455	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S24-No0057455	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S24-No0057455	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	S24-No0057455	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	S24-No0057455	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	S24-No0057455	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S24-No0063631	CP	%	20	18	7.0	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S24-No0063647	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	S24-No0063647	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S24-No0063647	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S24-No0063647	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S24-No0063647	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S24-No0063647	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	S24-No0063647	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	S24-No0063647	CP	mg/kg	< 10	< 10	<1	30%	Pass	

Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	S24-No0063647	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	S24-No0063647	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	S24-No0063647	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	S24-No0063647	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	S24-No0063647	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	S24-No0063647	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	S24-No0063647	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	S24-No0063647	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	S24-No0063647	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	S24-No0063647	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	S24-No0063651	CP	%	28	27	4.0	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	S24-No0063661	CP	%	34	33	4.0	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	S24-No0063667	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	S24-No0063667	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	S24-No0063667	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	S24-No0063667	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	S24-No0063667	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	S24-No0063667	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	S24-No0063667	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	S24-No0063667	CP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	S24-No0063667	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	S24-No0063667	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	S24-No0063667	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	S24-No0063667	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	S24-No0063667	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	S24-No0063667	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	S24-No0063667	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	S24-No0063667	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	S24-No0063667	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	S24-No0063667	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	S24-No0063671	CP	%	11	9.3	13	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	S24-No0063672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	S24-No0063672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	S24-No0063672	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	S24-No0063672	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	S24-No0063672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	S24-No0063672	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	S24-No0063672	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	S24-No0063672	CP	mg/kg	< 10	< 10	<1	30%	Pass

Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	S24-No0063672	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	S24-No0063672	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	S24-No0063672	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	S24-No0063672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	S24-No0063672	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	S24-No0063672	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	S24-No0063672	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	S24-No0063672	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	S24-No0063672	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	S24-No0063672	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Comments

Report 1163472-S-V2 (amendment to report 1163472-S) has been issued with samples split into separate reports as per client request via email 28/11/24.

Report 1163472-S-V3 (amendment to report 1163472-S-V2) has been issued with samples split into separate reports as per client request via email 28/11/24.

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
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Sample Properties



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](#).

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Sample Receipt Advice

Company name: JBS & G Australia (NSW) P/L
Contact name: Jack Braithwaite
Project name: ADDITIONAL: CRANEBROOK_AUSCONNEX
Project ID: 67597
Turnaround time: 3 Day
Date/Time received: Nov 22, 2024 3:20 PM
Eurofins reference: 1163472

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 : 6.3 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 Jack Braithwaite - jbraithwaite@jbsg.com.au.

RE: Eurofins Test Results - Report 1159982 : Site EMU PLAINS-AUSCONNEX (67597)

From Andrew Black <Andrew.Black@eurofinsanz.com>

Date Fri 22/11/2024 3:20 PM

To Ekaterina Arsenteva <earsenteva@jbsg.com.au>; SH_AU25_Enviro_Sample_NSW
<EnviroSampleNSW@eurofinsanz.com>

Cc Jack Braithwaite <jbraithwaite@jbsg.com.au>

Verified Sender: This email is from an internal and/or verified domain which passed security verifications. Remember to still be cautious with personal data and follow company policies.

Hi Ekaterina

Some of these we can add and others will need to be an additional.

SR Team- PhenAll can be added to 1162263, 1162663 and 1162326. A new additional will need to be done combined for 1159982, 1159987 and 1161056

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: Andrew.Black@eurofinsanz.com

Website: [eurofins.com.au/environmental-testing](https://www.eurofins.com.au/environmental-testing)

<https://www.eurofins-estore.com.au/>

Please note my work hours are 8:30am-5:30pm, anything outside of that I will get to the next day. Contact evening shift ASM for anything urgent.



This e-mail including its attachments may contain confidential and proprietary information. Any unauthorized disclosure or use of this e-mail including its attachments is prohibited and may be prosecuted. If you are not the intended recipient, please inform the sender by an e-mail reply and delete the message.

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From: Ekaterina Arsenteva <earsenteva@jbsg.com.au>

Sent: Friday, 22 November 2024 3:09 PM

To: Andrew Black <andrewblack@eurofins.com>; SH_AU25_Enviro_Sample_NSW <EnviroSampleNSW@eurofinsanz.com>

Cc: Jack Braithwaite <jbraithwaite@jbsg.com.au>

Subject: RE: Eurofins Test Results - Report 1159982 : Site EMU PLAINS-AUSCONNEX (67597)

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Hello Andrew,

Could you please include an analysis of phenols for all the samples that were analysed for JB2A?

Additionally, could you do the same for all other reports related to project 67597 (lab reports: 1162263, 1162663, 1159987, 1162326, 1161056) ?

Thanks!



Ekaterina Arsenteva | Environmental Consultant | JBS&G

Gadigal Country | Level 8, 179 Elizabeth Street, Sydney, NSW

T: 02 8245 0300 | M: 0473 108 157 | E: earsenteva@jbsg.com.au | W: jbsg.com.au | L: [Conditions and Limitations](#)

Exceptional Outcomes

Please note I am available in the office Tuesday to Friday

From: AndrewBlack@eurofins.com <AndrewBlack@eurofins.com>

Sent: Friday, 22 November 2024 9:54 AM

To: Ekaterina Arsenteva <earsenteva@jbsg.com.au>

Cc: Jack Braithwaite <jbraithwaite@jbsg.com.au>

Subject: Eurofins Test Results - Report 1159982 : Site EMU PLAINS-AUSCONNEX (67597)

*****[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.*****

Kindest Regards,

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing

Unit 1

2 Frost Drive

MAYFIELD WEST NSW 2304

AUSTRALIA

Phone: +61 299 008 490

Mobile: +61 410 220 750

Email: Andrew.Black@eurofinsanz.com

Website: <http://environment.eurofins.com.au>

[View our latest EnviroNotes](#)

CERTIFICATE OF ANALYSIS 366394

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	E Arsenteva
Address	Level 8, 179 Elizabeth St, Sydney, NSW, 2000

Sample Details

Your Reference	<u>67597</u>
Number of Samples	2 Soil
Date samples received	14/11/2024
Date completed instructions received	14/11/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	21/11/2024
Date of Issue	19/11/2024
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

Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Timothy Toll, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		366394-1	366394-2
Your Reference	UNITS	QA20241112_01	QA20241112_02
Date Sampled		12/11/2024	12/11/2024
Type of sample		Soil	Soil
Date extracted	-	15/11/2024	15/11/2024
Date analysed	-	18/11/2024	18/11/2024
TRH C ₆ - C ₉	mg/kg	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25
vTRH 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	%	89	87

svTRH (C10-C40) in Soil			
Our Reference		366394-1	366394-2
Your Reference	UNITS	QA20241112_01	QA20241112_02
Date Sampled		12/11/2024	12/11/2024
Type of sample		Soil	Soil
Date extracted	-	15/11/2024	15/11/2024
Date analysed	-	17/11/2024	17/11/2024
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50
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	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	84	85

PAHs in Soil			
Our Reference		366394-1	366394-2
Your Reference	UNITS	QA20241112_01	QA20241112_02
Date Sampled		12/11/2024	12/11/2024
Type of sample		Soil	Soil
Date extracted	-	15/11/2024	15/11/2024
Date analysed	-	15/11/2024	15/11/2024
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	0.2	0.2
Pyrene	mg/kg	0.2	0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1
Chrysene	mg/kg	0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.2	<0.2
Benzo(a)pyrene	mg/kg	0.1	0.07
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Total +ve PAH's	mg/kg	1.0	0.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate <i>p</i> -Terphenyl-d14	%	86	87

Acid Extractable metals in soil			
Our Reference		366394-1	366394-2
Your Reference	UNITS	QA20241112_01	QA20241112_02
Date Sampled		12/11/2024	12/11/2024
Type of sample		Soil	Soil
Date prepared	-	15/11/2024	15/11/2024
Date analysed	-	15/11/2024	15/11/2024
Arsenic	mg/kg	6	6
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	4	15
Copper	mg/kg	13	19
Lead	mg/kg	41	20
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	3	10
Zinc	mg/kg	38	110

Moisture			
Our Reference	UNITS	366394-1	366394-2
Your Reference		QA20241112_01	QA20241112_02
Date Sampled		12/11/2024	12/11/2024
Type of sample		Soil	Soil
Date prepared	-	15/11/2024	15/11/2024
Date analysed	-	18/11/2024	18/11/2024
Moisture	%	16	12

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-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.

Method ID	Methodology Summary
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			15/11/2024	[NT]	[NT]	[NT]	[NT]	15/11/2024	[NT]
Date analysed	-			18/11/2024	[NT]	[NT]	[NT]	[NT]	18/11/2024	[NT]
TRH C ₆ - C ₉	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	79	[NT]
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	79	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	83	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	81	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	75	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	94	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			15/11/2024	[NT]	[NT]	[NT]	[NT]	15/11/2024	[NT]
Date analysed	-			17/11/2024	[NT]	[NT]	[NT]	[NT]	17/11/2024	[NT]
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	101	[NT]
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	101	[NT]
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
Surrogate o-Terphenyl	%		Org-020	89	[NT]	[NT]	[NT]	[NT]	91	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			15/11/2024	[NT]	[NT]	[NT]	[NT]	15/11/2024	[NT]
Date analysed	-			15/11/2024	[NT]	[NT]	[NT]	[NT]	15/11/2024	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	100	[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]	106	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[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]	96	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	98	[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]	92	[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]	74	[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	101	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date prepared	-			15/11/2024	[NT]	[NT]	[NT]	[NT]	15/11/2024	[NT]
Date analysed	-			15/11/2024	[NT]	[NT]	[NT]	[NT]	15/11/2024	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	115	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	103	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Zinc	mg/kg	1	Metals-020	<1	[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.

SAMPLE RECEIPT ADVICE

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	E Arsenteva

Sample Login Details

Your reference	67597
Envirolab Reference	366394
Date Sample Received	14/11/2024
Date Instructions Received	14/11/2024
Date Results Expected to be Reported	21/11/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	2 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	15
Cooling Method	None
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:



Envirolab Services Pty Ltd

ABN 37 112 535 645

12 Ashley St Chatswood NSW 2067

ph 02 9910 6200 fax 02 9910 6201

customerservice@envirolab.com.au

www.envirolab.com.au

Sample ID	VTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Acid Extractable metals in soil
QA20241112_01	✓	✓	✓	✓
QA20241112_02	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

EnviroLab

[illegible]

Attachment J QA/QC Summary

The QA/QC results for soil samples collected at the site are summarised in **Table J.1** and discussed following. Laboratory certificates of analysis are included in **Attachment I**.

Table J.1: Data Quality Indicator Assessment

Data Quality Indicators	Frequency	Data Quality Criteria	DQO met?
Precision			
Blind Duplicates (intra laboratory)	Soil – 1/20 samples	<LOR-133 % RPD	Partial ¹⁷
Split Duplicated (Inter laboratory)	Soil – 1/20 samples	<LOR-84 % RPD	Partial ¹⁸
Laboratory Duplicates	Soil – 6/22 samples	<LOR-47 % RPD	Yes
Accuracy			
Surrogate spikes	All organic samples	42 -149 %	Partial ¹⁸
Laboratory control samples	1 per lab batch	71-142% recovery	Partial ¹⁸
Matrix spikes	1 per lab batch	69-133% recovery	Partial ¹⁸
Representativeness			
Samples extracted and analysed within holding times.	All Samples	Yes	Yes
Trip spike	1 per sampling event	70-130 %	Yes
Trip blank	1 per sampling event	<LOR	Yes
Field blanks	1 per lab batch	<LOR	Yes
Sampling appropriate for media and analytes	All Samples	Yes	Yes
Comparability			
Standard operating procedures for sample collection & handling	All Samples	All samples ¹⁸	Yes
Standard analytical methods used for all analyses	All Samples	All samples ¹⁹	Yes
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples ¹⁹	Yes
Limits of reporting appropriate and consistent	All Samples	All samples ¹⁹	Yes
Completeness			
Sample description and COCs completed and appropriate	All Samples	All samples ¹⁹	Yes
Appropriate documentation	All Samples	All samples ¹⁹	Yes
Satisfactory frequency and result for QC samples	All QA/QC samples	All samples ¹⁹	Yes
Data from critical samples is considered valid	-	Critical samples valid ¹⁹	Yes
Sensitivity			
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All Samples	All samples	Yes

¹⁷ If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment was made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field

¹⁸ A qualitative assessment of compliance with standard procedures and appropriate sample collection methods was completed during the DQI compliance assessment.

Precision

Blind Duplicates (intra laboratory)/Split Duplicates (inter laboratory)

The rates of blind duplicate and triplicate sampling are considered appropriate. Blind duplicate samples were generally within the range of 0-50% RPD for all analytes, with the exception of:

- Zinc with an RPD of 133 % between primary (P_TP12_0.4-0.5) and duplicate (QC20241112_02) samples.

Split duplicate samples were generally within the range of 0-50% RPD for all analytes, with the exception of:

- Zinc with an RPD of 84 % between primary (P_TP12_0.4-0.5) and triplicate (QA20241112_02) samples.

It is considered that the elevated RPDs are due to the heterogeneous nature of soils. As a conservative measure, the highest result obtained was adopted for assessment purposes. Based on this, the RPDs above the DQI are not considered to affect the data set.

Laboratory Duplicates

A sufficient number of laboratory duplicates were analysed. Laboratory duplicate samples were within the range of 0-50% RPD for all analytes.

Accuracy

Surrogate Spikes

Soil surrogate spikes were conducted on all samples submitted for organic constituent analysis and generally all recoveries were reported within the JBS&G acceptable range (70-130 %). A number of surrogates were reported outside the JBS&G acceptable range but were within the laboratory's acceptable limits (of 50 - 150% for PFAS and 20 - 130% for Speciated Phenols) under their NATA accreditation.

Laboratory Control Samples

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

Matrix Spikes

Some matrix spike recoveries were outside the acceptable range of 70-130%, however, were all within the NATA acceptable limits of 50-150%. Therefore, the results are not considered to affect the accuracy of the data set.

Representativeness

Holding Times

The extraction and analysis of selected soil samples were all completed within the recommended holding times for all analytes.

Trip Spike/Trip Blank

All trip spike and trip blank results are found to be acceptable.

Field Blanks

No PFAS was detected within the field blank

Sampling appropriate for media and analytes

All sampling works completed during the investigation were conducted in accordance with JBS&G standard operating procedures. Soil sampling was conducted with the advancement of test pits.

Comparability

JBS&G contracted Eurofins (primary laboratory) and Envirolab (secondary laboratory) for all laboratory analysis of samples. Both laboratories are National Association of Testing Authorities (NATA) registered for the required analyses and implement standard analytical procedures as detailed in the laboratory reports provided in **Attachment I**.

Experienced JBS&G personnel undertook all sampling in accordance with standard JBS&G sampling methods.

Completeness

Documentation

Samples were transported under full chain of custody (COC) documentation. The COC documentation was completed and the selected analyses were correctly conducted (**Attachment I**).

All field documentation was completed appropriately including borehole logs, COCs and daily field logs. Field records are provided as **Attachment F**.

Sensitivity

Laboratory analysis methods for all contaminants adopted during the investigation applied limits of reporting less than the site assessment criteria.

QA/QC Assessment

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

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

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

Attachment K Statistical analysis

	A	B	C	D	E	F	G	H	I	J	K	L	
1	UCL Statistics for Uncensored Full Data Sets												
2													
3	User Selected Options												
4	Date/Time of Computation			ProUCL 5.126/11/2024 1:56:47 PM									
5	From File			WorkSheet_a.xls									
6	Full Precision			OFF									
7	Confidence Coefficient			95%									
8	Number of Bootstrap Operations			2000									
9													
10													
11	Lead												
12													
13	General Statistics												
14	Total Number of Observations				17		Number of Distinct Observations				14		
15							Number of Missing Observations				0		
16	Minimum				6.3		Mean				31.48		
17	Maximum				130		Median				18		
18	SD				33.84		Std. Error of Mean				8.207		
19	Coefficient of Variation				1.075		Skewness				2.059		
20													
21	Normal GOF Test												
22	Shapiro Wilk Test Statistic				0.691		Shapiro Wilk GOF Test						
23	5% Shapiro Wilk Critical Value				0.892		Data Not Normal at 5% Significance Level						
24	Lilliefors Test Statistic				0.329		Lilliefors GOF Test						
25	5% Lilliefors Critical Value				0.207		Data Not Normal at 5% Significance Level						
26	Data Not Normal at 5% Significance Level												
27													
28	Assuming Normal Distribution												
29	95% Normal UCL					95% UCLs (Adjusted for Skewness)							
30	95% Student's-t UCL				45.81		95% Adjusted-CLT UCL (Chen-1995)				49.36		
31							95% Modified-t UCL (Johnson-1978)				46.49		
32													
33	Gamma GOF Test												
34	A-D Test Statistic				1.132		Anderson-Darling Gamma GOF Test						
35	5% A-D Critical Value				0.757		Data Not Gamma Distributed at 5% Significance Level						
36	K-S Test Statistic				0.271		Kolmogorov-Smirnov Gamma GOF Test						
37	5% K-S Critical Value				0.213		Data Not Gamma Distributed at 5% Significance Level						
38	Data Not Gamma Distributed at 5% Significance Level												
39													
40	Gamma Statistics												
41	k hat (MLE)				1.431		k star (bias corrected MLE)				1.218		
42	Theta hat (MLE)				22		Theta star (bias corrected MLE)				25.85		
43	nu hat (MLE)				48.66		nu star (bias corrected)				41.41		
44	MLE Mean (bias corrected)				31.48		MLE Sd (bias corrected)				28.53		
45						Approximate Chi Square Value (0.05)							27.66
46	Adjusted Level of Significance				0.0346		Adjusted Chi Square Value				26.48		
47													
48	Assuming Gamma Distribution												
49	95% Approximate Gamma UCL (use when n>=50))				47.13		95% Adjusted Gamma UCL (use when n<50)				49.22		
50													

	A	B	C	D	E	F	G	H	I	J	K	L
51	Lognormal GOF Test											
52	Shapiro Wilk Test Statistic					0.918	Shapiro Wilk Lognormal GOF Test					
53	5% Shapiro Wilk Critical Value					0.892	Data appear Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic					0.214	Lilliefors Lognormal GOF Test					
55	5% Lilliefors Critical Value					0.207	Data Not Lognormal at 5% Significance Level					
56	Data appear Approximate Lognormal at 5% Significance Level											
57												
58	Lognormal Statistics											
59	Minimum of Logged Data					1.841	Mean of logged Data					3.061
60	Maximum of Logged Data					4.868	SD of logged Data					0.852
61												
62	Assuming Lognormal Distribution											
63	95% H-UCL					51.55	90% Chebyshev (MVUE) UCL					49.9
64	95% Chebyshev (MVUE) UCL					58.97	97.5% Chebyshev (MVUE) UCL					71.57
65	99% Chebyshev (MVUE) UCL					96.31						
66												
67	Nonparametric Distribution Free UCL Statistics											
68	Data appear to follow a Discernible Distribution at 5% Significance Level											
69												
70	Nonparametric Distribution Free UCLs											
71	95% CLT UCL					44.98	95% Jackknife UCL					45.81
72	95% Standard Bootstrap UCL					44.7	95% Bootstrap-t UCL					56.27
73	95% Hall's Bootstrap UCL					48.5	95% Percentile Bootstrap UCL					44.66
74	95% BCA Bootstrap UCL					49.52						
75	90% Chebyshev(Mean, Sd) UCL					56.1	95% Chebyshev(Mean, Sd) UCL					67.26
76	97.5% Chebyshev(Mean, Sd) UCL					82.74	99% Chebyshev(Mean, Sd) UCL					113.1
77												
78	Suggested UCL to Use											
79	95% H-UCL					51.55						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
85												
86	ProUCL computes and outputs H-statistic based UCLs for historical reasons only.											
87	H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.											
88	It is therefore recommended to avoid the use of H-statistic based 95% UCLs.											
89	Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.											
90												

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1.1.1.1 Document Distribution

Rev No.	Copies	Recipient	Date
Rev 0	1 x electronic copy	Ausconnex c/- Johann Coetzer Via email: Johann.Coetzer@ausconnex.com.au	23/12/2024

1.1.1.2 Document Status

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