REPORT TO

THE UNIVERSITY OF NEW ENGLAND

ON

PRELIMINARY SITE INVESTIGATION

FOR

PROPOSED UNIVERSITY FACILITY

AT

PRINCE OF WALES PARK, PART OF 545 PEEL STREET, TAMWORTH, NSW

Date: 31 July 2023
Ref: E36020PDrpt

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Executive Summary

The University of New England ('the client') commissioned JK Environments (JKE) to undertake a Preliminary Site Investigation (PSI) for the proposed university facility at Prince of Wales Park, Part of 545 Peel Street, Tamworth, NSW ('the site'). The purpose of the investigation is to make a preliminary assessment of site contamination. The site location is shown on Figure 1 and the investigation was confined to the site boundaries as shown on Figure 2 attached in the appendices.

This report has been prepared to support the lodgement of a Development Application (DA) for the proposed educational development, with regards to Chapter 4 of State Environmental Planning Policy (Resilience and Hazards) 2021 (formerly known as SEPP55).

The primary aims of the investigation were to identify any past or present potentially contaminating activities at the site, identify the potential for site contamination, and make a preliminary assessment of the soil and groundwater contamination conditions. The objectives were to:

- Provide an appraisal of the past site use(s) based on a review of historical records;
- Assess the current site conditions and use(s) via a site walkover inspection;
- Identify potential contamination sources/areas of environmental concern (AEC) and contaminants of potential concern (CoPC);
- Assess the soil contamination conditions via implementation of a preliminary sampling and analysis program;
- Prepare a conceptual site model (CSM);
- Assess the potential risks posed by contamination to the receptors identified in the CSM (Tier 1 assessment);
- Assess whether the site is suitable or can be made suitable for the proposed development (from a contamination viewpoint); and
- Assess whether further intrusive investigation and/or remediation is required.

The investigation included a review of historical information and sampling from eight boreholes. The potential contamination sources/AEC include: Fill material; use of pesticides; and hazardous building materials from former demolition.

All of the PSI soil analysis results were below the adopted site assessment criteria (SAC). However, in relation to the identified AEC and CoPC, and in review of the CSM, we note that:

- Fill (i.e. historically imported/emplaced soil) was identified in all boreholes ranging in depth from approximately 0.3m below ground level (BGL) (BH9) to 4.4mBGL (BH3), confirming this as a potential source of contamination. Traces of plastic fragments were encountered in BH3, glass fragments in BH6, BH7, slag in BH11 and ash in BH12 and BH13;
- Volatile hydrocarbons were not detected;
- Sampling was limited in the proposed development area due to the existing velodrome; and
- A small rectangular shaped building was formerly located adjacent to the south-east section of the site. The budling was demolished sometime between 2008 and 2010.

Based on the preliminary data, contamination issues at the site (if found during the Detailed Site Investigation [DSI] process) would be expected to be typical of this type of site with the associated historical land use (e.g. possible impacts in fill, potential asbestos in fibre cement fragments etc). On this basis, we consider that the site could be made suitable via relatively straight-forward remediation processes such as 'excavation/disposal' and/or 'cap and contain', should remediation be required.

We recommend the following:

- Undertake DSI to address the data gaps identified in Section 9.4. In our view, it would be reasonable to limit the DSI to broadly capture the proposed development footprint; and
- If the DSI identifies a need for remediation, a Remediation Action Plan (RAP) will be required and the site will need to be remediated and validated to confirm site suitability.

The conclusions and recommendations should be read in conjunction with the limitations presented in the body of this report.

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Abbreviations

Asbestos Fines/Fibrous Asbestos	**AF/FA**
Ambient Background Concentrations	**ABC**
Added Contaminant Limits	**ACL**
Asbestos Containing Material	**ACM**
Area of Environmental Concern	**AEC**
Australian Height Datum	**AHD**
Acid Sulfate Soil	**ASS**
Above-Ground Storage Tank	**AST**
Before You Dig Australia	**BYDA**
Below Ground Level	**BGL**
Benzo(a)pyrene Toxicity Equivalent Factor	**BaP TEQ**
Benzene, Toluene, Ethylbenzene, Xylene	**BTEX**
Cation Exchange Capacity	**CEC**
Contaminated Land Management	**CLM**
Contaminant(s) of Potential Concern	**CoPC**
Chain of Custody	**COC**
Conceptual Site Model	**CSM**
Development Application	**DA**
Data Quality Indicator	**DQI**
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Health Investigation Level	**HIL**
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International Organisation of Standardisation	**ISO**
JK Environments	**JKE**
Lab Control Spike	**LCS**
Map Grid of Australia	**MGA**
National Association of Testing Authorities	**NATA**
National Environmental Protection Measure	**NEPM**
Organochlorine Pesticides	**OCP**
Organophosphate Pesticides	**OPP**
Polycyclic Aromatic Hydrocarbons	**PAH**
Polychlorinated Biphenyls	**PCB**
Per-and Polyfluoroalkyl Substances	**PFAS**
Photo-ionisation Detector	**PID**
Protection of the Environment Operations	**POEO**
Practical Quantitation Limit	**PQL**
Quality Assurance	**QA**
Quality Control	**QC**
Remediation Action Plan	**RAP**
Relative Percentage Difference	**RPD**
Site Assessment Criteria	**SAC**
Sampling, Analysis and Quality Plan	**SAQP**
State Environmental Planning Policy	**SEPP**
Source, Pathway, Receptor	**SPR**
Standard Penetration Test	**SPT**
Standing Water Level	**SWL**
Trip Blank	**TB**
Total Recoverable Hydrocarbons	**TRH**

Trip Spike	**TS**
Upper Confidence Limit	**UCL**
Underground Storage Tank	**UST**
Volatile Organic Compounds	**VOC**

Units

Litres	**L**
Metres BGL	**mBGL**
Metres	**m**
Millilitres	**ml or mL**
Micrograms per Litre	**µg/L**
Milligrams per Kilogram	**mg/kg**
Parts Per Million	**ppm**
Percentage	**%**
Percentage weight for weight	**%w/w**

1 INTRODUCTION

The University of New England ('the client') commissioned JK Environments (JKE) to undertake a Preliminary Site Investigation (PSI) for the proposed university facility at Prince of Wales Park, Part of 545 Peel Street, Tamworth, NSW ('the site'). The purpose of the investigation is to make a preliminary assessment of site contamination. The site location is shown on Figure 1 and the investigation was confined to the site boundaries as shown on Figure 2 attached in the appendices.

This report has been prepared to support the lodgement of a Development Application (DA) for the proposed educational development, with regards to Chapter 4 of State Environmental Planning Policy (Resilience and Hazards) 2021[1] (formerly known as SEPP55).

A geotechnical investigation was undertaken in conjunction with this PSI by JK Geotechnics (JKG). The results of the geotechnical investigation are presented in a separate report (Ref: 36020PNrpt, dated July 2023)[2]. This report should be read in conjunction with the JKG report.

1.1 Proposed Development Details

JKE understand that the proposed development will include the demolition of the existing velodrome, followed by construction of a three or four storey teaching building (tertiary education) towards the western end of the site, an outdoor learning area in the central section of the site and an on-grade carpark towards the eastern end of the site. Detached temporary pop-up buildings are proposed along the northern site frontage to Peel Street. No basements are proposed. To achieve design surface levels, cut and fill earthworks to a maximum depth/height of approximately 3m are expected to be required. Landscaping works are proposed for external areas. Potential future expansion may include new buildings in the central and east section of the site. The proposed development plans are attached in the appendices.

1.2 Aims and Objectives

The primary aims of the investigation were to identify any past or present potentially contaminating activities at the site, identify the potential for site contamination, and make a preliminary assessment of the soil and groundwater contamination conditions. The objectives were to:

- Provide an appraisal of the past site use(s) based on a review of historical records;
- Assess the current site conditions and use(s) via a site walkover inspection;
- Identify potential contamination sources/areas of environmental concern (AEC) and contaminants of potential concern (CoPC);
- Assess the soil contamination conditions via implementation of a preliminary sampling and analysis program;
- Prepare a conceptual site model (CSM);
- Assess the potential risks posed by contamination to the receptors identified in the CSM (Tier 1 assessment);

[1] *State Environmental Planning Policy (Resilience and Hazards) 2021* (NSW) (referred to as SEPP Resilience and Hazards 2021)

[2] JKG, (2020). *Report to University of New England on Geotechnical Investigation for Proposed University Building at Prince of Wales Park, Peel Street, Tamworth, NSW.* (referred to as JKG report)

- Assess whether the site is suitable or can be made suitable for the proposed development (from a contamination viewpoint); and
- Assess whether further intrusive investigation and/or remediation is required.

1.3 Scope of Work

The investigation was undertaken generally in accordance with a JKE proposal (Ref: EP58373PD) of 29 March 2023 and written acceptance from the client via the signed contract dated 26 June 2023. The scope of work included the following:

- Review of site information, including background and site history information from various sources outlined in the report;
- Preparation of a CSM;
- Design and implementation of a sampling, analysis and quality plan (SAQP);
- Interpretation of the analytical results against the adopted Site Assessment Criteria (SAC);
- Data Quality Assessment; and
- Preparation of a report including a Tier 1 risk assessment.

The scope of work was undertaken with reference to the National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)[3], other guidelines made under or with regards to the Contaminated Land Management Act (1997)[4] and SEPP Resilience and Hazards 2021. A list of reference documents/guidelines is included in the appendices.

[3] National Environment Protection Council (NEPC), (2013). *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* (referred to as NEPM 2013)

[4] Contaminated Land Management Act 1997 (NSW) (referred to as CLM Act 1997)

2 SITE INFORMATION

2.1 Site Identification

Table 2-1: Site Identification

Current Site Owner (certificate of title):	Tamworth Regional Council
Site Address:	Prince of Wales Park, Part of 545 Peel Street, Tamworth, NSW
Lot & Deposited Plan:	Part of Lot 73 in DP 1107041
Current Land Use:	Velodrome
Proposed Land Use:	Educational facility (university)
Local Government Authority:	Tamworth Regional Council
Current Zoning:	RE1 Public Recreation
Site Area (m^2) (approx.):	11,800m^2
RL (AHD in m) (approx.):	377-382
Geographical Location (decimal degrees) (approx.):	Latitude: -31.097660 Longitude: 150.935530
Site Location Plan:	Figure 1
Sample Location Plan:	Figure 2

2.2 Site Location and Regional Setting

The site is located in a predominantly recreational and commercial area of Tamworth and is bound by Roderick Street to the north, Peel Street to the north-east and east, Scott Road to the south-east and south. Peel River is located immediately to the west of the site.

2.3 Topography

The regional topography was characterised by a west facing hillside that falls towards the Peel River at gradients of between approximately 4-6°. The site is located towards the toe of the hillside and has a gentle slope towards the south-west approximately 1-3°.

At the time of inspection, the site was occupied by a concrete paved velodrome. The curved banks of the velodrome were located at the northern and southern ends and fell towards the centre of the site at slopes of up to approximately 45°. The straights of the velodrome were located at the eastern and western sides and fell towards the centre at approximately 10-15°.

Internal of the velodrome was cut into the centre of site, with a shape which roughly resembled the velodrome oval shape. The cut batter sloped between approximately 4-6° on all sides.

2.4 Site Inspection

A walkover inspection of the site was undertaken by JKE on 6 June 2023. The inspection was limited to accessible areas of the site and immediate surrounds.

A summary of the inspection findings is outlined in the following subsections:

2.4.1 Current Site Use and/or Indicators of Former Site Use

At the time of the inspection, the majority of site was occupied by the velodrome and associated surrounds.

2.4.2 Buildings, Structures and Roads

There were no buildings present onsite at the time of inspection. The velodrome was concrete paved. A metal barrier rail was mounted to the outside edge of the velodrome. The entrance was located at the north-western portion of site, along Kable Avenue and Roderick Street. Near this entrance, there was an underground tunnel comprised of brick and paved concrete that cut underneath the Velodrome track in an easterly direction towards the centre of the site. A retaining wall up to approximately 2.5m in height was located adjacent the tunnel site entrance. The retaining was zigzag shaped and appeared to have been constructed of timber sleepers.

2.4.3 Boundary Conditions, Soil Stability and Erosion

The site was fenced and secure on all sides. There was no sign of erosion at the time of inspection.

2.4.4 Presence of Drums/Chemical Storage and Waste

At the time of inspection there no presence of drums or chemical storage.

2.4.5 Evidence of Cut and Fill

Significant cut to fill works appeared to have been undertaken to construct the velodrome. Based on the site and surround area topography, filling up to approximately 5m appeared to have been required in the north section of the site.

2.4.6 Visible or Olfactory Indicators of Contamination (odours, spills etc)

At the time of inspection, apart from imported fill which has the potential to be contaminated, there were no obvious visible or olfactory indicators of contamination.

2.4.7 Drainage

At the time of inspection, a series of stormwater drain grates were observed to the east and south of the velodrome. Surface water in these area of the site is are expected to be captured by these drains. Surface waters within the velodrome were expected to fall towards the low point before flowing towards a drain at the tunnel opening and off-site to the west towards the Peel River.

2.4.8 Sensitive Environments

Sensitive environments such as wetlands, ponds, creeks or extensive areas of natural vegetation were not identified on site. However, Peel River located within approximately 15m of the site and is considered to be a sensitive freshwater environment.

2.4.9 Landscaped Areas and Visible Signs of Plant Stress

At the time of inspection, the majority of site was covered grass, with native trees of varying maturity located in the northern portion of the site.

2.5 Surrounding Land Use

During the site inspection, JKE observed the following land uses in the immediate surrounds:

- North-West – Roderick Street, with a commercial area beyond comprising of auto electrical, electrical, battery, supermarket retail businesses;
- North-east and East – Peel Street, with commercial area beyond comprising of a multi-storeyed supermarket, bottle shop and fast-food restaurant;
- South-east – Scott Road, with a commercial area beyond, comprising of a fast-food restaurant as well as the “Australian Country Music Hall of Fame”;
- West – Recreational area with a walkway running along the western boundary of the site. Peel River was just beyond the site and walkway.

JKE did not observe any land uses in the immediate surrounds that were identified as potential contamination sources for the site.

2.6 Underground Services

The ‘Before You Dig Australia’ (BYDA) plans were reviewed for the investigation in order to establish whether any major underground services exist at the site or in the immediate vicinity that could act as a preferential pathway for contamination migration. Major services were not identified BYDA search that would be expected to act as preferential pathways for contamination migration. However, the survey plan for the site overlayed onto Figure 2 attached in the appendices shows a sewer easement running east/west in the northern section of the site and a stormwater easement running north/south in the eastern section of the site. Considering the geological conditions (discussed in Section 3.1) and topography, there is a potential for the sewer and stormwater trench to act as a preferential pathway for contamination migration (i.e. through relatively permeable backfill/leaking pipework).

2.7 Section 10.7 Planning Certificate

The section 10.7 (2 and 5) planning certificates were reviewed for the investigation. Copies of the certificates are attached in the appendices. A summary of the relevant information is outlined below:

- The land is not affected by an adopted policy that restricts the development of the land because of the likelihood of land slip, bush fire, tidal inundation, subsidence, Acid Sulfate Soils (ASS), contamination, aircraft noise, salinity, coastal hazards, sea level rise or another risk (other than flooding);
- The land to which this certificate relates is not subject to the matters identified by Section 59(2) of the Contaminated Land Management Act 1997. The certificate stated that you should carry out your own investigations to determine if the site forms part of the list of NSW contaminated sites notified to the NSW Environment Protection Agency. Further investigations by others may be required if it is considered the site may be contaminated; and
- The land is not located in a heritage conservation area.

3 GEOLOGY AND HYDROGEOLOGY

3.1 Regional Geology

Regional geological information was reviewed for the investigation. The information was sourced from the Lotsearch report attached in the appendices. The report indicates that the site is underlain by Quaternary aged deposits of medium to fine-grained marine sands with podsols. According to the Lotsearch report, the regional geology within the site boundaries is characterised as alluvium, and can be described as unconsolidated alluvial clay, silt, sand, and gravel deposits. The Lotsearch report also states that there are alluvial channel deposits mapped within 8m of the site, and can be described as watercourse channel deposits of sand and gravel.

3.2 Acid Sulfate Soil (ASS) Risk and Planning

ASS information presented in the Lotsearch report indicated that the site is not located within an ASS risk area.

3.3 Hydrogeology

Hydrogeological information presented in the Lotsearch report indicated that the regional aquifer on-site and in the areas immediately surrounding the site includes porous, extensive aquifers of high productivity. There were approximately 34 registered bores within the report buffer of 1,000m. In summary:

- The nearest registered bore was located approximately 235m to the west of the site. This was utilised for water supply purposes;
- The majority of the bores were registered for water supply purposes;
- There were no nearby bores registered for domestic or irrigation uses between the site and Peel River; and
- The drillers log information from the closest registered bores typically identified clayey sand and sandy gravels. Standing water levels (SWLs) in the bores ranged from approximately 4.0mBGL to 14mBGL.

The information reviewed for the PSI indicates that the subsurface conditions at the site are expected to consist of moderate to high permeability (alluvial) soils overlying relatively deep bedrock. Abstraction and use of groundwater at the site or in the immediate surrounds may be viable under these conditions, however the use of groundwater is not proposed as part of the development. There is a reticulated water supply in the area and consumption of groundwater is not expected to occur.

3.4 Receiving Water Bodies

The site location and regional topography indicates that excess surface water flows have the potential to enter the Peel River located immediately to the west of the site. This water body is a potential receptor.

4 SITE HISTORY INFORMATION

4.1 Review of Historical Aerial Photographs

Historical aerial photographs and maps were reviewed for the investigation. The information was sourced from the Lotsearch report. JKE note that the Lotsearch report investigation boundary was nominated by JKE early in the PSI process and while the proposed development/site area was conceptual. We note that the proposed development/site area was subsequently reduced (particularly to the south) from the Lotsearch investigation boundary. The review of the Lotsearch information has been undertaken considering the site area shown on Figure 2 attached. JKE has reviewed the Lotsearch aerial photographs, and summarised relevant information in the following table:

Table 4-1: Summary of Historical Aerial Photographs

Year	Details
C. 1942	The historical map dated circa 1942 indicated that there may have been a watercourse/tributary of Peel River that previously extended through the site.
1953	**On-site:** The site appeared to be vacant and grassed. A recreational area (grassed oval) was located towards the northern end of the site and there were some unpaved access tracks/roads visible. **Off-site:** The immediate surrounds appeared to be vacant. The area further to the north and south-east appeared to be occupied for commercial and residential purposes. The area to the west of the site beyond the Peel River appeared to be used for agricultural purposes.
1965	**On-site:** The site appeared similar to the previous photograph. However, there appeared to be a depression in the south-west section which suggests that the filling had occurred at least in the central and north-west sections of the site. A number of suspected stockpiles were located in the south-eastern area of the site and what appeared to be an exposed pipe was located in the south-west section of the site. **Off-site:** The surrounds generally appeared similar to the previous photograph. However, additional commercial buildings appeared to have been constructed to the north and what appeared to be a large commercial/industrial building constructed to the east of the site with numerous cylindrical shaped above ground tanks located adjacent to the building.
1976	**On-site:** The site appeared similar to the previous photograph. However, the south-west section of the site appeared to have been filled/levelled. **Off-site:** The surrounds generally appeared similar to the previous photograph. However, the was a small rectangular shaped building immediately adjacent to the south-east section of the site.
1984 and 1989	The site and surrounding features appeared generally similar to the previous photograph.
1993	**On-site:** Earthworks were underway for the velodrome construction. **Off-site:** The surrounds generally appeared similar to the previous photograph. However, a new road (The New England Highway) had been constructed to the south of the site.
1998	**On-site:** The velodrome construction appeared to be complete. The remainder of the site was generally grassed. **Off-site:** The site and surrounding features appeared generally similar to the previous photograph.

Year	Details
2008	The site and surrounding features appeared generally similar to the previous photograph.
2010	**On-site:** The site features appeared generally similar to the previous photograph. **Off-site:** The site and surrounding features appeared generally similar to the previous photograph. However, the building adjacent to the south-east of the site had been demolished.
2016	**On-site:** The site appeared generally similar to the previous photograph. **Off-site:** The large commercial/industrial building with numerous cylindrical shaped above ground tanks (ASTs) had been demolished and replaced by a large commercial/retail complex.
2019 and 2022	The site and surrounding features appeared generally similar to the previous photograph.

4.2 Review of Historical Land Title Records

Historical land title records were reviewed for the investigation. The record search was undertaken by InfoTrack. Copies of the title records are attached in the appendices. The title records indicate that the site has been occupied for public recreational purposes since 1911 and is currently registered to Tamworth Regional Council.

4.3 Review of Council Records

Council records were sourced under an informal access to information request and were reviewed for the investigation. The council records indicate the following:

- DA77/93 – Approval for construction of a Velodrome Bicycle facility. Attached plans show a proposed amenities building in the north-west section of the site. However, based on the information reviewed by JKE (e.g. aerial photographs) it unclear if the amenities building was built, or if it was, it must have been relocated to the area adjacent to south-east section of the site as evidenced by the aerial photographs review; and
- DA601/02 – Approval to install light poles and fittings to the Velodrome.

4.4 SafeWork NSW Records

SafeWork NSW records in relation to the registered storage of dangerous goods were reviewed for the investigation. Copies of relevant documents are attached in the appendices. The search did not identify any licences to store dangerous goods including underground fuel storage tanks (USTs), above ground storage tanks (ASTs) or chemicals at the site.

4.5 NSW EPA and Department of Defence Records

A review of the NSW EPA and Department of Defence databases was undertaken for the PSI. Information from the following databases were sourced from the Lotsearch report:

- Records maintained in relation to contaminated land under Section 58 of the CLM Act 1997;

- Records of sites notified in accordance with the Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997 (2015)[5];
- Licensed activities under the Protection of the Environment Operations Act (1997)[6];
- Sites being investigated under the NSW EPA per-and polyfluoroalkyl substances (PFAS) investigation program;
- Sites being investigated by the Department of Defence for PFAS contamination; and
- Sites being managed by the Department of Defence for PFAS contamination.

The search included the site and surrounding areas in the report buffer. A summary of the information is provided below:

Table 4-2: NSW EPA and Department of Defence Records

Records	On-site	Off-site
Records under Section 58 of the CLM Act 1997	None	There were three properties listed in the report buffer. The listed properties included a petroleum site approximately 465m to the north, a housing estate approximately 550m and another petroleum site approximately 785m to the south-east of the site. Due to the distance and topography, these properties are considered unlikely to represent an off-site source of contamination.
Records under the Duty to Report Contamination under Section 60 of the CLM Act 1997	None	None
Licences under the POEO Act 1997	None	Current and historical licenses were identified application of herbicides along waterways and agricultural processing. These activities down gradient of the site are considered unlikely to pose a contamination risk to the site or represent and off-site source of contamination. However, a surrendered licence for agricultural processing was listed for the property located approximately 30m to the east and upgradient of the site. The former licenced was issued to George Weston Foods Limited and surrendered in approximately 2000. This appeared to be the same facility observed in the aerial photographs that comprised a large commercial/industrial building with numerous cylindrical shaped above ground tanks located adjacent to the building. JKE carried out a cursory review of additional publicly-available information in relation to this facility which is summarised below this table.

[5] NSW EPA, (2015). *Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997.* (referred to as Duty to Report Contamination)

[6] Protection of the Environment Operations Act 1997 (NSW) (referred to as POEO Act 1997)

Records	On-site	Off-site
Records relating to the NSW EPA PFAS Investigation Program	None	None
Records relating to the Department of Defence PFAS management and investigation programs	None	None
Records relating to the Department of Defence investigation programs	None	A property approximately 275m to the east of the site was identified under the Defence 3-year regional contamination investigation program. The records indicated that there was no known contamination. Based on the above information, the Defence property is not considered to represent an off-site source of contamination.

JKE carried out a cursory search of additional information in an attempt to better understand the potential impacts which could have arisen from the nearby, upgradient agricultural processing facility historically located to the east of the site (this property was listed as being 506 Peel Street). A non-statutory Site Audit Report (SAR) was available on the NSW Planning Portal titled '*Site Contamination Audit Report for 506 Peel Street, Tamworth, New South Wales"* (dated 7 February 2014)[7]. The report was prepared by NSW EPA-accredited site auditor Mr Philip Mulvey.

The scope of the audit was to determine land use suitability in the context of the sale of the property. Key conclusions of the SAR 2014 in the context of this PSI were as follows:

- The property was initially used for grazing and residential purposes before being redeveloped for the distribution of farm produce then grain storage;
- There were two tanks on the property, including one AST used to store tallow (animal fat) and one underground storage tank (UST) with an associated bowser used for diesel; and
- Groundwater was found to contain elevated copper and zinc concentrations that were considered to be consistent with regional conditions. Organic/hydrocarbon concentrations in groundwater were below the laboratory detection limits. It was concluded that the property was not contributing to the contamination of groundwater and offsite migration of groundwater was not considered to pose a contamination risk.

On the basis of the above, the nearby off-site property and former land uses at 506 Peel Street are considered unlikely to have adversely impacted the groundwater to the extent that the groundwater would pose an unacceptable risk in the context of the proposed development at the site. On this basis, the property at 506 Peel Street is not considered to be an off-site source of contamination in the context of this PSI.

[7] Environmental Earth Sciences, (2014). *Site Contamination Audit Report for 506 Peel Street, Tamworth, New South Wales, Report to George Weston Foods.* (Report Number 113093, dated 7 February 2014) (referred to as the SAR 2014)

4.6 Historical Business Directory and Additional Lotsearch Information

Historical business records and other relevant information were reviewed for the investigation. The information was sourced from the Lotsearch report and summarised in the following table:

Table 4-3: Historical Business Directory and other Records

Records	On-site	Off-site
Historical dry cleaners, motor garages and service stations	None	There were 15 listed motor garages and/or engineers and/or service stations and one dry cleaner listed in the report buffer between 1950-1991. Due to their locations, these properties are not considered to represent an off-site source of contamination.
Other historical businesses that could represent potential sources of contamination	Bath and public swimming activities were listed at the site in 1950 and 1982. Based on other site historical information reviewed (e.g, Council records, aerial photographs) the site does not appear to have been previous occupied by a swimming pool. The existing Tamworth Olympic Pool is located on Kable Street approximately 1,000m to the north-west of the site.	Various business activities were listed to the north-east of the site. However, the business activities appear to be retail based and are therefore not considered to have any relevance in the context of the PSI objectives.
National waste management site database	None	None
National liquid fuel facilities	None	The was one property listed approximately 465m to the north. Due to the distance and cross gradient location, the property not considered to represent an off-site source of contamination.
Mapped heritage items	None	Various heritage items were mapped in the report buffer. These are not considered to have any relevance in the context of the PSI objectives.
Mapped ecological constraints	None	None
Mapped naturally occurring asbestos	None	None

4.7 Summary of Site History Information

A time line summary of the historical land uses and activities is presented in the following table. The information presented in the table is based on a weight of evidence assessment of the site history documentation and observations made by JKE.

Table 4-4: Summary of Historical Land Uses / Activities

Year(s)	On-site - Potential Land Use / Activities	Off-site - Potential Land Use / Activities
1953-1993	Vacant with some filling in circa 1965 and significant earthworks to construct the velodrome circa 1993.	Mixed residential, commercial/industrial, recreational. A small building was demolished adjacent the south-east section of the site sometime between 2008 and 2010 (see Figure 2). George Weston Foods Limited occupied the property approximately 30m to the east of the site between approximately 1965-2010 (see Figure 1). Sometime between 2010-2016 the property was redeveloped for retail purposes.
Post 1993 - current	Use of the site as a cycling velodrome.	

4.8 Integrity of Site History Information

The majority of the site history information was obtained from government organisations as outlined in the relevant sections of this report. The veracity of the information from these sources is considered to be relatively high. A certain degree of information loss can be expected given the lack of specific land use details over time. JKE has relied upon the Lotsearch report and have not independently verified any information contained within. However, it is noted that the Lotsearch report is generated based on databases maintained by various government agencies and is expected to be reliable.

5 CONCEPTUAL SITE MODEL

NEPM (2013) defines a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM for the site is presented in the following sub-sections and is based on the site information (including the site inspection information) and the review of site history information. Reference should also be made to the figures attached in the appendices.

A review of the CSM in relation to source, pathway and receptor (SPR) linkages has been undertaken as part of the Tier 1 risk assessment process, as outlined in Section 9.

5.1 Potential Contamination Sources/AEC and CoPC

The potential contamination sources/AEC and CoPC are presented in the following table:

Table 5-1: Potential (and/or known) Contamination Sources/AEC and Contaminants of Potential Concern

Source / AEC	CoPC
Fill material – The site appears to have been historically filled to achieve the existing levels. The fill may have been imported from various sources and could be contaminated.	Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), petroleum hydrocarbons (referred to as total recoverable hydrocarbons – TRHs), benzene, toluene, ethylbenzene and xylene (BTEX), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), polychlorinated biphenyls (PCBs) and asbestos.
Hazardous Building Material – Hazardous building materials may be present as a result of the demolition of the former building located immediately to the south-east of the site sometime between 2008-2010 (see Figure 2).	Asbestos and lead.
Use of pesticides – Pesticides may have been used beneath the former buildings and/or around the site.	Heavy metals, OCPs and PCBs.

5.2 Mechanism for Contamination, Affected Media, Receptors and Exposure Pathways

The mechanisms for contamination, affected media, receptors and exposure pathways relevant to the potential contamination sources/AEC are outlined in the following CSM table:

Table 5-2: CSM

Potential mechanism for contamination	The potential mechanisms for contamination are most likely to include 'top-down' impacts and spills. There is a potential for sub-surface releases to have occurred if deep fill is present, or through underground services including sewer and stormwater.
Affected media	Soil has been identified as the potentially affected medium for the purposes of the PSI. The potential for groundwater contamination to pose a risk to on-site receptors in the context of the proposed development is considered to be low. Groundwater would warrant further investigation in the context of the site investigation process in the event that significant contamination (e.g. high concentrations of mobile contaminants) was found in soil.
Receptor identification	Human receptors include site occupants/users (including adults), construction workers and intrusive maintenance workers. Off-site human receptors include adjacent land users. Ecological receptors include terrestrial organisms and plants within unpaved areas (including the proposed landscaped areas), In the context of groundwater contamination, receptors include recreational water users within the Peel River and freshwater ecology in the Peel River.
Potential exposure pathways	Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants) and vapours (volatile TRH, naphthalene and BTEX). The potential for exposure would typically be associated with the construction and excavation works, and future use of the site. Potential exposure pathways for ecological receptors include primary/direct contact and ingestion. Exposure during future site use could occur via direct contact with soil in unpaved areas such as gardens, inhalation of airborne asbestos fibres during soil disturbance, or inhalation of vapours within enclosed spaces such as buildings and basements. Exposure to groundwater could occur on-site during construction, or via migration into the Peel River (primary/secondary contact).
Potential exposure mechanisms	The following have been identified as potential exposure mechanisms for site contamination: • Vapour intrusion into the proposed building (either from soil contamination or volatilisation of contaminants from groundwater); • Contact (dermal, ingestion or inhalation) with exposed soils in landscaped areas and/or unpaved areas; and • Contact with groundwater during construction, or migration of groundwater off-site and into nearby water bodies, including aquatic ecosystems and those being used for recreation.

Presence of preferential pathways for contaminant movement	The sewer and stormwater easement infrastructure (see Figure 2) and the associated trench/trench backfill is a potential preferential pathway for contaminant migrations. This could occur via groundwater/seepage if present, or via soil/vapour migration through the sewer and/or trench backfill.

6 SAMPLING, ANALYSIS AND QUALITY PLAN

6.1 Data Quality Objectives (DQO)

Data Quality Objectives (DQOs) were developed to define the type and quality of data required to achieve the project objectives outlined in Section 1.2. The DQOs were prepared with reference to the process outlined in Schedule B2 of NEPM (2013). The seven-step DQO approach for this project is outlined in the following sub-sections.

The DQO process is validated in part by the Data Quality Assurance/Quality Control (QA/QC) Evaluation. The Data (QA/QC) Evaluation is summarised in Section 8.1 and the detailed evaluation is provided in the appendices.

6.1.1 Step 1 - State the Problem

The CSM identified potential sources of contamination/AEC at the site that may pose a risk to human health and the environment. Investigation data is required to assess the contamination status of the site, assess the risks posed by the contaminants in the context of the proposed development/intended land use, and assess whether remediation is required.

6.1.2 Step 2 - Identify the Decisions of the Study

The objectives of the investigation are outlined in Section 1.2. The decisions to be made reflect these objectives and are as follows:

- Did the site inspection, or does the historical information identify potential contamination sources/AEC at the site?
- Are any results above the SAC?
- Do potential risks associated with contamination exist, and if so, what are they?
- Is remediation required?
- Is the site characterisation sufficient to provide adequate confidence in the above decisions?
- Is the site suitable for the proposed development, or can the site be made suitable subject to further characterisation and/or remediation?

6.1.3 Step 3 - Identify Information Inputs

The primary information inputs required to address the decisions outlined in Step 2 include the following:

- Site information, including site observations and site history documentation;
- Sampling of potentially affected media, including soil and Fibre Cement Fragments (FCF), if found;
- Observations of sub-surface variables such as soil type, photo-ionisation detector (PID) concentrations, odours and staining;
- Laboratory analysis of soils and FCF for the CoPC identified in the CSM; and
- Field and laboratory QA/QC data.

6.1.4 Step 4 - Define the Study Boundary

The sampling will be confined to the site boundaries as shown in Figure 2 and will be limited vertically to a depth of each sampling location (spatial boundary). The sampling was completed between 6 and 8 June 2023 (temporal boundary). The assessment of potential risk to adjacent land users has been made based on data collected within the site boundary.

Sampling was not undertaken beneath the velodrome concrete paved raceway footprint due to access constraints.

6.1.5 Step 5 - Develop an Analytical Approach (or Decision Rule)

6.1.5.1 Tier 1 Screening Criteria

The laboratory data will be assessed against relevant Tier 1 screening criteria (referred to as SAC), as outlined in Section 7. Exceedances of the SAC do not necessarily indicate a requirement for remediation or a risk to human health and/or the environment. Exceedances are considered in the context of the CSM and valid SPR-linkages.

For this investigation, the individual results have been assessed as either above or below the SAC. Statistical evaluation of the dataset via calculation of mean values and/or 95% upper confidence limit (UCL) values has not been undertaken due to the spatial distribution of the data and the number of samples submitted for analysis.

6.1.5.2 Field and Laboratory QA/QC

Field QA/QC included analysis of inter-laboratory duplicates, intra-laboratory duplicates, trip spike, trip blank and rinsate samples. Further details regarding the sampling and analysis undertaken, and the acceptable limits adopted, is provided in the Data Quality (QA/QC) Evaluation in the appendices.

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which is outlined in the attached laboratory reports. These criteria were developed and implemented in accordance with the laboratory's National Association of Testing Authorities, Australia (NATA) accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

In the event that acceptable limits are not met by the laboratory analysis, other lines of evidence are reviewed (e.g. field observations of samples, preservation, handling etc) and, where required, consultation with the laboratory is undertaken in an effort to establish the cause of the non-conformance. Where uncertainty exists, JKE typically adopt the most conservative concentration reported (or in some cases, consider the data from the affected sample as an estimate).

6.1.5.3 Appropriateness of Practical Quantitation Limits (PQLs)

The PQLs of the analytical methods are considered in relation to the SAC to confirm that the PQLs are less than the SAC. In cases where the PQLs are greater than the SAC, a discussion of this is provided.

6.1.6 Step 6 – Specify Limits on Decision Errors

To limit the potential for decision errors, a range of quality assurance processes are adopted. A quantitative assessment of the potential for false positives and false negatives in the analytical results is undertaken with reference to Schedule B(3) of NEPM (2013) using the data quality assurance information collected.

Decision errors can be controlled through the use of hypothesis testing. The test can be used to show either that the baseline condition is false or that there is insufficient evidence to indicate that the baseline condition is false. The null hypothesis is an assumption that is assumed to be true in the absence of contrary evidence. For this investigation, the null hypothesis has been adopted which is that, there is considered to be a complete SPR linkage for the CoPC identified in the CSM unless this linkage can be proven not to (or unlikely to) exist. The null hypothesis has been adopted for this investigation.

Quantitative limits on decision errors were not established as the sample plan was not probabilistic.

6.1.7 Step 7 - Optimise the Design for Obtaining Data

The most resource-effective design will be used in an optimum manner to achieve the investigation objectives. Adjustment of the investigation design can occur following consultation or feedback from project stakeholders. For this investigation, the design was optimised via consideration of the various lines of evidence used to select the sample locations, the media being sampled, and also by the way in which the data were collected.

The sampling plan and methodology are outlined in the following sub-sections.

6.2 Soil Sampling Plan and Methodology

The soil sampling plan and methodology adopted for this investigation is outlined in the table below:

Table 6-1: Soil Sampling Plan and Methodology

Aspect	Input
Sampling Density	Samples were collected from total of eight sampling locations (BH6, BH7, BH8, BH10, BH11, BH12, BH14 and BH15) as shown on the attached Figure 2. Based on the site area (11,800m^2), this number of locations corresponded to a sampling density of approximately one sample per 1,475m^2. The sampling plan was not designed to meet the minimum sampling density for hotspot identification, as outlined in the NSW EPA Sampling Design Part 1 – Application (2022)[8] contaminated land guidelines.
Sampling Plan	The sampling locations were placed on a judgemental sampling plan and were broadly positioned for site coverage, taking into consideration areas that were not easily accessible. This sampling plan was considered suitable to make a preliminary assessment of potential risks associated with the site-wide 'fill' AEC and CoPC identified in the CSM, and assess whether further investigation is warranted.

[8] NSW EPA, (2022). *Sampling design part 1 - application.* (referred to as EPA Sampling Design Guidelines 2022)

Aspect	Input
Set-out and Sampling Equipment	Sampling locations were set out using a tape measure. In-situ sampling locations were checked for underground services by an external contractor prior to sampling. Samples were collected using a drill rig equipped with spiral flight augers (150mm diameter). Soil samples were obtained from a Standard Penetration Test (SPT) split-spoon sampler, and/or directly from the auger.
Sample Collection and Field QA/QC	Soil samples were obtained on the 6, 7 and 8 June 2023 in accordance with our standard field procedures. Soil samples were collected from the fill and natural profiles based on field observations. The sample depths are shown on the logs attached in the appendices. Samples were placed in glass jars with plastic caps and teflon seals with minimal headspace. Samples for asbestos analysis were placed in zip-lock plastic bags. During sampling, soil at selected depths was split into primary and duplicate samples for field QA/QC analysis. The field splitting procedure included alternately filling the sampling containers to obtain a representative split sample.
Field Screening	A portable Photoionisation Detector (PID) fitted with a 10.6mV lamp was used to screen the samples for the presence of volatile organic compounds (VOCs). PID screening for VOCs was undertaken on soil samples using the soil sample headspace method. VOC data was obtained from partly filled zip-lock plastic bags following equilibration of the headspace gases. PID calibration records are maintained on file by JKE. The field screening for asbestos quantification included the following: • A representative 10L sample was collected from the top 10cm of fill. The bulk sample intervals are shown on the attached borehole logs; • Each 10L sample was weighed using an electronic scale; • Due to the cohesive nature of the soils, each sample was subsequently placed on a contrasting support (blue tarpaulin) and inspected for the presence of fibre cement. Any soil clumps/nodules were disaggregated; • The condition of fibre cement or any other suspected asbestos materials was noted on the field records; and • If observed, any fragments of fibre cement in the 10L sample were collected, placed in a zip-lock bag and assigned a unique identifier. Calculations for asbestos content were undertaken based on the requirements outlined in Schedule B1 of NEPM (2013), as summarised in Section 7.1.
Decontami-nation and Sample Preservation	Sampling personnel used disposable nitrile gloves during sampling activities. Re-usable sampling equipment was decontaminated using Decon and potable water. Soil samples were preserved by immediate storage in an insulated sample container with ice. On completion of the fieldwork, the samples were stored temporarily in fridges in the JKE warehouse before being delivered in the insulated sample container to a NATA registered laboratory for analysis under standard chain of custody (COC) procedures.

6.2.1 Laboratory Analysis

Samples were analysed by an appropriate, NATA Accredited laboratory using the analytical methods detailed in Schedule B(3) of NEPM 2013. Reference should be made to the laboratory reports attached in the appendices for further details.

Table 6-2: Laboratory Details

Samples	Laboratory	Report Reference
All primary samples and field QA/QC samples including (intra-laboratory duplicates, trip blanks, trip spikes and field rinsate samples)	Envirolab Services Pty Ltd NSW, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)	325358
Inter-laboratory duplicates	Envirolab Services Pty Ltd VIC, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)	37865

7 SITE ASSESSMENT CRITERIA (SAC)

The SAC were derived from the NEPM 2013 and other guidelines as discussed in the following sub-sections. The guideline values for individual contaminants are presented in the attached report tables and further explanation of the various criteria adopted is provided in the appendices.

7.1 Soil

Soil data were compared to relevant Tier 1 screening criteria in accordance with NEPM (2013) as outlined below. It is noted that the NEPM (2013) Tier 1 screening criteria do not specifically address tertiary educational establishments. The land use Type C criteria relating to public open space and high schools are considered to be most appropriate at this early conceptual stage of the development in terms of selecting Health Investigation Levels (HILs). Due to the likely extent of landscaped open space, we have not applied HILs for land use Type D (commercial/industrial). Land use type C was also applied in relation to the asbestos SAC.

Conversely however, in relation to vapour intrusion, land use Type C does not include Health Screening Levels (HSLs) as it is assumed that there are no buildings in open spaces. Hence, we have applied HSLs for land use Type D in relation to vapour intrusion. We consider these to be appropriate for screening purposes as the buildings will be utilised only by adults for tertiary educational purposes and the anticipated exposure duration and frequency assumptions under this scenario are considered acceptable.

7.1.1 Human Health

- HIL-C;
- HSL-D. HSLs were calculated based on conservative assumptions including a 'sand' type and a depth interval of 0m to 1m;
- HSL-C for direct contact presented in the CRC Care Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document (2011)[9]; and
- Asbestos was assessed against the HSL-A criteria. A summary of the asbestos criteria is provided in the table below:

Table 7-1: Details for Asbestos SAC

Guideline	Applicability
Asbestos in Soil	The HSL-C criteria were adopted for the assessment of asbestos in soil. The SAC adopted for asbestos were derived from the NEPM 2013 and are based on the Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2021)[10]. The SAC include the following: • No visible asbestos at the surface/in the top 10cm of soil; • <0.02% w/w bonded asbestos containing material (ACM) in soil; and • <0.001% w/w asbestos fines/fibrous asbestos (AF/FA) in soil. Concentrations for bonded ACM concentrations in soil are based on the following equation which is presented in Schedule B1 of NEPM (2013):

[9] Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC Care), (2011). Technical Report No. 10 - *Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document*

[10] Western Australian (WA) Department of Health (DoH), (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. (referred to as WA DoH 2021)

Guideline	Applicability
	% w/w asbestos in soil = $\frac{\text{**% asbestos content x bonded ACM (kg)**}}{\text{Soil volume (L) x soil density (kg/L)}}$ However, we are of the opinion that the actual soil volume in a 10L bucket varies considerably due to the presence of voids, particularly when assessing cohesive soils. Therefore, each bucket sample was weighed using electronic scales and the above equation was adjusted as follows (we note that the units have also converted to grams): **% w/w asbestos in soil =** $\frac{\text{**% asbestos content x bonded ACM (g)**}}{\text{Soil weight (g)}}$

7.1.2 Environment (Ecological – terrestrial ecosystems)

- Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) for an 'urban residential and public open space' (URPOS) exposure scenario. These have only been applied to the top 2m of soil as outlined in NEPM (2013). The criterion for benzo(a)pyrene has been increased from the value presented in NEPM (2013) based on the Canadian Soil Quality Guidelines[11];
- ESLs were adopted based on the soil type;
- EILs for selected metals were calculated based on the most conservative added contaminant limit (ACL) values presented in Schedule B(1) of NEPM (2013) and published ambient background concentration (ABC) values presented in the document titled Trace Element Concentrations in Soils from Rural and Urban Areas of Australia (1995)[12]. This method is considered to be adequate for the Tier 1 screening.

7.1.3 Management Limits for Petroleum Hydrocarbons

Management limits for petroleum hydrocarbons (as presented in Schedule B1 of NEPM 2013) were considered.

[11] Canadian Council of Ministers of the Environment, (1999). *Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)* (referred to as the Canadian Soil Quality Guidelines)

[12] Olszowy, H., Torr, P., and Imray, P., (1995), *Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4*. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

8 RESULTS

8.1 Summary of Data (QA/QC) Evaluation

The data evaluation is presented in the appendices. In summary, JKE is of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

8.2 Subsurface Conditions

A summary of the subsurface conditions encountered during the investigation is presented in the following table. Reference should be made to the borehole logs attached in the appendices for further details.

Table 8-1: Summary of Subsurface Conditions

Profile	Description
Fill	Fill was encountered at the surface in all boreholes and extended to depths of between approximately 0.3mBGL (BH9) to 4.4mBGL (BH3). The fill typically comprised silty sand and silty clay with inclusions igneous gravel. Traces of plastic fragments were encountered in BH3, glass fragments in BH6 and BH7, slag in BH11 and ash in BH12 and BH13. Staining, odours or FCF were not observed in the fill material during the field work.
Natural Soil	Natural alluvial soils were encountered beneath the fill in all boreholes except BH4. The natural soils typically comprised of silty clay, silty gravelly sand and clayey gravel. Neither staining nor odours were observed in the natural soils during the field work.
Bedrock	Bedrock was encountered in boreholes BH1, BH3, BH4 and BH7 depths of between approximately 3.15mBGL (BH4) and 9.5mBGL (BH1). The bedrock comprised of the Baldwin Formation geological unit consisting of greywacke. Neither staining nor odours were observed in the natural soils during the field work.
Groundwater	Groundwater was seepage was encountered during auger drilling in boreholes BH1, BH8-BH10 and BH12 at the depth of between approximately 3.8mBGL (BH9) and 10.8mBGL (BH12). A short time after completion of drilling in BH2, BH8, BH9 and BH12, the groundwater level was measured at depths of between approximately 4.9mBGL (BH9) and 9.4mBGL (BH12). The remainder of the boreholes were 'dry' during and on completion of auger drilling. JKG installed groundwater monitoring wells in BH5, BH9 and BH13, however longer-term groundwater level monitoring was outside of the scope of works.

8.3 Field Screening

A summary of the field screening results is presented in the following table:

Table 8-2: Summary of Field Screening

Aspect	Details
PID Screening of Soil Samples for VOCs	PID soil sample headspace readings are presented in attached report tables and the COC documents attached in the appendices. All majority of the results were 0ppm or <1ppm isobutylene equivalents which indicates a lack of PID detectable VOCs.
Bulk Screening for Asbestos	The bulk field screening results are summarised in the attached report Table S6. The asbestos in ACM concentration were all less than the SAC. Potential ACM (i.e, Fibre Cement Fragments) were not identified during the field work.

8.4 Soil Laboratory Results

The soil laboratory results were assessed against the SAC presented in Section 7.1. Individual SAC are shown in the report tables attached in the appendices. A summary of the results is presented below:

8.4.1 Human Health and Environmental (Ecological) Assessment

Table 8-3: Summary of Soil Laboratory Results – Human Health and Environmental (Ecological)

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
Arsenic	18	6	0	0	-
Cadmium	18	<PQL	0	NSL	-
Chromium (total)	18	26	0	0	-
Copper	18	54	0	0	-
Lead	18	48	0	0	-
Mercury	18	0.3	0	NSL	-
Nickel	18	22	0	0	-
Zinc	18	98	0	0	-
Total PAHs	17	3.7	0	NSL	-
Benzo(a)pyrene	16	0.4	NSL	0	-
Carcinogenic PAHs (as BaP TEQ)	16	0.7	0	NSL	-
Naphthalene	16	<PQL	0	NSL	-
DDT+DDE+DDD	12	<PQL	0	NSL	-

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
DDT	12	<PQL	NSL		-
Aldrin and dieldrin	12	<PQL	0	NSL	-
Chlordane	12	<PQL	0	NSL	-
Heptachlor	12	<PQL	0	NSL	-
Chlorpyrifos (OPP)	12	<PQL	0	NSL	-
PCBs	12	<PQL	0	NSL	-
TRH F1	16	<PQL	0	0	-
TRH F2	16	71	0	0	-
TRH F3	16	<PQL	0	0	-
TRH F4	16	<PQL	0	0	-
Benzene	16	<PQL	0	0	-
Toluene	16	<PQL	0	0	-
Ethylbenzene	16	<PQL	0	0	-
Xylenes	16	<PQL	0	0	-
Asbestos (in soil) (%w/w)	8	ACM AF/FA	0	NA	Asbestos was not detected.

Notes:

N: Total number (primary, replicate, and duplicate samples)

NSL: No set limit

NL: Not limiting

9 DISCUSSION

9.1 Contamination Sources/AEC and Potential for Site Contamination

Based on the scope of work undertaken for this investigation, JKE identified the following potential contamination sources/AEC:

- Fill material;
- Use of pesticides; and
- Hazardous building materials from former demolition.

Considering the above, and based on a qualitative assessment of various lines of evidence as discussed throughout this report, JKE is of the opinion that there is a potential for site contamination. The preliminary soil data collected for the investigation is discussed further in the following subsection, as part of the Tier 1 risk assessment.

9.2 Tier 1 Risk Assessment and Review of CSM

For a contaminant to represent a risk to a receptor, the following three conditions must be present:

1. Source – The presence of a contaminant;
2. Pathway – A mechanism or action by which a receptor can become exposed to the contaminant; and
3. Receptor – The human or ecological entity which may be adversely impacted following exposure to contamination.

If one of the above components is missing, the potential for adverse risks is relatively low.

All of the PSI results were below the SAC. However, in relation to the identified AEC and CoPC, and in review of the CSM, we note that:

- Fill (i.e. historically imported/emplaced soil) was identified in all boreholes ranging in depth from approximately 0.3mBGL (BH9) to 4.4mBGL (BH3), confirming this as a potential source of contamination. Traces of plastic fragments were encountered in BH3, glass fragments in BH6, BH7, slag in BH11 and ash in BH12 and BH13;
- Volatile hydrocarbons were not detected;
- Sampling was limited in the proposed development area due to the existing velodrome; and
- A small rectangular shaped building was formerly located adjacent to the south-east section of the site. The building was demolished sometime between 2008 and 2010.

9.3 Decision Statements

The decision statements are addressed below:

> *Did the site inspection, or does the historical information identify potential contamination sources/AEC at the site?*

Yes, as documented in the CSM.

Are any results above the SAC?

No.

Do potential risks associated with contamination exist, and if so, what are they?

Potential risks were identified. These risks require further assessment.

Is remediation required?

All PSI results were below the SAC and therefore the PSI did not identify an immediate trigger for remediation. However, further investigation is required to address the data gaps identified in Section 9.4.

Is the site characterisation sufficient to provide adequate confidence in the above decisions?

No. A Detailed Site Investigation (DSI) should be undertaken to address the relevant data gaps identified in Section 9.4.

Is the site suitable for the proposed development, or can the site be made suitable subject to further characterisation and/or remediation?

Based on the findings of the investigation, JKE is of the opinion that the site can be made suitable for the proposed development described in Section 1.1. If the DSI identifies a need for remediation, a Remediation Action Plan (RAP) will be required and the site will need to be remediated and validated to confirm site suitability.

9.4 Data Gaps

An assessment of data gaps is provided in the following table:

Table 9-1: Data Gap Assessment

Data Gap	Assessment
Soil sampling density below minimum guideline density	Sampling was limited to approximately 32% of the minimum sampling density recommended in the EPA Sampling Design Guidelines 2022 and sampling did not occur via a probabilistic sampling plan. Additionally, asbestos quantification was only undertaken from the top 10cm of fill due to the preliminary nature of the investigation. Recommendations for additional soil sampling via a DSI are included in the report to address this data gap.
Groundwater	Based on the site history and the results reported, the potential for groundwater contamination to pose a risk to the receptors is considered to be relatively low. This is to be further assessed under the scope of the DSI, where required.

10 CONCLUSIONS AND RECOMMENDATIONS

The investigation included a review of historical information and sampling from eight boreholes. The potential contamination sources/AEC include:

- Fill material;
- Use of pesticides; and
- Hazardous building materials from former demolition.

Based on the findings of the investigation, JKE is of the opinion that the site can be made suitable for the proposed development described in Section 1.1. A DSI will be required to establish whether remediation is necessary.

Based on the preliminary data, contamination issues at the site (if found during the DSI process) would be expected to be typical of this type of site with the associated historical land use (e.g. possible impacts in fill, potential asbestos in FCF etc). On this basis, we consider that the site could be made suitable via relatively straight-forward remediation processes such as 'excavation/disposal' and/or 'cap and contain', should remediation be required.

We recommend the following:

- Undertake DSI to address the data gaps identified in Section 9.4. In our view, it would be reasonable to limit the DSI to broadly capture the proposed development footprint; and
- If the DSI identifies a need for remediation, a RAP will be required and the site will need to be remediated and validated to confirm site suitability.

At this stage, JKE consider that there is no requirement to report any site contamination to the NSW EPA under the NSW EPA Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997 (2015)[13], provided that the recommendations provided above are implemented.

JKE consider that the report objectives outlined in Section 1.2 have been addressed.

[13] NSW EPA, (2015). *Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997* (referred to as Duty to Report Contamination)

11 LIMITATIONS

The report limitations are outlined below:

- JKE accepts no responsibility for any unidentified contamination issues at the site. Any unexpected problems/subsurface features that may be encountered during development works should be inspected by an environmental consultant as soon as possible;
- Previous use of this site may have involved excavation for the foundations of buildings, services, and similar facilities. In addition, unrecorded excavation and burial of material may have occurred on the site. Backfilling of excavations could have been undertaken with potentially contaminated material that may be discovered in discrete, isolated locations across the site during construction work;
- This report has been prepared based on site conditions which existed at the time of the investigation; scope of work and limitation outlined in the JKE proposal; and terms of contract between JKE and the client (as applicable);
- The conclusions presented in this report are based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, visual observations of the site and immediate surrounds and documents reviewed as described in the report;
- Subsurface soil and rock conditions encountered between investigation locations may be found to be different from those expected. Groundwater conditions may also vary, especially after climatic changes;
- The investigation and preparation of this report have been undertaken in accordance with accepted practice for environmental consultants, with reference to applicable environmental regulatory authority and industry standards, guidelines and the assessment criteria outlined in the report;
- Where information has been provided by third parties, JKE has not undertaken any verification process, except where specifically stated in the report;
- JKE has not undertaken any assessment of off-site areas that may be potential contamination sources or may have been impacted by site contamination, except where specifically stated in the report;
- JKE accept no responsibility for potentially asbestos containing materials that may exist at the site. These materials may be associated with demolition of pre-1990 constructed buildings or fill material at the site;
- JKE have not and will not make any determination regarding finances associated with the site;
- Additional investigation work may be required in the event of changes to the proposed development or landuse. JKE should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a soil contamination viewpoint, and vice versa; and
- This report has been prepared for the particular project described and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

Important Information About This Report

These notes have been prepared by JKE to assist with the assessment and interpretation of this report.

The Report is based on a Unique Set of Project Specific Factors
This report has been prepared in response to specific project requirements as stated in the JKE proposal document which may have been limited by instructions from the client. This report should be reviewed, and if necessary, revised if any of the following occur:

- The proposed land use is altered;
- The defined subject site is increased or sub-divided;
- The proposed development details including size, configuration, location, orientation of the structures or landscaped areas are modified;
- The proposed development levels are altered, eg addition of basement levels; or
- Ownership of the site changes.

JKE will not accept any responsibility whatsoever for situations where one or more of the above factors have changed since completion of the investigation. If the subject site is sold, ownership of the investigation report should be transferred by JKE to the new site owners who will be informed of the conditions and limitations under which the investigation was undertaken. No person should apply an investigation for any purpose other than that originally intended without first conferring with the consultant.

Changes in Subsurface Conditions
Subsurface conditions are influenced by natural geological and hydrogeological process and human activities. Groundwater conditions are likely to vary over time with changes in climatic conditions and human activities within the catchment (e.g. water extraction for irrigation or industrial uses, subsurface waste water disposal, construction related dewatering). Soil and groundwater contaminant concentrations may also vary over time through contaminant migration, natural attenuation of organic contaminants, ongoing contaminating activities and placement or removal of fill material. The conclusions of an investigation report may have been affected by the above factors if a significant period of time has elapsed prior to commencement of the proposed development.

This Report is based on Professional Interpretations of Factual Data
Site investigations identify actual subsurface conditions at the actual sampling locations at the time of the investigation. Data obtained from the sampling and subsequent laboratory analyses, available site history information and published regional information is interpreted by geologists, engineers or environmental scientists and opinions are drawn about the overall subsurface conditions, the nature and extent of contamination, the likely impact on the proposed development and appropriate remediation measures.

Actual conditions may differ from those inferred, because no professional, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an investigation indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, but steps can be taken to help minimise the impact. For this reason, site owners should retain the services of their consultants throughout the development stage of the project, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

Investigation Limitations
Although information provided by a site investigation can reduce exposure to the risk of the presence of contamination, no environmental site investigation can eliminate the risk. Even a rigorous professional investigation may not detect all contamination on a site. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas which showed no signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant which may occur; only the most likely contaminants are screened.

Misinterpretation of Site Investigations by Design Professionals

Costly problems can occur when other design professionals develop plans based on misinterpretation of an investigation report. To minimise problems associated with misinterpretations, the environmental consultant should be retained to work with appropriate professionals to explain relevant findings and to review the adequacy of plans and specifications relevant to contamination issues.

Logs Should not be Separated from the Investigation Report

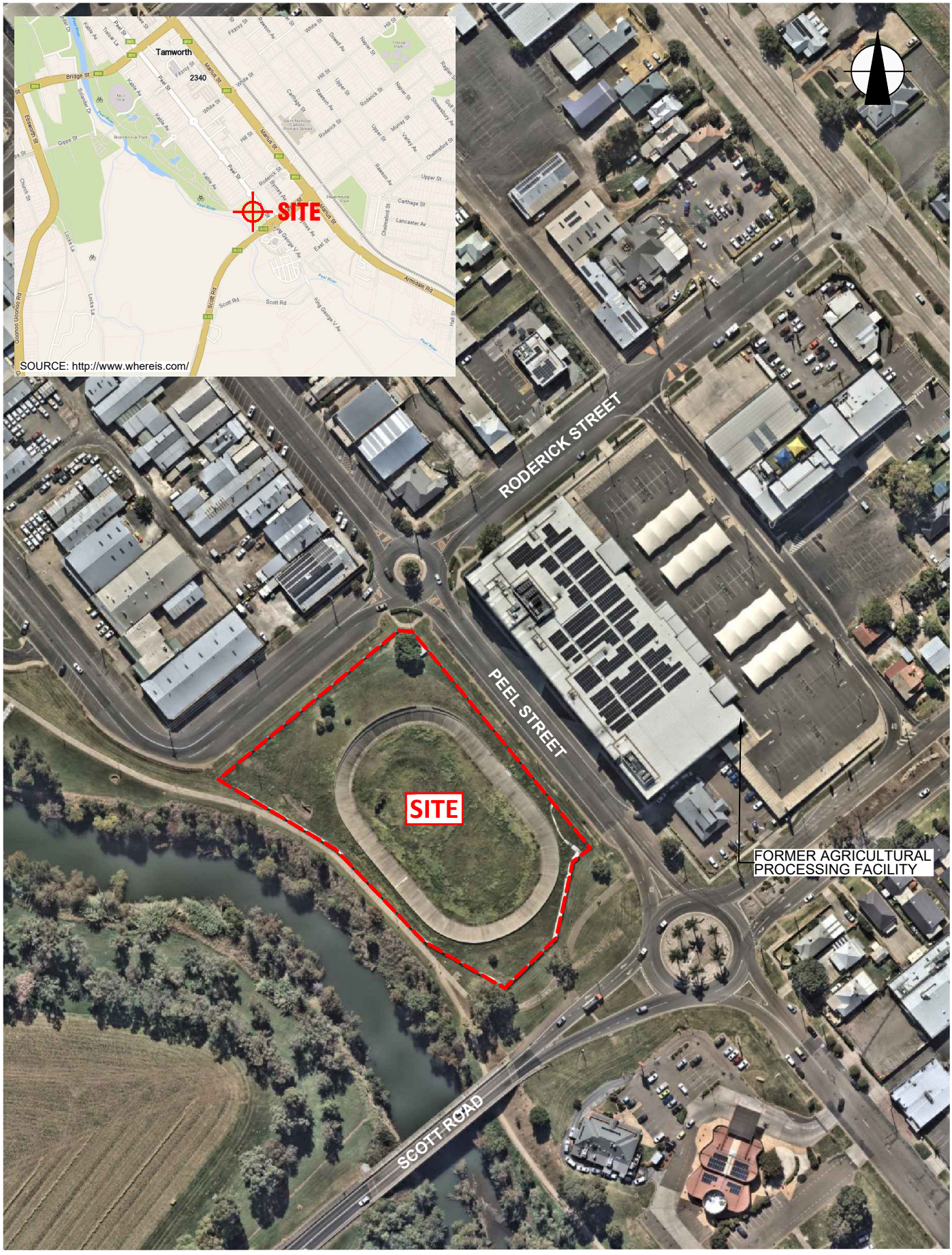
Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site remediation or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however contractors can still misinterpret the logs during bid preparation if separated from the text of the investigation. If this occurs, delays, disputes and unanticipated costs may result. In all cases it is necessary to refer to the rest of the report to obtain a proper understanding of the investigation. Please note that logs with the 'Environmental Log' header are not suitable for geotechnical purposes as they have not been peer reviewed by a Senior Geotechnical Engineer.

To reduce the likelihood of borehole and test pit log misinterpretation, the complete investigation should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of subsurface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations such as contractors.

Read Responsibility Clauses Closely

Because an environmental site investigation is based extensively on judgement and opinion, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, model clauses have been developed for use in written transmittals. These are definitive clauses designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site investigation, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to any questions.

Appendix A: Report Figures



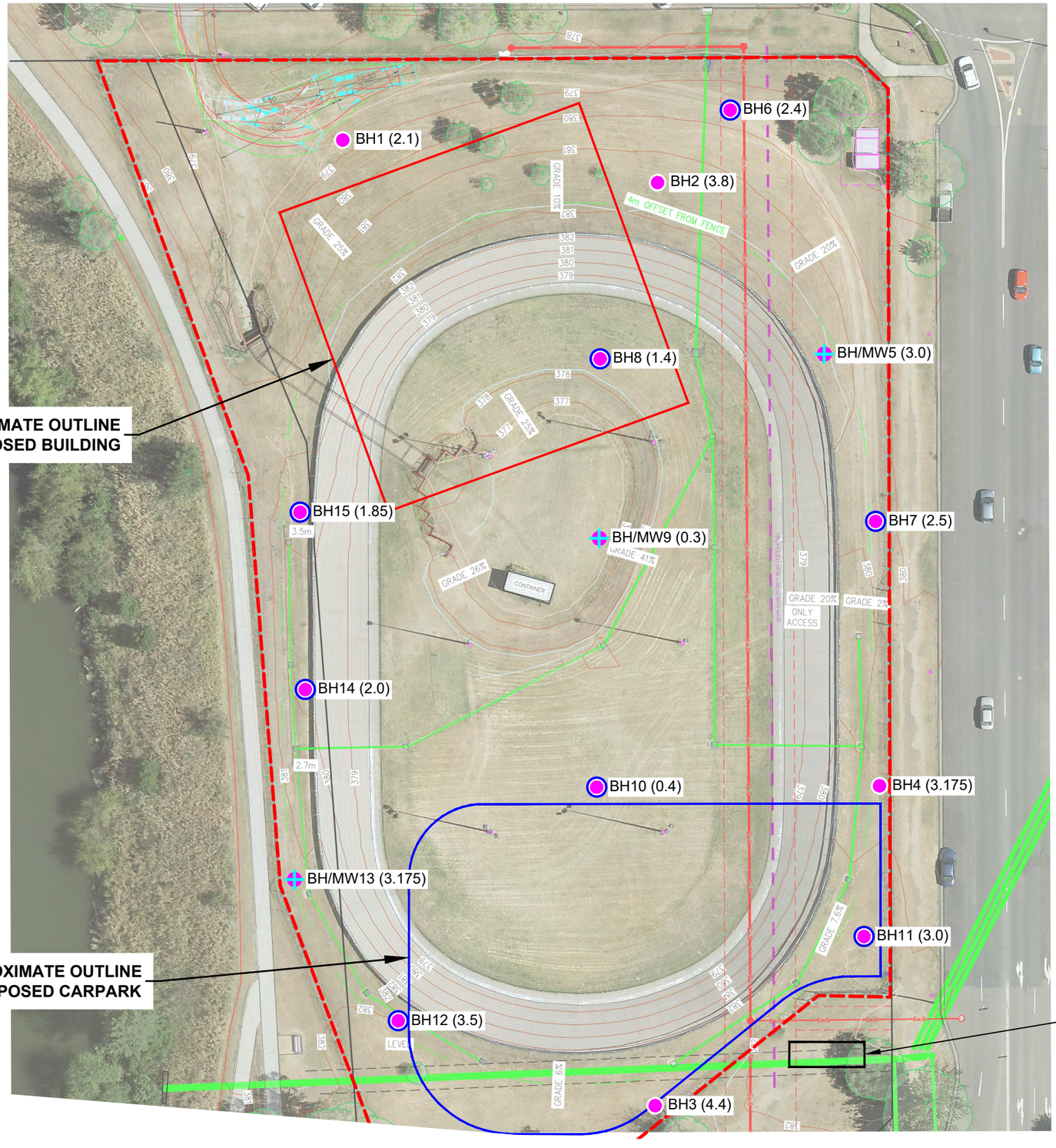
AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

This plan should be read in conjunction with the Environmental report.

Title:	**SITE LOCATION PLAN**
Location:	PRINCE OF WHALES PARK, PEEL STREET, TAMWORTH, NSW
Project No:	E36020PD
Figure No:	1

JKEnvironments

PLOT DATE: 25/07/2023 3:11:26 PM DWG FILE: K:\SC EIS \JOBS\36000\SIE36020PD TAMWORTH\CAD\E36020PD.DWG



LEGEND

APPROXIMATE SITE BOUNDARY	
BH(Fill Depth)	JKG BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
BH/MW(Fill Depth)	JKG BOREHOLE AND GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)
	JKE PSI FCF SAMPLE LOCATION
SEWER EASEMENT	
STORMWATER PIPEWORK & EASEMENT IN THE SOUTH EAST SECTION OF THE SITE	

0 6 12 18 24 30
SCALE 1:600 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **SAMPLE LOCATION PLAN**

Location: PRINCE OF WHALES PARK, PEEL STREET, TAMWORTH, NSW

Project No: E36020PD

Figure No: 2

JKEnvironments

PLOT DATE: 31/07/2023 10:03:14 AM DWG FILE: K:\5C EIS JOBS\36000'S\E36020PD TAMWORTH\CADE36020PD.DWG

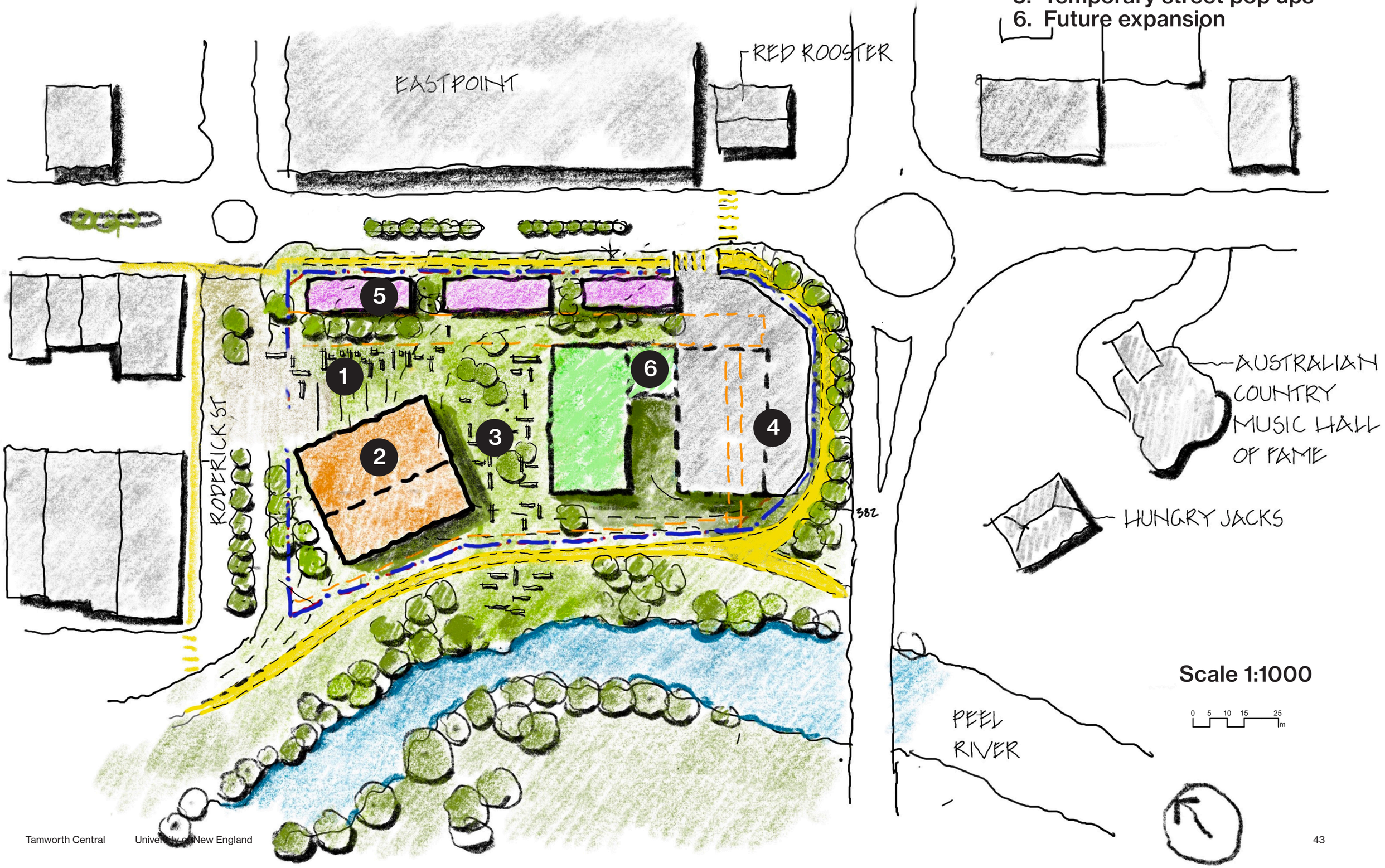
Appendix B: Site Information and Site History

Proposed Development Plans

Concept Validation

Preferred Option 3 - Sketch Site Plan

1. Campus entry
2. Foundation building
3. Knowledge green
4. Car park, temp + future
5. Temporary street pop ups
6. Future expansion



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Concept Validation

Preferred Option 3 - Illustrative Site Plan

1. Campus entry
2. Foundation building
3. Knowledge green
4. Car park, temp + future
5. Temporary street pop ups
6. Future expansion

Scale 1:1000

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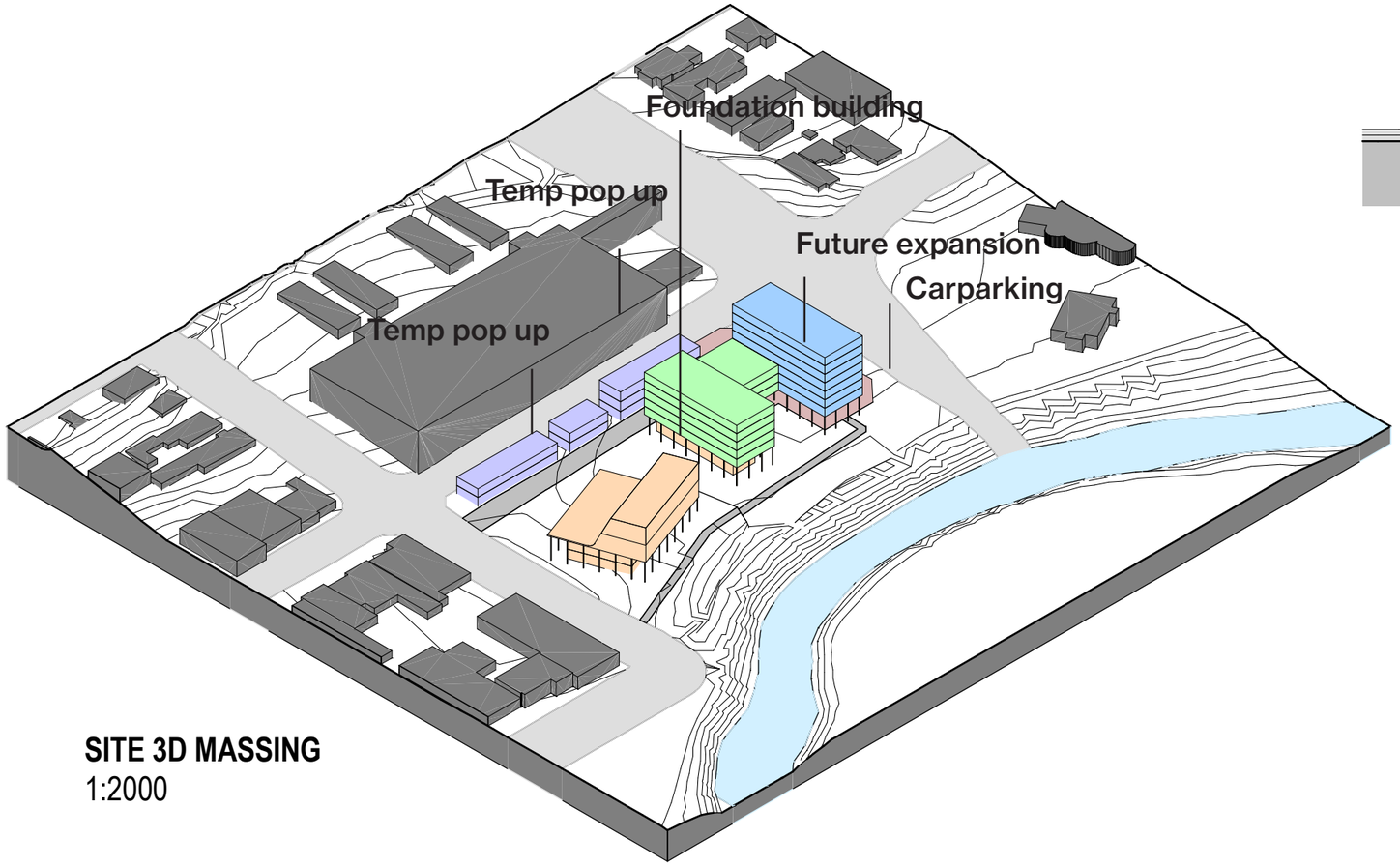
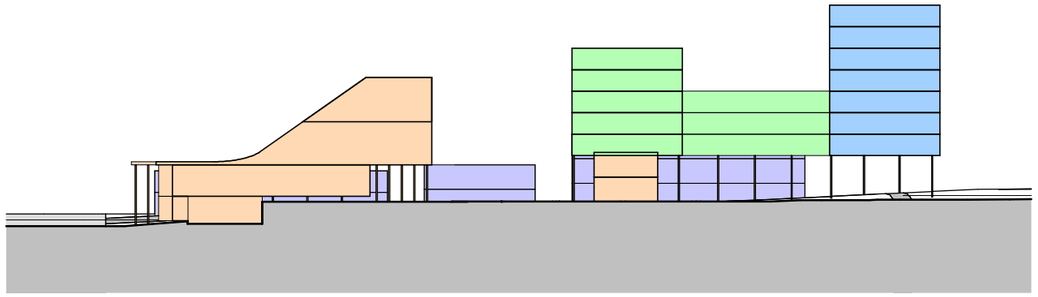
Concept Validation
Preferred Option 3 - Massing



SITE 3D MASSING
1:2000

BUILDING	LEVELS	AREA	COMMENTS
A	4	3265 m^2	+ 360m^2 x 2 = 720m^2
B	5	5855 m^2	
C	2 + 2 + 3	2800 m^2	
CARPARK	1	2540 m^2	
SITE EXPANSION	7	7770 m^2	



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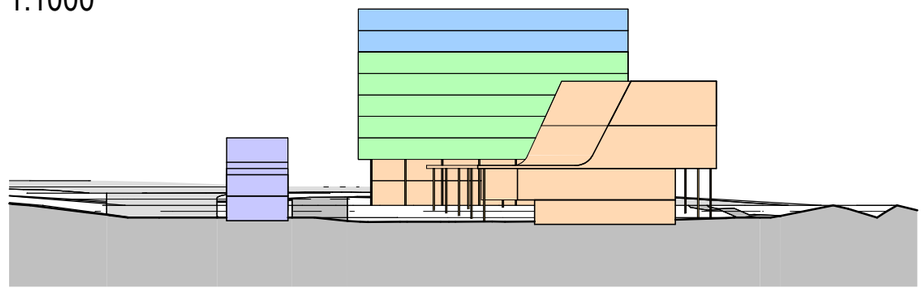

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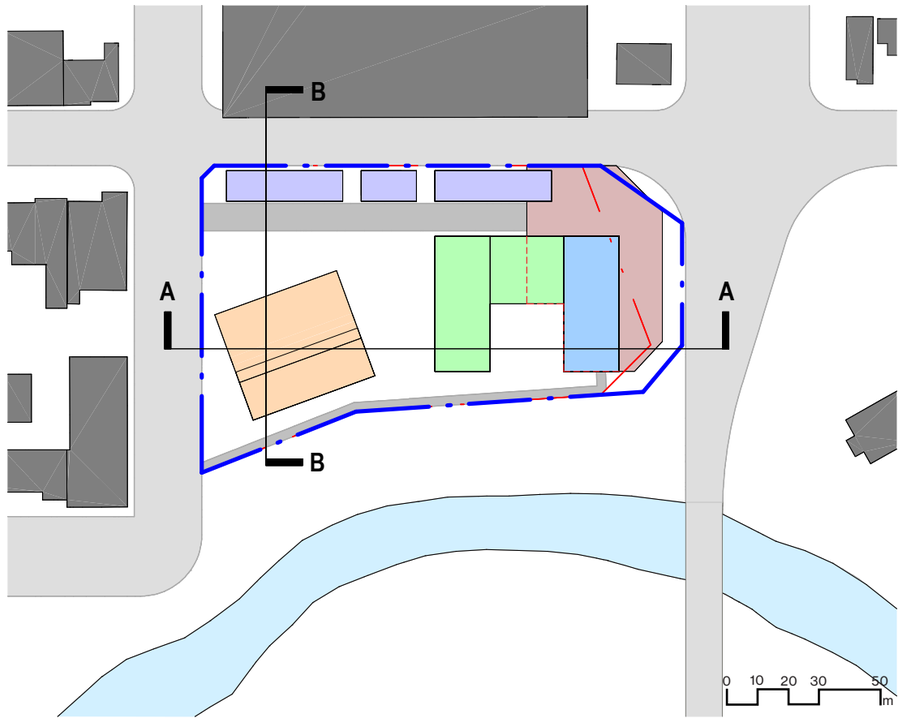
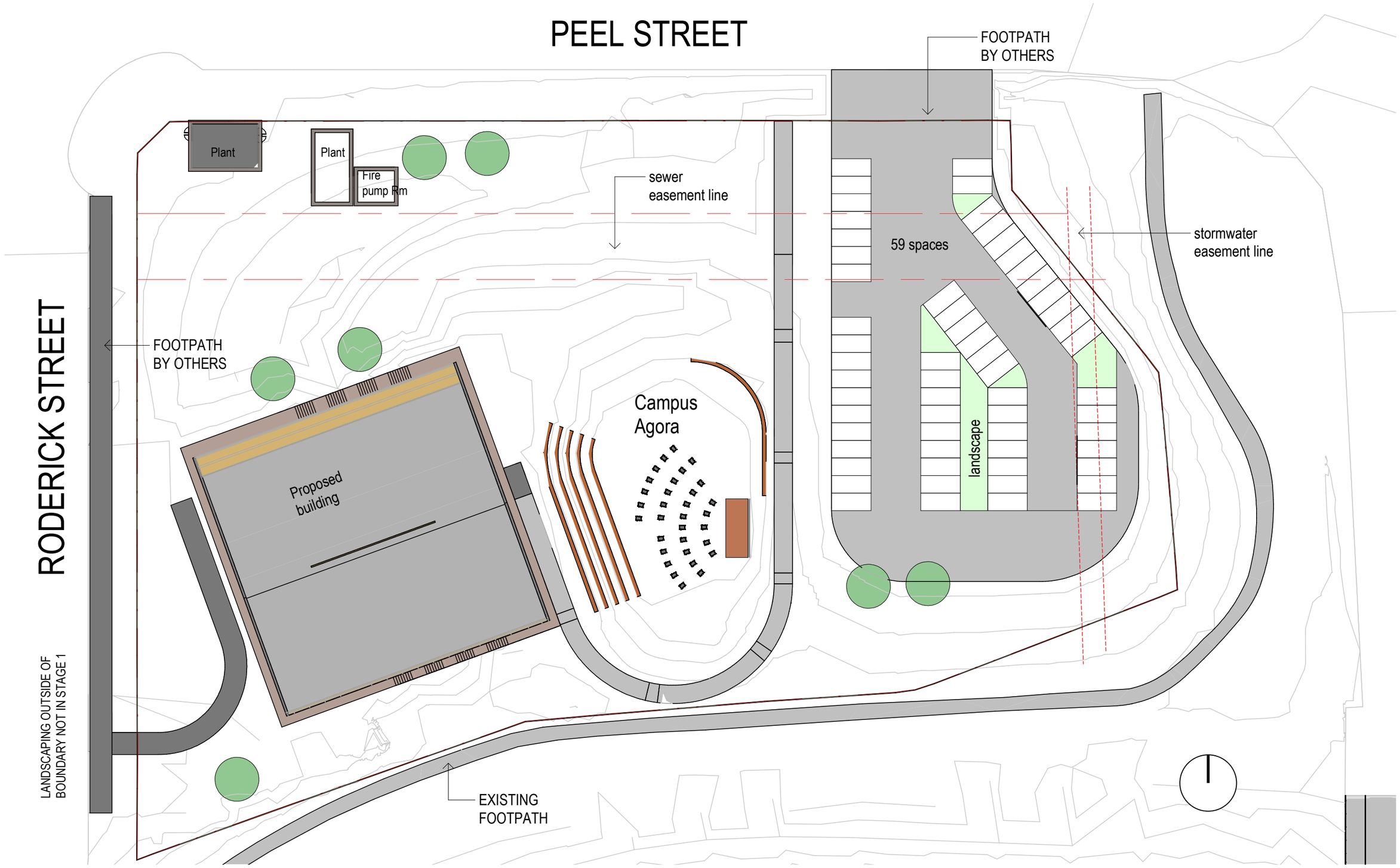


SITE PLAN
1:2000

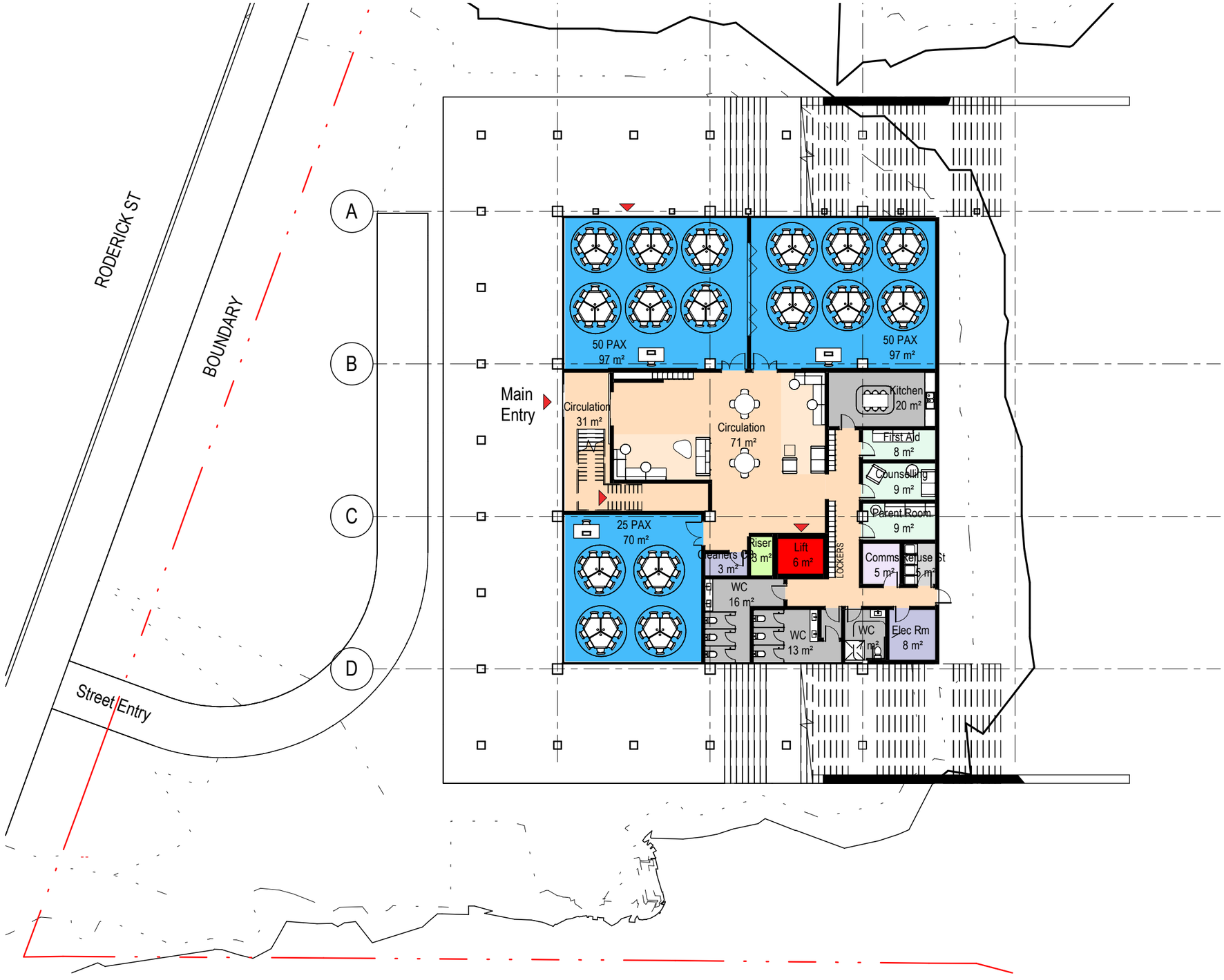
Concept Design
Floor Plans



PROPOSED SITE PLAN

SCALE 1:500

Concept Design
Floor Plans



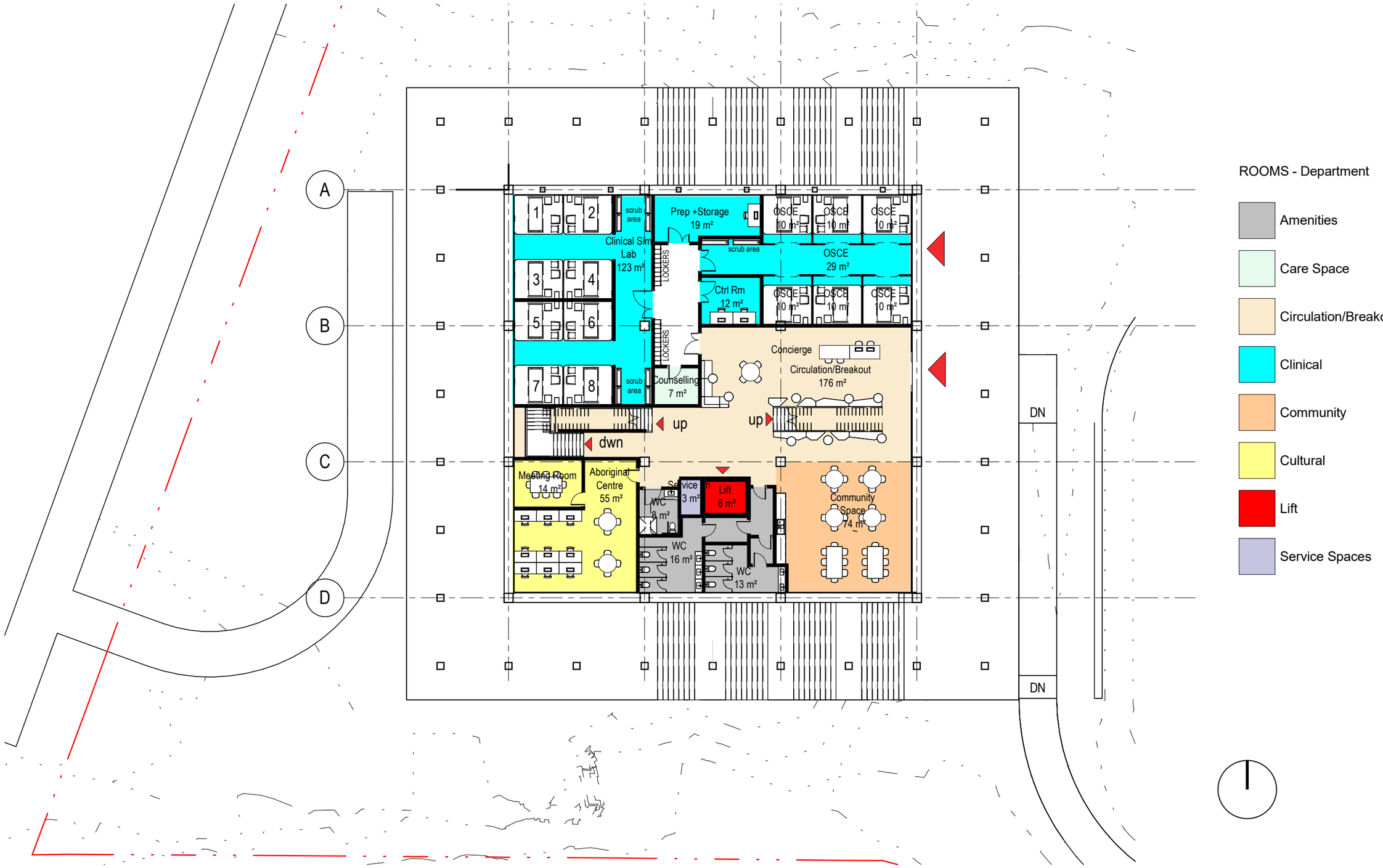
ROOMS - Department

- Amenities
- Care Space
- Circulation
- Comms
- Lift
- Service Spaces
- Services
- Staff
- Student Breakout
- Teaching Spaces

GENERAL ARRANGEMENT - GROUND LEVEL

SCALE 1:250

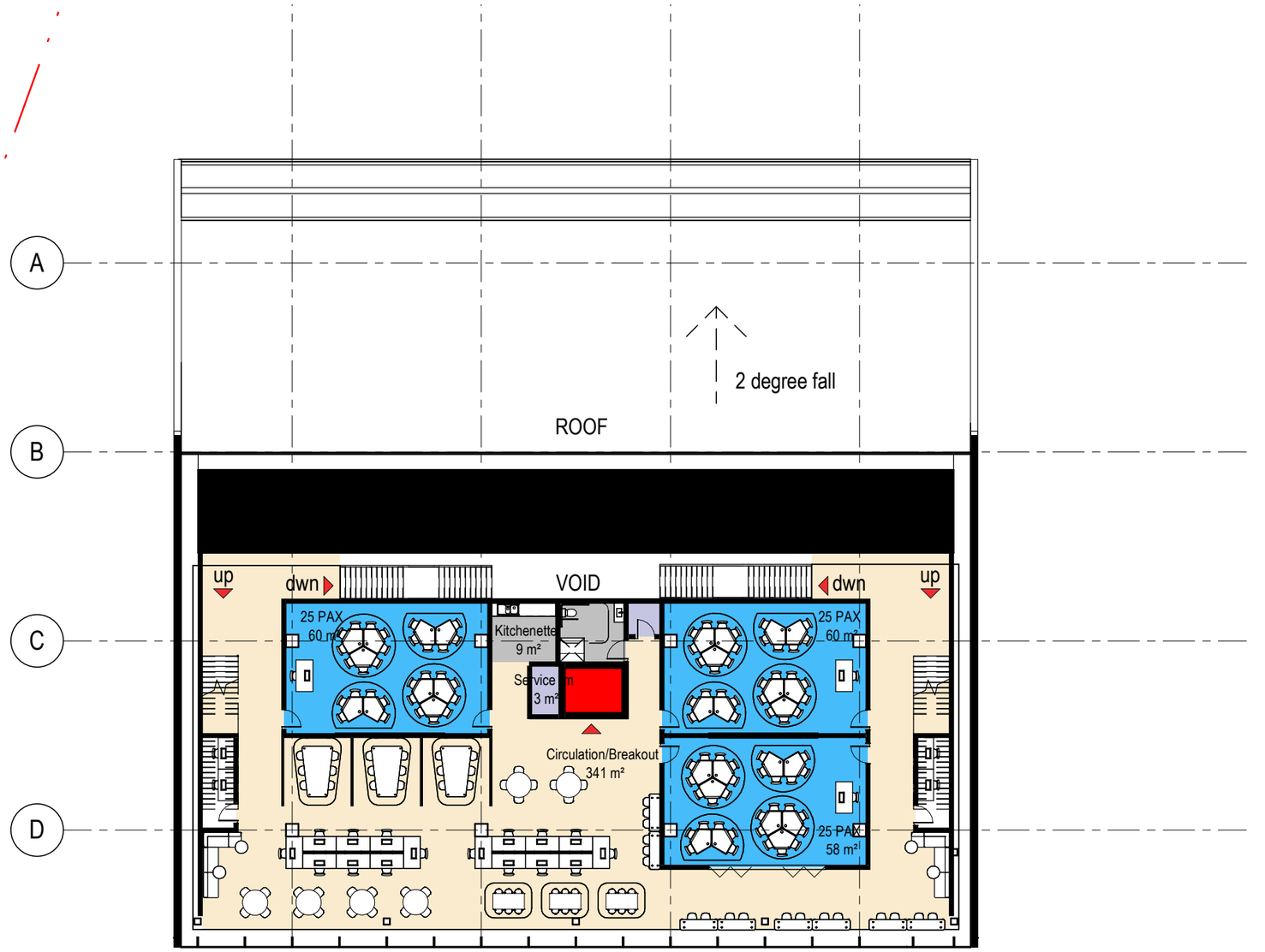
Concept Design
Floor Plans



GENERAL ARRANGEMENT - LEVEL 1

SCALE 1:250

Concept Design
Floor Plans



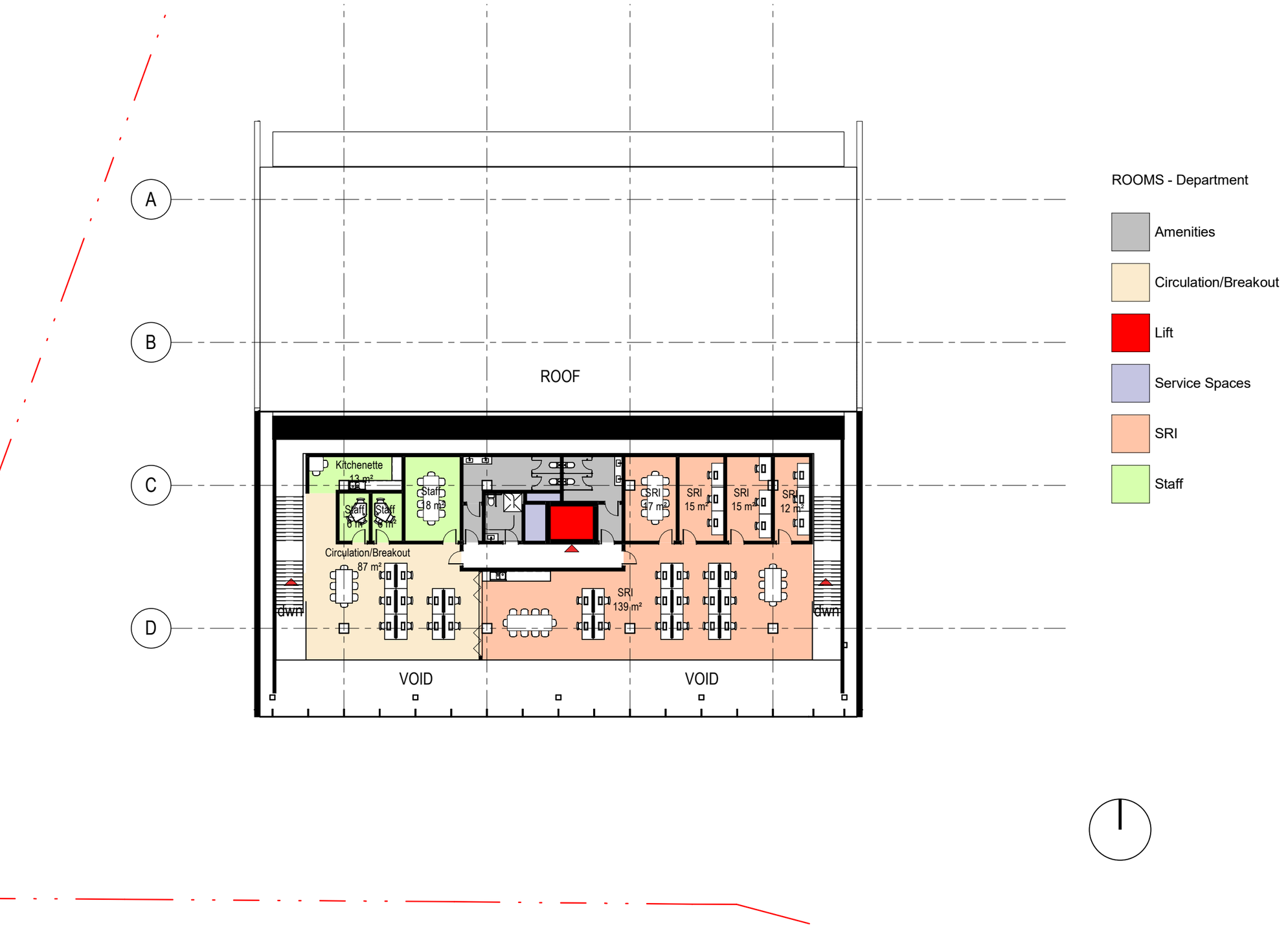
ROOMS - Department

- Amenities
- Circulation/Breakout
- Lift
- Service Spaces
- Teaching Spaces

GENERAL ARRANGEMENT - LEVEL 2

SCALE 1:250

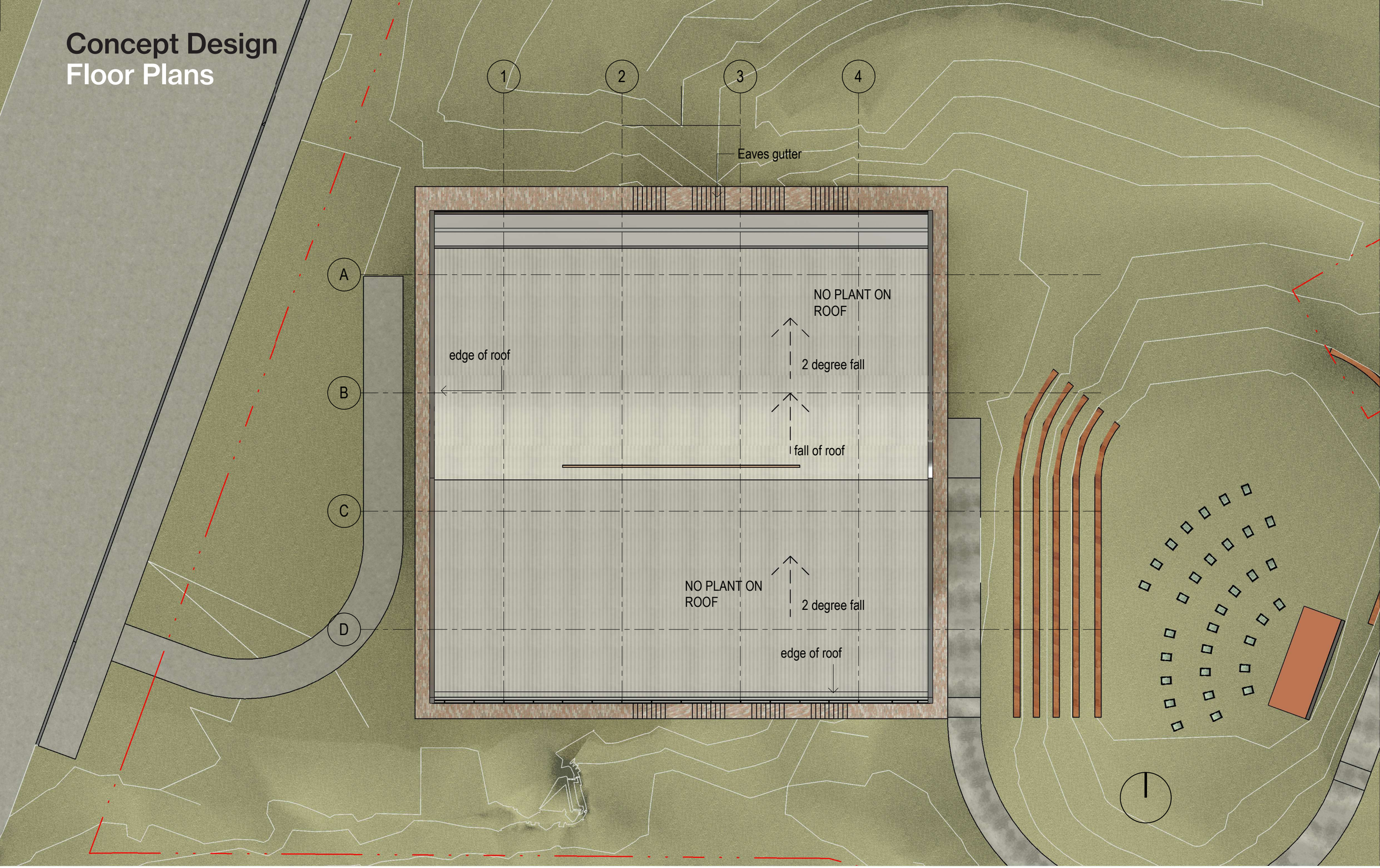
Concept Design
Floor Plans



GENERAL ARRANGEMENT - LEVEL 3

SCALE 1:250

Concept Design
Floor Plans



ROOF

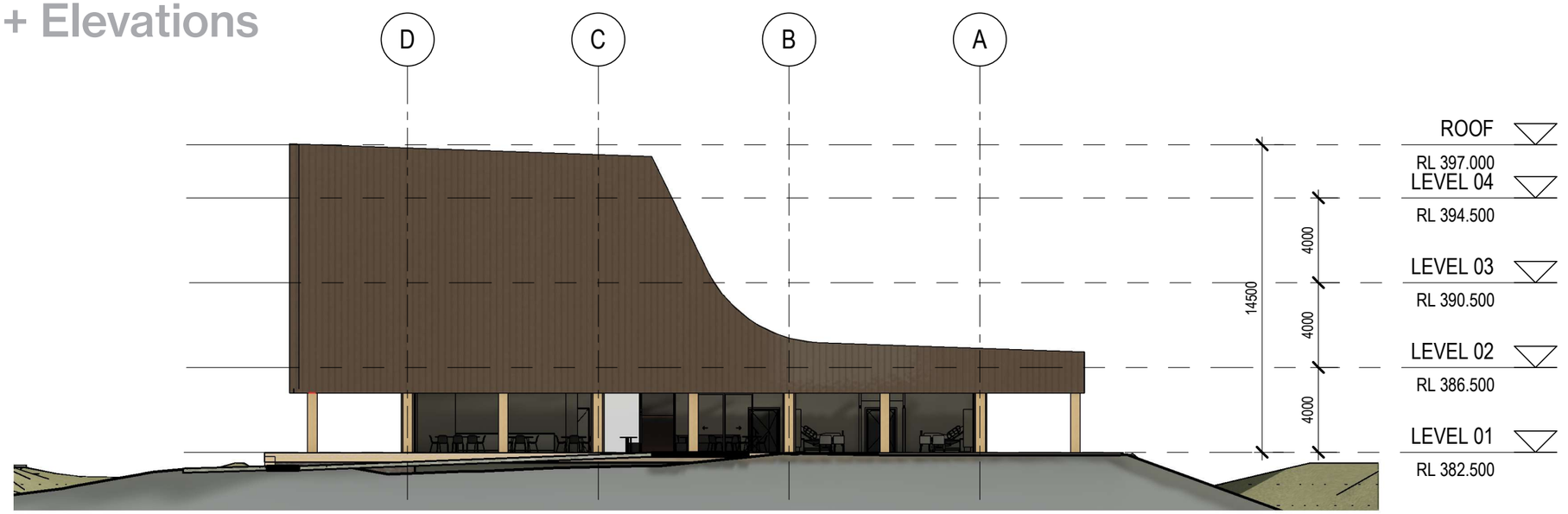
SCALE 1:250

Concept Design
Sections + Elevations

NORTH + SOUTH ELEVATION

SCALE 1:250

Concept Design
Sections + Elevations



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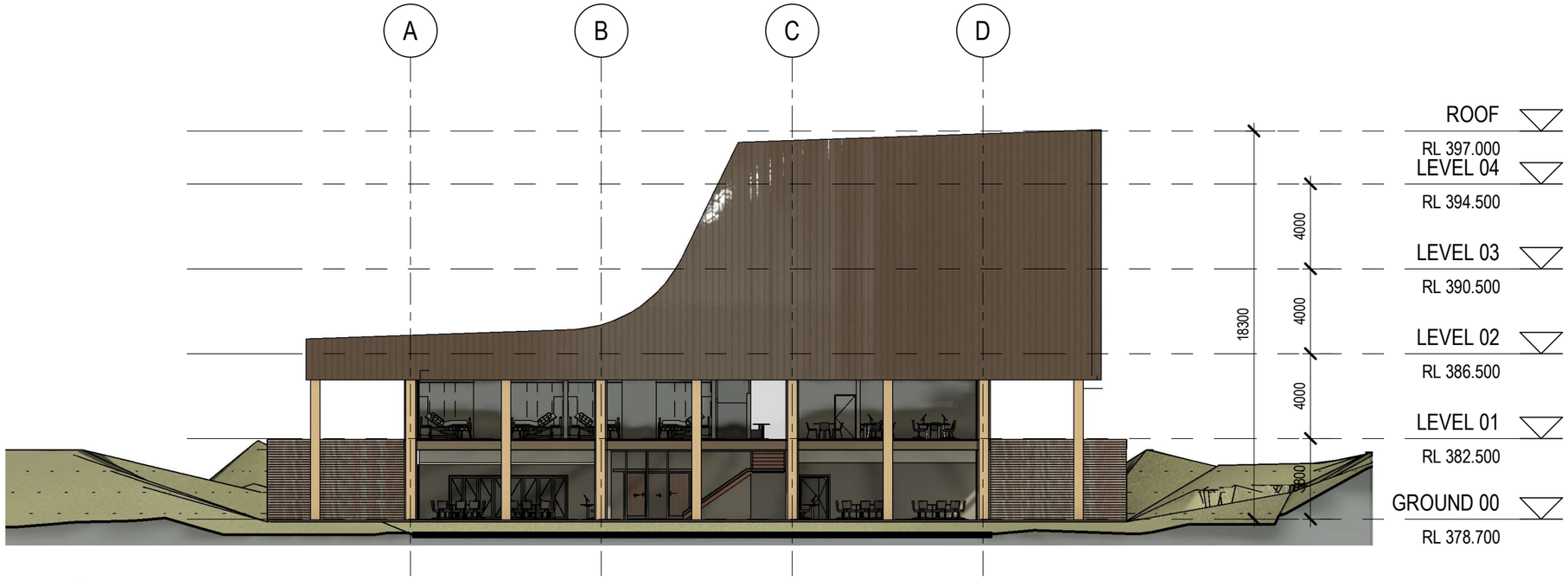
1 : 250

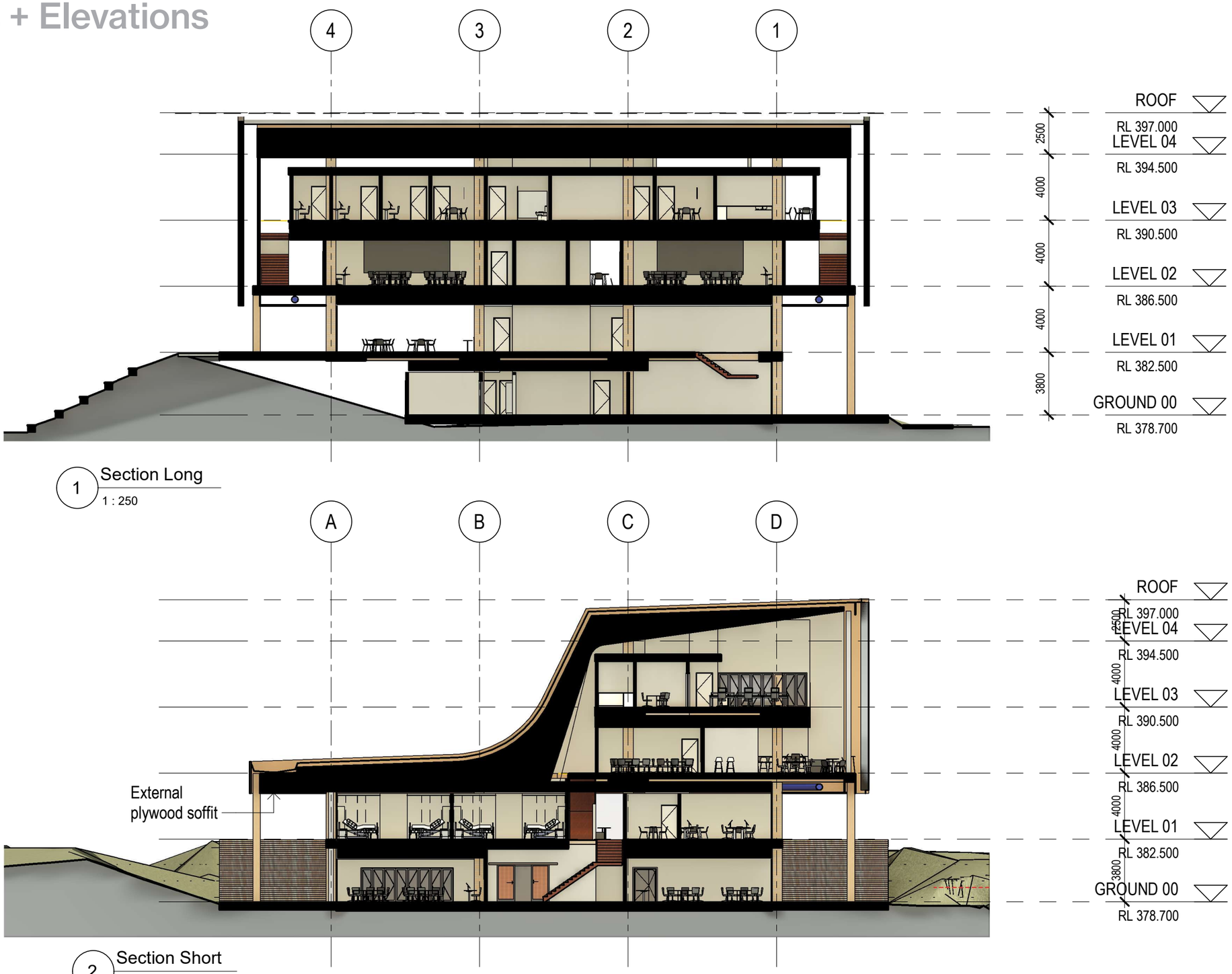


2 West Elevation
1 : 250

EAST + WEST ELEVATION

SCALE 1:250

Concept Design
Sections + Elevations



1 Section Long
1 : 250

2 Section Short
1 : 250

SECTIONS

SCALE 1:250

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01

Cut/Fill Summary

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CUT AND FILL DATA

NUMBER	MINIMUM LEVEL	MAXIMUM LEVEL	COLOUR	VOLUME
1	-4.00	-3.00		75.3m3
2	-3.00	-2.00		439.6m3
3	-2.00	-1.00		875.5m3
4	-1.00	0.00		2010.3m3
5	0.00	1.00		6275.2m3
6	1.00	2.00		5366.6m3
7	2.00	3.00		4698.9m3
8	3.00	4.00		2680.4m3
9	4.00	5.00		803.5m3
10	5.00	6.00		471.2m3
11	6.00	7.00		27.9m3

RODERICK STREET

PEEL STREET

SCOTT ROAD

GROUND
FFL 378.70
BE 378.45

LEVEL 1
FFL 382.50
BE 382.25

PROPOSED POSITIVE COVENANT

0 2.5 5 7.5 10 12.5 15 17.5 20m

1:250 A1 1:500 A3

A1

FileName: SK01.dwg - USER: aprilw - Plot File Created: Jun 07, 2023 - 9:06pm

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

Rev	Description	Eng	Draft	Date
P2	ISSUE FOR INFORMATION	NB	AW	07.06.23
P1	ISSUE FOR INFORMATION	NB	AW	24.05.23

Architect: architectus™

Engineer: TTW Structural Civil Traffic Façade
+61 2 9439 7288 | L6 73 MILLER STREET NORTH SYDNEY NSW 2060

Project: UNIVERSITY OF NEW ENGLAND
TAMWORTH

Sheet Subject: BULK EARTHWORKS PLAN OPTION 1

Scale : A1	Drawn	Authorised
1:250	AW	

Job No	Drawing No	Revision
221823	SKC01	P2

Plot File Created: Jun 07, 2023 - 9:06pm

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Totals			11204.37sq.m	5212.32 Cu. M.	8610.28 Cu. M.	3397.97 Cu. M.<Fill>

CUT AND FILL DATA

NUMBER	MINIMUM LEVEL	MAXIMUM LEVEL	COLOUR	VOLUME
1	-4.00	-3.00		75.3m3
2	-3.00	-2.00		439.6m3
3	-2.00	-1.00		875.5m3
4	-1.00	0.00		2010.3m3
5	0.00	1.00		6275.2m3
6	1.00	2.00		5366.6m3
7	2.00	3.00		4698.9m3
8	3.00	4.00		2680.4m3
9	4.00	5.00		803.5m3
10	5.00	6.00		471.2m3
11	6.00	7.00		27.9m3

GROUND
FFL 378.70
BE 378.45

LEVEL 1
FFL 382.50
BE 382.25

RODERICK STREET

PEEL STREET

SCOTT ROAD

MANPROOF FENCE

PROPOSED POSITIVE COVENANT

PUMP STATION

CONCRETE PATH

BITUMEN PATH

0 2.5 5 7.5 10 12.5 15 17.5 20m

1:250 A1 1:500 A3

A1

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

Rev	Description	Eng	Draft	Date
P1	ISSUE FOR INFORMATION	NB	AW	–

Architect: architectus™

Engineer: TTW Structural Civil Traffic Façade
+61 2 9439 7288 | L6 73 MILLER STREET NORTH SYDNEY NSW 2060

Project: UNIVERSITY OF NEW ENGLAND
TAMWORTH

Sheet Subject: BULK EARTHWORKS PLAN OPTION 2

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Drawn: AW
Authorised:
Job No: 221823
Drawing No: SKC03
Revision: P1
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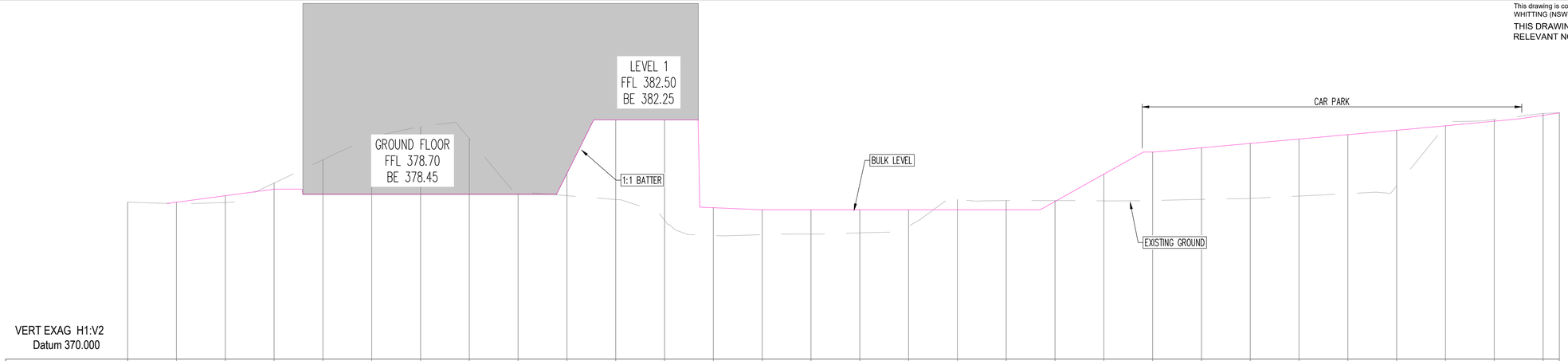

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EXISTING GROUND	378.03	377.96	378.02	379.01	380.20	381.34	381.90	381.28	378.46	378.37	378.17	377.11	376.32	376.37	376.40	376.46	376.80	378.17	378.12	378.11	378.10	378.12	378.18	378.23	378.35	378.47	378.87	381.95	382.27	382.57	382.62
DEPTH		0.07	0.35	−0.31	−1.75	−2.89	−3.45	−2.83	−0.01	1.15	4.08	5.14	1.43	1.28	1.25	1.19	0.85	−0.52	−0.47	−0.04	1.36	2.394 2.48	2.64	2.81	2.92	3.02	2.85	0.00	−0.09	−0.10	
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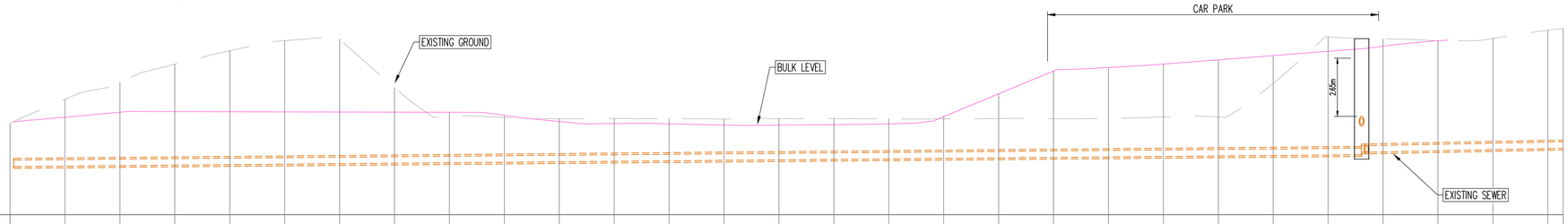

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DEPTH		−0.82	−1.37	−2.16	−2.78	−3.24	−3.33	−1.12	0.19	0.09	−0.12	−0.23	−0.23	−0.28	−0.30	−0.28	−0.23	0.10	1.13	2.18	2.32	2.379 2.41	2.60	1.27	−0.66	−0.33	0.00				
EXISTING GROUND	378.15	379.25	380.04	380.85	381.47	381.92	382.00	379.79	378.48	378.43	378.37	378.38	378.37	378.36	378.38	378.39	378.36	378.36	378.38	378.37	378.38	378.45	378.45	379.98	382.10	382.01	381.92	382.03	382.40	382.48	
CHAINAGE	0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00	100.00	105.00	110.00	115.00	120.00	125.00	130.00	135.00	140.00	141.39	

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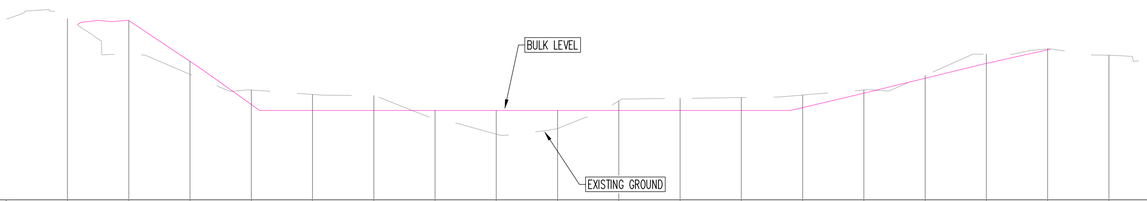

VERT EXAG H1:V2
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DEPTH			1.39	0.53	−0.59	−0.65	−0.60	0.35	0.97	0.74	−0.39	−0.49	−0.53	−0.51	−0.13	−0.12	−0.37	−0.04			
EXISTING GROUND		381.39	379.93	379.12	378.48	378.30	378.25	377.30	376.68	376.91	378.04	378.14	378.18	378.28	378.48	379.08	379.94	380.16	379.90		
CHAINAGE	0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	93.56	

SECTION 3 LONG SECTION

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1:250 A1 1:500 A3

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

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Rev	Description	Eng	Draft	Date
P1	ISSUE FOR INFORMATION	NB	AW	–

Architect: architectus™

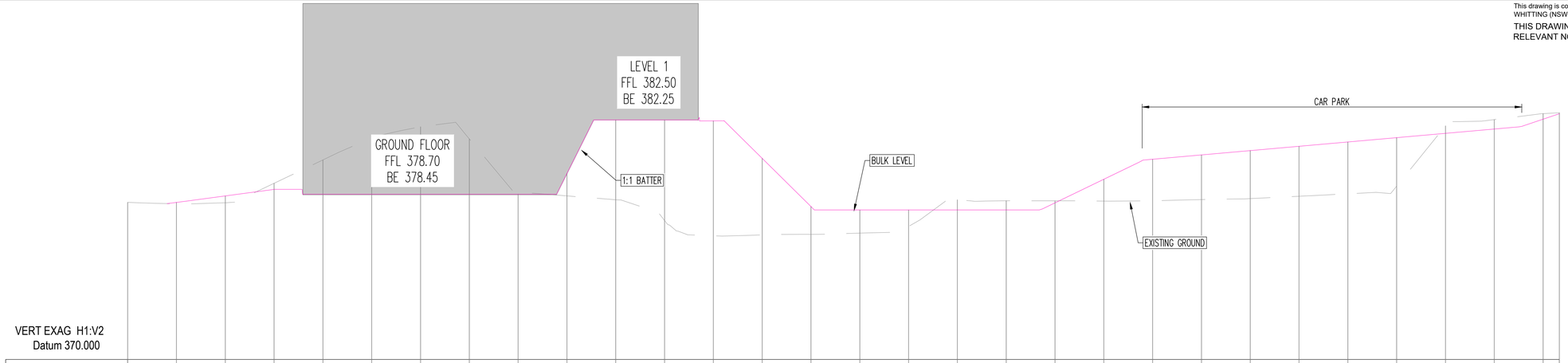
Engineer: TTW Structural Civil Traffic Façade
+61 2 9439 7288 | L6 73 MILLER STREET NORTH SYDNEY NSW 2060

Project: UNIVERSITY OF NEW ENGLAND
TAMWORTH

Sheet Subject: BULK EARTHWORKS SECTIONS OPTION 2

Scale : A1: 1:250
Drawn: AW
Authorised:
Job No: 221823
Drawing No: SKC04
Revision: P1
Plot File Created: Jun 07, 2023 - 9:07pm

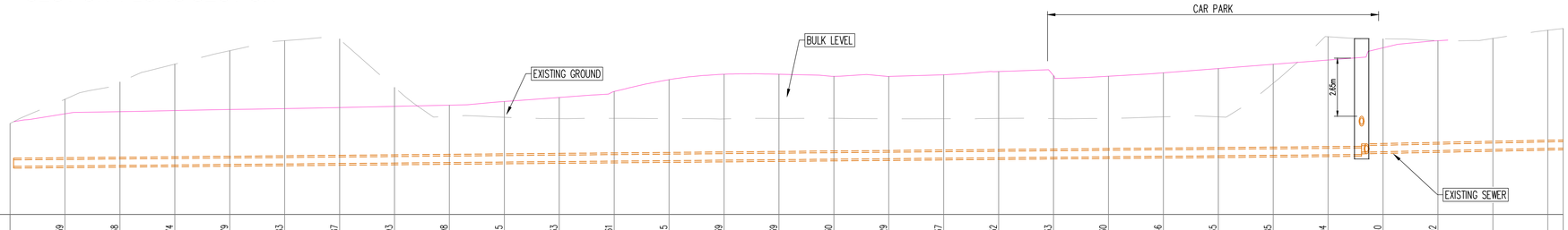
THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01



VERT EXAG H1:V2
Datum 370.000

BULK LEVEL		378.03	378.36	378.70	378.45	378.45	378.45	378.45	378.45	379.52	382.25	382.25	382.20	380.29	377.83	377.65	377.65	377.65	377.65	378.01	379.22	380.24	380.46	380.68	380.90	381.13	381.35	381.57	381.79	382.29	382.57
EXISTING GROUND	378.03	377.96	378.02	379.01	380.20	381.34	381.90	381.28	378.46	378.37	378.17	377.11	376.32	376.37	376.40	376.46	376.80	378.17	378.12	378.11	378.10	378.12	378.18	378.23	378.35	378.47	378.87	381.95	382.27	382.57	382.62
DEPTH		0.07	0.35	−0.31	−1.75	−2.89	−3.45	−2.83	−0.01	1.15	4.08	5.14	5.88	3.91	1.42	1.19	0.85	−0.52	−0.47	−0.10	1.11	1.992 2.12	2.28	2.45	2.56	2.65	2.48	−0.38	−0.48	−0.28	
CHAINAGE	0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00	100.00	105.00	110.00	115.00	120.00	125.00	130.00	135.00	140.00	145.00	146.66

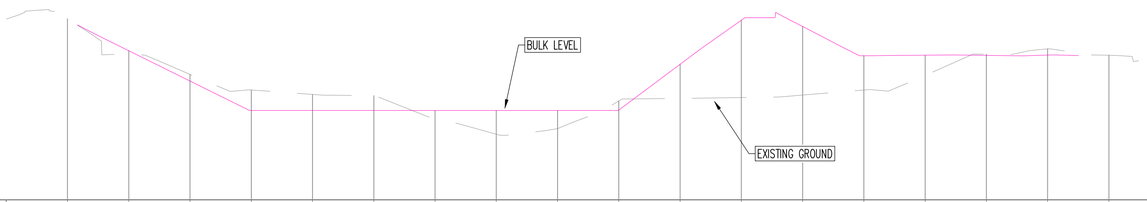
SECTION 1 LONG SECTION



VERT EXAG H1:V2
Datum 374.000

BULK LEVEL		378.59	378.68	378.74	378.79	378.83	378.87	378.93	378.98	379.15	379.33	379.61	380.15	380.39	380.39	380.30	380.29	380.37	380.52	380.33	380.30	380.46	380.65	380.85	381.04	381.60	381.92				
DEPTH		−0.66	−1.35	−2.12	−2.68	−3.10	−3.13	−0.86	0.50	0.72	0.96	1.23	1.78	2.04	2.01	1.91	1.93	2.00	2.14	1.96	1.92	1.979 2.01	2.20	0.87	−1.06	−0.41	0.00				
EXISTING GROUND	378.15	379.25	380.04	380.85	381.47	381.92	382.00	379.79	378.48	378.43	378.37	378.38	378.37	378.36	378.38	378.39	378.36	378.36	378.38	378.37	378.38	378.45	378.45	379.948	382.10	382.01	381.92	382.03	382.40	382.48	
CHAINAGE	0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00	100.00	105.00	110.00	115.00	120.00	125.00	130.00	135.00	140.00	141.39	

SECTION 2 LONG SECTION



VERT EXAG H1:V2
Datum 374.000

BULK LEVEL			380.09	378.85	377.65	377.65	377.65	377.65	377.65	377.65	377.67	379.53	381.33	381.08	379.88	379.90	379.90	379.91			
DEPTH			0.16	−0.27	−0.83	−0.65	−0.60	0.35	0.97	0.74	−0.37	1.39	3.16	2.80	1.40	0.82	−0.05	−0.25			
EXISTING GROUND		381.39	379.93	379.12	378.48	378.30	378.25	377.30	376.68	376.91	378.04	378.14	378.18	378.28	378.48	379.08	379.94	380.16	379.90		
CHAINAGE	0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	93.56	

SECTION 3 LONG SECTION

0 2.5 5 7.5 10 12.5 15 17.5 20m

1:250 A1 1:500 A3

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

FileName: SKC02.dwg - USER: ngriw - Plot File Created: Jun 07, 2023 - 9:07pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
P2	ISSUE FOR INFORMATION	NB	AW	07.06.23
P1	ISSUE FOR INFORMATION	NB	AW	24.05.23

Architect: architectus™

Engineer: TTW Structural Civil Traffic Façade
+61 2 9439 7288 | L6 73 MILLER STREET NORTH SYDNEY NSW 2060

Project: UNIVERSITY OF NEW ENGLAND
TAMWORTH

Sheet Subject: BULK EARTHWORKS SECTIONS OPTION 1

Scale : A1: 1:250
Drawn: AW
Authorised:
Job No: 221823
Drawing No: SKC02
Revision: P2
Plot File Created: Jun 07, 2023 - 9:07pm

Lotsearch Environmental Risk and Planning Report

LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 19 May 2023 10:58:14

Reference: LS043660 EP

Address: Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Dataset Listing

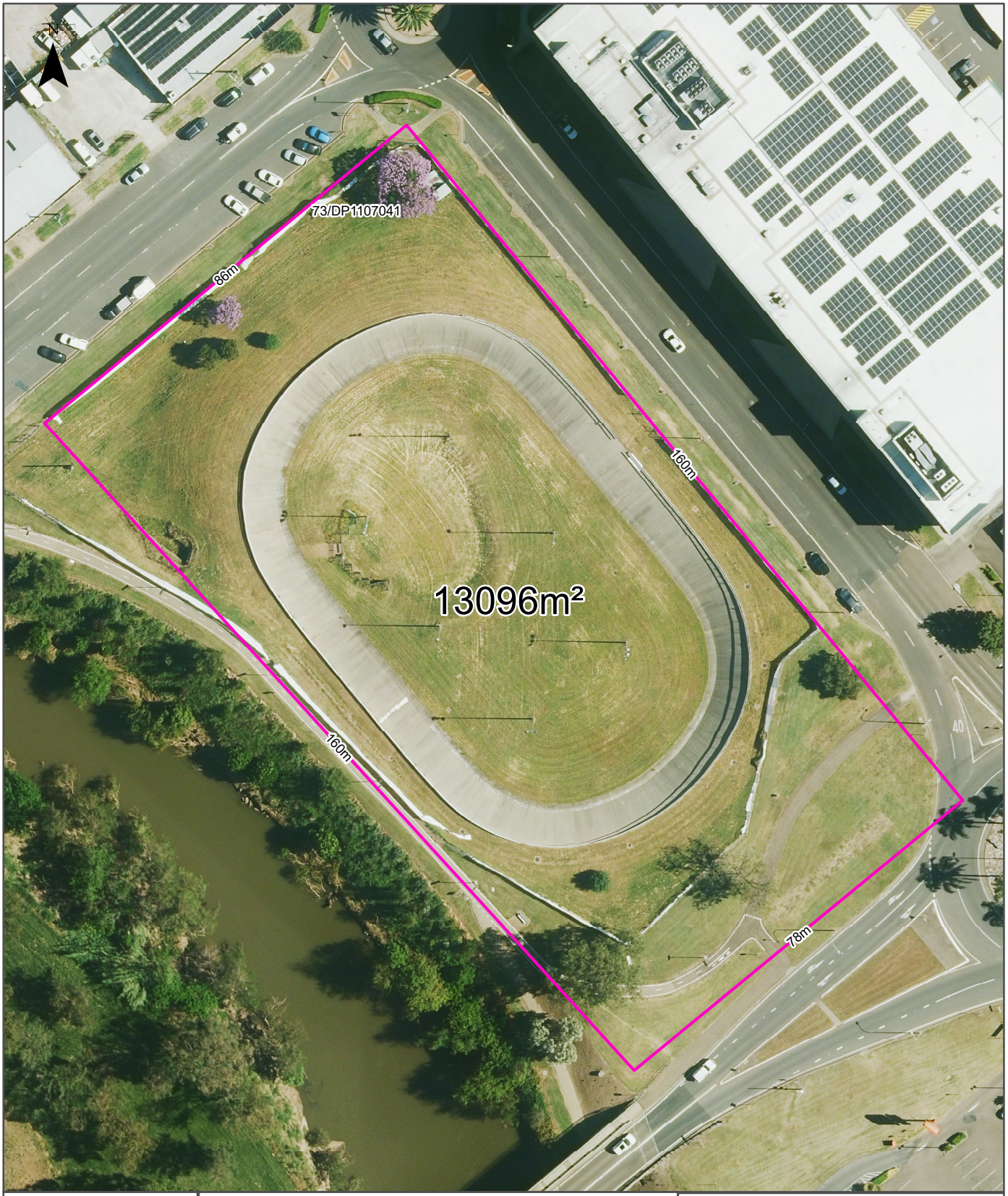
Datasets contained within this report, detailing their source and data currency:

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	17/05/2023	17/05/2023	Quarterly	-	-	-	-
Topographic Data	NSW Department of Customer Service - Spatial Services	22/08/2022	22/08/2022	Annually	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	02/05/2023	11/04/2023	Monthly	1000m	0	0	3
Contaminated Land Records of Notice	Environment Protection Authority	04/05/2023	04/05/2023	Monthly	1000m	0	0	0
Former Gasworks	Environment Protection Authority	10/05/2023	14/07/2021	Quarterly	1000m	0	0	0
National Waste Management Facilities Database	Geoscience Australia	26/05/2022	07/03/2017	Annually	1000m	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	23/08/2022	13/07/2012	Annually	1000m	0	0	1
EPA PFAS Investigation Program	Environment Protection Authority	02/05/2023	23/09/2022	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	09/05/2023	09/05/2023	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	09/05/2023	09/05/2023	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	09/05/2023	09/05/2023	Monthly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	02/09/2022	02/09/2022	Quarterly	2000m	0	0	1
EPA Other Sites with Contamination Issues	Environment Protection Authority	16/02/2022	13/12/2018	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	04/05/2023	04/05/2023	Monthly	1000m	0	1	2
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	04/05/2023	04/05/2023	Monthly	1000m	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	04/05/2023	04/05/2023	Monthly	1000m	0	4	4
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	2	148	220
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	307	311
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	1	36
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	18	25
Points of Interest	NSW Department of Customer Service - Spatial Services	19/10/2022	19/10/2022	Quarterly	1000m	3	5	42
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	19/10/2022	19/10/2022	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	19/10/2022	19/10/2022	Quarterly	1000m	0	0	1
Major Easements	NSW Department of Customer Service - Spatial Services	16/02/2023	16/02/2023	Quarterly	1000m	0	0	17
State Forest	Forestry Corporation of NSW	16/08/2022	14/08/2022	Annually	1000m	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	16/02/2023	31/12/2022	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	29/08/2022	19/08/2019	As required	1000m	1	1	1
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018	NSW Department of Planning, Industry and Environment	09/05/2023	23/02/2018	Annually	1000m	0	0	0
National Groundwater Information System (NGIS) Boreholes	Bureau of Meteorology; Water NSW	18/04/2023	13/07/2022	Annually	2000m	0	0	127

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
NSW Seamless Geology Single Layer: Rock Units	Department of Regional NSW	17/02/2022	01/05/2021	Annually	1000m	1	2	4
NSW Seamless Geology – Single Layer: Trendlines	Department of Regional NSW	17/02/2022	01/05/2021	Annually	1000m	0	0	0
NSW Seamless Geology – Single Layer: Geological Boundaries and Faults	Department of Regional NSW	17/02/2022	01/05/2021	Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	19/05/2017	17/02/2011	As required	1000m	1	1	1
Soil Landscapes of Central and Eastern NSW	NSW Department of Planning, Industry and Environment	18/08/2022	27/07/2020	Annually	1000m	2	2	5
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Industry and Environment	28/02/2023	02/12/2022	Monthly	500m	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000m	1	1	1
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000m	0	0	0
Mining Subsidence Districts	NSW Department of Customer Service - Subsidence Advisory NSW	15/05/2023	15/05/2023	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Industry	10/05/2023	10/05/2023	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Industry	10/05/2023	10/05/2023	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Industry	10/05/2023	10/05/2023	Monthly	1000m	1	2	2
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Industry and Environment	15/11/2021	07/12/2018	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Industry and Environment	15/12/2022	02/12/2022	Monthly	1000m	2	5	19
Commonwealth Heritage List	Australian Government Department of the Agriculture, Water and the Environment	03/06/2022	13/04/2022	Annually	1000m	0	0	1
National Heritage List	Australian Government Department of the Agriculture, Water and the Environment	03/06/2022	13/04/2022	Annually	1000m	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	18/10/2022	01/07/2022	Quarterly	1000m	0	0	4
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Industry and Environment	28/02/2023	17/02/2023	Monthly	1000m	0	0	59
Bush Fire Prone Land	NSW Rural Fire Service	15/05/2023	25/10/2022	Weekly	1000m	1	3	3
Ramsar Wetlands of Australia	Australian Government Department of Agriculture, Water and the Environment	09/05/2023	01/11/2022	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	0	0	0
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	0	0	0
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	15/05/2023	15/05/2023	Weekly	10000m	-	-	-

Site Diagram

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 13096m²

Total Perimeter: 484m

Scale: 0 25 50 Meters

Data Source Aerial Imagery:
© Aerometrex Pty Ltd

Disclaimers:

Measurements are approximate only and may have been simplified or smaller lengths removed for readability.

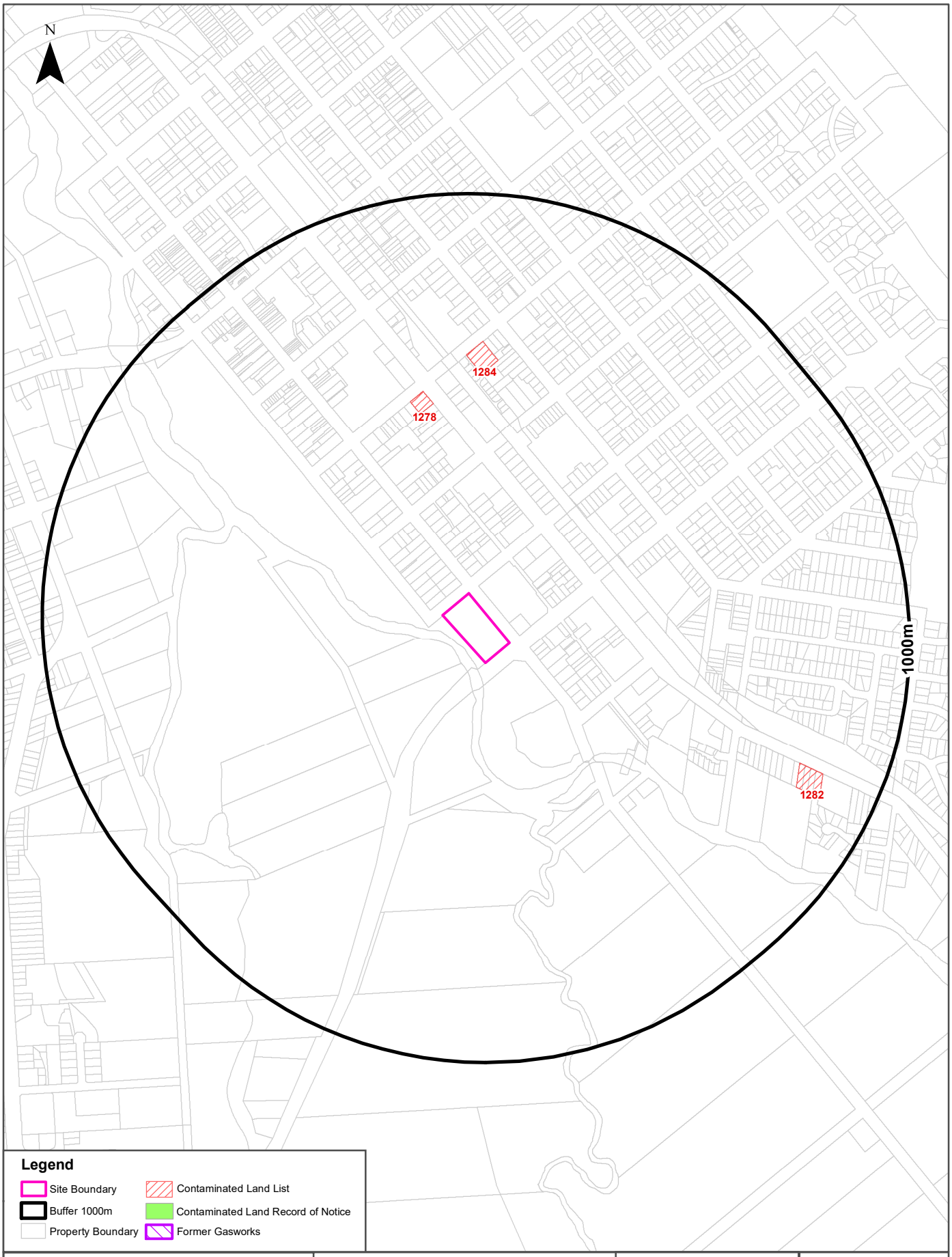
Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.

Coordinate System:
GDA 1994 MGA Zone 56

Date: 19 May 2023

Contaminated Land

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2023

Coordinate System: GDA 1994 MGA Zone 56

Date: 19 May 2023

Contaminated Land

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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
1278	Caltex Star Tamworth	21 White STREET	Tamworth	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	466m	North
1284	Housing NSW	29 -33 White Street	Tamworth	Other Petroleum	Regulation under CLM Act not required	Current EPA List	Premise Match	551m	North
1282	Former Mobil Service Station	373-375 Armidale Road	Tamworth	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	784m	South East

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.
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

Contaminated Land

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
N/A	No records in buffer							

Contaminated Land Records of Notice Data Source: 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

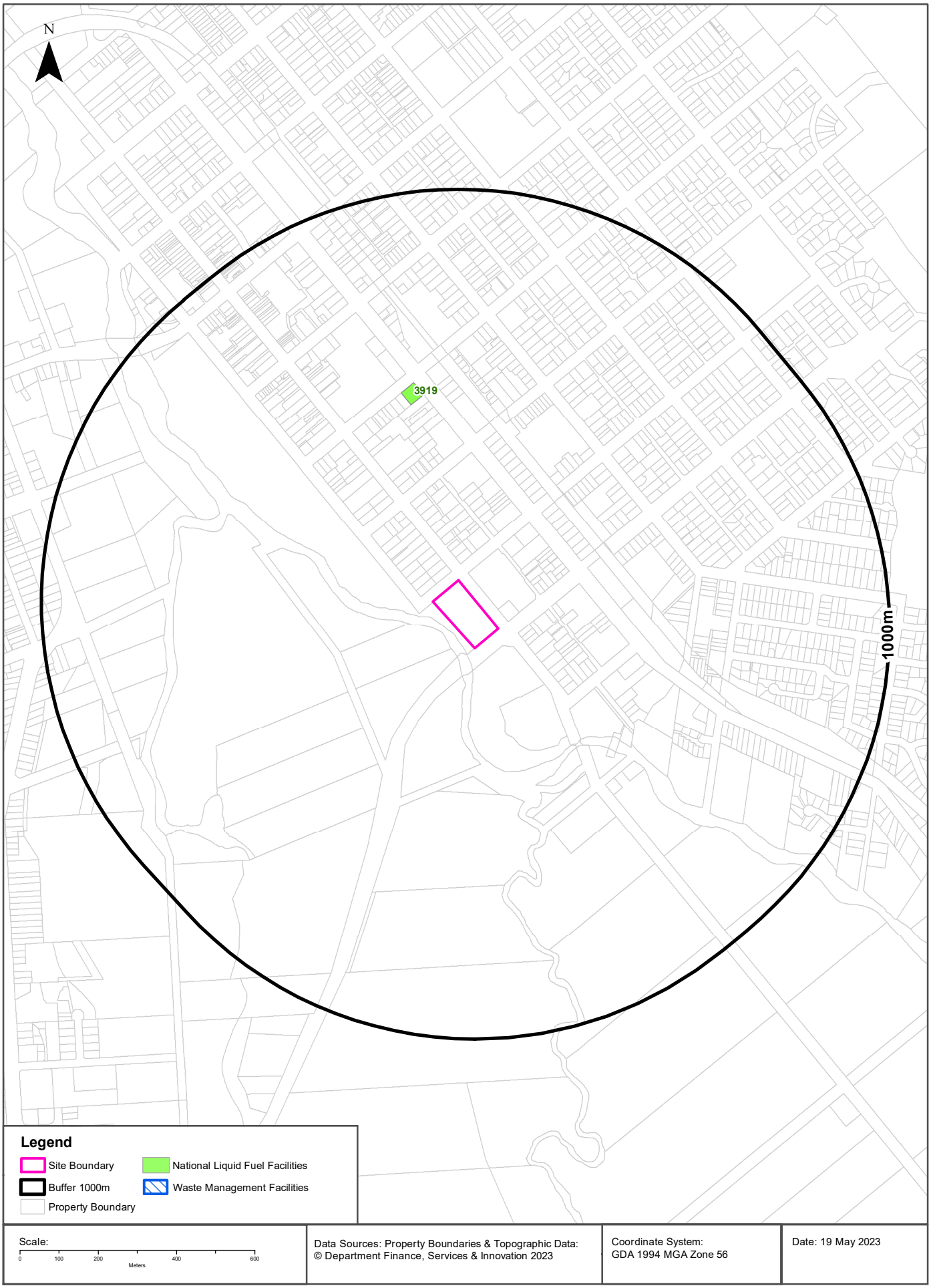
Former Gasworks within the dataset buffer:

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

Former Gasworks Data Source: Environment Protection Authority

Waste Management & Liquid Fuel Facilities

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Waste Management & Liquid Fuel Facilities

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

National Waste Management Site Database

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

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist	Direction
N/A	No records in buffer											

National Liquid Fuel Facilities

National Liquid Fuel Facilties within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Direction
3919	Caltex	Caltex Tamworth	21-23 White Street	Tamworth	Petrol Station	Operational		25/07/2011	Premise Match	466m	North

PFAS Investigation & Management Programs

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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

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

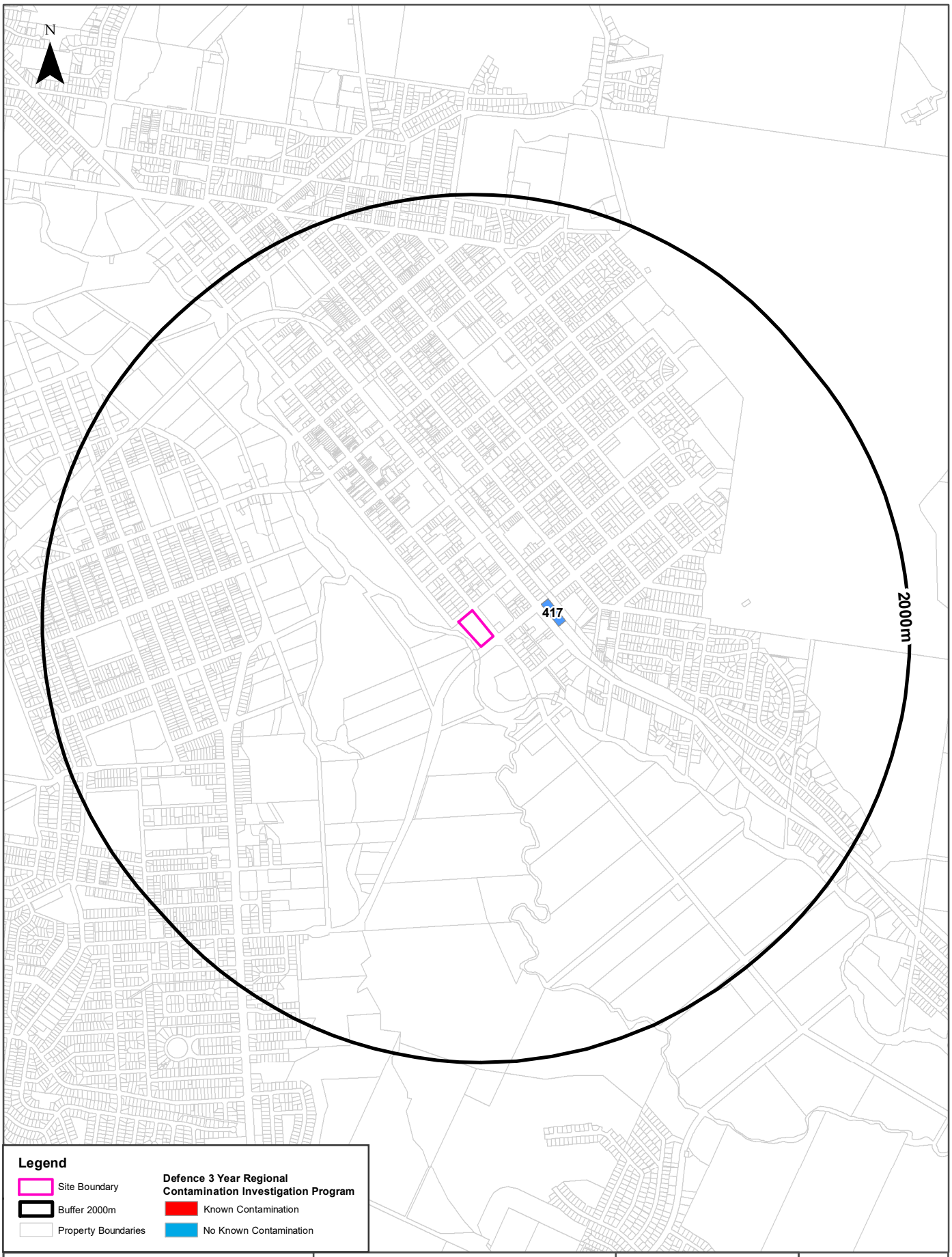
Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

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 3 Year Regional Contamination Investigation Program

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2023

Coordinate System: GDA 1994 MGA Zone 56

Date: 19 May 2023

Defence Sites

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Defence 3 Year Regional Contamination Investigation Program

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
417	Tamworth GRES Depot	Tamworth, New South Wales	NO	Premise Match	274m	East

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

EPA Other Sites with Contamination Issues

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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

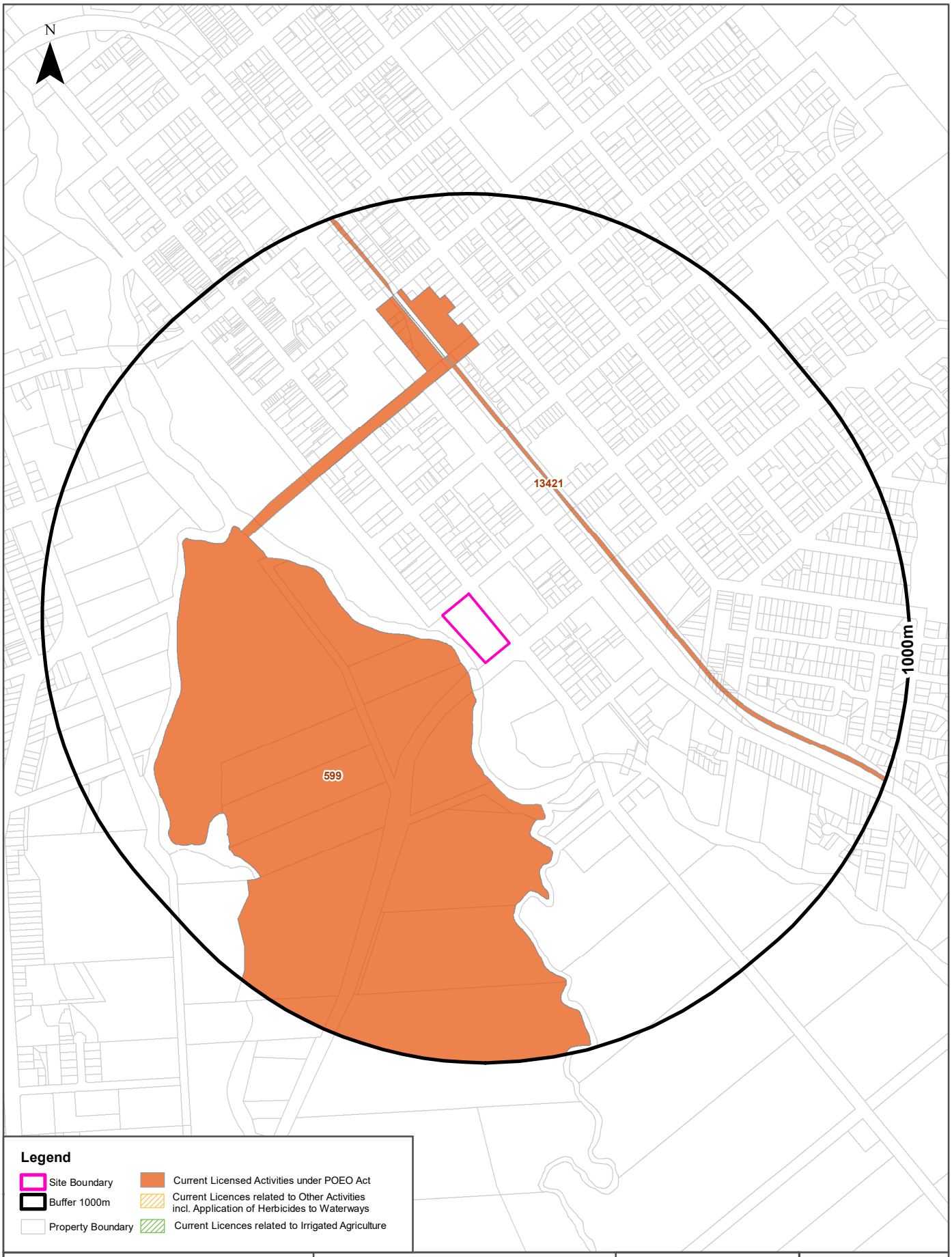
Sites within the dataset buffer:

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

Current EPA Licensed Activities

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



EPA Activities

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Licensed Activities under the POEO Act 1997

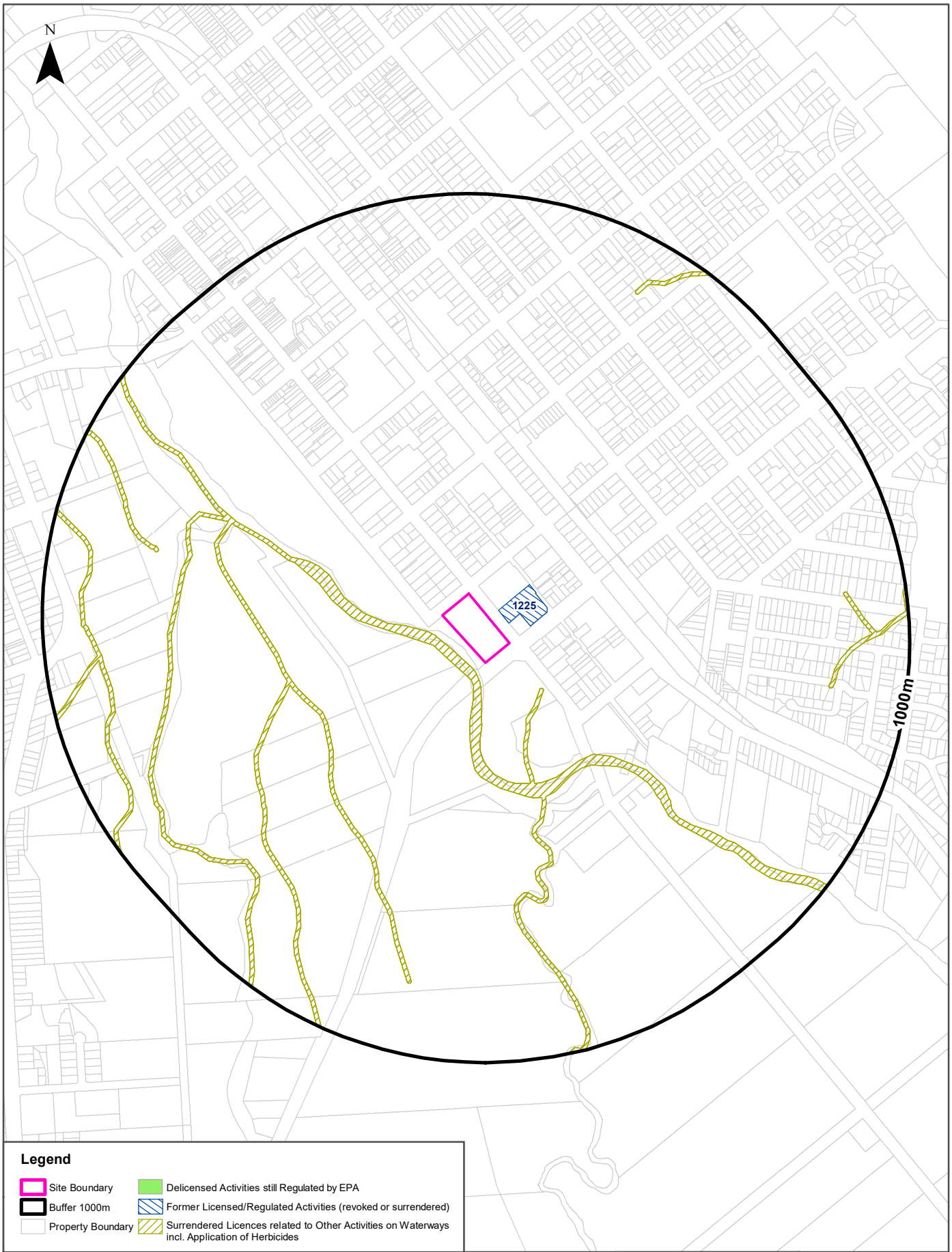
Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
599	SHOALHAVEN STARCHES PTY LTD	ALLIED MILLS FOOD INGREDIENTS	176-182 MARIUS STREET, TAMWORTH, NSW 2340	TAMWORTH	General agricultural processing	Network of Features	37m	South West
13421	UGL REGIONAL LINX PTY LTD		COUNTRY REGIONAL NETWORK, ORANGE, NSW 2800		Railway systems activities	Network of Features	328m	North East

POEO Licence Data Source: Environment Protection Authority

Delicensed & Former Licensed EPA Activities

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



EPA Activities

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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
N/A	No records in buffer							

Delicensed Activities Data Source: Environment Protection Authority

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

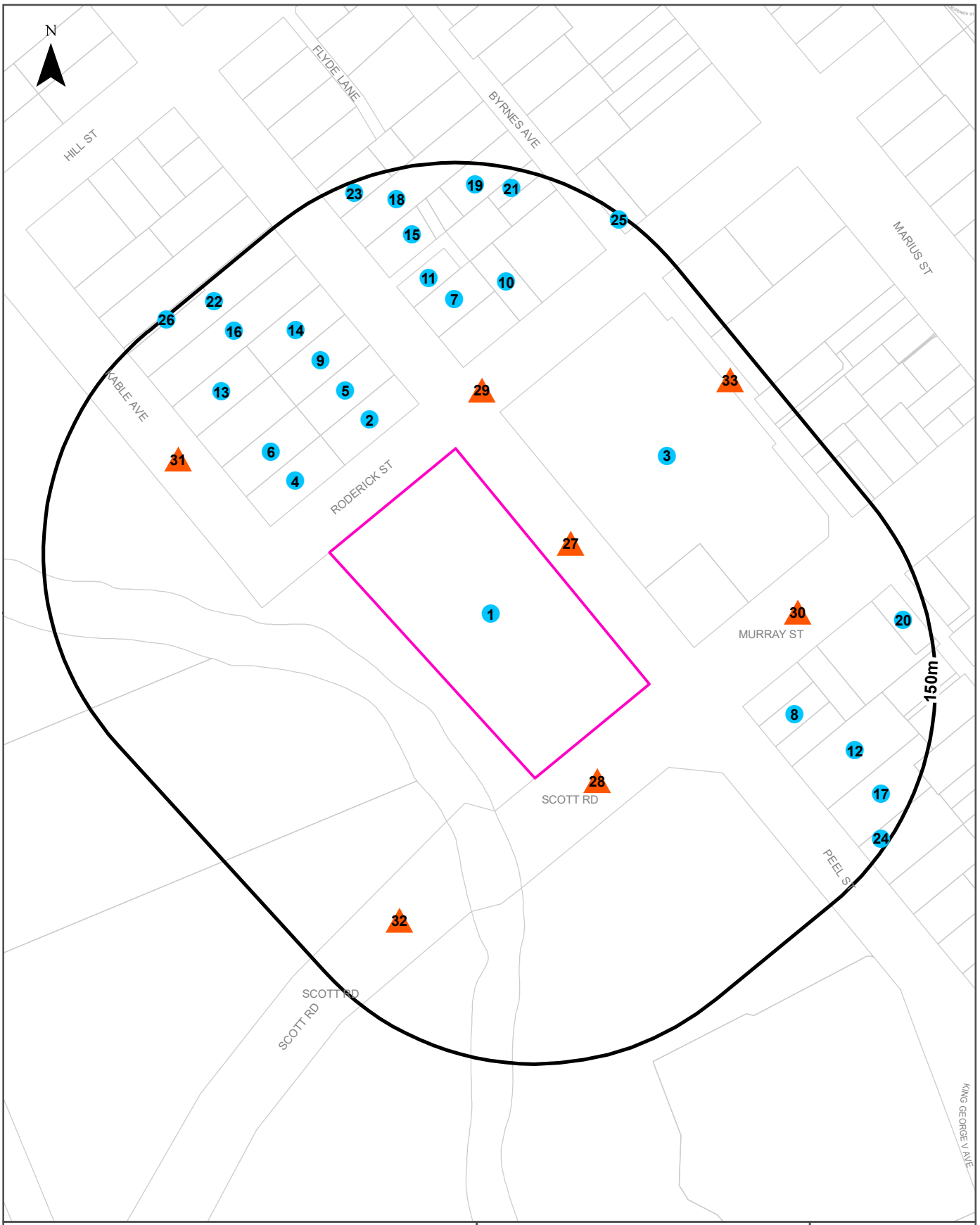
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
1225	GEORGE WESTON FOODS LIMITED	506 Peel Street, TAMWORTH, NSW 2340	Surrendered	17/11/2000	General agricultural processing	Premise Match	30m	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	33m	South 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	33m	South 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	33m	South West

Former Licensed Activities Data Source: Environment Protection Authority

Historical Business Directories

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Legend

- Site Boundary
- Buffer 150m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 30 60 90 120 Meters

Coordinate System: GDA 1994 MGA Zone 56

Date: 19 May 2023

Historical Business Directories

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Business Directory Records 1950-1991
Premise or Road Intersection Matches

Universal Business Directory records from years 1991, 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
1	BATHS SWIMMING	Tamworth Municipal Olympic Pool, Kable Ave., Tamworth 2340	103972	1982	Premise Match	0m	On-site
	BATHS-PUBLIC	Tamworth Municipal Olympic Pool, Cnr. Lower and Brisbane Sts. Tamworth	160468	1950	Premise Match	0m	On-site
2	HAIRDRESSERS &/OR BEAUTY SALON SUPPLIES	Ace Hair & Beauty Supplies., 543 Peel St, Tamworth	212011	1991	Premise Match	30m	North West
	STOVE &/OR RANGE MFRS. &/OR DISTS. - FUEL &/OR COMBUSTION.	North West Heaffng & Cooling., 543 Peel St, Tamworth	205393	1991	Premise Match	30m	North West
	AIR CONDITIONING INDUSTRIAL COMMERCIAL &/OR DOMESTIC SPECIALISTS	North West Heating & Cooling., 543 Peel St, Tamworth	210759	1991	Premise Match	30m	North West
	ELECTRICAL CONTRACTORS - LICENSED	Johns, Perry, Edmunds & Moir, 543 Peel St., Tamworth 2340	104485	1982	Premise Match	30m	North West
	OFFICE EQUIPMENT MFRS. &/OR DISTS	Remington Office Machines Pty. Ltd., 543 Peel St., Tamworth 2340	105425	1982	Premise Match	30m	North West
	OFFICE SUPPLIES &/OR EQUIPMENT - RETAIL.	Remington Office Machines Pty. Ltd., 543 Peel St., Tamworth 2340	105437	1982	Premise Match	30m	North West
	PHYSICAL CULTURE TEACHERS &/OR GYMNASIUMS	American Gymnasiums, 543 Peel St., Tamworth 2340	646234	1970	Premise Match	30m	North West
	ELECTRIC SIGN MFRS. &/OR INSTALLERS	Edmunds Moir & Co. Pty. Ltd., 543 Peel St., Tamworth 2340	645198	1970	Premise Match	30m	North West
	ELECTRICAL CONTRACTORS-LICENSED	Edmunds Moir & Co. Pty. Ltd., 543 Peel St., Tamworth 2340	645205	1970	Premise Match	30m	North West
	RADIO &/OR TELEVISION SALES, SERVICE &/OR HIRERS	Edmunds, Moir & Co. Pty. Ltd., 543 Peel St., Tamworth 2340	646327	1970	Premise Match	30m	North West
	TELEVISION ANTENNAE MFRS./INSTALLERS	Edmunds, Moir & Co. Pty. Ltd., 543 Peel St., Tamworth 2340	646582	1970	Premise Match	30m	North West
3	FURNITURE DEALERS - SECONDHAND.	Life Line Furniture Shop., 508 Peel St, Tamworth	211847	1991	Premise Match	30m	North East
	PRODUCE MERCHANTS-WHOLESALE.	Millmaster Feeds., 506 Peel St, Tamworth	212854	1991	Premise Match	30m	North East
	GRAIN BUYERS &/OR MERCHANTS.	Milmaster Feeds., 506 Peel St, Tamworth	211985	1991	Premise Match	30m	North East
	AIR COMPRESSOR MFRS. &/OR IMPS. &/OR DISTS.	Waterman'S Paint Supplies Pty Ltd., 508 Peel St, Tamworth	210743	1991	Premise Match	30m	North East
	GIFT, NOVELTY &/OR SOUVENIR SHOPS	Federal Paper & Agency Pty. Ltd. 10 Murray Street, Tamworth 2340	104691	1982	Premise Match	30m	North East
	GIFT SHOPS	Federal Paper & Agency Pty. Ltd., 10 Murray St., Tamworth 2340	104696	1982	Premise Match	30m	North East
	PAPER BAG SUPPLIES	Federal Paper & Agency Pty. Ltd., 10 Murray St., Tamworth 2340	105472	1982	Premise Match	30m	North East
	PAPER MFRS. &/OR MERCHANTS	Federal Paper & Agency Pty. Ltd., 10 Murray St., Tamworth 2340	105473	1982	Premise Match	30m	North East
	STATIONERS - WHOLESALE	Federal Paper & Agency Pty. Ltd., 10 Murray St., Tamworth 2340	105839	1982	Premise Match	30m	North East
	TOY MFRS. &/OR DISTS	Federal Paper & Agency Pty. Ltd., 10 Murray St., Tamworth 2340	105968	1982	Premise Match	30m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
3	TROPHY SUPPLIERS - SPORTING	Federal Paper & Agency Pty. Ltd., 10 Murray St., Tamworth 2340	105992	1982	Premise Match	30m	North East
	FURNITURE - SECONDHAND	Life Line Furniture Shop, 508 Peel St., Tamworth 2340	104683	1982	Premise Match	30m	North East
	MOTOR CAR LAUNDRIES	Auto Laundry, 508 Peel St., Tamworth 2340	645919	1970	Premise Match	30m	North East
	CANVAS GOODS MFRS. & W'SALE.	Ferry, B., 508 Peel St., Tamworth 2340	644943	1970	Premise Match	30m	North East
	MOTOR TRIMMERS	Ferry, B., 508 Peel St., Tamworth 2340	646102	1970	Premise Match	30m	North East
	UPHOLSTERERS	Ferry, B., 508 Peel St., Tamworth 2340	646661	1970	Premise Match	30m	North East
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Kemp's B. Discount Car Sales, 510 Peel St., Tamworth 2340	645937	1970	Premise Match	30m	North East
	BLIND MANUFACTURERS & SPECIALISTS	Plumb & Bray Pty. Ltd., 510 Peel St., Tamworth	170820	1961	Premise Match	30m	North East
	FLY SCREEN DOOR & WINDOW MFRS.	Plumb & Bray Pty. Ltd., 510 Peel St., Tamworth	171412	1961	Premise Match	30m	North East
	BLIND MANUFACTURERS & SPECIALISTS	Plumb & Co. Pty. Limited., 510 Peel St., Tamworth	170821	1961	Premise Match	30m	North East
	BUILDERS' SUPPLIERS	Plumb & Co. Pty. Limited., 510 Peel St., Tamworth	170919	1961	Premise Match	30m	North East
	FLY SCREEN DOOR & WINDOW MFRS.	Plumb & Co. Pty. Limited., 510 Peel St., Tamworth	171413	1961	Premise Match	30m	North East
	JOINERY MANUFACTURERS	Plumb & Co. Pty. Limited., 510 Peel St., Tamworth	171788	1961	Premise Match	30m	North East
4	MOTOR ELECTRICIANS	Gibsons 108 Kable Ave., Tamworth 2340	646037	1970	Premise Match	30m	North West
	BATTERY SALES & SERVICE	Gibsons Tamworth Auto Electrical Service, 108 Kable Ave., Tamworth 2340	644688	1970	Premise Match	30m	North West
	BOAT, LAUNCH & YACHT BUILDERS, SALES &/OR REPAIRERS	Gibsons Tamworth Auto Electrical Service, 108 Kable Ave., Tamworth 2340	644721	1970	Premise Match	30m	North West
	BOAT, LAUNCH & YACHT SALES & SERVICE	Gibsons Tamworth Auto Electrical Service, 108 Kable Ave., Tamworth 2340	644722	1970	Premise Match	30m	North West
	MOTOR ELECTRICIANS	Gibsons Tamworth Auto Electrical Service, 108 Kable Ave., Tamworth 2340	645965	1970	Premise Match	30m	North West
	ELECTRIC MOTOR WINDING & REWINDING SPECIALISTS	Gibson's Tamworth Auto Electrical Service, 108 Kable Ave., Tamworth 2340	645194	1970	Premise Match	30m	North West
	ELECTRIC TOOL-PORTABLE-MANUFACTURERS & DISTRIBUTORS	Gibson's Tamworth Auto Electrical Service, 108 Kable Ave., Tamworth 2340	645201	1970	Premise Match	30m	North West
	ENGINEERS' SUPPLIES	Gibson's Tamworth Auto Electrical Service, 108 Kable Ave., Tamworth 2340	645314	1970	Premise Match	30m	North West
	ENGINEERS-ELECTRICAL	Gibson's Tamworth Auto Electrical Service, 108 Kable Ave., Tamworth 2340	645264	1970	Premise Match	30m	North West
5	TRUCK & MACHINERY PARTS & REPAIRS	Kings Brake Service., 541 Peal St, Tamworth	205556	1991	Premise Match	50m	North West
	MOTOR BRAKE SPECIALISTS.	Kings Brake Service., 541 Peel St, Tamworth	212478	1991	Premise Match	50m	North West
	MOTOR ACCESSORIES &/OR SPARE PARTS-RETAIL.	Gray-King Spares, 539 Peel St., Tamworth 2340	105158	1982	Premise Match	50m	North West
	MOTOR BRAKE SPECIALISTS	Kings Brake Service, 541 Peel St., Tamworth 2340	105190	1982	Premise Match	50m	North West
	MOTOR BRAKE SERVICES	King's Brake Services, 541 Peel St., Tamworth 2340	645914	1970	Premise Match	50m	North West
6	VIDEO CASSETTE LIBRARIES	Video Ezy Supermarket., 106 Kable Av, Tamworth	206058	1991	Premise Match	50m	North West
	VIDEO EQUIPMENT SALES &/OR SERVICE &/OR HIRE	Video Ezy Supermarket., 106 Kable Av, Tamworth	206067	1991	Premise Match	50m	North West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
7	FACSIMILE EQUIPMENT &/OR SUPPLIES MFRS. &/OR IMPS. &/OR DISTS.	Better Business Equipment., 500 Peel St, Tamworth	211731	1991	Premise Match	59m	North
	PHOTO COPYING EQUIPMENT MFRS. &/OR DISTS.	Better Business Equipment., 500 Peel St, Tamworth	212766	1991	Premise Match	59m	North
	MIXED BUSINESSES	Booster, E. G., 500 Peel St., Tamworth 2340	105089	1982	Premise Match	59m	North
	MIXED BUSINESSES	Bagster, E. G., 500 Peel St., Tamworth 2340	645825	1970	Premise Match	59m	North
	MIXED BUSINESSES	Bagster, E., 500 Peel St., Tamworth	171911	1961	Premise Match	59m	North
	MIXED BUSINESSES	Fraser, H. W., 500 Peel St., Tamworth	171929	1961	Premise Match	59m	North
	FRUITERERS & GREENGROCERS	Beswick's, 500 Peel St. Tamworth	160886	1950	Premise Match	59m	North
	GROCERS & GENERAL STOREKEEPERS	Beswick's, 500 Peel St. Tamworth	160955	1950	Premise Match	59m	North
8	STOCK &/OR STATION AGENTS.	Etheridge Frater & Lyons Pty Ltd., 518 Peel St, Tamworth	205386	1991	Premise Match	62m	East
	REAL ESTATE AGENTS.	Sheridge Frater & Lyons Pty Ltd., 518 Peel St, Tamworth	212911	1991	Premise Match	62m	East
9	ELECTRIC ELEMENT MFRS. &/OR DISTS.	G E C Pty Ltd., 535 Peel St, Tamworth	211560	1991	Premise Match	70m	North West
	ELECTRIC LIGHT FITTINGS MFRS. &/OR DISTS.	G E C Pty Ltd., 535 Peel St, Tamworth	211565	1991	Premise Match	70m	North West
	ELECTRICAL CONTRACTORS SUPPLIES.	G E C Pty Ltd., 535 Peel St, Tamworth	211610	1991	Premise Match	70m	North West
	ELECTRICAL SUPPLIES &/OR APPLIANCES MFRS. &/OR W/SALERS.	G E C Pty Ltd., 535 Peel St, Tamworth	211619	1991	Premise Match	70m	North West
	LIGHTING EQUIPMENT - INDUSTRIAL MFRS. &/OR IMPS. &/OR DISTS.	G E C Pty Ltd., 535 Peel St, Tamworth	212305	1991	Premise Match	70m	North West
	TAKE-AWAY FOODS.	N T C Take Away., 537 Peel St	205434	1991	Premise Match	70m	North West
	KITCHEN EQUIPMENT - INDUSTRIAL &/OR COMMERCIAL - MFRS. &/OR DISTS.	S C Refrigeration Pty Ltd., 537 Peel St, Tamworth	212256	1991	Premise Match	70m	North West
	REFRIGERATION - COMMERCIAL.	T C Refrigeration Pty Ltd., 537 Peel St, Tamworth	212935	1991	Premise Match	70m	North West
	ELECTRICAL SUPPLIES &/OR APPLIANCES MFRS. &/OR W/SALERS	Conret Distributors Pty. Ltd., 537 Peel St., Tamworth 2340	104488	1982	Premise Match	70m	North West
	ELECTRICAL SUPPLIES &/OR APPLIANCES MFRS. &/OR W/SALERS	Gec. (Australia)Pty. Ltd., 535 Peel St., Tamworth 2340	104489	1982	Premise Match	70m	North West
	ELECTRICAL SUPPLIES & APPLIANCES-WHOLESALE	Conret Distributors Pty. Ltd., 537 Peel St., Tamworth 2340	645228	1970	Premise Match	70m	North West
	ELECTRICAL SUPPLIES & APPLIANCES-WHOLESALE	G.E.C. (Australia) Pty. Ltd., 535 Peel St., Tamworth 2340	645229	1970	Premise Match	70m	North West
10	BATHROOM EQUIPMENT &/OR FITTINGS MFRS. &/OR DISTS.	Peel Valley Tile & Ceramics., 20 Roderick St	210957	1991	Premise Match	75m	North
	SHOWER SCREEN MFRS. &/OR DISTS.	Peel Valley Tile & Ceramics., 20 Roderick St, Tamworth	205305	1991	Premise Match	75m	North
	SLATE MERCHANTS	Peel Valley Tile & Ceramics., 20 Roderick St, Tamworth	205319	1991	Premise Match	75m	North
	VANITY UNIT MFRS. &/OR DISTS.	Peel Valley Tile & Ceramics., 20 Roderick St, Tamworth	206041	1991	Premise Match	75m	North
	TILE - FLOOR &/OR WALL - MFRS. &/OR IMPS. &/OR MERCHANTS.	Peel Valley Tiles & Ceramics., 20 Roderick St Tamworth	205495	1991	Premise Match	75m	North
	TILE - FLOOR &/OR WALL - MFRS. &/OR IMPS. &/OR MERCHANTS.	Pool Valley Tile & Carandce., 20 Roderick St	205496	1991	Premise Match	75m	North
	TILE LAYERS - FLOOR &/OR WALL	Pool Valley Tile & Carandce., 20 Roderick St	205497	1991	Premise Match	75m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
10	SPA BATHS &/OR HOT TUBS &/OR EQUIPMENT MFRS. &/OR DISTS. &/OR INSTALLERS.	Valley Tile & Ceramics., 20 Roderick St, Tamworth	205343	1991	Premise Match	75m	North
11	REFRIGERATION COMMERCIAL.	Lindon Refrigeration Company 498 Peel Street, Tamworth 2340	105635	1982	Premise Match	77m	North
	COOL ROOM BUILDERS	Lindon Refrigeration Company, 498 Peel St., Tamworth 2340	104362	1982	Premise Match	77m	North
	HOTEL &/OR MOTEL EQUIPMENT SUPPLIES	Lindon Refrigeration Company, 498 Peel St., Tamworth 2340	104844	1982	Premise Match	77m	North
	REFRIGERATION COMMERCIAL.	Lindon Refrigeration Company, 498 Peel St., Tamworth 2340	105636	1982	Premise Match	77m	North
12	ARCHERY SUPPLIES.	Mcsperty'S Toy & Sports Store., 522 Peel St, Tamworth	210803	1991	Premise Match	86m	East
	FISHING TACKLE RETAILERS.	Mcspofty'C Toy & Sports Store., 522 Peel St, Tamworth	211782	1991	Premise Match	86m	East
	SPORTS GOODS- RETAIL	Mcsporty'S Toy & Sports Store., 522 Peel St, Tamworth	205348	1991	Premise Match	86m	East
	GOLF EQUIPMENT & SUPPLIES.	Mcsporty'T Toy & Sports Store., 522 Peel St, Tamworth	211942	1991	Premise Match	86m	East
	BICYCLE &/OR ACCESSORY DEALERS &/OR REPAIRERS.	Mcsporty'S Toy & Sports Store., 522 Peel St	210991	1991	Premise Match	86m	East
	BOWLS - LAWN - MFRS. &/OR DISTS.	Mcsporty'S Toy & Sports Store., 522 Peel St, Tamworth	211030	1991	Premise Match	86m	East
	RACQUET RESTRINGERS & REPAIRERS.	Mcsporty'S Toy & Sports Store., 522 Peel St, Tamworth	212880	1991	Premise Match	86m	East
	TOYS- RETAIL	Mrilltoy & Sports Store., 522 Peel St, Tamworth	205531	1991	Premise Match	86m	East
	CLOTHING - RETAIL - SECONDHAND.	Sporty's Toy & Sports Store., 522 Peel St, Tamworth	211384	1991	Premise Match	86m	East
13	ELECTRICAL SUPPLIES &/OR APPLIANCES MFRS. &/OR W/SALERS.	Lawrence & Hansen Pty Ltd., 103 Kable Av, Tamworth	211620	1991	Premise Match	91m	North West
	ELECTRIC CABLE - FLEXIBLE &/OR WIRE MFRS. &/OR DISTS.	Lawrence & Hanson Pty Ltd., 103 Kable Av, Tamworth	211555	1991	Premise Match	91m	North West
	ELECTRIC CABLE - FLEXIBLE &/OR WIRE - MFRS. &/OR DISTS	Lawrence & Hanson Pty. Ltd., 103 Kable Ave., Tamworth 2340	104457	1982	Premise Match	91m	North West
	ELECTRICAL SUPPLIES &/OR APPLIANCES MFRS. &/OR W/SALERS	Lawrence & Hanson Pty. Ltd., 103 Kable Ave., Tamworth 2340	104491	1982	Premise Match	91m	North West
	RADIO &/OR TELEVISION DISTS. W /SALE.	Lawrence & Hanson Pty. Ltd., 103 Kable Ave., Tamworth 2340	105589	1982	Premise Match	91m	North West
14	TAKE-AWAY FOODS.	Nan Ping Cafe., 531 Peel St	205435	1991	Premise Match	91m	North West
	MOTOR EXHAUST SYSTEMS &/OR MUFFLERS MFRS. &/OR DISTS. &/OR FITTERS.	Tims Muffler Shop., 533 Peel St, Tamworth	212549	1991	Premise Match	91m	North West
	CAFES, TEA ROOMS &/OR COFFEE LOUNGES	Nan Ping Café, 531 Peel St., Tamworth 2340	104190	1982	Premise Match	91m	North West
	MOTOR EXHAUST PIPE & MUFFLER SPECIALISTS	Tims Muffler Shop, 533 Peel St., Tamworth 2340	105253	1982	Premise Match	91m	North West
	MOTOR GARAGES &/OR ENGINEERS	Macpherson, C., 533 Peel St., Tamworth 2340	646006	1970	Premise Match	91m	North West
	CAFES, TEA ROOMS, COFFEE LOUNGES, ETC.	Nan Ping Café, 531 Peel St., Tamworth 2340	644921	1970	Premise Match	91m	North West
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Stan's Used Cars, 533 Peel St., Tamworth 2340	645945	1970	Premise Match	91m	North West
	MOTOR BRAKE SERVICES	Kings Brake Service 533 Peel St., Tamworth	172000	1961	Premise Match	91m	North West
	MOTOR BRAKE SERVICES	King's Brake Service, 533 Peel St., Tamworth	172001	1961	Premise Match	91m	North West
	CAFES, TEA ROOMS, COFFEE LOUNGES, ETC.	Nan Ping Café, 531 Peel St., Tamworth	170984	1961	Premise Match	91m	North West
	GROCERS & GENERAL STOREKEEPERS	Kwan On, 531 Peel St. Tamworth	160968	1950	Premise Match	91m	North West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
15	CHAIN SAW SALES &/OR SERVICE	Power Equipment & Tools., 494 Peel St Tamworth	211296	1991	Premise Match	96m	North
	CHAIN SAW SALES &/OR SERVICE	Power Equipment & Tools., 494 Peel St, Tamworth	211298	1991	Premise Match	96m	North
	LAWN EDGE TRIMMER MFRS. &/OR DISTS.	Power Equipment & Tools., 494 Peel St, Tamworth	212285	1991	Premise Match	96m	North
	LAWN MOWER & ACCESSORY MFRS. &/OR DISTS.	Power Equipment & Tools., 494 Peel St, Tamworth	212287	1991	Premise Match	96m	North
	LAWN MOWER SALES &/OR SERVICE.	Power Equipment & Tools., 494 Peel St, Tamworth	212294	1991	Premise Match	96m	North
	PUMP & PUMPING EQUIPMENT MFRS. &/OR DISTS.	Power Equipment & Tunis., 494 Peel St, Tamworth	212871	1991	Premise Match	96m	North
	DRAUGHTSMEN	Northwest Drafting Services, 494 Peel St., Tamworth 2340	104430	1982	Premise Match	96m	North
	PLAN &/OR SPECIFICATION SPECIALISTS	Northwest Drafting Services, 494 Peel St., Tamworth 2340	105528	1982	Premise Match	96m	North
	BORING CONTRACTORS	North-West Equipment, 494 Peel St., Tamworth 2340	104021	1982	Premise Match	96m	North
	HYDRAULIC JACK MFRS. &/OR DISTS	North-West Equipment, 494 Peel St., Tamworth 2340	104860	1982	Premise Match	96m	North
	HYDRAULIC PRESS MFRS. &/OR DISTS	North-West Equipment, 494 Peel St., Tamworth 2340	104861	1982	Premise Match	96m	North
	AGRICULTURAL MACHINERY REPAIRERS	North West Diesel Service, 494 Peel St., Tamworth 2340	644489	1970	Premise Match	96m	North
	AGRICULTURAL MACHINERY HIRERS &/OR DEALERS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	644465	1970	Premise Match	96m	North
	AGRICULTURAL MACHINERY MFS. &/OR DISTS.	Northwest Diesel Service, 494 Peel St., Tamworth 2340	644474	1970	Premise Match	96m	North
	DIESEL FUEL INJECTION EQUIPMENT MFR. DIST.	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645122	1970	Premise Match	96m	North
	ENGINE IMPORTERS &/OR DISTRIBUTORS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645236	1970	Premise Match	96m	North
	ENGINE RECONDITIONING-INDUSTRIAL	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645237	1970	Premise Match	96m	North
	ENGINEERS' SUPPLIES	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645319	1970	Premise Match	96m	North
	ENGINEERS-AGRICULTURAL	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645242	1970	Premise Match	96m	North
	ENGINEERS-DIESEL	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645260	1970	Premise Match	96m	North
	ENGINEERS-GENERAL, MFRG. & MECHANICAL	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645280	1970	Premise Match	96m	North
	ENGINEERS-HYDRAULIC	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645288	1970	Premise Match	96m	North
	ENGINEERS-PRECISION	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645291	1970	Premise Match	96m	North
	HEAT TREATMENT SPECIALISTS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645523	1970	Premise Match	96m	North
	INSTRUMENTS-INDUSTRIAL-MFRS. & DISTRBTRS.	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645570	1970	Premise Match	96m	North
	LOCKSMITHS & KEY CUTTERS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645726	1970	Premise Match	96m	North
	MARINE ENGINE DISTRIBUTORS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645739	1970	Premise Match	96m	North
	MINING MACHINERY EQUIPMENT IMPORTERS, MFRS. & DISTRIBUTORS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	645823	1970	Premise Match	96m	North
	OUTBOARD MOTOR MANUFACTURERS/DISTRIBUTORS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	646165	1970	Premise Match	96m	North
	PNEUMATIC TOOL MFRS.	Northwest Diesel Service, 494 Peel St., Tamworth 2340	646291	1970	Premise Match	96m	North
	SHEARING MACHINERY MFRS. & DISTRIBUTORS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	646438	1970	Premise Match	96m	North
	STATION & FARM SUPPLIES	Northwest Diesel Service, 494 Peel St., Tamworth 2340	646495	1970	Premise Match	96m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
15	STEEL FABRICATORS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	646509	1970	Premise Match	96m	North
	TOOLMAKERS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	646611	1970	Premise Match	96m	North
	TRACTOR REPAIR SPECIALISTS	Northwest Diesel Service, 494 Peel St., Tamworth 2340	646623	1970	Premise Match	96m	North
	WATCHMAKERS-REPAIRS TO THE TRADE	Northwest Diesel Service, 494 Peel St., Tamworth 2340	646693	1970	Premise Match	96m	North
	WELDERS-ELECTRIC &/OR OXY	Northwest Diesel Service, 494 Peel St., Tamworth 2340	646706	1970	Premise Match	96m	North
16	MOTOR ENGINEERS	Auto-Motion Pty Ltd., 102 Kable Av, Tamworth	212528	1991	Premise Match	111m	North West
	MOTOR TRANSMISSION SPECIALISTS	Auto-Motion Pty Ltd., 102 Kable Av, Tamworth	212646	1991	Premise Match	111m	North West
	UPHOLSTERERS	Peel Vabey Upholsterers., 101 Kable Av, Tamworth	206029	1991	Premise Match	111m	North West
	MOTOR TRIMMERS.	Peel Valley Upholsterers., 101 Kable Av, Tamworth	212650	1991	Premise Match	111m	North West
	MOTOR CAR AIR-CONDITIONING	Carpenter, R. Automotive Repairs, 102 Kable Ave., Tamworth 2340	105198	1982	Premise Match	111m	North West
	MOTOR ENGINE RECONDITIONERS	Carpenter, R. Automotive Repairs, 102 Kable Ave., Tamworth 2340	105246	1982	Premise Match	111m	North West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Carpenter, R. Automotive Repairs, 102 Kable Ave., Tamworth 2340	105263	1982	Premise Match	111m	North West
	EARTH MOVING &/OR ROADMAKING CONTRACTORS	Cunningham Earthmoving, 101 Kable Ave., Tamworth 2340	104451	1982	Premise Match	111m	North West
	HAULAGE CONTRACTORS	Cunningham Earthmoving, 101 Kable Ave., Tamworth 2340	104811	1982	Premise Match	111m	North West
	MINING COMPANIES	Attunga Mining Corp. Pty. Ltd., 101 Kable Ave., Tamworth 2340	645820	1970	Premise Match	111m	North West
	ELECTRIC CABLE, FLEX & WIRE MFRS. & DIST.	Lawrence & Hanson Pty. Ltd., 102 Kable Ave., Tamworth 2340	645190	1970	Premise Match	111m	North West
	ELECTRICAL SUPPLIES & APPLIANCES-WHOLESALE	Lawrence & Hanson Pty. Ltd., 102 Kable Ave., Tamworth 2340	645230	1970	Premise Match	111m	North West
	RADIO &/OR TELEVISION DISTRIBUTORS-WHOLESALE	Lawrence & Hanson Pty. Ltd., 102 Kable Ave., Tamworth 2340	646323	1970	Premise Match	111m	North West
	STEEL FABRICATORS	Lynch, R. J. & Co, 101 Kable Ave., Tamworth 2340	646508	1970	Premise Match	111m	North West
	AGRICULTURAL MACHINERY REPAIRERS	Lynch, R. J. & Co., 101 Kable Ave., Tamworth 2340	644488	1970	Premise Match	111m	North West
	ENGINEERS-STRUCTURAL	Lynch, R. J. & Co., 101 Kable Ave., Tamworth 2340	645307	1970	Premise Match	111m	North West
	MINING MACHINERY EQUIPMENT IMPORTERS, MFRS. & DISTRIBUTORS	Lynch, R. J. & Co., 101 Kable Ave., Tamworth 2340	645822	1970	Premise Match	111m	North West
	MOTOR BODY BUILDERS &/OR REPAIRERS	Lynch, R. J. & Co., 101 Kable Ave., Tamworth 2340	645910	1970	Premise Match	111m	North West
	WELDERS-ELECTRIC &/OR OXY	Lynch, R. J. & Co., 101 Kable Ave., Tamworth 2340	646704	1970	Premise Match	111m	North West
	MOTOR RADIATOR SPECIALISTS & REPAIRERS	Cleggs & Hardy Radiator Service 101 Kable Avenue, Tamworth	172098	1961	Premise Match	111m	North West
	ENGINEERS-STRUCTURAL	Cleggs & Hardy Radiator Service, 101 Kable Ave., Tamworth	171352	1961	Premise Match	111m	North West
	MOTOR RADIATOR SPECIALISTS & REPAIRERS	Cleggs & Hardy Radiator Service, 101 Kable Ave., Tamworth	172135	1961	Premise Match	111m	North West
	WELDERS-ELECTRIC &/OR OXY	Cleggs & Hardy Radiator Service, 101 Kable Ave., Tamworth	172716	1961	Premise Match	111m	North West
	AGRICULTURAL MACHINERY REPAIRERS	Industrial Sales and Service (N.S.W.) Pty. Ltd., 101 Kable Ave., Tamworth	170660	1961	Premise Match	111m	North West
	MOTOR PAINTERS & PANEL BEATERS	Jones, J. A., 102 Kable Ave., Tamworth	172123	1961	Premise Match	111m	North West
	MOTOR TRIMMERS	Lipman, 102 Kable Ave., Tamworth	172178	1961	Premise Match	111m	North West
	FURNITURE-GENERAL-MFRS. & WHOLESALERS	Victor Furniture Company, 527 Peel St., Tamworth	171494	1961	Premise Match	111m	North West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
16	UPHOLSTERERS	Victor Furniture Company, 527 Peel St., Tamworth	172697	1961	Premise Match	111m	North West
17	FUNCTION ROOMS.	Tamworth Dragon Palace Restaurant., 528 Peel St, Tamworth	211835	1991	Premise Match	114m	South East
	RESTAURANTS.	Tamworth Dragon Palace Restaurant., 528 Peel St, Tamworth	205170	1991	Premise Match	114m	South East
	FLORISTS - RETAIL.	Tamworth Florist., 530 Peel St, Tamworth	211795	1991	Premise Match	114m	South East
	BUTCHERS - RETAIL.	Meads Butchery, 530 Peel St., Tamworth 2340	104162	1982	Premise Match	114m	South East
	BUTCHERS-RETAIL	Paradise Butchery, 530 Peel St., Tamworth 2340	644896	1970	Premise Match	114m	South East
	BUTCHERS-RETAIL	Paradise Butchery, 530 Peel St., Tamworth	170962	1961	Premise Match	114m	South East
18	BEDS &/OR BEDDING - RETAIL.	Macquarie Furnishings., 490 Peel St	210984	1991	Premise Match	115m	North
	FURNITURE RETAIL-HOUSEHOLD.	Macquarie Furnishings., 490 Peel St, Tamworth	211885	1991	Premise Match	115m	North
19	WELDERS-ELECTRIC &/OR OXY	Ball Equipment Pty. Ltd., 15 Byrnes St., West Tamworth 2340	646697	1970	Premise Match	122m	North
20	CHIROPRACTORS.	David P Taylor Chiropractic Centre., 7 Murray St Tamworth	211316	1991	Premise Match	124m	East
	CHIROPRACTORS.	Taylor David P Chiropractic Centre., 7 Murray St, Tamworth	211318	1991	Premise Match	124m	East
21	PRINTERS - INSTANT.	Tamprint., 17 Byrnes Av, Tamworth	212843	1991	Premise Match	127m	North
	RUBBER STAMP MFRS. &/OR DISTS.	Tamprint., 17 Byrnes Av, Tamworth	205211	1991	Premise Match	127m	North
22	ELECTRICAL SUPPLIES &/OR APPLIANCES MFRS. &/OR W/SALERS.	Antinc Pty Ltd., 523 Peel St, Tamworth	211617	1991	Premise Match	131m	North West
	ELECTRIC SWITCH & CONTROL GEAR MFRS. &/OR IMPS. &/OR DISTS.	Auslec Pty Ltd., 523 Peel St, Tamworth	211580	1991	Premise Match	131m	North West
	MOTOR ACCESSORIES - RETAIL.	Grays Auto Spares., 525 Peel St, Tamworth	212457	1991	Premise Match	131m	North West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Staines Tyre Service, 525 Peel St., Tamworth 2340	105305	1982	Premise Match	131m	North West
	MOTOR WHEEL REPAIRERS &/OR SPECIALISTS	Staines Tyre Service, 525 Peel St., Tamworth 2340	105383	1982	Premise Match	131m	North West
	TYRE DEALERS, RETREADERS &/OR VULCANIZERS	Staines Tyre Service, 525 Peel St., Tamworth 2340	106010	1982	Premise Match	131m	North West
	ELECTRIC LIGHT FITTINGS &/OR EQUIPMENT MFRS. &/OR DISTS	Watson, W. G. & Company Pty. Ltd., 523 Peel St., Tamworth 2340	104460	1982	Premise Match	131m	North West
	ELECTRICAL SUPPLIES &/OR APPLIANCES MFRS. &/OR W/SALERS	Watson, W. G. & Company Pty. Ltd., 523 Peel St., Tamworth 2340	104492	1982	Premise Match	131m	North West
	AGRICULTURAL MACHINERY HIRERS &/OR DEALERS	Tamworth Farmers Co-operative Ltd., 525 Peel St., Tamworth 2340	644469	1970	Premise Match	131m	North West
	AGRICULTURAL MACHINERY REPAIRERS	Tamworth Farmers Co-operative Ltd., 525 Peel St., Tamworth 2340	644491	1970	Premise Match	131m	North West
	BATTERY SALES & SERVICE	Tamworth Farmers Co-operative Ltd., 525 Peel St., Tamworth 2340	644690	1970	Premise Match	131m	North West
23	TELEVISION STATIONS.	Australian Brd Casting Corporation., 488 Peel St	205488	1991	Premise Match	135m	North
	ASSOCIATIONS &/OR SOCIETIES	St. Vincent de Paul, 488 Peel St., Tamworth 2340	103861	1982	Premise Match	135m	North
	SCALE & WEIGHING MACHINE MFRS. &/OR DISTRIBUTORS &/OR IMPORTERS	Avery, W. & T. (Aust.) Pty. Ltd., 488 Peel St., Tamworth 2340	646387	1970	Premise Match	135m	North
24	FRUITERERS &/OR GREENGROCERS	Ray & Glens Fruit Box, 532 Peel St., Tamworth 2340	104644	1982	Premise Match	139m	South East
	MIXED BUSINESSES	Paradise Cash Store, 532 Peel St., Tamworth 2340	645847	1970	Premise Match	139m	South East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
24	MIXED BUSINESSES	Paradise Store, 532 Peel St., Tamworth	171947	1961	Premise Match	139m	South East
25	MOTOR WINDSCREENS	Ferry, B, 28 Roderick St., Tamworth 2340	105388	1982	Premise Match	143m	North
	CANVAS GOODS MFRS. &/OR DISTS.	Ferry, B., 28 Roderick St., Tamworth 2340	104205	1982	Premise Match	143m	North
	MOTOR TRIMMERS.	Ferry, B., 28 Roderick St., Tamworth 2340	105371	1982	Premise Match	143m	North
	SADDLERS	Ferry, B., 28 Roderick St., Tamworth 2340	105700	1982	Premise Match	143m	North
	UPHOLSTERERS	Ferry, B., 28 Roderick St., Tamworth 2340	106017	1982	Premise Match	143m	North
26	GARAGE DOOR MFRS. &/OR DISTS. &/OR INSTALLERS.	Build-A-Door Senices Pty Ltd., 99 Kable Av, Tamworth	211895	1991	Premise Match	148m	North West
	DOOR MFRS. &/OR DISTS. &/OR INSTALLERS.	Build-A-Door Services Pty Ltd., 99 Kable Av Tamworth	207654	1991	Premise Match	148m	North West
	DOOR MFRS. &/OR DISTS. &/OR INSTALLERS.	Build-A-Door Services Pty Ltd., 99 Kable Av, Tamworth	211516	1991	Premise Match	148m	North West
	FURNITURE MFRS. &/OR W/SALERS. OUTDOORS.	Build-A-Door Services Pty Ltd., 99 Kable Av, Tamworth	211864	1991	Premise Match	148m	North West
	SECURITY DOORS &/OR WINDOWS &/OR GRILLES.	Build-A-Door Services Pty Ltd., 99 Kable Av, Tamworth	205274	1991	Premise Match	148m	North West
	CARRIERS &/OR CARTAGE CONTRACTORS.	Bulld-A-Door Services Pty Ltd., 99 Kabla Av, Tamworth	211246	1991	Premise Match	148m	North West
	DOOR MFRS. &/OR DISTS. &/OR INSTALLERS	Build-a-Door Services, 99 Kable Ave., Tamworth 2340	104413	1982	Premise Match	148m	North West
	HARDWARE &/OR BUILDERS SUPPLIES.	Build-a-Door Services. 99 Kable Ave., Tamworth 2340	104793	1982	Premise Match	148m	North West
	ELECTRIC CABLE, FLEX & WIRE MFRS. & DIST.	British Insulated Cailenders Cables (Aust.) Pty. Ltd., 99 Kable Ave., Tamworth	171246	1961	Premise Match	148m	North West

Business Directory Records 1950-1991
Road or Area Matches

Universal Business Directory records from years 1991, 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
27	HIRE SERVICES.	Back Lloyd Menswear., Shop5 A M P Centre Peel St, Tamworth	212082	1991	Road Match	0m
	CAFES, TEA ROOMS &/OR COFFEE LOUNGES	Bunty'S Coffee & Teahouse., Shop22 A M P Centre Peel St, Tamworth	211182	1991	Road Match	0m
	JEWELLERS-RETAIL	Chews Jewellers., Shop2 A M P Centre Peel St, Tamworth	212239	1991	Road Match	0m
	HAIRDRESSERS-LADIES &/OR BEAUTY SALONS	Coronet Beauty Salon., Shop16 A M P Centre Peel St, Tamworth	212016	1991	Road Match	0m
	CLOTHING - RETAIL - MENS &/OR BOYS WEAR.	Country Collections For Men., Shop7 A M P Centre Peel St, Tamworth	211376	1991	Road Match	0m
	ELECTRIC CABLE - FLEXIBLE &/OR WIRE MFRS. &/OR DISTS.	G E C Pty Ltd., 635 Peel St, Tamworth	211554	1991	Road Match	0m
	TOYS- RETAIL	Hssals., Shop3 A M P Centre Peel St, Tamworth	205530	1991	Road Match	0m
	CLOTHING - RETAIL - LADIES &/OR GIRLS WEAR.	Lacey Lady., Shop 1A A M P Centre Peel St, Tamworth	211359	1991	Road Match	0m
	CLOTHING-RETAIL-BABY &/OR CHILDRENS WEAR	Li'L Rascals., Shop3 A M P Centre Peel St, Tamworth	211338	1991	Road Match	0m
	ASSOCIATIONS &/OR SOCIETIES.	Lions Club., Peel St	210832	1991	Road Match	0m
	CLOTHING - RETAIL - MENS &/OR BOYS WEAR.	Lloyd Menswear., Shop5 A M P Centre Peel St, Tamworth	211374	1991	Road Match	0m
	GIFT SHOPS.	Matthews Jewellers., Shop2 A M P Centre Peel St, Tamworth	211933	1991	Road Match	0m
	VIDEO CASSETTE LIBRARIES	Mew Sum'S Videos Stones Comer Shopping Centre., Peel St, Tamworth	206055	1991	Road Match	0m
	RESTAURANTS.	Nan Ping Cafe., 631 Peal St, Tamworth	205165	1991	Road Match	0m
	TELEPHONE ANSWERING EQUIPMENT MFRS. &/OR IMPS. &/OR DISTS.	Norman Ross Discounts., 262 Pool St	205475	1991	Road Match	0m
	TAPE RECORDER SALES &/OR SERVICE.	Normao Ross Discounts., 262 Pool St	205449	1991	Road Match	0m
	GIFT SHOPS.	Occasions., Shop18 A M P Centre Peel St, Tamworth	211934	1991	Road Match	0m
	CAMPING GROUNDS &/OR CARAVAN PARKS.	Paradise Caravan Park & Kiosk., Peel St, Tamworth	211215	1991	Road Match	0m
	BEAUTY SALONS	Paris Potions., Shop9 A M P Centre Peel St	210981	1991	Road Match	0m
	PERFUME &/OR COSMETICS - RETAIL.	Paris Potions., Shop9 A M P Centre Peel St, Tamworth	212759	1991	Road Match	0m
	FLORISTS - RETAIL.	Rose Heaven Flower & Plant Boutique Stones Corner Shopping Centre., Peel St, Tamworth	211794	1991	Road Match	0m
	BUTCHERS - RETAIL.	Sherwood Meats Stones Corner Shopping Centre., Peel St, Tamworth	211163	1991	Road Match	0m
	SUPERMARKETS.	Superslasher Supermarket Stones Corner Shopping Centre., Peel St, Tamworth	205397	1991	Road Match	0m
	CLOTHING - RETAIL - LADIES &/OR GIRLS WEAR.	Swaggs., Shop13 Am P Centre Peel St, Tamworth	211367	1991	Road Match	0m
	TAKE-AWAY FOODS.	Tamworth Chinese & Malaysian Restaurant., Stones Corner Shopping Centre Peel St	205441	1991	Road Match	0m
	RESTAURANTS.	Tamworth Chinese & Malaysian Restaurant., Stones Corner Shopping Centre Peel St, Tamworth	205169	1991	Road Match	0m
	BOOKSELLERS RETAIL	Tamworth Christian Book Centre., Shop17 A M P Centre Peel St, Tamworth	211021	1991	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
27	GREETING CARDS-RETAIL.	Tamworth Christian Book Centre., Shop17 A M P Centre Peel St, Tamworth	211993	1991	Road Match	0m
	BAKERS	Tamworth Hot Bake., Shop2 Stones Corner Shopping Centre Peel St	210938	1991	Road Match	0m
	CAKE SHOPS &/OR PASTRYCOOKS.	Tamworth Hot Bake., Shop2 Stones Corner Shopping Centre Peel St, Tamworth	211211	1991	Road Match	0m
	KNITTED GOODS & KNITTING SUPPLIES.	Tamworth Wool Shop., Shop18 A M P Centre Peel St, Tamworth	212268	1991	Road Match	0m
	KNITTING WOOL MFRS. &/OR DISTS.	Tanworth Wool Shop., Shop18 A M P Centre Peel St, Tamworth	212270	1991	Road Match	0m
	HAIRDRESSERS-MENS	Tizzy'S Hair Salon Stones Corner Shopping Centre., Peel St, Tamworth	212057	1991	Road Match	0m
	HAIRDRESSERS-LADIES &/OR BEAUTY SALONS	Tizzy'S Hair Salon Stones Corner Shopping Centre., Peel St, Tamworth	212035	1991	Road Match	0m
	WALLPAPER &/OR WALLCOVERINGS MERCHANTS.	Waterman'S Paint Supplies Pty Ltd., 609 Peel St, Tamworth	206071	1991	Road Match	0m
	SIGNWRITERS SUPPLIES.	Waterman'S Paint Sapplies Pty Ltd., 599 Pert St, Tamworth	205313	1991	Road Match	0m
	PAINT &/OR ACCESSORIES - RETAIL	Waterman'S Paint Supplies Pty Ltd., 569 Peel St, Tamworth	212729	1991	Road Match	0m
	ASSOCIATIONS &/OR SOCIETIES	Armoured Corps Sub Branch, Peel St., Tamworth 2340	103826	1982	Road Match	0m
	AUCTIONEERS REAL ESTATE	Hooker, L J. Tamworth, Peel St., Tamworth 2340	103944	1982	Road Match	0m
	BUSINESS AGENTS &/OR BROKERS	Hooker, L J. Tamworth, Peel St., Tamworth 2340	104143	1982	Road Match	0m
	MANAGEMENT CONSULTANTS	Hooker, L J. Tamworth, Peel St., Tamworth 2340	105020	1982	Road Match	0m
	REAL ESTATE, STOCK & STATION AGENTS	Hooker, L J. Tamworth, Peel St., Tamworth 2340	105617	1982	Road Match	0m
	ASSOCIATIONS &/OR SOCIETIES	Lions Club, Peel St., Tamworth 2340	103834	1982	Road Match	0m
	OFFICE EQUIPMENT MFRS. &/OR DISTS	Pacific Typewriter Equipment Pty. Ltd., 615 Peel St., Tamworth 2340	105424	1982	Road Match	0m
	CAMPING GROUNDS &/OR CARAVAN PARKS	Paradise Caravan Park & Kiosk, Peel St., Tamworth 2340	104200	1982	Road Match	0m
	MIXED BUSINESSES	Paradise Caravan Park & Kiosk, Peel St., Tamworth 2340	105107	1982	Road Match	0m
	ASSOCIATIONS &/OR SOCIETIES	Tamworth Rotary Club, Peel St., Tamworth 2340	103899	1982	Road Match	0m
	PHOTOGRAPHERS - AERIAL.	Valks P. Photographers, Peel St., Tamworth 2340	105493	1982	Road Match	0m
	PHOTOGRAPHERS - GENERAL	Valks P. Photographers, Peel St., Tamworth 2340	105497	1982	Road Match	0m
	PHOTOGRAPHERS COMMERCIAL &/OR INDUSTRIAL.	Valks P. Photographers, Peel St., Tamworth 2340	105495	1982	Road Match	0m
	PHOTOGRAPHIC DEVELOPING, PRINTING &/OR COLOURING SERVICES	Valks P. Photographers, Peel St., Tamworth 2340	105501	1982	Road Match	0m
	PICTURE FRAMERS &/OR DEALERS	Valks P. Photographers, Peel St., Tamworth 2340	105518	1982	Road Match	0m
	INSURANCE COMPANIES-GENERAL	A.M.P. Fire & General Insurance Co. Ltd., Peel St., Tamworth 2340	645613	1970	Road Match	0m
	ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Armoured-Corps Sub Branch, (Peel Barracks), Peel St., Tamworth 2340	644541	1970	Road Match	0m
	PEST CONTROL	Frick, W. A. & Co. Pty. Ltd., Peel St., Tamworth 2340	646208	1970	Road Match	0m
	ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Lions Club, Peel St., Tamworth 2340	644551	1970	Road Match	0m
	INFORMATION SERVICES	Tamworth & District Chamber of Commerce, Peel St., Tamworth 2340	645567	1970	Road Match	0m
	GAS COMPANIES	Tamworth City Council Gas Works, Peel St., Tamworth 2340	645425	1970	Road Match	0m
	INSURANCE COMPANIES-GENERAL	Transport and General Insurance Company Limited, Peel St., Tamworth 2340	645643	1970	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
27	DRESS SHOPS & ACCESSORIES	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth 2340	645154	1970	Road Match	0m
	ASSOCIATIONS & SOCIETIES	Armoured-Corps Sub Branch, (Peel Barracks), Peel St., Tamworth	170696	1961	Road Match	0m
	FROCK & COAT SALONS	Buchanan, Enid, 959 Peel St., Tamworth	171443	1961	Road Match	0m
	HOTELS-LICENSED	Caledonian Hotel, Peel St., Tamworth	171632	1961	Road Match	0m
	BUILDERS' SUPPLIERS	Dominion Glass & Glazing, Peel St., Tamworth	170915	1961	Road Match	0m
	DOOR MANUFACTURERS	Dominion Glass & Glazing, Peel St., Tamworth	171203	1961	Road Match	0m
	FLY SCREEN DOOR & WINDOW MFRS.	Dominion Glass & Glazing, Peel St., Tamworth	171411	1961	Road Match	0m
	GLASS MERCHANTS	Dominion Glass & Glazing, Peel St., Tamworth	171516	1961	Road Match	0m
	JOINERY MANUFACTURERS	Dominion Glass & Glazing, Peel St., Tamworth	171785	1961	Road Match	0m
	MIRROR MANUFACTURERS	Dominion Glass & Glazing, Peel St., Tamworth	171909	1961	Road Match	0m
	SHOP & OFFICE FITTERS	Dominion Glass & Glazing, Peel St., Tamworth	172457	1961	Road Match	0m
	WINDOW FRAME MANUFACTURERS	Dominion Glass & Glazing, Peel St., Tamworth	172736	1961	Road Match	0m
	MERCANTILE AGENTS	Dun & Bradstreet (Collections) Pty. Ltd., 366 Ritz Chamb., Peel St., Tamworth	171866	1961	Road Match	0m
	AIR SERVICES BOOKING AGENTS	Farmers and Graziers Co-op. Grain, Insurance and Agency Co. Ltd., Peel St., Tamworth	170672	1961	Road Match	0m
	ACCOUNTANTS & AUDITORS	Goodall, Rodgers & Russell, Peel St., Tamworth	170611	1961	Road Match	0m
	INSURANCE AGENTS	Gregson, R. W., Peel St., Tamworth	171676	1961	Road Match	0m
	GROCERS & GENERAL STOREKEEPERS	P.G.S. Supermarket, Peel St., Tamworth	171565	1961	Road Match	0m
	CHEMISTS-BIOLOGICAL	Schofield, L., Peel St., Tamworth	171083	1961	Road Match	0m
	FRUIT & VEGETABLE MERCHANTS-WHOLESALE	Swan, Reg. (Tamworth) Pty. Ltd., Peel St., Tamworth	171457	1961	Road Match	0m
	PLUMBERS' SUPPLIES	Taylor Bros., Peel St., Tamworth	172332	1961	Road Match	0m
	PLUMBERS, GASFITTERS & DRAINLAYERS	Taylor Bros., Peel St., Tamworth	172325	1961	Road Match	0m
	INSURANCE COMPANIES-GENERAL	Transport and General Insurance Company Limited., Peel St., Tamworth	171752	1961	Road Match	0m
	CARPET & FLOOR COVERING RETAILERS & SPECIALISTS	Treioar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	171021	1961	Road Match	0m
	LINGERIE &/OR HOSIERY SPECIALISTS	Treloar, T. J. & Co .Pty. Ltd., Peel St., Tamworth	171815	1961	Road Match	0m
	BOOT & SHOE REPAIRERS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	170845	1961	Road Match	0m
	DELICATESSENS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	171194	1961	Road Match	0m
	DRY CLEANERS, PRESSERS & DYERS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	171234	1961	Road Match	0m
	FOOTWEAR RETAILERS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	171428	1961	Road Match	0m
	FROCK & COAT SALONS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	171455	1961	Road Match	0m
	FURN ITURE & FURNISHINGS-RETAIL	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	171485	1961	Road Match	0m
	HANDBAGS &/OR GLOVE SPECIALISTS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	171603	1961	Road Match	0m
	LAWN MOWER SALES & SERVICE	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	171806	1961	Road Match	0m
	MILK, FRUIT JUICE BARS & CONFECTIONERS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	171891	1961	Road Match	0m
	MILLINERY-RETAIL	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	171907	1961	Road Match	0m
	OUTFITTERS-LADIES' & CHILDREN'S	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	172236	1961	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
27	PEST CONTROL	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	172271	1961	Road Match	0m
	PICTURE FRAMERS & DEALERS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	172300	1961	Road Match	0m
	PIN MANUFACTURERS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	172304	1961	Road Match	0m
	PLUMBERS' SUPPLIES	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	172334	1961	Road Match	0m
	SEED MERCHANTS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	172438	1961	Road Match	0m
	TYRE & TUBE DEALERS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	172689	1961	Road Match	0m
	VETERINARY SUPPLIES & INSTRUMENTS-RETAIL	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	172705	1961	Road Match	0m
	SPORTS & TRAVEL GOODS RETAILERS	Treloar, T. J. &Co. Pty. Ltd., Peel St., Tamworth	172501	1961	Road Match	0m
	AGRICULTURAL MACHINERY DEALERS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	170641	1961	Road Match	0m
	AGRICULTURAL MACHINERY REPAIRERS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	170666	1961	Road Match	0m
	AMMUNITION & EXPLOSIVES DISTRIBUTORS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	170683	1961	Road Match	0m
	BABY WEAR-RETAIL	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	170758	1961	Road Match	0m
	BLIND MANUFACTURERS & SPECIALISTS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	170824	1961	Road Match	0m
	BUILDERS' SUPPLIERS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	170926	1961	Road Match	0m
	CANVAS GOODS-RETAILERS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	171011	1961	Road Match	0m
	DRAPERS-RETAIL	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	171218	1961	Road Match	0m
	GENERAL MERCHANTS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	171514	1961	Road Match	0m
	GROCERS & GENERAL STOREKEEPERS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	171572	1961	Road Match	0m
	GROCERS-WHOLESALE	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	171577	1961	Road Match	0m
	HARDWARE DEALERS & IRONMONGERS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	171615	1961	Road Match	0m
	INSURANCE AGENTS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	171707	1961	Road Match	0m
	MERCERS, MEN'S & BOYS' OUTFITTERS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	171880	1961	Road Match	0m
	PRODUCE MERCHANTS-GRAIN & SEED-RETAIL	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	172354	1961	Road Match	0m
	SEWING MACHINE DEALERS	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	172447	1961	Road Match	0m
	STATION & FARM SUPPLIES	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	172529	1961	Road Match	0m
	WINE & SPIRIT MERCHANTS-RETAIL	Treloar, T. J. and Co. Pty. Ltd., Peel St., Tamworth	172743	1961	Road Match	0m
	ELECTRICAL SUPPLIES & APPLIANCES-RETAILERS	Treloar, T. J. Co. Pty. Ltd., Peel St., Tamworth	171289	1961	Road Match	0m
	PAINT, VARNISH, OILS & COLOUR MERCHANTS	Treloar, T. J. Co. Pty. Ltd., Peel St., Tamworth	172249	1961	Road Match	0m
	REFRIGERATOR DEALERS &/OR SERVICEMEN	Treloar, T. J. Co. Pty. Ltd., Peel St., Tamworth	172410	1961	Road Match	0m
	TAILORS-LADIES' &/OR GENT.'S	Treloar, T. J. Co. Pty. Ltd., Peel St., Tamworth	172585	1961	Road Match	0m
	TOY DEALERS-RETAIL	Treloar, T. J. Co. Pty. Ltd., Peel St., Tamworth	172655	1961	Road Match	0m
	HOTELS-LICENSED	Tudor Hotel, Peel St., Tamworth	171646	1961	Road Match	0m
	HARDWARE DEALERS & IRONMONGERS	Clark, Marcus and Co. Ltd, Peel st. Tamworth	162204	1950	Road Match	0m
	RADIO & REFRIGERATOR DEALERS & SERVICEMEN	Regan's Pty. Ltd. (Agents, A.W.A., Radlola, Alrzone), Peel St. Tamworth	162681	1950	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
27	INSURANCE AGENTS	Regan's Pty. Ltd. (Agents, City Mutual Fire Insrnce. Co. Ltd., Ajax lnsrnce. Co, Ltd., Patriotic Insrnce. Co. Ltd.), Peel St. Tamworth	162283	1950	Road Match	0m
	BATTERY DISTRIBUTORS & SERVICE STATIONS	Treloar, T. J. and Co. Pty. Ltd., Peel St. Tamworth	160472	1950	Road Match	0m
	MOTOR SPARE PARTS MANUFACTURERS	W. (Bill) Cornish., Peel Street., Tamworth	162582	1950	Road Match	0m
28	RESTAURANTS.	Catdeman Steakhouse The., New England Hway, Tamworth	212949	1991	Road Match	0m
	CAMPING GROUNDS &/OR CARAVAN PARKS.	Ciiy Lights Caravan Park., New England Hway, Tamworth	211214	1991	Road Match	0m
	MOTELS.	Counby Capital Motel., New England Hway, Tamworth	212420	1991	Road Match	0m
	RESTAURANTS.	Country Capital Motel., New England Hway, Tamworth	212956	1991	Road Match	0m
	HOTELS - LICENSED.	Longyard The., New England Hway, Tamworth	212128	1991	Road Match	0m
	MOTELS.	Rodeway Motor Inn., New England Hway, Tamworth	212432	1991	Road Match	0m
29	ELECTRIC CABLE - FLEXIBLE &/OR WIRE MFRS. &/OR DISTS.	T L E Electrical Pty Ltd., 1 Roderick St, Tamworth	211556	1991	Road Match	0m
	ELECTRICAL SUPPLIES &/OR APPLIANCES MFRS. &/OR W/SALERS.	T L E Electrical Pty Ltd., 1 Roderick St, Tamworth	211621	1991	Road Match	0m
	MOTOR ACCESSORIES MFRS. &/OR IMPS. &/OR W/SALERS.	Young & Green Pty Ltd., 8 Roderick St, Tamworth	212445	1991	Road Match	0m
	FLY SCREENS, DOORS & WINDOWS MFRS. &/OR DISTS.	Nu. Look Aluminium Joinery, 6 Roderick St., Tamworth 2340	645366	1970	Road Match	0m
	ALUMINIUM WINDOW FRAME MFRS. &/OR DISTS	Nu-Look Aluminium Joinery, 6 Roderick St., Tamworth 2340	644512	1970	Road Match	0m
30	CHIROPRACTORS.	Taylor D P., Murray St, Tamworth	211317	1991	Road Match	30m
	STOCK FOODS MFRS. &/OR DISTS.	Wright Mash Stock Feeds, 8 Murray St., Tamworth 2340	105869	1982	Road Match	30m
31	HOSPITALS &/OR NURSING HOMES	Baby Health Centre., Kable Av, Tamworth	212113	1991	Road Match	34m
	MOTOR WHEEL ALIGNING & BALANCING SERVICES.	Bob Jane T-Mart., Kable Av, Tamworth	212661	1991	Road Match	34m
	TYRE DEALERS &/OR RETREADERS &/OR VULCANISERS.	Bob Jane T-Mart., Kable Av, Tamworth	205577	1991	Road Match	34m
	COMPUTER SALES &/OR SERVICE.	Dick Smith Electronics Pty Ltd., Treloars Bldg Kable Av, Tamworth	211409	1991	Road Match	34m
	ELECTRONIC COMPONENTS MFRS. &/OR IMPS. &/OR DISTS.	Dick Smith Electronics Pty Ltd., Treloars Bldg Kable Av, Tamworth	211636	1991	Road Match	34m
	MOTOR ACCESSORIES - RETAIL.	Kenseli Harold & Co Pty Ltd., Kable Av, Tamworth	212458	1991	Road Match	34m
	MOTOR CAR DEALERS - NEW &/OR USED.	Kensell Harold & Co Pty Ltd., Kable Av, Tamworth	212487	1991	Road Match	34m
	MOTOR GARAGES & SERVICE STATIONS.	Mcmahon Motors., 68A Kable Av, Tamworth	212581	1991	Road Match	34m
	MOTOR GARAGES & SERVICE STATIONS.	Quinn & Buiko Pty Ltd., 52 Kable Av, Tamworth	212590	1991	Road Match	34m
	SWIMMING POOLS.	Tamworth Municipal Olympic Pool., Kable Av	205418	1991	Road Match	34m
	ELECTRONIC COMPONENTS MFRS. &/OR IMPS. &/OR DISTS.	Tandy Electronics., Kable Av, Tamworth	211637	1991	Road Match	34m
	LOCAL BODIES.	Tourist Information Centre., Kable Av, Tamworth	212323	1991	Road Match	34m
	FURNITURE &/OR FURNISHINGS - RETAIL.	Adamse Artistic Interiors, Regent Shopping Centre, Kable Ave., Tamworth 2340	104659	1982	Road Match	34m
	INTERIOR DECORATORS	Adamse Artistic Interiors, Regent Shopping Centre, Kable Ave., Tamworth 2340	104941	1982	Road Match	34m
	ASSOCIATIONS &/OR SOCIETIES	Australian Legion of Ex-Servicemen & Women, Kable Ave., Tamworth 2340	103827	1982	Road Match	34m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
31	HOSPITALS &/OR HEALTH CENTRES	Baby Health Centre, Kable Ave., Tamworth 2340	104834	1982	Road Match	34m
	ASSOCIATIONS &/OR SOCIETIES	C.W.A., Kable Ave., Tamworth 2340	103829	1982	Road Match	34m
	TAKE-AWAY FOODS	Henny Penny, Kable Ave., Tamworth 2340	105885	1982	Road Match	34m
	MOTOR CAR &/OR TRUCK DEALERS - NEW &/OR USED	Kensell, Harold & Co. Pty, Ltd., Kable Ave., Tamworth 2340	105213	1982	Road Match	34m
	MOTOR ACCESSORIES &/OR SPARE PARTS-RETAIL.	Kensell, Harold & Co. Pty. Ltd., Kable Ave., Tamworth 2340	105159	1982	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Kensell, Harold & Co. Pty. Ltd., Kable Ave., Tamworth 2340	105284	1982	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	McMahon Motors, 68A Kable Ave., Tamworth 2340	105292	1982	Road Match	34m
	FURNITURE REPRODUCTIONS	New England Upholstery, Kable Ave., Tamworth 2340	104680	1982	Road Match	34m
	TRACTOR SALES &/OR SERVICE.	Peel Valley Machinery Service, 91 Kable Ave., Tamworth 2340	105977	1982	Road Match	34m
	FURNITURE GARDEN &/OR ORNAMENTAL MFRS. &/OR DISTS. &/OR W/SALERS	Peel Valley Produce Market, 95 Kable Ave., Tamworth 2340	104665	1982	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Quinn & Burke Pty. Ltd., 52 Kable Ave., Tamworth 2340	105300	1982	Road Match	34m
	ASSOCIATIONS &/OR SOCIETIES	R.S.L. Club, Kable Ave., Tamworth 2340	103850	1982	Road Match	34m
	HAIRDRESSERS - LADIES &/OR BEAUTY SALONS	Regency Salon, Regent Shopping Centre, Kable Ave., Tamworth 2340	104777	1982	Road Match	34m
	ASSOCIATIONS &/OR SOCIETIES	Senior Citizens Centre, Kable Ave., Tamworth 2340	103856	1982	Road Match	34m
	ASSOCIATIONS &/OR SOCIETIES	Tamworth Amateur Swimming Club, Kable Ave., Tamworth 2340	103864	1982	Road Match	34m
	TOOL DEALERS - RETAIL.	Tamworth Tool Supplies, Shop 6, Regent Centre, Kable Ave., Tamworth 2340	105957	1982	Road Match	34m
	ELECTRONIC COMPONENTS MFRS. &/OR IMPS. &/OR DISTS	Tandy Electronics, Kable Ave., Tamworth 2340	104498	1982	Road Match	34m
	LOCAL BODIES.	Tourist Information Centre, Kable Ave., Tamworth 2340	105013	1982	Road Match	34m
	ASSOCIATIONS &/OR SOCIETIES	War Veterans Association, Kable Ave., Tamworth 2340	103909	1982	Road Match	34m
	ASSOCIATIONS &/OR SOCIETIES	Womens Auxiliary R.S.S. & A.I.L. A., Kable Ave., Tamworth 2340	103918	1982	Road Match	34m
	ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Australian Legion of Ex-Servicemen & Women, Kable Ave., Tamworth 2340	644542	1970	Road Match	34m
	ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	C.W.A., Kable Ave., Tamworth 2340	644544	1970	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Carpenter, Roy Automotive Repairs, 94 Kable Ave., Tamworth 2340	645982	1970	Road Match	34m
	AIR SERVICES BOOKING AGENTS	Dalgety & New Zealand Loan Ltd., 32 Kable Ave., Tamworth 2340	644505	1970	Road Match	34m
	AUCTIONEERS-GENERAL	Dalgety & New Zealand Loan Ltd., 32 Kable Ave., Tamworth 2340	644644	1970	Road Match	34m
	BUILDINGS-PREFABRICATED--MANUFACTURERS & DISTRIBUTORS	Dalgety & New Zealand Loan Ltd., 32 Kable Ave., Tamworth 2340	644878	1970	Road Match	34m
	INSURANCE AGENTS	Dalgety & New Zealand Loan Ltd., 32 Kable Ave., Tamworth 2340	645576	1970	Road Match	34m
	IRRIGATION SYSTEMS & EQUIPMENT MFRS & DISTRIBUTORS	Dalgety & New Zealand Loan Ltd., 32 Kable Ave., Tamworth 2340	645667	1970	Road Match	34m
	SEED MERCHANTS	Dalgety & New Zealand Loan Ltd., 32 Kable Ave., Tamworth 2340	646424	1970	Road Match	34m
	MOTOR PAINTERS & PANEL BEATERS	E. & L. Sampson 98 Kable Avenue, Tamworth 2340	646039	1970	Road Match	34m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave, Tamworth 2340	645934	1970	Road Match	34m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
31	MOTOR GARAGES &/OR ENGINEERS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave, Tamworth 2340	645991	1970	Road Match	34m
	INSURANCE AGENTS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave., Tamworth 2340	645583	1970	Road Match	34m
	MOTOR ACCESSORIES &/OR SPARE PARTS DEALERS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave., Tamworth 2340	645886	1970	Road Match	34m
	MOTOR STEERING SPECIALISTS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave., Tamworth 2340	646088	1970	Road Match	34m
	BATTERY DISTRIBUTORS	Goodyear Tyre Service, 89 Kable Ave., Tamworth 2340	644685	1970	Road Match	34m
	MOTOR BODY BUILDERS &/OR REPAIRERS	Jakob Industries Pty. Ltd., Kable Ave., Tamworth 2340	645909	1970	Road Match	34m
	TYRE DEALERS, RETREADERS & VULCANIZERS	Kensell, H. & Co., Kable Ave., Tamworth 2340	646654	1970	Road Match	34m
	CIVIL & CONSTRUCTIONAL ENGINEERS & EARTH MOVING CONTRACTORS	Lynch R J & Co 101 Kable Ave., Tamworth 2340	645297	1970	Road Match	34m
	WOOL, SKIN & HIDE BUYERS	New Zealand Trading Co. Pty. Ltd., 21 Kable Ave., Tamworth 2340	646733	1970	Road Match	34m
	CABINET MAKERS	Northern Furniture Manufacturing Co., 68 Kable Ave., Tamworth 2340	644910	1970	Road Match	34m
	SECONDHAND DEALERS	Northern Furniture Manufacturing Co., 68 Kable Avenue, Tamworth 2340	646423	1970	Road Match	34m
	ALUMINIUM PRODUCTS MANUFACTURERS	Northern Manufacturing Co 68 Kable Ave., Tamworth 2340	644510	1970	Road Match	34m
	MOTOR OIL & SPIRIT DEPOTS	Quinn And Burke Pty. Limited Office: 52 Kable Avenue, Tamworth	646036	1970	Road Match	34m
	ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	R.S.L. Club, Kable Ave., Tamworth 2340	644566	1970	Road Match	34m
	MOTOR ENGINE RECONDITIONERS	Roy Carpenter 94-95 Kable Avenue Tamworth 2340	645979	1970	Road Match	34m
	MOTOR BODY BUILDERS &/OR REPAIRERS	SampsonE. & L., Kable Ave., Tamworth 2340	645911	1970	Road Match	34m
	ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Senior Citizens' Centre, Kable Ave., Tamworth 2340	644573	1970	Road Match	34m
	ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Tamworth Amateur Swimming Club, Kable Ave., Tamworth 2340	644580	1970	Road Match	34m
	ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Tamworth R.S.L. Club, Kable Ave., Tamworth 2340	644617	1970	Road Match	34m
	ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	War Veterans' Association, Kable Ave., Tamworth 2340	644630	1970	Road Match	34m
	ASSOCIATIONS, SOCIETIES, CLUBS & SPORTING BODIES	Women's Auxiliary R. S. S. & A. I. L. A., Kable Ave., Tamworth 2340	644639	1970	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Wright, W., Kable Ave., Tamworth 2340	646026	1970	Road Match	34m
	HOSPITALS & HEALTH CENTRES	Baby Health Centre, Kable Ave., Tamworth	171622	1961	Road Match	34m
	MOTOR ACCESSORIES & SPARE PARTS-WHOLESALE	Bennett & Wood Ltd., Kable Ave., Tamworth	171987	1961	Road Match	34m
	MOTOR CYCLE IMPORTERS & DISTRIBUTORS	Bennett & Wood Ltd., Kable Ave., Tamworth	172040	1961	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Bundy's Garage, 22 Kable Ave., Tamworth	172059	1961	Road Match	34m
	ASSOCIATIONS & SOCIETIES	C.W.A., Kable Ave., Tamworth	170699	1961	Road Match	34m
	MOTOR TOWING SERVICES	Calala Motor Body Works, Kable Ave., Tamworth	172170	1961	Road Match	34m
	WELDERS-ELECTRIC &/OR OXY	Calala Motor Body Works, Kable Ave., Tamworth	172715	1961	Road Match	34m
	MOTOR BODY BUILDERS &/OR REPAIRERS	Caleia Motor Body Works, Kable Ave., Tamworth	171994	1961	Road Match	34m
	CARRIERS & CARTAGE CONTRACTORS	Caulfield, A., 10 Kable Ave., Tamworth	171030	1961	Road Match	34m
	FRUIT & VEGETABLE MERCHANTS-WHOLESALE	Central Markets, Kable Ave., Tamworth	171456	1961	Road Match	34m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave, Tamworth	172014	1961	Road Match	34m

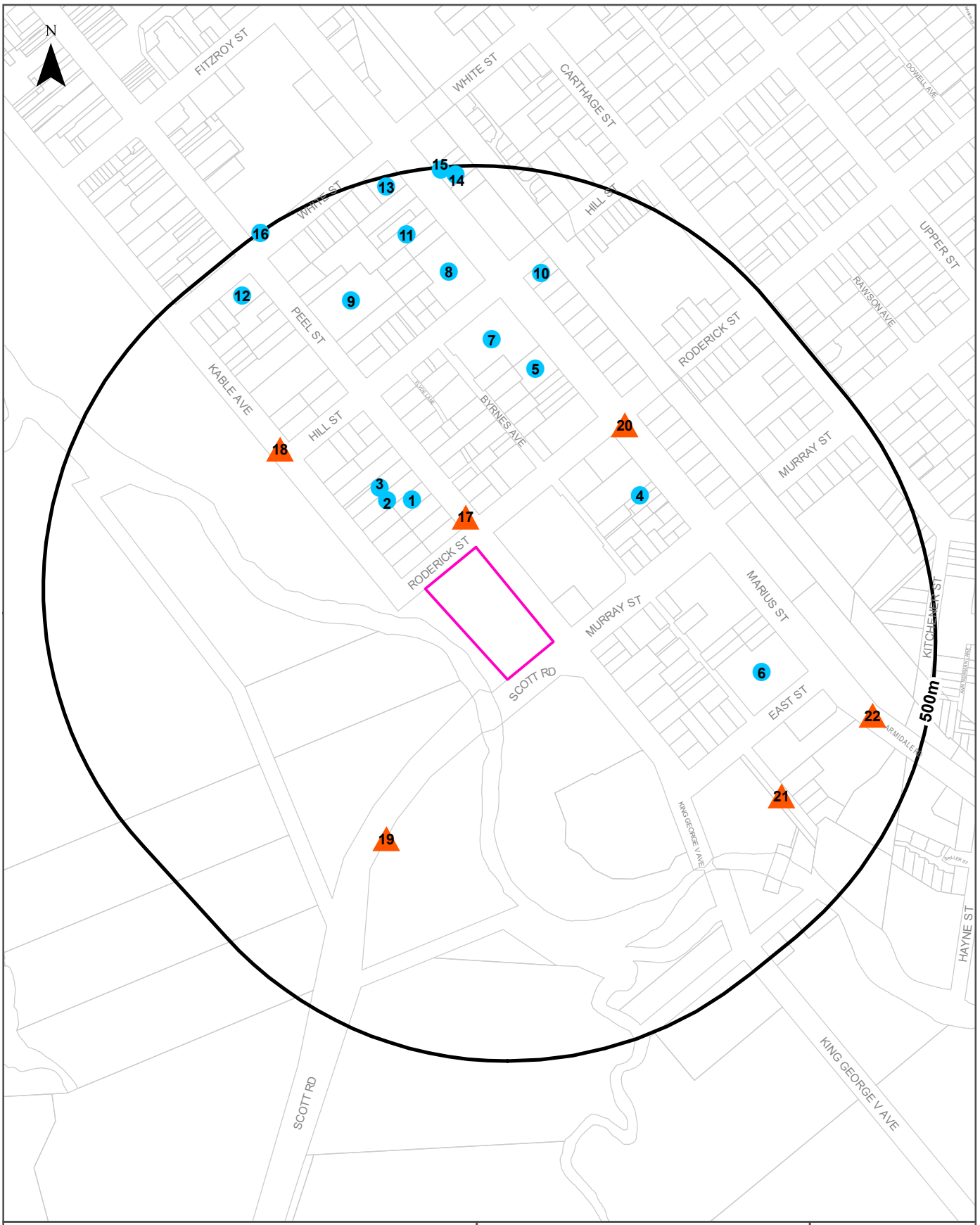
Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
31	INSURANCE AGENTS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave., Tamworth	171674	1961	Road Match	34m
	MOTOR ACCESSORIES &/OR SPARE PARTS DEALERS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave., Tamworth	171975	1961	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave., Tamworth	172068	1961	Road Match	34m
	MOTOR PAINTERS & PANEL BEATERS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave., Tamworth	172121	1961	Road Match	34m
	MOTOR WHEEL REPAIR SPECIALISTS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave., Tamworth	172181	1961	Road Match	34m
	WELDERS-ELECTRIC &/OR OXY	Kenseli, H. & Co., Kable Ave., Tamworth	172721	1961	Road Match	34m
	MOTOR ACCESSORIES &/OR SPARE PARTS DEALERS	Kensell, H. & Co., 33 Kable Ave., Tamworth	171976	1961	Road Match	34m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Kensell, H. & Co., 33 Kable Ave., Tamworth	172015	1961	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Kensell, H. & Co., 33 Kable Ave., Tamworth	172072	1961	Road Match	34m
	INSURANCE AGENTS	Kensell, H. & Co., Kable Ave., Tamworth	171683	1961	Road Match	34m
	TYRE DEALERS, RETREADERS & VULCANIZERS	Kensell, H. & Co., Kable Ave., Tamworth	172674	1961	Road Match	34m
	ELECTRIC MOTOR WINDING & REWINDING SPECIALISTS	Lloyds Electrical Service, 21a Kable Ave., Tamworth	171251	1961	Road Match	34m
	ARMATURE WINDERS	Lloyd's Electrical Service, 21a Kable Ave., Tamworth	170692	1961	Road Match	34m
	BATTERY SERVICE STATIONS	Lloyd's Electrical Service, 21a Kable Ave., Tamworth	170788	1961	Road Match	34m
	ENGINEERS-ELECTRICAL	Lloyd's Electrical Service, 21a Kable Ave., Tamworth	171314	1961	Road Match	34m
	MAGNETO AUTOMATIC EQUIPMENT MFRS.	Lloyd's Electrical Service, 21a Kable Ave., Tamworth	171832	1961	Road Match	34m
	MOTOR ELECTRICIANS	Lloyd's Electrical Service, 21a Kable Ave., Tamworth	172045	1961	Road Match	34m
	BATTERY SERVICE STATIONS	Motor Tyre Service Pty. Ltd., 89 Kable Ave., Tamworth	366299	1961	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	New England Cars & Tractors (Inc. Victoria) Pty. Ltd., Kable Ave., Tamworth	172080	1961	Road Match	34m
	MOTOR PAINTERS & PANEL BEATERS	New England Cars & Tractors Pty. Ltd., Kable Ave., Tamworth	172130	1961	Road Match	34m
	MOTOR WHEEL REPAIR SPECIALISTS	New England Cars & Tractors Pty. Ltd., Kable Ave., Tamworth	172184	1961	Road Match	34m
	AGRICULTURAL MACHINERY DEALERS	New England Cars and Tractors (Inc. Vic.) Pty. Ltd., Kable Ave., Tamworth	170633	1961	Road Match	34m
	AGRICULTURAL MACHINERY REPAIRERS	New England Cars and Tractors (Inc. Vic.) Pty. Ltd., Kable Ave., Tamworth	170662	1961	Road Match	34m
	TRACTOR REPAIR SPECIALISTS	New England Cars and Tractors (Incorporated Vic.) Pty. Ltd., Kable Ave., Tamworth	172661	1961	Road Match	34m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	New England Cars and Tractors Pty. Ltd., Kable Ave., Tamworth	172021	1961	Road Match	34m
	WOOL, SKIN & HIDE BUYERS	New Zealand Trading Co. Pty. Ltd., 21 Kable Ave., Tamworth	172755	1961	Road Match	34m
	CLUBS & SPORTING BODIES	Senior Citizen's Centre, Kable Ave., Tamworth	171120	1961	Road Match	34m
	ASSOCIATIONS & SOCIETIES	Tamworth R.S.L. Club, Kable Ave., Tamworth	170729	1961	Road Match	34m
	CLUBS & SPORTING BODIES	Tamworth R.S.L. Club, Kable Ave., Tamworth	171143	1961	Road Match	34m
	ENGINEERS-FABRICATING	Weaver Engineering & Welding Co. Pty. Ltd., 20 Kable Ave., Tamworth	171323	1961	Road Match	34m
	ENGINEERS-GENERAL, MFRG. & MECHANICAL	Weaver Engineering & Welding Co. Pty. Ltd., 20 Kable Ave., Tamworth	171342	1961	Road Match	34m
	ENGINEERS-STRUCTURAL	Weaver Engineering & Welding Co. Pty. Ltd., 20 Kable Ave., Tamworth	171360	1961	Road Match	34m
	SHEET METAL WORKERS	Weaver Engineering & Welding Co. Pty. Ltd., 20 Kable Ave., Tamworth	172454	1961	Road Match	34m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
31	WELDERS-ELECTRIC &/OR OXY	Weaver Engineering & Welding Co. Pty. Ltd., 20 Kable Ave., Tamworth	172729	1961	Road Match	34m
	AGRICULTURAL MACHINERY DEALERS	Weaver Engineering and Welding Co. Pty. Ltd., 20 Kable Ave., Tamworth	170643	1961	Road Match	34m
	AGRICULTURAL MACHINERY REPAIRERS	Weaver Engineering and Welding Co. Pty. Ltd., 20 Kable Ave., Tamworth	170667	1961	Road Match	34m
	BUILDINGS-PREFABRICATED-MANUFACTURERS & DISTRIBUTORS	Weaver Engineering and Welding Co. Pty. Ltd., 20 Kable Ave., Tamworth	170942	1961	Road Match	34m
	ENGINEERS-CONSTRUCTIONAL	Weaver Engineering and Welding Co. Pty. Ltd., 20 Kable Ave., Tamworth	171308	1961	Road Match	34m
	STEEL FABRICATORS	Weaver Engineering and Welding Co. Pty. Ltd., 20 Kable Ave., Tamworth	172539	1961	Road Match	34m
	AGRICULTURAL MACHINERY REPAIRERS	Wright, V., 96 Cable Ave., Tamworth	170668	1961	Road Match	34m
	AGRICULTURAL MACHINERY DEALERS &/OR MANUFACTURERS	Keechs Mobile Works., Lower Street., Tamworth	160342	1950	Road Match	34m
32	MOTELS.	Alandale Rag Inn., New England Hway South Tamworth	212414	1991	Road Match	49m
	FRUITERERS &/OR GREENGROCERS	Barretts., 224 New England Hway South Tamworth	211821	1991	Road Match	49m
	BUTCHERS - RETAIL.	Globe Butchery The., 226 New England Hway South Tamworth	211157	1991	Road Match	49m
	BUTCHERS - WHOLESALE	Globe Butchery The., 226 New England Hway South Tamworth	211170	1991	Road Match	49m
	MOTELS.	Golden Grain Motor Inn., 228 New England Hway South Tamworth	212422	1991	Road Match	49m
	MOTELS.	Motel Marion., 159 New England Hway, Tamworth	212427	1991	Road Match	49m
	MOTELS.	Music Land Motel., 503B New England Hway, Tamworth	212428	1991	Road Match	49m
	TELEVISION STATIONS.	Prime Television., New England Hway South Tamworth	205489	1991	Road Match	49m
	MOTOR GARAGES & SERVICE STATIONS.	South Auto Repair Services., 256 New England Hway South Tamworth	212594	1991	Road Match	49m
	MOTELS.	Tamworth Motel., 212 New England Hway, Tamworth	212438	1991	Road Match	49m
	MOTELS.	Tamworth Towers Motor Inn., New England Hway West Tamworth	212440	1991	Road Match	49m
	RESTAURANTS.	Tamworth Towers Motor Inn., New England Hway West Tamworth	205172	1991	Road Match	49m
	MOTELS.	Town & Country Motor Inn., New England Hway South Tamworth	212441	1991	Road Match	49m
	MOTOR GARAGES & SERVICE STATIONS.	Yorks Smash Repairs., 210 New England Hway South Tamworth	212603	1991	Road Match	49m
	MOTOR PANEL BEATERS &/OR SPRAY PAINTERS	Yorks Smash Repairs., 210 New England Hway South Tamworth	212634	1991	Road Match	49m
	FRUITERERS &/OR GREENGROCERS	Barretts, 224 New England Highway., South Tamworth 2340	104640	1982	Road Match	49m
	BROADCASTING STATIONS	Broadcasting Station 2TM, New England Highway., South Tamworth 2340	104037	1982	Road Match	49m
	MIXED BUSINESSES	Carter's Cash Store, 228 New England Highway., South Tamworth 2340	105093	1982	Road Match	49m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Dux Motors, New England Highway., South Tamworth 2340	105271	1982	Road Match	49m
	BUTCHERS - RETAIL.	Globe Butchery, The, 226 New England Highway., South Tamworth 2340	104156	1982	Road Match	49m
	BUTCHERS - WHOLESALE	Globe Butchery, The, 226 New England Highway., South Tamworth 2340	104172	1982	Road Match	49m
	MIXED BUSINESSES	Holla's Corner Store, 223 New England Highway., South Tamworth 2340	105101	1982	Road Match	49m
	NEWSAGENTS	Holla's Corner Store, 223 New England Highway., South Tamworth 2340	105409	1982	Road Match	49m
	MOTOR ACCESSORIES &/OR SPARE PARTS-RETAIL.	Maunder, Nev., 155 New England Highway., South Tamworth 2340	105162	1982	Road Match	49m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
32	MOTOR CAR &/OR TRUCK DEALERS - NEW &/OR USED	Maunder. Nev. 155 New England Highway., South Tamworth 2340	105217	1982	Road Match	49m
	TELEVISION STATIONS	NEN 9/ECN 8, New England Highway., South Tamworth 2340	105915	1982	Road Match	49m
	GOVERNMENT DEPARTMENTS	Prickly Pear Destruction Commission, 382 New England Highway., South Tamworth 2340	104729	1982	Road Match	49m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	South Auto Repair Services, 256 New England Highway., South Tamworth 2340	105303	1982	Road Match	49m
	MOTELS	Sunset Motel, New England Highway., South Tamworth 2340	105132	1982	Road Match	49m
	MOTELS	Tamworth Flag Inn, 240 New England Highway., South Tamworth 2340	105133	1982	Road Match	49m
	RESTAURANTS	Tamworth Flag Inn, 240 New England Highway., South Tamworth 2340	105664	1982	Road Match	49m
	CAFES, TEA ROOMS &/OR COFFEE LOUNGES	Tamworth Roadhouse, 253 New England Highway., South Tamworth 2340	104195	1982	Road Match	49m
	ICE MFRS. &/OR VENDORS	Tamworth Roadhouse, 253 New England Highway., South Tamworth 2340	104871	1982	Road Match	49m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Tamworth Roadhouse, 253 New England Highway., South Tamworth 2340	105312	1982	Road Match	49m
	RESTAURANTS	Tamworth Roadhouse, 253 New England Highway., South Tamworth 2340	105665	1982	Road Match	49m
	MOTELS	Westhaven Motel, 159 New England Highway., South Tamworth 2340	105138	1982	Road Match	49m
	MOTOR PAINTERS &/OR PANEL BEATERS	Yorks Smash Repairs, 210 New England Highway., South Tamworth 2340	105351	1982	Road Match	49m
	BROADCASTING STATIONS	2TM Broadcasting Station, New England Hghwy, South Tamworth 2340	644769	1970	Road Match	49m
	CARRIERS & CARTAGE CONTRACTORS	Swain, L. A., Scott Rd., Tamworth 2340	645012	1970	Road Match	49m
	TELEVISION STATIONS	Television New England Ltd. (NRN9), New England Hghwy., South Tamworth 2340	646586	1970	Road Match	49m
	MOTELS	Westhaven Motel, 159 New England Hghwy., South Tamworth	645875	1970	Road Match	49m
	CARRIERS & CARTAGE CONTRACTORS	Carey's Tamworth Pty. Ltd., 224 New England Highway., South Tamworth	171028	1961	Road Match	49m
	FUEL MERCHANTS-COAL, COKE & WOOD	Swain, L. A. & Son, Scotts Ave., Tamworth	171470	1961	Road Match	49m
33	SIGNWRITERS.	Bodkin Norm., Byrnes Av, Tamworth	205309	1991	Road Match	121m
	WEIGHBRIDGES - PUBLIC	Hall, R. & Son (Tamworth) Pty. Ltd., Byrnes Ave., Tamworth 2340	106051	1982	Road Match	121m
	SHOWER SCREENS	Tamworth Shower Screens, Byrnes Ave., Tamworth 2340	105774	1982	Road Match	121m
	WEIGHBRIDGES-PUBLIC	Hall, R. & Son (Tamworth) Pty. Ltd., Byrnes Ave., Tamworth 2340	646694	1970	Road Match	121m

Dry Cleaners, Motor Garages & Service Stations

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Legend

- Site Boundary
- Buffer 500m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 90 180 270 360 Meters

Coordinate System: GDA 1994 MGA Zone 56

Date: 19 May 2023

Historical Business Directories

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Dry Cleaners, Motor Garages & Service Stations 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.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	MOTOR GARAGES &/OR ENGINEERS	Macpherson, C., 533 Peel St., Tamworth 2340	646006	1970	Premise Match	91m	North West
2	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Carpenter, R. Automotive Repairs, 102 Kable Ave., Tamworth 2340	105263	1982	Premise Match	111m	North West
3	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Staines Tyre Service, 525 Peel St., Tamworth 2340	105305	1982	Premise Match	131m	North West
4	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Medhurst Amoco Service Station, 281 Marius St., Tamworth 2340	105293	1982	Premise Match	185m	North East
	MOTOR GARAGES &/OR ENGINEERS	Tamworth & Wheel Drive, 281 Marius St., Tamworth 2340	646018	1970	Premise Match	185m	North East
5	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	BP Marius, 261 Marius St., Tamworth 2340	105259	1982	Premise Match	213m	North
6	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Coutman's Garage, 311 Marius St., Tamworth 2340	105266	1982	Premise Match	214m	East
	MOTOR GARAGES &/OR ENGINEERS	Coutman's Garage, 311 Marius St., Tamworth 2340	645986	1970	Premise Match	214m	East
7	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Tamworth Roadhouse, 257 Marius St., Tamworth 2340	105311	1982	Premise Match	222m	North
	MOTOR SERVICE STATIONS--PETROL, OIL, ETC.	Tamworth Auto Chef, 257-259 Marius St., Tamworth 2340	646077	1970	Premise Match	222m	North
8	MOTOR GARAGES & SERVICE STATIONS.	Dewhurrt A R J L., 245 Marius St, Tamworth	212570	1991	Premise Match	311m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Golden Fleece Service Station, 243 Marius St., Tamworth 2340	105276	1982	Premise Match	311m	North
	MOTOR GARAGES &/OR ENGINEERS	Golden Fleece Service Station, 243 Marius St., Tamworth 2340	645993	1970	Premise Match	311m	North
9	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Fossey, J. T. Pty. Ltd., 466 Peel St., Tamworth 2340	105275	1982	Premise Match	325m	North West
	MOTOR GARAGES &/OR ENGINEERS	Fossey, J. T. Pty. Ltd., 466 Peel St., Tamworth 2340	645990	1970	Premise Match	325m	North West
	MOTOR GARAGES &/OR ENGINEERS	Fossey, J. T. Pty. Ltd., 466 Peel St., Tamworth	172067	1961	Premise Match	325m	North West
10	MOTOR GARAGES &/OR ENGINEERS	Oxley Service Station, 210 Marius St., Tamworth 2340	646010	1970	Premise Match	346m	North
	MOTOR GARAGES &/OR ENGINEERS	Oxley Service Station, 210 Marius St., Tamworth	172083	1961	Premise Match	346m	North
	MOTOR SERVICE STATIONS-PETROL, OILS, ETC.	Oxley Service Station, 210 Marius St., Tamworth	172152	1961	Premise Match	346m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
10	MOTOR GARAGES & ENGINEERS	Rose, Gus Pty. Ltd., 210 Marius St. Tamworth	162504	1950	Premise Match	346m	North
11	MOTOR SERVICE STATIONS-PETROL, OILS, ETC.	BP Motel Service Station, 237 Marius St., Tamworth 2340	646067	1970	Premise Match	393m	North
12	MOTOR GARAGES & SERVICE STATIONS.	Gordon Austin Pty Ltd., 481 Peel St, Tamworth	212575	1991	Premise Match	434m	North West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Gordon Austin, 481 Peel St., Tamworth 2340	105279	1982	Premise Match	434m	North West
	MOTOR GARAGES &/OR ENGINEERS	Larke Hoskins Pty. Ltd., 481 Peel St., Tamworth 2340	646004	1970	Premise Match	434m	North West
	MOTOR GARAGES &/OR ENGINEERS	Carter's Garage Pty. Ltd., 481 Peel St., Tamworth	172062	1961	Premise Match	434m	North West
	MOTOR GARAGES &/OR ENGINEERS	Larke Hoskins Pty. Ltd., 481 Peel St., Tamworth	172074	1961	Premise Match	434m	North West
	MOTOR GARAGES & ENGINEERS	Carters Garage, 481 Peel St. Tamworth	162492	1950	Premise Match	434m	North West
13	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Orana Service Station, 21 White St., Tamworth 2340	105298	1982	Premise Match	466m	North
	MOTOR SERVICE STATIONS-PETROL, OILS, ETC.	Fossey's Service Station, 229 Marius St., Tamworth	172146	1961	Premise Match	466m	North
14	DRY CLEANERS, PRESSERS & DYERS	American Dry Cleaners, 194 Marius St., Tamworth 2340	645156	1970	Premise Match	471m	North
15	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Star Service Station, 190 Marius St., Tamworth 2340	105306	1982	Premise Match	490m	North
	MOTOR GARAGES &/OR ENGINEERS	Orana Service Station, 190 Marius St., Tamworth 2340	646009	1970	Premise Match	490m	North
	MOTOR GARAGES &/OR ENGINEERS	Star Service Station, 190 Marius St., Tamworth 2340	646015	1970	Premise Match	490m	North
16	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	City Service Station, 448 Peel St., Tamworth 2340	105264	1982	Premise Match	496m	North West
	MOTOR GARAGES &/OR ENGINEERS	City Service Station, 448 Peel St., Tamworth 2340	645983	1970	Premise Match	496m	North West
	MOTOR GARAGES &/OR ENGINEERS	Coutman, J. T., 432 Peel St., Tamworth	172064	1961	Premise Match	496m	North West

Dry Cleaners, Motor Garages & Service Stations 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.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
17	DRY CLEANERS, PRESSERS & DYERS	Treloar, T. J. & Co. Pty. Ltd., Peel St., Tamworth	171234	1961	Road Match	0m
18	MOTOR GARAGES & SERVICE STATIONS.	Mcmahon Motors., 68A Kable Av, Tamworth	212581	1991	Road Match	34m
	MOTOR GARAGES & SERVICE STATIONS.	Quinn & Buiko Pty Ltd., 52 Kable Av, Tamworth	212590	1991	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Kensell, Harold & Co. Pty. Ltd., Kable Ave., Tamworth 2340	105284	1982	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	McMahon Motors, 68A Kable Ave., Tamworth 2340	105292	1982	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Quinn & Burke Pty. Ltd., 52 Kable Ave., Tamworth 2340	105300	1982	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Carpenter, Roy Automotive Repairs, 94 Kable Ave., Tamworth 2340	645982	1970	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave, Tamworth 2340	645991	1970	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Wright, W., Kable Ave., Tamworth 2340	646026	1970	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Bundy's Garage, 22 Kable Ave., Tamworth	172059	1961	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Gaffney, T. G. & Co. Pty. Ltd., Kable Ave., Tamworth	172068	1961	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	Kensell, H. & Co., 33 Kable Ave., Tamworth	172072	1961	Road Match	34m
	MOTOR GARAGES &/OR ENGINEERS	New England Cars & Tractors (Inc. Victoria) Pty. Ltd., Kable Ave., Tamworth	172080	1961	Road Match	34m
19	MOTOR GARAGES & SERVICE STATIONS.	South Auto Repair Services., 256 New England Hway South Tamworth	212594	1991	Road Match	49m
	MOTOR GARAGES & SERVICE STATIONS.	Yorks Smash Repairs., 210 New England Hway South Tamworth	212603	1991	Road Match	49m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Dux Motors, New England Highway., South Tamworth 2340	105271	1982	Road Match	49m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	South Auto Repair Services, 256 New England Highway., South Tamworth 2340	105303	1982	Road Match	49m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Tamworth Roadhouse, 253 New England Highway., South Tamworth 2340	105312	1982	Road Match	49m
20	MOTOR GARAGES & SERVICE STATIONS.	Orana Service Station Ampol., Marius St, Tamworth	212588	1991	Road Match	233m
	MOTOR SERVICE STATIONS-PETROL, OILS, ETC.	Oriana Service Station (The), 225 Marius St., Tamworth	172151	1961	Road Match	233m
21	MOTOR SERVICE STATIONS-PETROL, OILS, ETC.	Paradise Caravan Park & Kiosk, Cockburn St., Tamworth 2340	646071	1970	Road Match	287m
22	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Bullman, B., Armidale Rd., Tamworth 2340	105262	1982	Road Match	358m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Esso Servicenter, 375 Armidale Rd., Tamworth 2340	105273	1982	Road Match	358m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
22	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Nemingha Thunderbird Service Station & Restaurant, Armidale Rd., Tamworth 2340	105296	1982	Road Match	358m
	MOTOR SERVICE STATIONS-PETROL, OILS, ETC.	Atlantic Service Station, Armidale Rd., Tamworth	172142	1961	Road Match	358m

Aerial Imagery 2022

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 19 May 2023
0 30 60 90 120 Meters	© Aerometrex Pty Ltd	GDA 1994 MGA Zone 56	

Aerial Imagery 2019

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 19 May 2023
0 30 60 90 120 Meters	© Aerometrex Pty Ltd	GDA 1994 MGA Zone 56	

Aerial Imagery 2016

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 19 May 2023
0 30 60 90 120 Meters	© Aerometrex Pty Ltd	GDA 1994 MGA Zone 56	

Aerial Imagery 2010

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 19 May 2023
0 30 60 90 120 Meters	© Aerometrex Pty Ltd	GDA 1994 MGA Zone 56	

Aerial Imagery 2008

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Aerial Imagery 1998

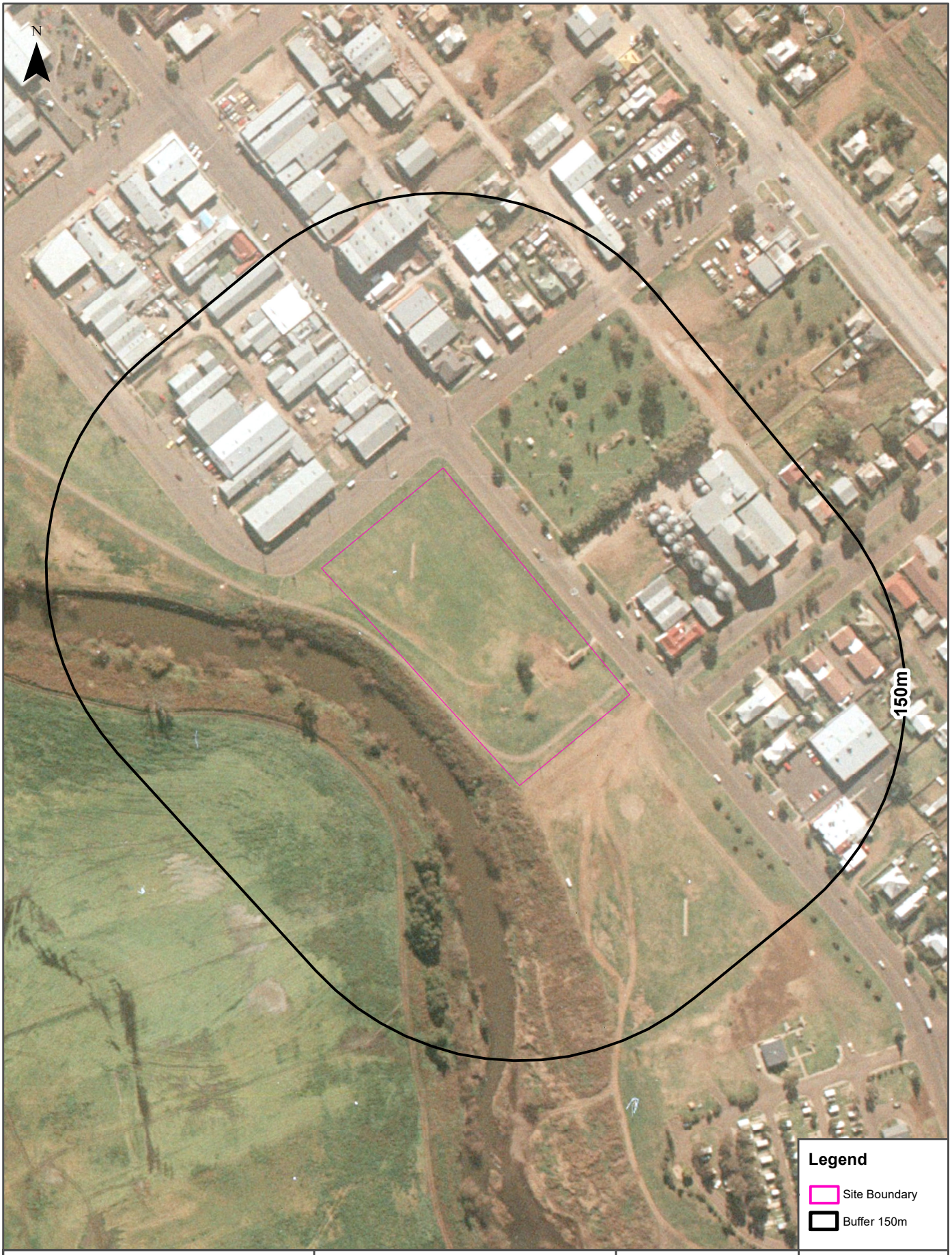
Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Aerial Imagery 1993

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Aerial Imagery 1989

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Aerial Imagery 1984

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Aerial Imagery 1976

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Aerial Imagery 1965

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Aerial Imagery 1953

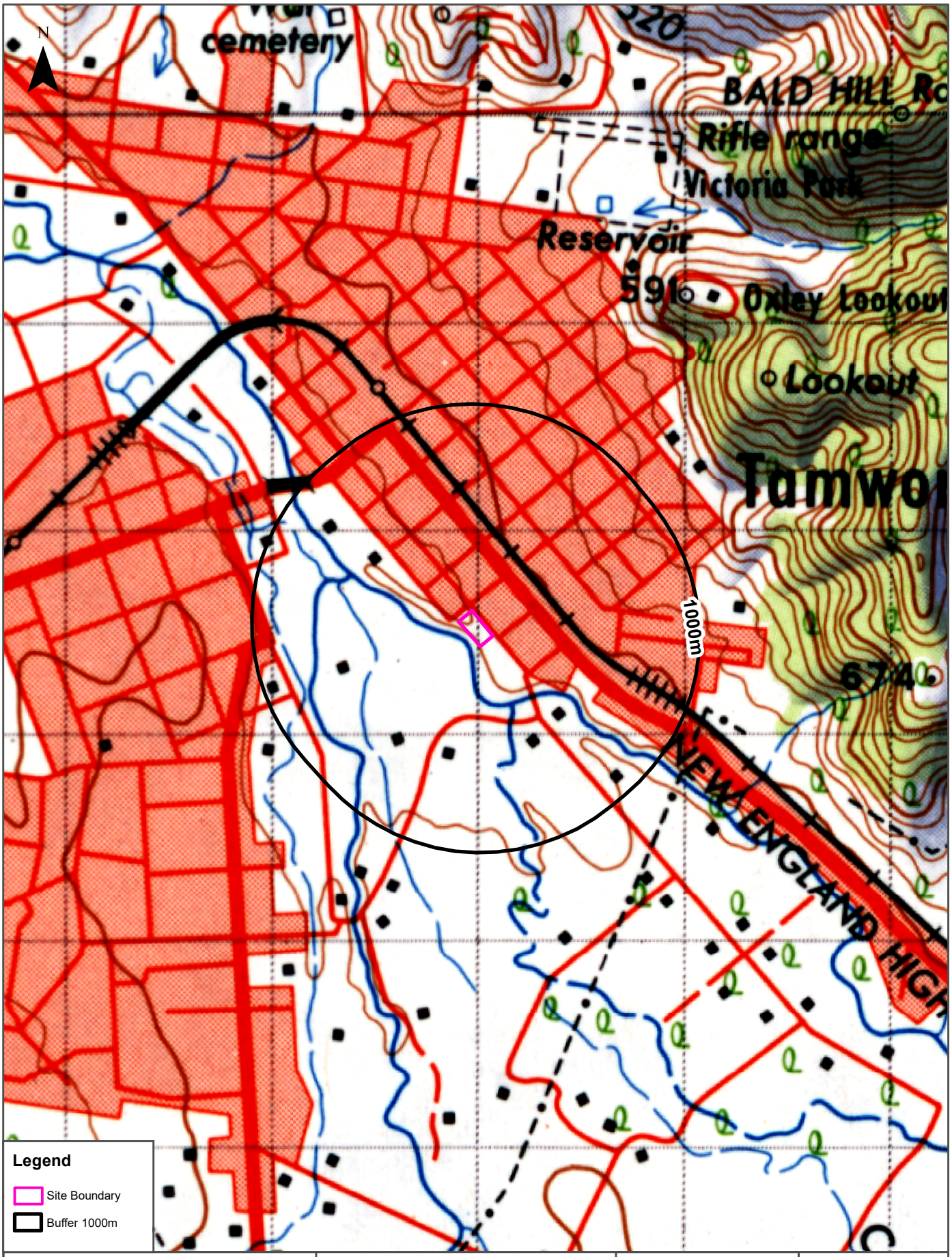
Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Topographic Map 2015

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

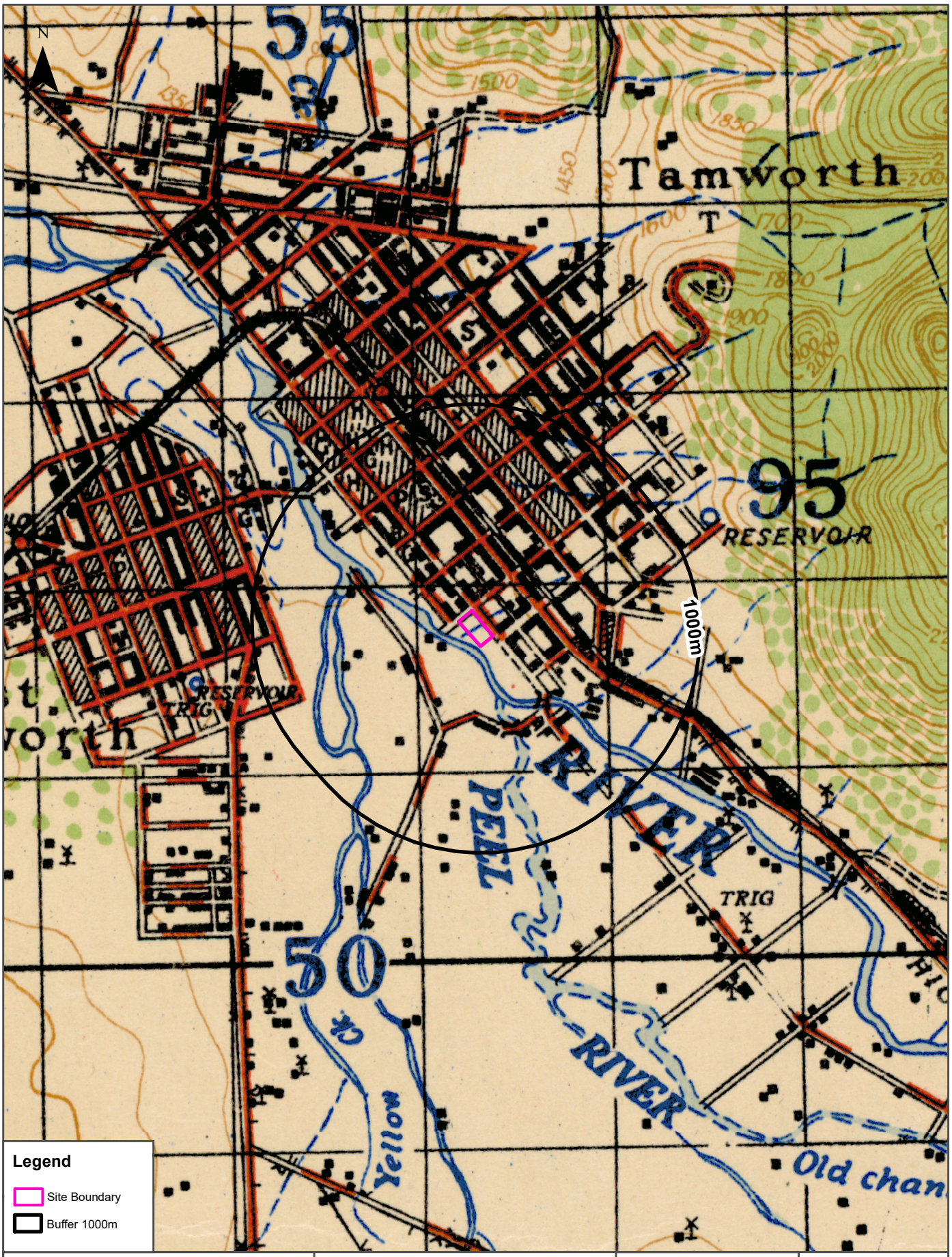
Historical Map 1975

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Historical Map c.1942

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



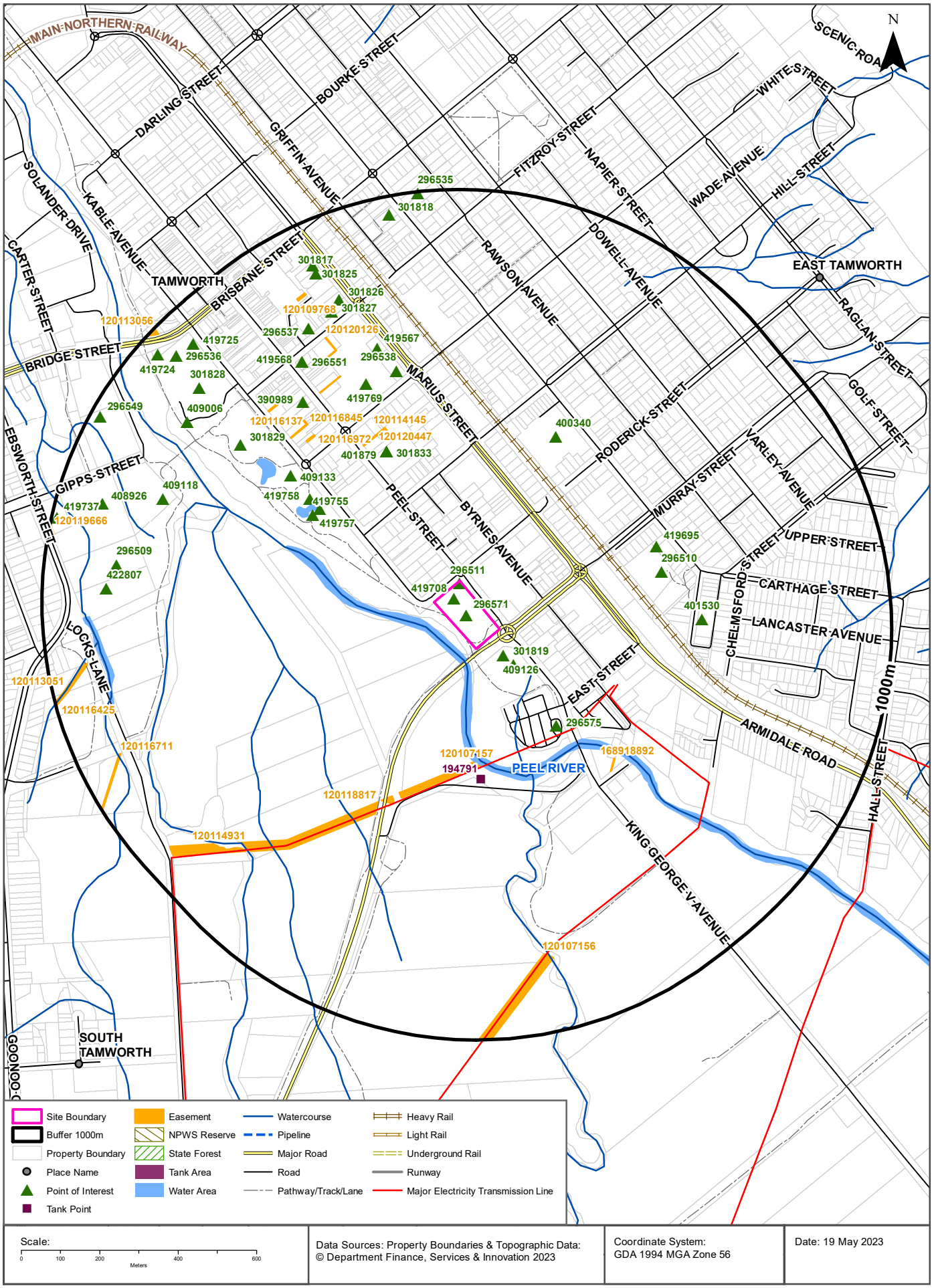
Data Sources: Australia 1:63360
Produced by Australian Section Imperial General Staff

Coordinate System:
GDA 1994 MGA Zone 56

Date: 18 May 2023

Topographic Features

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Scale: 0 100 200 400 600 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2023

Coordinate System: GDA 1994 MGA Zone 56

Date: 19 May 2023

Topographic Features

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
296511	Park	PRINCE OF WALES PARK	0m	On-site
419708	Cycling Track	Cycling Track	0m	On-site
296571	Park	PRINCE OF WALES OVAL	0m	On-site
409126	Parking Area	Parking Area	56m	South East
301819	Tourist Information Centre	TAMWORTH VISITOR INFORMATION CENTRE	92m	South East
296575	Tourist Park / Home Village	PARADISE TOURIST PARK	282m	South East
419757	Monument	HMAS TAMWORTH	377m	North West
301833	Library	TAMWORTH LIBRARY	380m	North West
401879	Art Gallery	TAMWORTH REGIONAL GALLERY	380m	North West
419755	Monument	THE TAMWORTH WALER MEMORIAL	381m	North West
419758	Monument	TAMWORTH WW2 MEMORIAL	413m	North West
296510	Picnic Area	POWERHOUSE PARK	438m	East
400340	Primary School	ST NICHOLAS' PRIMARY SCHOOL	442m	North East
419695	Park	PLAYGROUND	454m	East
409133	Parking Area	Parking Area	488m	North West
401530	Nursing Home	RFBI TAMWORTH MASONIC VILLAGE	517m	East
419769	Shopping Centre	TAMWORTH CITY PLAZA	558m	North West
296538	Place Of Worship	ST NICHOLAS CATHOLIC CHURCH	560m	North
390989	Local Government Chambers	TAMWORTH REGIONAL COUNCIL	607m	North West
419567	Historic Site	DOMINICAN ROMAN CATHOLIC CONVENT	630m	North
301829	Picnic Area	BICENTENNIAL PARK	637m	North West
419568	Historic Site	TAMWORTH POST OFFICE	689m	North West
296551	Post Office	TAMWORTH POST OFFICE	689m	North West
409118	Parking Area	Parking Area	740m	West
296537	Community Facility	TAMWORTH WAR MEMORIAL TOWN HALL	751m	North West
301827	Police Station	TAMWORTH POLICE STATION	761m	North West
409006	Parking Area	Parking Area	781m	North West
301826	Court House	TAMWORTH COURT HOUSE	782m	North
301828	Sports Field	NO 1 OVAL	812m	North West
296509	Sports Field	GIPPS STREET SPORTSGROUND	815m	West
422807	Park	THE OVALS	836m	West

Map Id	Feature Type	Label	Distance	Direction
301817	Club	TAMWORTH SERVICES CLUB	868m	North West
408926	Parking Area	Parking Area	883m	West
301825	Ambulance Station	TAMWORTH CITY AMBULANCE STATION	889m	North West
419725	Picnic Area	PLAYGROUND	902m	North West
296536	Swimming Pool Facility	TAMWORTH OLYMPIC SWIMMING POOL	911m	North West
348710	City	TAMWORTH	945m	North West
419724	Picnic Area	OLYMPIC POOL PARK	946m	North West
301818	Fire Station	TAMWORTH FIRE STATION	952m	North
296549	Park	CROSS PARK	974m	North West
419737	Picnic Area	TAMWORTH LIONESS GARDENS	986m	West
296535	Place Of Worship	ANGLICAN CHURCH	997m	North

Topographic Features

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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
194791	Water	Operational		01/05/2020	335m	South

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
120107157	Primary	Undefined		286m	South
120114145	Primary	Undefined		397m	North West
120120447	Primary	Undefined		423m	North West
120118817	Primary	Undefined		434m	South West
168918892	Secondary	Easement for Access		440m	South East
120116972	Primary	Undefined		521m	North West
120116845	Primary	Undefined		556m	North West
120120126	Primary	Undefined		598m	North West
120116137	Primary	Undefined		643m	North West
120114931	Primary	Undefined		784m	South West
120107156	Primary	Undefined		799m	South
120109768	Primary	Undefined		826m	North West
120116711	Primary	Undefined		888m	South West
120113051	Primary	Undefined		894m	West

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
120116425	Primary	Undefined		960m	West
120113056	Primary	Undefined		981m	North West
120119666	Primary	Undefined		984m	West

Topographic Features

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

State Forest

What State Forest exist within the dataset buffer?

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

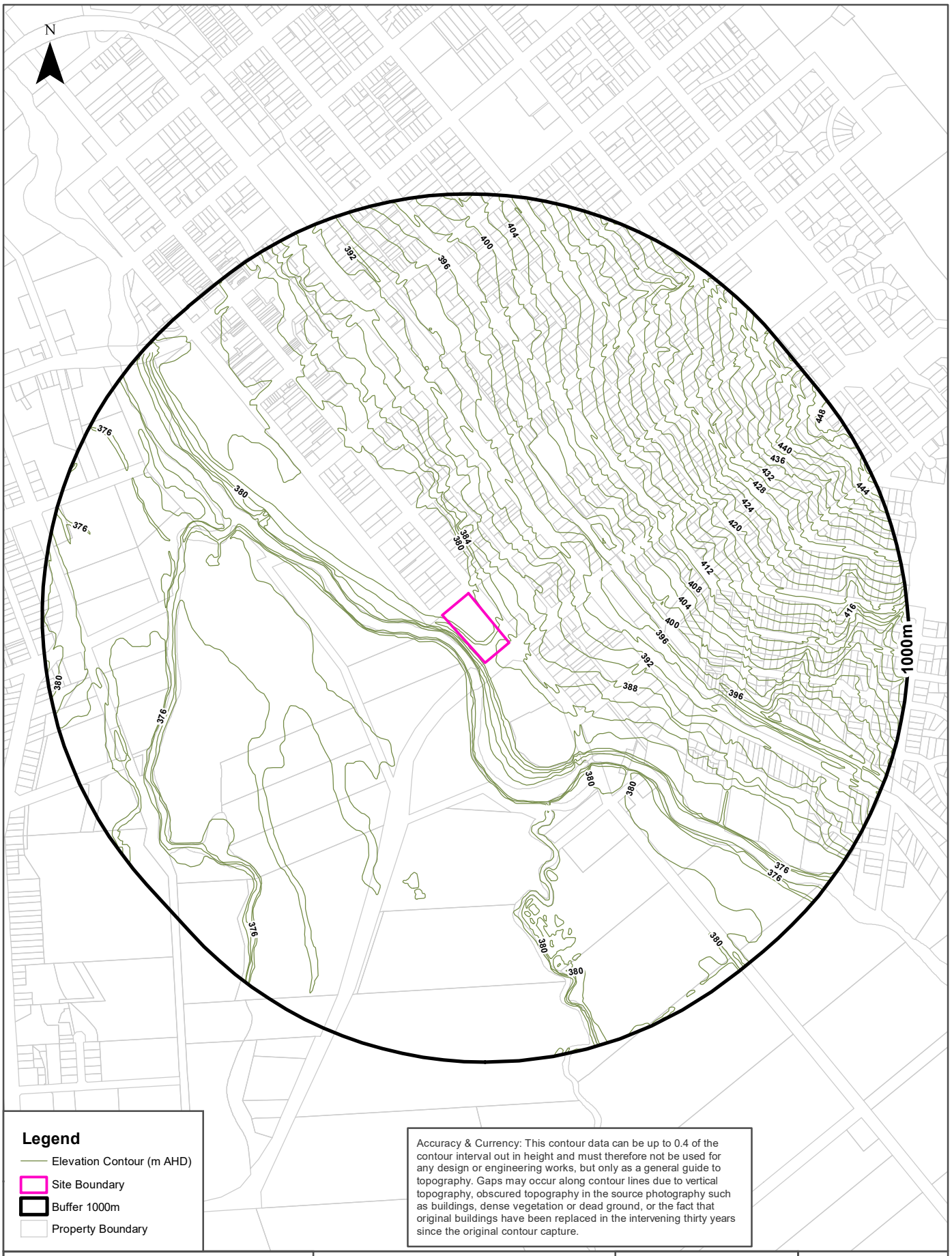
National Parks and Wildlife Service Reserves

What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N/A	No records in buffer				

Elevation Contours (m AHD)

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Hydrogeology & Groundwater

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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)

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018

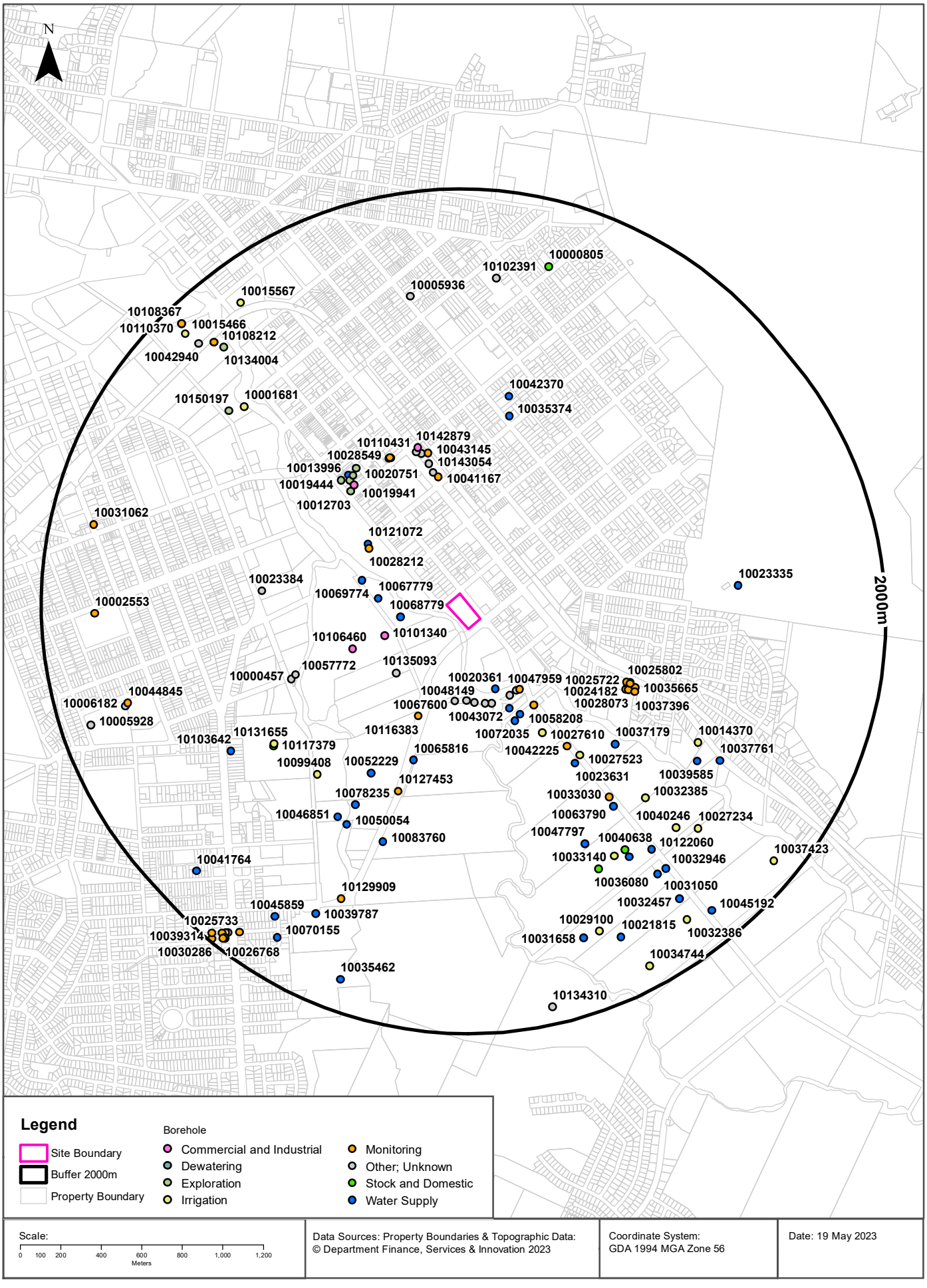
Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

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

Groundwater Boreholes

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Legend

- Site Boundary
- Buffer 2000m
- Property Boundary

Borehole

- Commercial and Industrial
- Dewatering
- Exploration
- Irrigation
- Monitoring
- Other; Unknown
- Stock and Domestic
- Water Supply

Scale: 0 100 200 400 600 800 1,000 1,200 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2023

Coordinate System: GDA 1994 MGA Zone 56

Date: 19 May 2023

Hydrogeology & Groundwater

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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
10068779	GW040336	Water Supply	Functioning	01/01/1931	11.00		AHD				234m	West
10020361	GW042720	Water Supply	Unknown	01/01/1976	3.90		AHD				327m	South
10067779	GW040337	Water Supply	Functioning	01/01/1931	11.00		AHD				336m	West
10101340	GW038762	Commercial and Industrial	Unknown	01/01/1947	10.60		AHD	Hard			341m	West
10049172	GW040331	Unknown	Functioning	01/01/1931	11.00		AHD				357m	South
10067600	GW040333	Unknown	Functioning	01/01/1931	11.00		AHD				364m	South
10048149	GW040330	Unknown	Functioning	01/01/1931	11.00		AHD				365m	South
10046023	GW040328	Unknown	Functioning	01/01/1931	11.00		AHD				377m	South
10043072	GW040326	Unknown	Functioning	01/01/1931	11.00		AHD				385m	South
10047959	GW040323	Unknown	Functioning	01/01/1931	10.00		AHD				387m	South East
10053616	GW040322	Unknown	Functioning	01/01/1931	10.00		AHD				389m	South East
10123413	GW093041	Monitoring	Abandoned	23/02/2000	12.00	379.24	AHD		1.500		394m	South East
10135093	GW027949	Unknown	Unknown		13.70		AHD				410m	South West
10069774	GW040338	Water Supply	Functioning	01/01/1931	11.00		AHD				433m	West
10048924	GW040325	Water Supply	Functioning	01/01/1931	8.00		AHD				443m	South East
10028212	GW970238	Monitoring	Functioning	28/06/2012	9.00		AHD		1.000	5.00	471m	North West
10121072	GW904501	Water Supply	Unknown	10/08/2016	18.00		AHD				488m	North West
10058208	GW034352	Water Supply	Unknown	01/07/1971	10.70		AHD				496m	South East
10032888	GW969535	Monitoring	Functional	06/03/2008	10.50		AHD		1.000	4.00	498m	South East
10116383	GW093042	Monitoring	Unknown	24/02/2000	9.00	377.97	AHD		1.500		498m	South West
10072035	GW040341	Water Supply	Functioning				AHD				510m	South East
10106460	GW038763	Commercial and Industrial	Unknown	01/01/1947	14.30		AHD	Hard			511m	West
10041167	GW969239	Monitoring	Functional	30/09/2009	20.00		AHD			16.40	585m	North
10110911	GW019528	Unknown	Unknown		23.80		AHD				611m	North
10027610	GW902161	Irrigation	Unknown	01/01/1947	7.00		AHD		22.500	5.00	631m	South East
10143054	GW019530	Unknown	Unknown	01/01/1962	19.80		AHD				659m	North
10065816	GW040335	Water Supply	Functioning	01/01/1931	11.00		AHD				702m	South
10043145	GW969238	Monitoring	Functional	30/09/2009	20.00		AHD			17.40	712m	North
10107186	GW019527	Unknown	Unknown		22.60		AHD				717m	North
10012703	GW021784	Exploration	Proposed	01/01/1963			AHD				731m	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
10110431	GW019526	Unknown	Unknown		20.70		AHD				731m	North
10019941	GW021788	Commercial and Industrial	Unknown	01/04/1964	9.80		AHD				745m	North West
10142879	GW019529	Commercial and Industrial	Unknown	01/10/1961	22.90		AHD				750m	North
10030163	GW971125	Monitoring	Removed	05/05/2011	6.50		AHD				751m	North West
10028549	GW971126	Monitoring	Removed	05/05/2011	5.20		AHD				753m	North West
10043311	GW971124	Monitoring	Functional	04/05/2011	10.00		AHD				755m	North West
10042225	GW969536	Monitoring	Functional	06/03/2008	10.00		AHD		1.000	4.00	759m	South East
10022240	GW021789	Exploration	Proposed	01/01/1963			AHD				777m	North West
10023525	GW021785	Exploration	Proposed	01/01/1963			AHD				784m	North West
10033836	GW967433	Monitoring	Unknown	12/09/2005	16.50		AHD			14.10	787m	South East
10025722	GW967431	Monitoring	Unknown	12/09/2005	18.00		AHD			13.70	795m	South East
10024182	GW967428	Monitoring	Unknown	12/09/2005	18.00		AHD			13.10	798m	South East
10013996	GW021777	Water Supply	Unknown	01/01/1964	8.50		AHD				800m	North West
10025802	GW967434	Monitoring	Unknown	12/09/2005	20.00		AHD			14.40	802m	South East
10020751	GW021787	Exploration	Proposed	01/01/1963			AHD				803m	North West
10019444	GW021786	Exploration	Proposed	01/01/1963			AHD				804m	North West
10041206	GW967432	Monitoring	Unknown	12/09/2005	21.00		AHD			14.20	806m	South East
10028073	GW967429	Monitoring	Unknown	12/09/2005	13.50		AHD			12.30	810m	South East
10057772	GW025743	Other	Unknown	01/11/1947	9.10		AHD	Good			821m	West
10027523	GW902229	Irrigation	Unknown		7.00		AHD			5.50	833m	South East
10035665	GW967435	Monitoring	Unknown	12/09/2005	16.00		AHD			14.10	837m	South East
10037396	GW967430	Monitoring	Unknown	12/09/2005	15.00		AHD			12.40	844m	South East
10000457	GW026420	Other	Unknown	01/05/1965	9.10		AHD	Good			847m	West
10023631	GW015477	Water Supply	Unknown	01/06/1958	12.30		AHD				849m	South East
10052229	GW040324	Water Supply	Functioning	01/01/1945	7.00		AHD				860m	South West
10127453	GW093043	Monitoring	Unknown	24/02/2000	7.50	378.84	AHD		1.200		875m	South
10037179	GW965707	Water Supply	Unknown	01/01/1940	7.50		AHD			5.70	910m	South East
10023384	GW070018	Other	Unknown	29/05/1992	9.70		AHD				911m	West
10035374	GW904361	Water Supply	Functioning	28/11/2019	80.00		AHD				912m	North
10042370	GW902543	Water Supply	Unknown	17/10/1995	48.80		AHD		0.300	14.00	1004m	North
10078235	GW040340	Water Supply	Unknown	01/01/1931	7.00		AHD				1032m	South West
10099408	GW065501	Irrigation	Unknown	01/01/1966	9.00		AHD				1035m	South West
10033030	GW969537	Monitoring	Functional	06/03/2008	10.00		AHD		1.000	4.00	1084m	South East
10131655	GW070604	Irrigation	Unknown	04/12/1992	12.40	380.00	AHD				1094m	South West
10117379	GW070595	Stock and Domestic	Unknown	04/12/1992	12.40		AHD				1103m	South 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
10046851	GW901348	Water Supply	Unknown		9.00		AHD			5.00	1131m	South West
10063790	GW015500	Water Supply	Unknown	01/05/1958	33.10		AHD				1133m	South East
10083760	GW040339	Water Supply	Functioning	01/01/1931	11.00		AHD				1133m	South
10050054	GW967047	Water Supply	Functioning		3.00		AHD			3.00	1138m	South West
10032385	GW902168	Irrigation	Unknown		8.00		AHD			6.00	1203m	South East
10047797	GW900735	Water Supply	Functioning		8.00		AHD			6.00	1208m	South East
10014370	GW047798	Irrigation	Unknown	01/06/1980	40.80		AHD	1001-3000 ppm			1236m	South East
10039585	GW966106	Water Supply	Unknown	20/05/1996	28.70		AHD				1281m	South East
10023335	GW015473	Water Supply	Unknown	01/01/1960	88.40		AHD				1283m	East
10103642	GW015515	Water Supply	Unknown	01/01/1958	7.90		AHD	Hard			1285m	South West
10033140	GW964976	Irrigation	Unknown	23/03/2001	10.00		AHD			7.00	1335m	South East
10040638	GW902619	Stock and Domestic	Unknown	01/01/1900	8.00		AHD	Good		6.00	1338m	South East
10036080	GW902618	Stock and Domestic	Unknown	01/01/1900	8.00		AHD	Good		6.00	1349m	South East
10037761	GW902780	Water Supply	Unknown	19/12/1995	27.10		AHD		2.300	12.80	1375m	South East
10032135	GW901040	Water Supply	Unknown	01/01/1947	8.00		AHD				1380m	South East
10001681	GW037811	Irrigation	Unknown	01/10/1974	13.40		AHD	Good			1397m	North West
10040246	GW902169	Irrigation	Unknown		8.00		AHD			6.00	1414m	South East
10122060	GW019918	Water Supply	Proposed	01/01/1930	14.30		AHD	0-500 ppm			1417m	South East
10150197	GW037810	Exploration	Proposed	01/10/1974			AHD	Good			1439m	North West
10129909	GW093044	Monitoring	Unknown	23/02/2000	7.50	380.73	AHD		1.000		1473m	South West
10005936	GW904249	Unknown	Functioning	30/12/1899	40.00		AHD				1487m	North
10027234	GW902165	Irrigation	Unknown		8.00		AHD			6.00	1493m	South East
10031050	GW902446	Water Supply	Unknown		10.00		AHD			7.00	1531m	South East
10032946	GW969972	Water Supply	Functioning	07/11/2006			AHD				1535m	South East
10102391	GW057973	Other	Unknown	01/04/1983	34.10		AHD	1001-3000 ppm			1568m	North
10039787	GW900985	Water Supply	Unknown	01/02/1994	4.50		AHD	Good	7.000	3.00	1595m	South West
10029100	GW902162	Irrigation	Unknown		10.00		AHD			7.00	1629m	South East
10031658	GW902393	Water Supply	Unknown	01/01/1900	8.00		AHD	Good		6.00	1629m	South
10044845	GW901056	Monitoring	Removed	05/12/1995	68.50		AHD				1644m	West
10006182	GW050970	Other	Unknown	01/02/1979	20.60		AHD				1662m	West
10000805	GW904248	Stock and Domestic	Functioning	17/03/2020	39.00		AHD				1674m	North
10134004	GW037801	Exploration	Proposed	01/11/1974			AHD				1680m	North West
10032457	GW902356	Water Supply	Functioning		10.00		AHD			8.00	1693m	South East
10021815	GW902164	Water Supply	Unknown		10.00		AHD			7.00	1700m	South East
10045859	GW969381	Water Supply	Functioning	01/03/2010	18.00		AHD		1.000	3.00	1713m	South 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
10108212	GW971389	Monitoring	Functioning	04/08/2015	14.00		AHD				1729m	North West
10109688	GW971389	Monitoring	Functioning	04/08/2015	14.00		AHD				1729m	North West
10002553	GW971334	Monitoring	Functioning	16/02/2015	67.00		AHD	Potable	1.000	12.00	1737m	West
10042940	GW969135	Other	Functioning	26/08/2008	10.60		AHD				1777m	North West
10031062	GW971108	Monitoring	Functional	15/07/2010	9.00		AHD			6.50	1783m	West
10070155	GW043270	Water Supply	Unknown	01/11/1974	13.10		AHD				1791m	South West
10041764	GW900877	Water Supply	Unknown	05/08/1995	30.50		AHD		0.480	11.00	1797m	South West
10015567	GW037867	Irrigation	Unknown	01/10/1974	15.50		AHD	Good			1798m	North West
10032386	GW902173	Irrigation	Functioning		10.00		AHD	Good		6.00	1799m	South East
10045192	GW902472	Water Supply	Unknown		10.00		AHD				1839m	South East
10035462	GW900898	Water Supply	Unknown	01/01/1948	9.00		AHD			5.00	1844m	South
10005928	GW050987	Other	Unknown	01/03/1979	29.00		AHD				1852m	West
10015466	GW037866	Irrigation	Unknown	01/11/1974	14.00		AHD				1856m	North West
10033186	GW971023	Monitoring	Functional	21/06/2011	8.00		AHD			5.34	1877m	South West
10037423	GW902175	Irrigation	Unknown	01/06/1940	10.00		AHD	Good		6.00	1878m	South East
10034744	GW902174	Irrigation	Functioning		10.00		AHD		7.000	6.00	1891m	South East
10108367	GW971390	Monitoring	Functioning	25/07/2015	13.70		AHD				1906m	North West
10110370	GW971390	Monitoring	Functioning	25/07/2015	13.70		AHD				1906m	North West
10033637	GW969607	Unknown	Functional	08/11/2010	13.50		AHD				1912m	South West
10134310	GW027948	Unknown	Unknown	01/12/1967	27.70		AHD				1914m	South
10037108	GW971020	Unknown	Functional	24/09/2014	8.00		AHD			2.78	1919m	South West
10025733	GW969608	Monitoring	Functional	08/04/2010	13.50		AHD				1933m	South West
10028818	GW969609	Monitoring	Functional	08/04/2010	13.50		AHD				1941m	South West
10026768	GW971022	Monitoring	Functional	21/06/2011	8.00		AHD			6.98	1943m	South West
10042726	GW971021	Monitoring	Functional	20/06/2011	8.00		AHD			4.51	1951m	South West
10039314	GW971018	Monitoring	Functional	20/06/2011	10.00		AHD			6.88	1966m	South West
10030286	GW971019	Monitoring	Functional	20/06/2011	11.00		AHD			6.92	1986m	South West

Hydrogeology & Groundwater

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Driller's Logs

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

NGIS Bore ID	Drillers Log	Distance	Direction
10020361	0.00m-4.00m Gravel River Water Supply	327m	South
10101340	0.00m-10.66m Soil Black Water Supply	341m	West
10123413	0.00m-8.00m Black Clay 8.00m-9.00m Sandy Gravel 9.00m-11.50m Gravels 11.50m-12.00m Shale Yellow	394m	South East
10028212	0.00m-2.50m Topsoil 2.50m-5.00m Clay, red 5.00m-7.75m Sand, to medium Gravel 7.75m-10.00m Rock, broken 10.00m-10.20m Rock, solid	471m	North West
10058208	0.00m-1.82m Soil Sandy 1.82m-2.43m Gravel Dry 2.43m-4.26m Clay Sandy 4.26m-4.87m Gravel Dirty 4.87m-10.05m Sand Gravel 10.05m-10.66m Shale Water Supply	496m	South East
10032888	0.00m-0.30m Topsoil 0.30m-5.00m Clay 5.00m-10.50m Gravel 10.50m-12.00m Rock, hard	498m	South East
10116383	0.00m-4.00m Black Clay 4.00m-5.00m Sandy Gravel 5.00m-8.50m River Gravel 8.50m-9.00m Shale Yellow	498m	South West
10041167	0.00m-0.20m Fill, Bitumen, good condition, no staining 0.20m-0.50m Fill, Gravelly silt, brown, moist, loose, no odour, no staining 0.50m-0.55m Fill, Bitumen 0.55m-1.50m Fill, Silty Gravel, dark brown, moist, loose, intermixed with brick, slag & coal fragments, strong chemical odour 1.50m-10.00m Clay, Gravelly, red brown, moist, stiff, medium plasticity,6.8mm, slight chemical odour, no staining. Cobbles from 2.8-	585m	North
10043145	0.00m-0.10m Fill, Gravel, dark grey, moist, medium, no odour or staining 0.10m-0.20m Fill, Gravel & Cobbles, light brown, moist, no odour or staining 0.20m-0.60m Fill, Gravel & ash, black, moist, poorly sorted, no odour 0.60m-0.90m Clay, Gravelly, red brown, moist, stiff, medium,4-8mm, no odour or staining 0.90m-6.10m Clay, Gravelly, as above. Cobbles (40-70mm) from 0.9-1.1m 6.10m-10.00m Clay, Gravelly, as above. Cobbles (40-80mm) from 6.1-6.5m.	712m	North
10012703	0.00m-0.15m Driller 0.15m-0.91m Soil River Sand 0.15m-0.91m Gravel Large 0.91m-5.79m Sand River Fine Gravel 5.79m-7.10m Gravel Water Bearing 7.10m-7.92m Clay Fine Gravel 7.92m-8.84m Gravel Water Bearing 8.84m-9.75m Clay Grey Fine Gravel Soft 8.84m-9.75m Shale Soft 9.75m-9.91m Shale Soft 9.91m-10.67m Shale Hard Some Very Hard Bands	731m	North West
10019941	0.00m-5.79m Clay 5.79m-6.40m Gravel Dry 6.40m-8.53m Gravel Water Bearing 8.53m-9.75m Gravel Dry	745m	North West
10142879	0.00m-15.85m Clay 15.85m-17.98m Gravel Water Supply 17.98m-19.81m Clay 19.81m-22.86m Gravel	750m	North
10030163	0.00m-0.20m Gravel; white, some sand, dry 0.20m-2.20m Clay; red & grey, some gravel & sand, damp 2.20m-3.20m Gravel; grey & red, some clay, damp 3.20m-4.40m Clay; red & grey, some gravel, damp 4.40m-6.50m Clay; red, trace sand, slightly damp, firm	751m	North West

NGIS Bore ID	Drillers Log	Distance	Direction
10028549	0.00m-0.20m Gravel; grey, some sand, damp 0.20m-1.00m Clay; orange, some gravel, damp 1.00m-4.50m Gravel; grey & red, some sand & clay, damp 4.50m-5.20m Clay; red, trace sand, firm	753m	North West
10043311	0.00m-0.30m Sand; grey, some gravel, damp 0.30m-0.60m Clay; red, some sand & gravel, damp, firm 0.60m-3.30m Gravel; red & grey, some clay, damp 3.30m-10.00m Clay; red, trace sand, damp, firm, softening with depth	755m	North West
10042225	0.00m-0.30m Topsoil 0.30m-2.00m Clay 2.00m-3.50m Gravel 3.50m-5.00m Clay 5.00m-10.00m Gravel 10.00m-11.50m Clay 11.50m-12.00m Rock, hard	759m	South East
10022240	0.00m-1.52m Clay Red Gravel Rubble 1.52m-3.35m Mud River Fine Gravel 3.35m-5.00m Mud River Sand 3.35m-5.00m Gravel Fine 5.00m-6.71m Clay Grey Sandy Fine Gravel 6.71m-7.80m Gravel Water Bearing 7.80m-8.53m Clay Soft Fine Gravel 8.53m-9.91m Gravel Water Bearing 9.91m-10.06m Clay Soft 10.06m-10.07m Shale Hard	777m	North West
10023525	0.00m-0.94m Gravel Rubble 0.94m-2.44m Mud Tight River, and gravel, fine 2.44m-3.35m Mud Tight River, and clay, and river gravel, fine 3.35m-5.33m Clay Red Tight, and clay bands, soft, and fine gravel 5.33m-6.46m Clay Red Very Soft Gravel, and sand 6.46m-6.64m Clay White Soft, and gravel, water bearing 6.64m-7.56m no data 7.56m-8.47m Clay Fine Gravel 8.47m-9.08m Gravel Water Bearing 9.08m-10.30m Clay Fine Gravel 10.30m-10.91m Shale Very Hard, and granite, small seams	784m	North West
10033836	0.00m-3.00m clay 3.00m-6.20m clay 6.20m-6.50m gravels 6.50m-8.00m bedrock 8.00m-11.10m bedrock 11.10m-12.00m slate 12.00m-15.00m weathered 15.00m-16.50m quartz	787m	South East
10025722	0.00m-6.00m clay 6.00m-15.00m siltstone 15.00m-18.00m saturated , hydrocarbon odour on water	795m	South East
10024182	0.00m-1.00m clay 1.00m-2.00m clay 2.00m-3.00m clay 3.00m-6.00m bedrock 6.00m-14.50m siltstone 14.50m-18.00m	798m	South East
10013996	0.00m-5.18m Clay 5.18m-5.79m Gravel Dry 5.79m-8.23m Gravel Water Bearing 8.23m-8.53m Gravel Dry	800m	North West
10025802	0.00m-6.00m clay 6.00m-17.30m siltstone 17.30m-20.00m saturated, no odour on water	802m	South East
10020751	0.00m-1.22m Gravel Rubble 1.22m-2.13m Clay Red Soft Tight 2.13m-3.87m Clay Red Tight Soft Seams 3.87m-7.32m Gravel Dry 3.87m-7.32m Sand River 7.32m-8.23m Clay Fine Gravel 8.23m-8.84m Gravel Water Bearing 8.84m-10.06m Clay Fine Gravel 10.06m-10.67m Shale Hard	803m	North West
10019444	0.00m-0.91m Soil River Sand 0.00m-0.91m Gravel Large 0.91m-4.27m Gravel Fine 0.91m-4.27m Mud Cemented River 4.27m-8.53m Clay Fine Gravel 8.53m-9.45m Gravel Water Bearing 9.45m-10.67m Clay Fine Gravel 10.67m-11.28m Shale Very Hard	804m	North West
10041206	0.00m-6.00m clay 6.00m-21.00m siltstone	806m	South East

NGIS Bore ID	Drillers Log	Distance	Direction
10028073	0.00m-2.30m clay 2.30m-4.30m clay 4.30m-6.20m bedrock 6.20m-10.00m siltstone 10.00m-10.20m bedrock 10.20m-11.90m weathered 11.90m-13.50m weathered faracture	810m	South East
10057772	0.00m-6.10m Loam 6.10m-9.14m Gravel River Water Supply	821m	West
10035665	0.00m-6.00m clay 6.00m-7.50m weathered 7.50m-16.00m siltstone	837m	South East
10037396	0.00m-4.00m clay 4.00m-13.00m siltstone 13.00m-15.00m saturated	844m	South East
10000457	0.00m-6.10m Loam 6.10m-9.14m Gravel River Water Supply	847m	West
10023631	0.00m-6.71m Alluvium 6.71m-7.92m Clay Gravel 7.92m-12.19m Sand Gravel 7.92m-12.19m Clay 12.19m-12.34m Slate	849m	South East
10127453	0.00m-3.50m Black Clay 3.50m-4.00m Sandy Clay 4.00m-7.00m River Gravels 7.00m-7.50m Shale Yellow	875m	South
10023384	0.00m-1.80m topsoil 1.80m-5.40m clay 5.40m-6.60m gravel 6.60m-9.40m water bearing gravel 9.40m-9.70m ridge clay and gravel	911m	West
10042370	0.00m-0.60m Surface soil 0.60m-18.30m Ridge clay 18.30m-42.70m Brwon shale 42.70m-43.00m w.b. shale 43.00m-48.80m Blue basalt	1004m	North
10033030	0.00m-0.30m Topsoil 0.30m-5.00m Clay 5.00m-10.00m Gravel 10.00m-11.50m Clay 11.50m-12.00m Rock, hard	1084m	South East
10131655	0.00m-2.60m Alluvial Top Soil 2.60m-4.50m Sandy Clay 4.50m-5.80m Dry Gravel 5.80m-9.70m Mud Stone 9.70m-11.80m River Gravel 11.80m-12.40m Compacted Gravel and Clay (hard)	1094m	South West
10117379	0.00m-2.60m ALLUVIAL SOIL 2.60m-4.50m SANDY CLAY 4.50m-5.80m DRY GRAVEL 5.80m-9.70m MUD STONE 9.70m-11.80m RIVER GRAVEL 11.80m-12.40m COMPACTED GRAVEL AND CLAY (HARD)	1103m	South West
10063790	0.00m-0.91m Soil Black 0.91m-7.32m Clay Sandy 7.32m-8.23m Clay Gravel 8.23m-9.45m Gravel Sand Water Supply 9.45m-10.52m Gravel Water Supply 10.52m-11.13m Slate 11.13m-12.19m Sand Gravel Water Supply 12.19m-13.11m Clay Cream Puggy 13.11m-13.72m Clay Gravel 13.72m-14.33m Gravel Sand Water Supply 14.33m-17.07m Sand Grey Conglomerated Gravel 17.07m-18.29m Clay 18.29m-21.03m Gravel Water Supply 21.03m-21.34m Pug 21.34m-22.56m Clay Conglomerated Gravel 22.56m-23.16m Slate Black 23.16m-33.07m Slate	1133m	South East
10014370	0.00m-1.52m Soil Surface 1.52m-2.44m Boulders 2.44m-14.02m Shale 2.44m-14.02m Slate Seams 14.02m-15.85m Basalt 15.85m-16.46m Basalt Broken Water Supply 16.46m-21.34m Slate 21.34m-36.58m Slate Fractured Water Supply 36.58m-40.84m Basalt Grey	1236m	South East

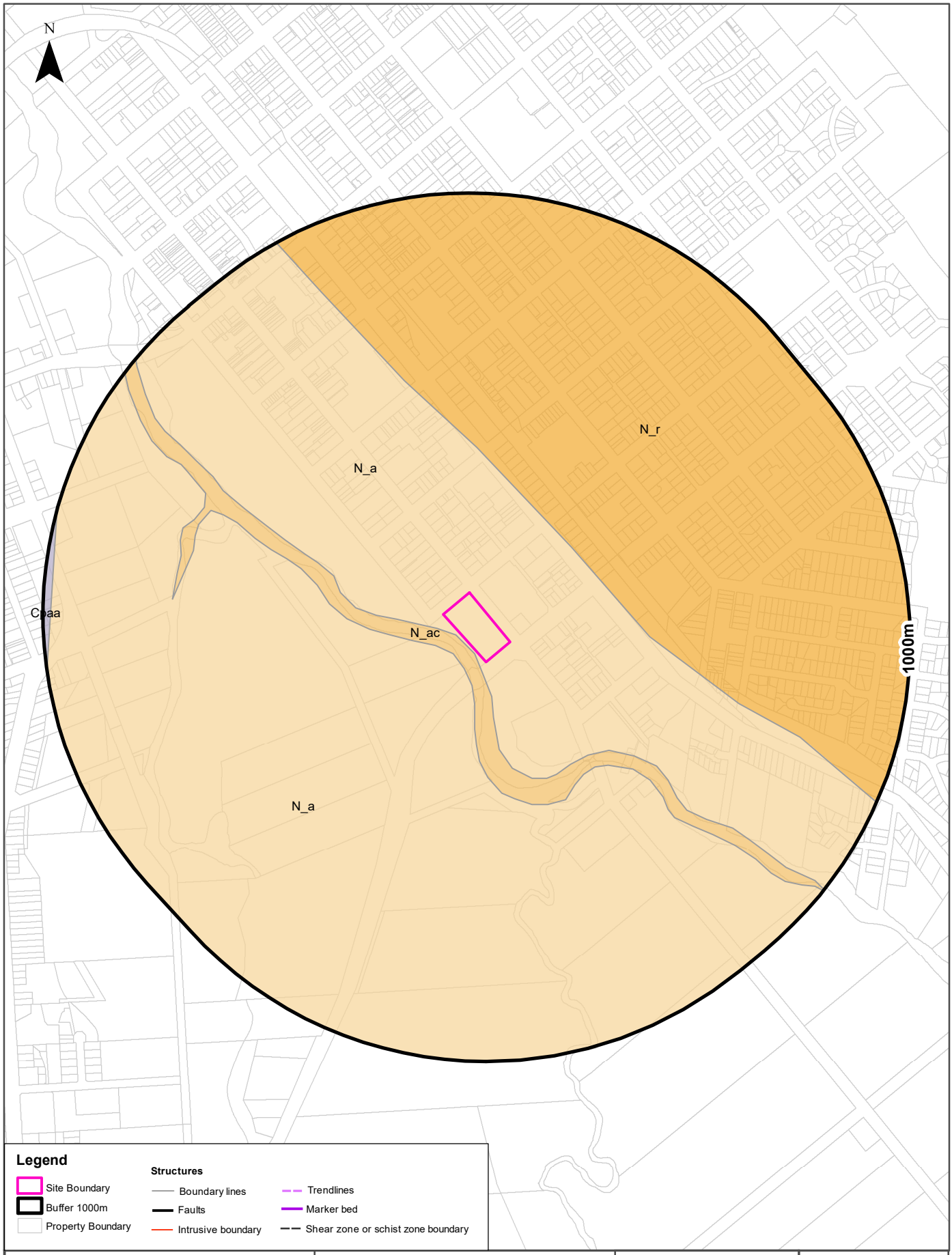
NGIS Bore ID	Drillers Log	Distance	Direction
10039585	0.00m-9.76m topsoil 9.76m-10.98m gravel 10.98m-20.00m brown clay 20.00m-23.00m brown clay shale 23.00m-23.80m shale 23.80m-23.85m shale with water fracture 23.85m-28.70m brown shale	1281m	South East
10023335	0.00m-21.34m Shale 21.34m-88.39m Slate Black Grey	1283m	East
10103642	0.00m-2.13m Soil Black 2.13m-4.88m Loam Sandy 4.88m-7.01m Clay Sandy 7.01m-7.92m Gravel Fine River	1285m	South West
10037761	0.00m-0.76m Alluvial + soil 0.76m-9.80m Clay bound gravel 9.80m-20.10m Brown broken shale 20.10m-27.10m Blue broken shale to diorite	1375m	South East
10001681	0.00m-0.60m Soil 0.60m-3.04m Clay Dark Brown 3.04m-4.87m Clay Light Brown 4.87m-6.09m Clay Sandy Water Supply 6.09m-6.71m Sand Coarse Water Supply 6.71m-9.44m Gravel Large Water Supply 9.44m-12.19m Clay 9.44m-12.19m Boulders Basalt 12.19m-13.41m Shale	1397m	North West
10122060	0.00m-0.91m Soil Black 0.91m-3.66m Clay 3.66m-4.57m Clay Yellow 4.57m-6.40m Sand Rock Yellow Rotten Fine 6.40m-9.14m Gravel Sand 9.14m-10.06m Rock Orange Hard Cemented 10.06m-10.36m Gravel Fine Water Bearing 10.36m-13.41m Boulders Very Hard Cemented 13.41m-13.72m Gravel Water Bearing 13.72m-14.33m Shale Black	1417m	South East
10150197	0.00m-3.04m Clay Dark Brown 3.04m-4.57m Clay Light Brown 4.57m-5.48m Sand Clay Water Supply 5.48m-6.09m Sand Fine Water Supply 6.09m-7.01m Sand Coarse Water Supply 7.01m-9.75m Gravel Large Water Supply 9.75m-12.19m Clay 9.75m-12.19m Boulders Large Basalt 12.19m-14.02m Shale	1439m	North West
10129909	0.00m-4.00m Black Clay 4.00m-7.00m River Gravel 7.00m-7.50m Shale Yellow	1473m	South West
10102391	0.00m-0.60m Soil 0.60m-12.70m Clay Ridge 12.70m-18.20m Shale Yellow Soft 18.20m-18.50m Shale Water Bearing 18.50m-30.30m Shale Yellow 30.30m-34.10m Shale Water Supply	1568m	North
10044845	0.00m-0.10m Topsoil 0.10m-2.10m Clay 2.10m-20.40m Fractured shale 20.40m-46.90m Basalt	1644m	West
10006182	0.00m-2.40m Soil Clay 2.40m-19.50m Basalt Black Water Supply 19.50m-20.60m Basalt Water Supply	1662m	West
10134004	0.00m-0.60m Soil 0.60m-2.13m Clay Sandy 2.13m-5.18m Clay Some Gravel 5.18m-5.48m Gravel Dry 5.48m-6.09m Clay Stones 6.09m-7.01m Clay Gravel 7.01m-7.31m Wood Black 7.31m-12.19m Boulders Large Silt Grey 12.19m-12.80m Shale	1680m	North West
10045859	0.00m-0.30m Topsoil, brown 0.30m-18.00m Shale, brown, heavily broken	1713m	South West

NGIS Bore ID	Drillers Log	Distance	Direction
10002553	0.00m-3.00m Clay; brown 3.00m-6.00m Shale; & Clay 6.00m-19.00m Shale; grey 19.00m-21.00m Shale; black 21.00m-41.00m Shale; grey 41.00m-44.00m Shale; black 44.00m-58.00m Shale; grey 58.00m-59.00m Shale; black 59.00m-67.00m Shale; grey, hard	1737m	West
10042940	0.00m-0.60m Soil 0.60m-2.40m Clay 2.40m-3.60m Sandy Clay 3.60m-4.20m Sand, coarse 4.20m-6.90m Gravel, water bearing 6.90m-8.40m Clay 8.40m-10.20m Basalt Boulders 10.20m-10.60m Shale	1777m	North West
10031062	0.00m-1.00m Fill 1.00m-7.00m Clay; silty 7.00m-8.00m Gravel 8.00m-9.00m Mudstone	1783m	West
10070155	0.00m-1.21m Clay Black 1.21m-4.26m Clay Gravel 4.26m-10.05m Shale Water Supply 10.05m-12.19m Gravel 12.19m-13.10m Rock	1791m	South West
10041764	0.00m-0.60m soil 0.60m-3.90m clay 3.90m-15.20m brown shale 15.20m-15.50m w.b. shale 15.50m-25.20m brown shale 25.20m-25.80m blue basalt 25.80m-26.10m w.b. blue basalt 26.10m-30.50m blue basalt	1797m	South West
10015567	0.00m-2.74m Clay 2.74m-3.35m Clay Sandy 3.35m-5.18m Clay Dark Brown Some Stoney 5.18m-6.09m Sand Gravel Water Supply 6.09m-8.53m Sand Coarse Water Supply Gravel Stones Some Large 8.53m-12.49m Clay Boulders Large Basalt 12.49m-14.93m Shale Soft 14.93m-15.54m Slate	1798m	North West
10005928	0.00m-2.50m Soil Clay 2.50m-29.00m Basalt Black Water Supply	1852m	West
10015466	0.00m-0.60m Topsoil 0.60m-0.91m Sand 0.91m-4.26m Clay 0.91m-4.26m Gravel Some Small 4.26m-5.18m Gravel Large Dirty Water Supply 5.18m-8.53m Gravel Large Water Supply 5.18m-8.53m Boulders Some 8.53m-10.36m Boulders 10.36m-12.49m Boulders Very Large 12.49m-14.02m Shale Yellow	1856m	North West
10033186	0.00m-0.30m Fill; roadbase 0.30m-8.00m Siltstone; bedrock	1877m	South West
10033637	0.00m-0.80m Fill 0.80m-10.50m Sandstone, ligth brown, very dry & dusty 10.50m-11.50m Sandstone, fractured 11.50m-13.50m Sandstone, fractured, water bearing	1912m	South West
10134310	0.00m-0.91m Topsoil 0.91m-5.18m Clay Red 5.18m-8.23m Clay Yellow 8.23m-23.16m Shale Water Supply 23.16m-27.13m Shale 27.13m-27.74m Clay	1914m	South
10037108	0.00m-0.30m Fill; Silt & sand, rocks to 2mm, uniform, homogeneous 0.30m-8.00m Siltstone; bedrock	1919m	South West
10025733	0.00m-0.80m Fill 0.80m-10.50m Sandstone, light brown, very dry & dusty 10.50m-11.50m Sandstone, fractured 11.50m-13.50m Sandstone, fractured, water bearing	1933m	South West
10028818	0.00m-0.80m Fill 0.80m-10.50m Sandstone, light brown, very dry & dusty 10.50m-11.50m Sandstone, fractured 11.50m-13.50m Sandstone, fractured, water bearing	1941m	South West
10026768	0.00m-0.20m Fill; concrete & roadbase 0.20m-1.00m Silt, Sandy; browny grey, soft, loose, low plastic, homogenous 1.00m-8.00m Siltstone; bedrock	1943m	South West

NGIS Bore ID	Drillers Log	Distance	Direction
10042726	0.00m-0.30m Fill; roadbase 0.30m-0.50m Silt; brown-grey with orange mottling, dry, loose, non plastic, homogeneous 0.50m-1.30m Silt; as above, but brown & soft 1.30m-1.60m Silt, sandy; red-brown, dry, low plasticity, pebbles to 1.5cm, uniform, angular 1.60m-8.00m Siltstone; bedrock	1951m	South West
10039314	0.00m-0.50m Fill; orange-brown, dry, loose, pebbles to 2.5cm, hetergoeneous 0.50m-1.10m Clay, Silty; brown, moist, soft, pebbles to 2.0cm, heterogeneous 1.10m-3.00m Silt; weathered rock 3.00m-10.00m Siltstone; bedrock	1966m	South West
10030286	0.00m-0.50m Fill; orange-brown, dry, loose, pebbles to 2.5cm, heterogeneous 0.50m-1.00m Silt, Sandy; orange-brown, coarse, dry, not plastic, homogeneous 1.00m-12.00m Siltstone; bedrock	1986m	South West

Geology

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2023

Coordinate System: GDA 1994 MGA Zone 56

Date: 19 May 2023

Geology

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Geological Units

What are the Geological Units within the dataset buffer?

Unit Code	Unit Name	Description	Unit Stratigraphy	Age	Dominant Lithology	Distance
N_a	Alluvium	Unconsolidated alluvial clay, silt, sand, and gravel deposits.	/Alluvium////	Cenozoic (base) to Now (top)	Clastic sediment	0m
N_ac	Alluvial channel deposits	Watercourse channel deposits of sand and gravel.	/Alluvium//Alluvial channel deposits//	Upper Pleistocene (base) to Now (top)	Sand	8m
N_r	Residual deposits	A weakly consolidated regolithic residuum such as soil or saprolite mostly developed in situ as a result of advanced weathering and/or pedogenesis.	/Residual deposits////	Upper Pleistocene (base) to Now (top)	Saprolite	263m
Cpaa	Noumea beds	Interbedded massive- and andesitic-lithic wacke, pebbly wacke, laminated siltstone and mudstone.	/Parry Group//Noumea beds//	Frasnian (base) to Famennian (top)	Sandstone	979m

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

Naturally Occurring Asbestos Potential

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

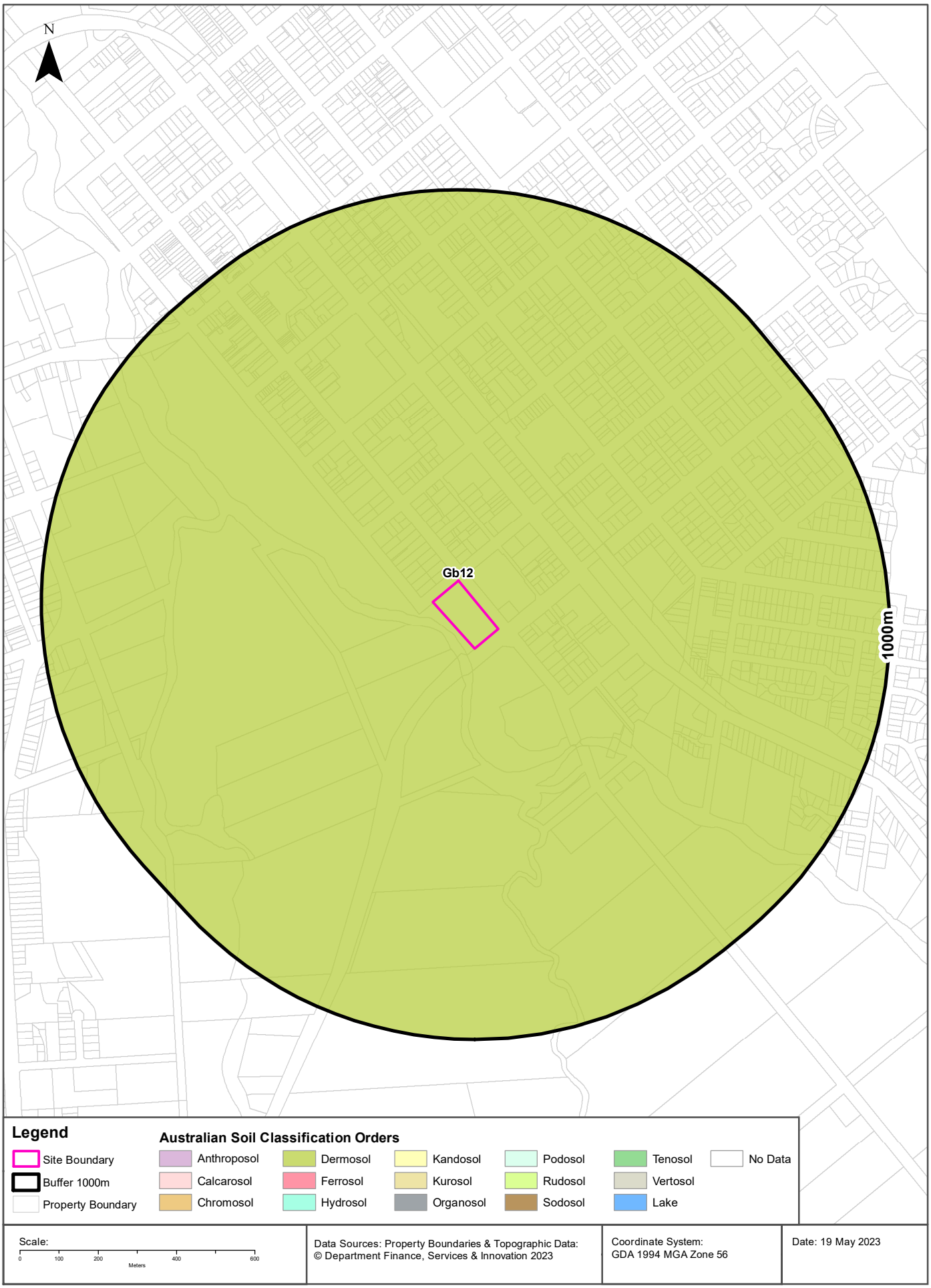
Naturally Occurring Asbestos Potential

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												

Atlas of Australian Soils

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Soils

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

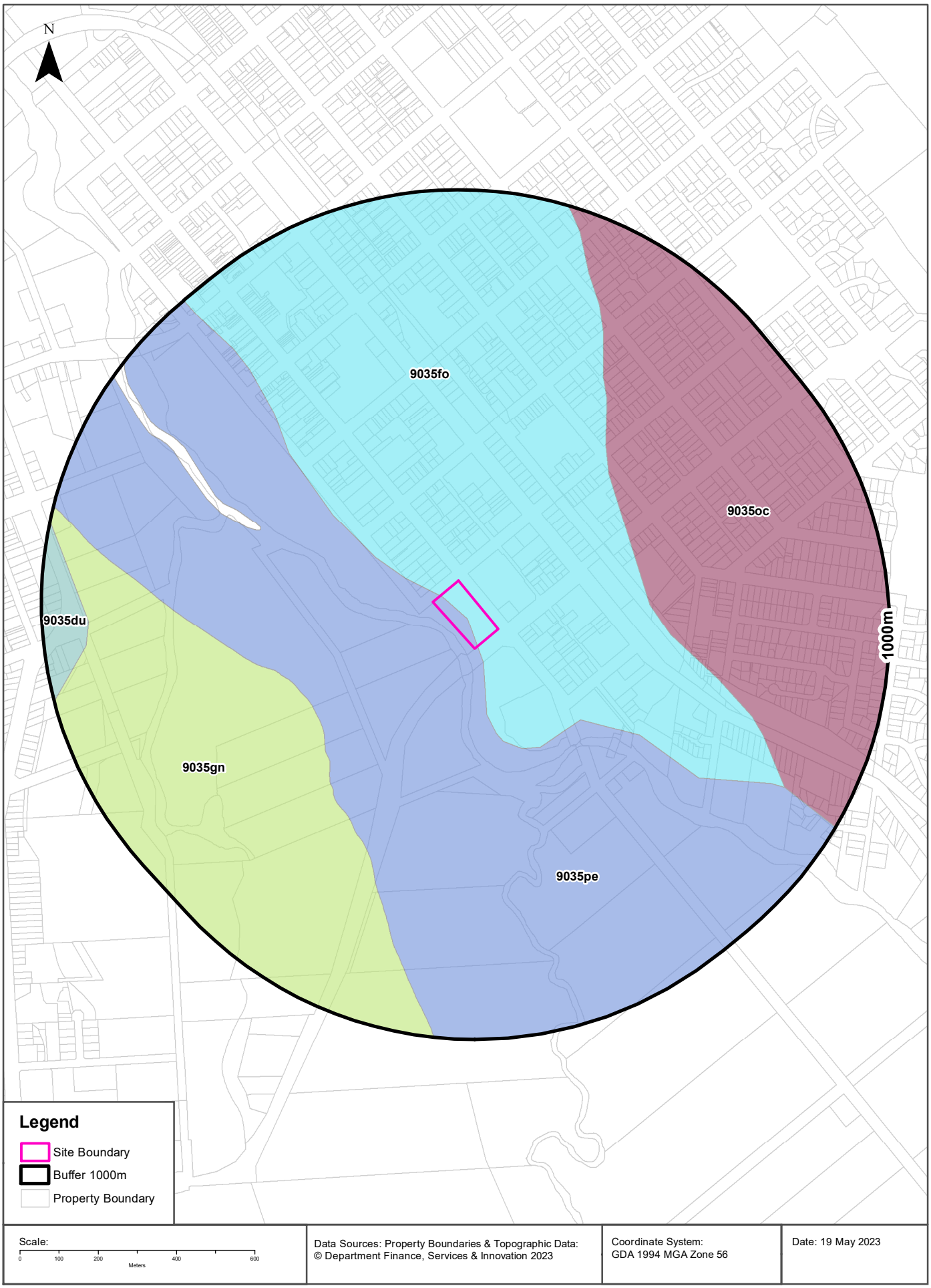
Atlas of Australian Soils

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

Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Gb12	Dermosol	River flood-plains, terraces, and levees: chief soils are probably dark porous loamy soils (Um6.11 and Um6.12) with other (Um) and (Uc) soils. Associated are, locally, fairly large areas of dark cracking clays such as (Ug5.16); areas of (Dy3.4) soils; and sometimes areas of gravelly (Gn2) soils. Soils data are limited.	0m	On-site

Soil Landscapes of Central and Eastern NSW

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Soils

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Soil Landscapes of Central and Eastern NSW

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

Soil Code	Name	Distance	Direction
9035fo	The Forest	0m	On-site
9035pe	Peel	0m	On-site
9035oc	Orchard Creek	387m	East
9035gn	Goonoo Goonoo	405m	South West
9035du	Duri	881m	West

Acid Sulfate Soils

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Environmental Planning Instrument - Acid Sulfate Soils

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

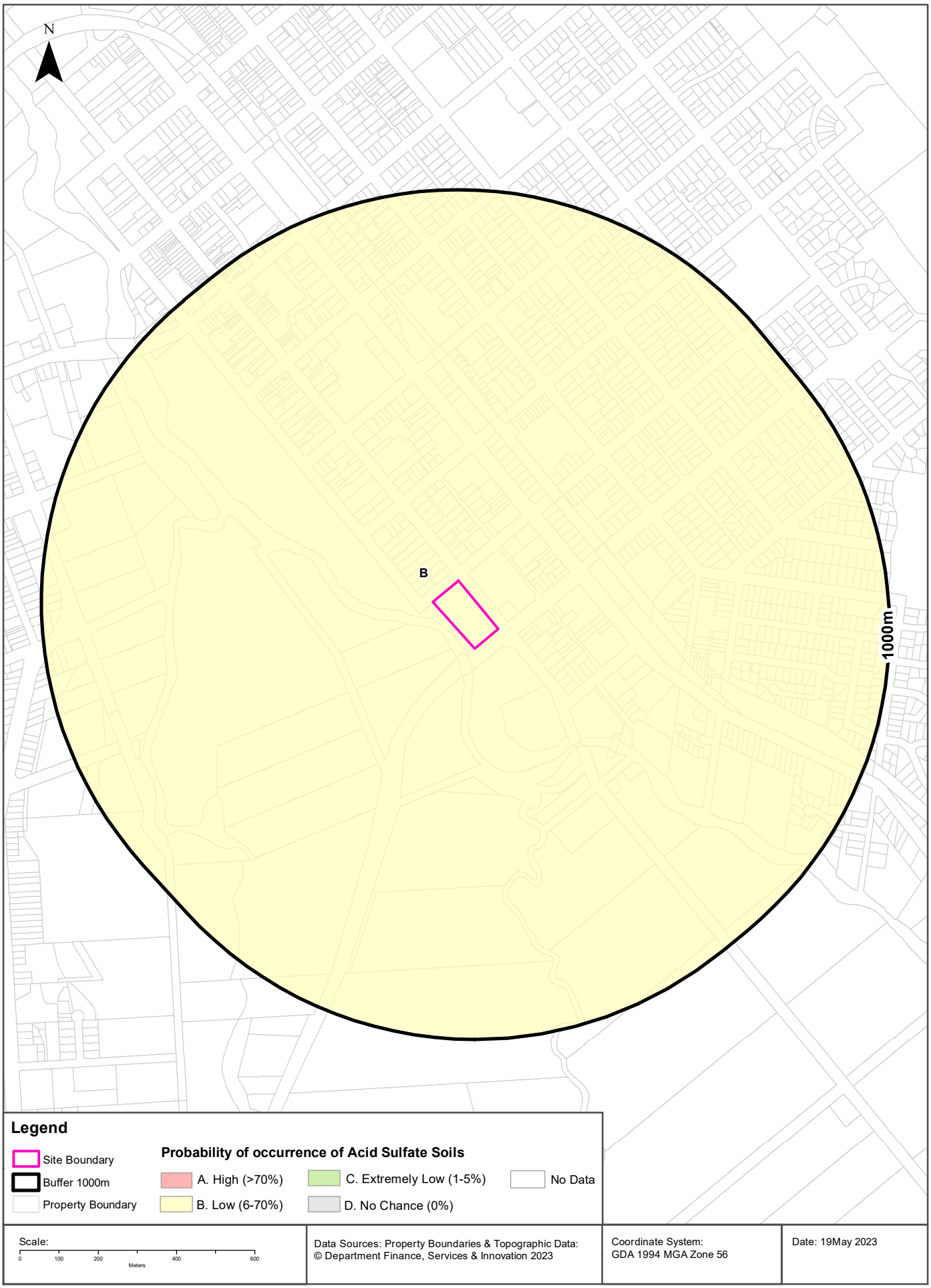
Soil Class	Description	EPI Name
N/A		

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

Soil Class	Description	EPI Name	Distance	Direction
N/A				

Atlas of Australian Acid Sulfate Soils

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Acid Sulfate Soils

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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

Dryland Salinity

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

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

No

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A		

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.

Mining

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

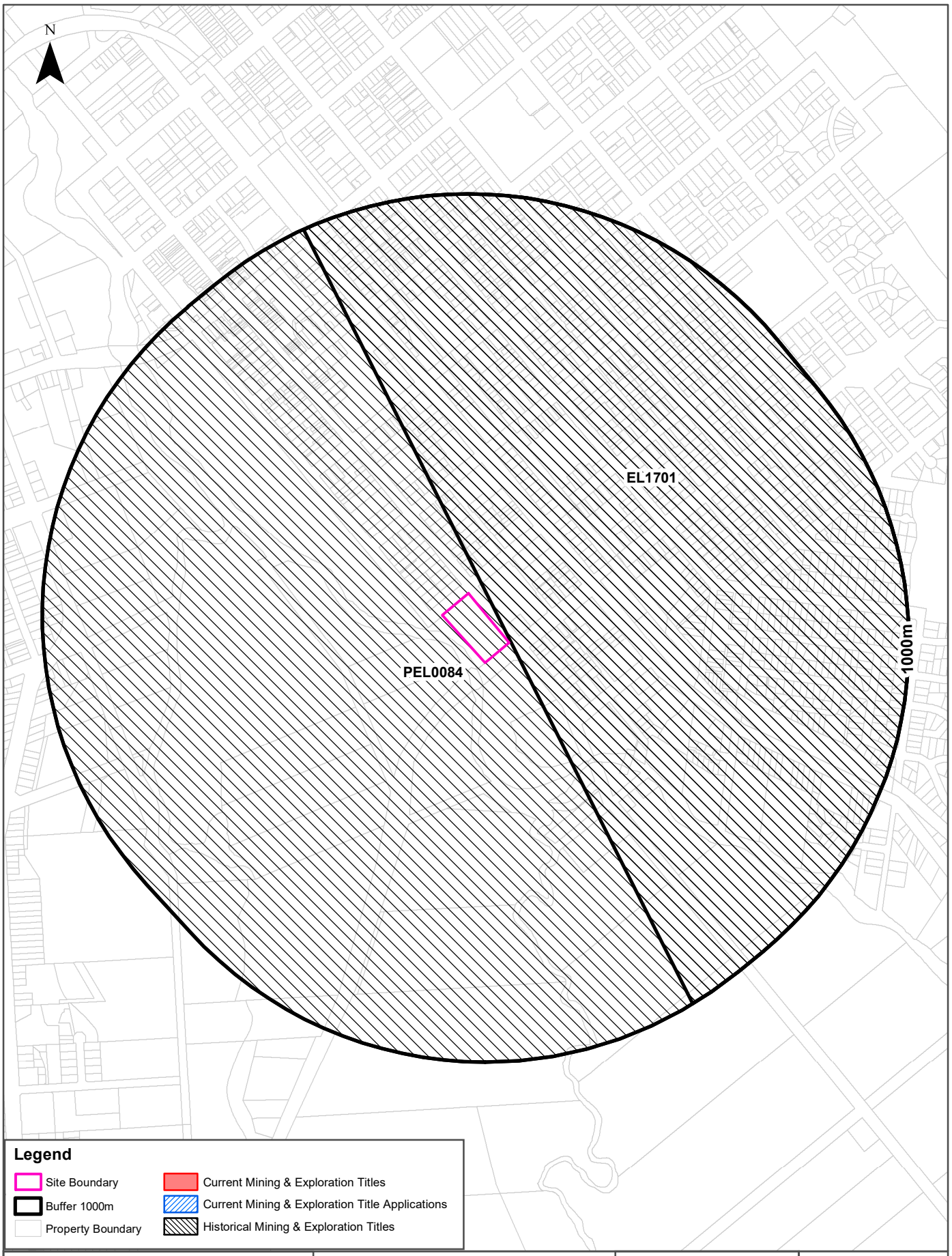
Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

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

Mining & Exploration Titles

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Mining

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
PEL0084				PETROLEUM	Petroleum	0m	On-site
EL1701	SHELL MINERALS EXPLORATION AUSTRALIA PTY LIMITED	19810901	19820101	MINERALS	W Mo	5m	North East

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

State Environmental Planning Policy

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

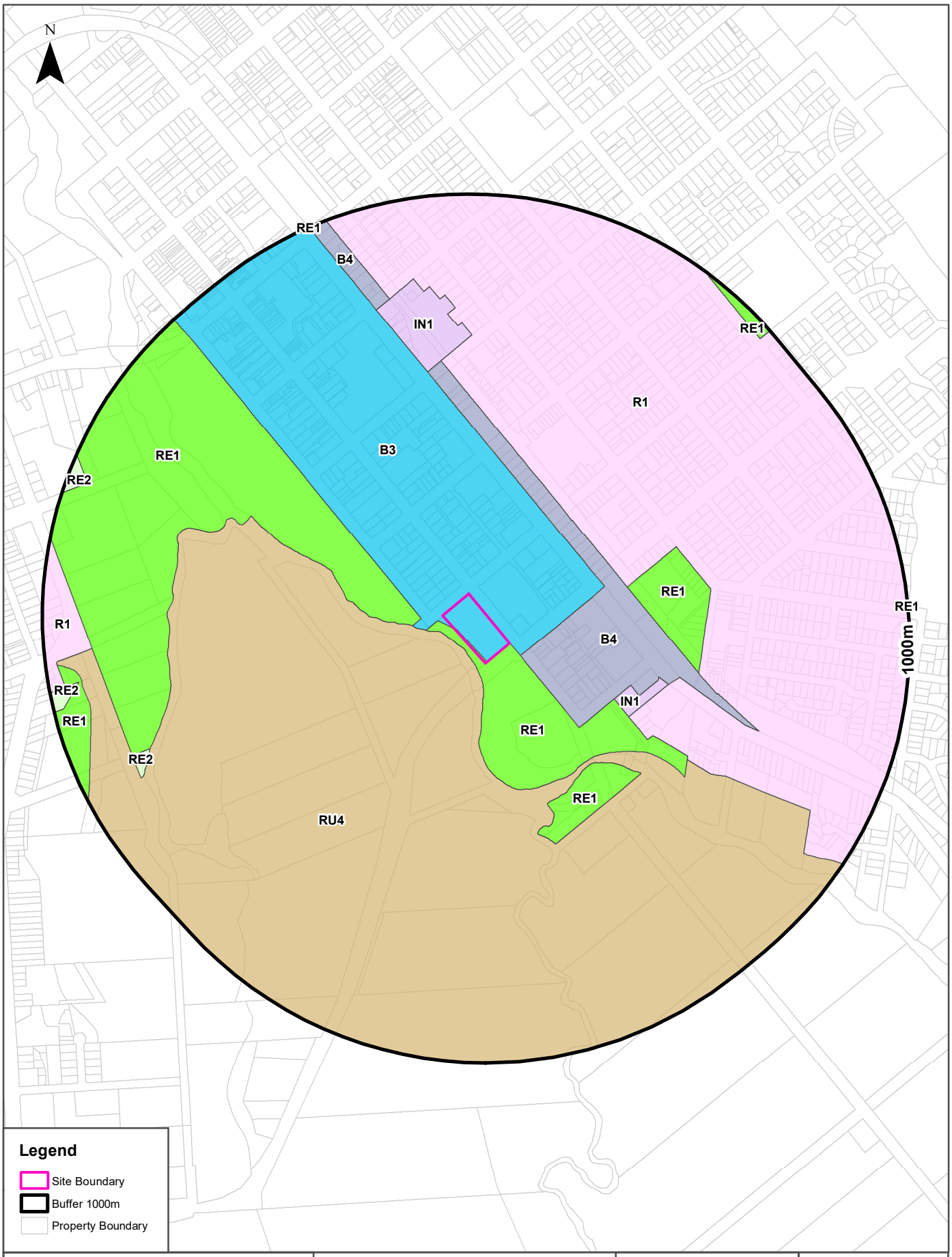
State Significant Precincts

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							

EPI Planning Zones

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Environmental Planning Instrument

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

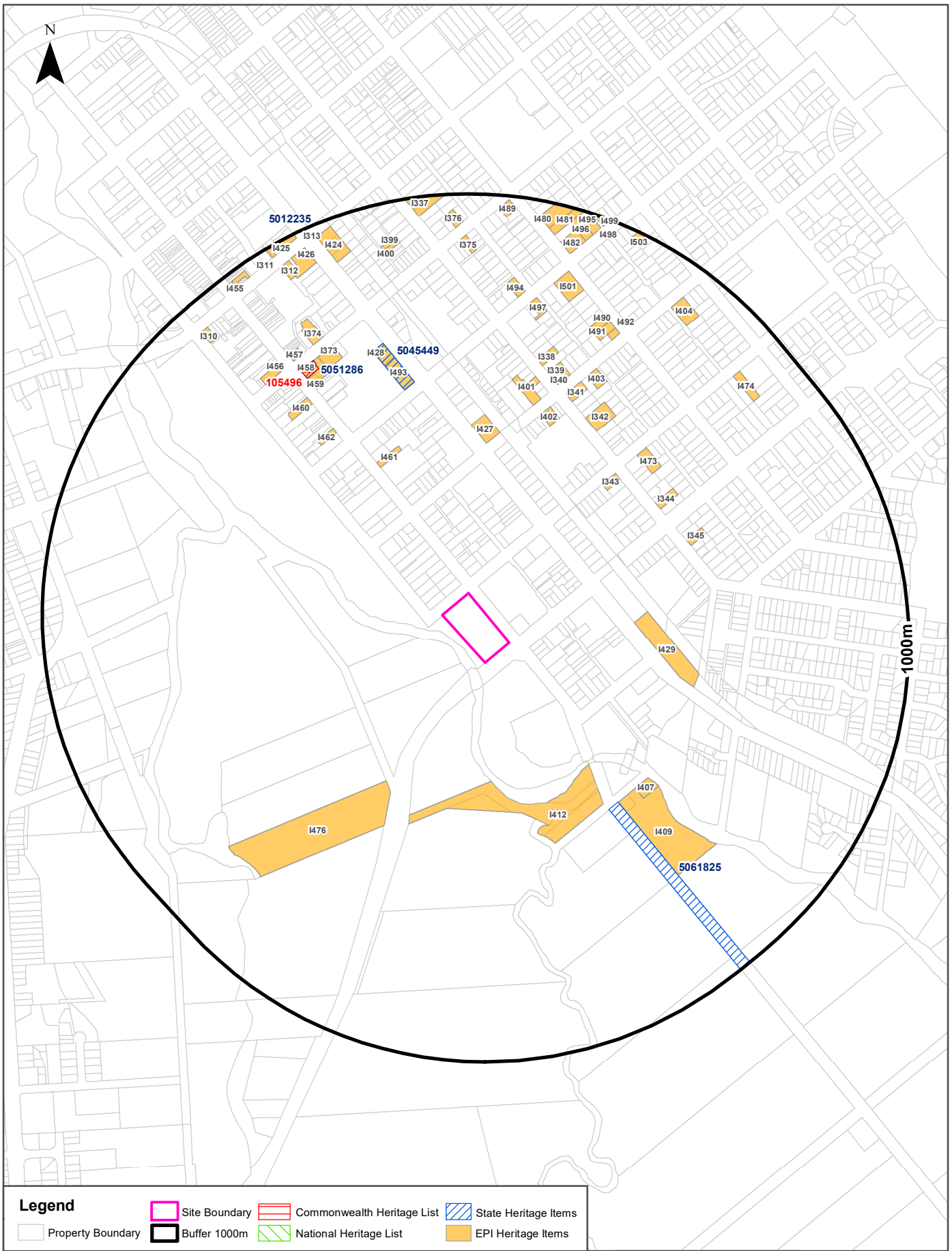
Land Zoning

What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
B3	Commercial Core		Tamworth Regional Local Environmental Plan 2010	30/06/2017	30/06/2017	11/11/2022	Amendment No 11	0m	On-site
RE1	Public Recreation		Tamworth Regional Local Environmental Plan 2010	30/06/2017	30/06/2017	11/11/2022	Amendment No 11	0m	On-site
RU4	Primary Production Small Lots		Tamworth Regional Local Environmental Plan 2010	13/09/2019	13/09/2019	11/11/2022	Amendment No 16	16m	South
B4	Mixed Use		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		40m	East
RE1	Public Recreation		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		54m	West
IN1	General Industrial		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		294m	South East
R1	General Residential		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		315m	North East
RE1	Public Recreation		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		325m	East
RE1	Public Recreation		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		360m	South East
IN1	General Industrial		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		565m	North
B4	Mixed Use		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		749m	North
RE2	Private Recreation		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		803m	West
R1	General Residential		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		880m	West
RE1	Public Recreation		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		909m	West
RE2	Private Recreation		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		924m	West
RE2	Private Recreation		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		948m	West
RE1	Public Recreation		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		967m	North East
RE1	Public Recreation		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		998m	North West
RE1	Public Recreation		Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	11/11/2022		998m	East

Heritage Items

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Legend

Property Boundary	Site Boundary	Commonwealth Heritage List	State Heritage Items
	Buffer 1000m	National Heritage List	EPI Heritage Items

Scale: 0 100 200 400 600 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2023 Heritage - NSW Crown Copyright - Planning & Environment	Coordinate System: GDA 1994 MGA Zone 56	Date: 19 May 2023

Heritage

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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
105496	Tamworth Post Office	402A Peel St, Tamworth NSW	1/02/182/0001	Historic	Listed place	08/11/2011	673m	North West

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							

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
5061825	King George V Memorial Avenue of Oaks, Tamworth	King George V Memorial Avenue of oaks	TAMWORTH REGIONAL	12/03/2014	01922	2596	481m	South East
5045449	Dominican Roman Catholic Convent	Marius Street, Tamworth (East)	TAMWORTH REGIONAL	02/04/1999	00122	317	534m	North
5051286	Tamworth Post Office	Fitzroy Street, Tamworth	TAMWORTH REGIONAL	22/12/2000	01421	3127	673m	North West
5012235	Tamworth Railway Station and yard group	Main Northern railway, Tamworth	TAMWORTH REGIONAL	02/04/1999	01260	3005	998m	North West

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
I412	Wells and Pumping Station off Peel River	Item - General	State	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	297m	South

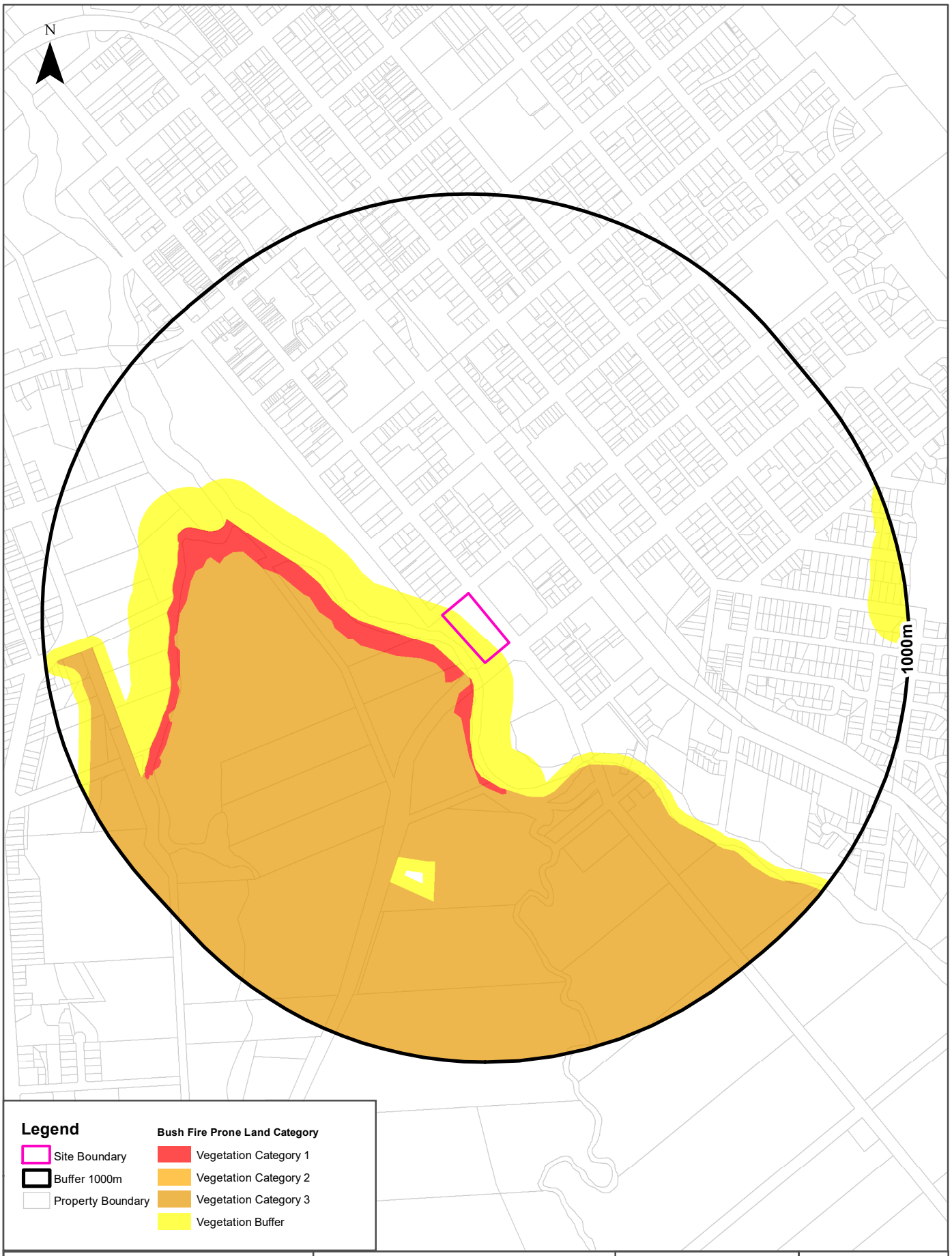
Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I429	Power House Motel and Monument	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	316m	East
I427	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	378m	North
I461	Masonic Temple	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	385m	North West
I476	Tobacco Kiln	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	386m	South West
I343	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	431m	North East
I402	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	467m	North
I409	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	480m	South East
I407	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	480m	South East
I401	House - The Pines	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	498m	North
I344	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	504m	North East
I345	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	511m	North East
I342	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	516m	North East
I462	Shops	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	521m	North West
I493	St Nicholas Church	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	534m	North
I473	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	544m	North East
I341	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	545m	North East
I340	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	568m	North
I339	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	578m	North
I338	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	599m	North
I403	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	605m	North East
I428	Old Convent Building	Item - General	State	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	609m	North
I460	Former ANZ Bank Building	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	616m	North West
I459	Commonwealth Bank Building	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	650m	North West
I373	Lands Office	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	662m	North West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I458	Post Office	Item - General	State	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	673m	North West
I497	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	705m	North
I491	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	712m	North East
I490	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	722m	North
I456	Hotel and Shops	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	727m	North West
I457	National Australia Bank Building	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	728m	North West
I492	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	728m	North East
I374	Town Hall	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	733m	North West
I494	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	752m	North
I501	House - Glen Evilly	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	773m	North
I375	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	852m	North
I474	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	856m	North East
I404	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	863m	North East
I400	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	875m	North
I399	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	884m	North
I482	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	887m	North
I424	Church	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	892m	North
I310	Regent Cinema	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	893m	North West
I426	Imperial Hotel	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	898m	North West
I312	Mechanics Institute	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	903m	North West
I376	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	916m	North
I481	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	922m	North
I496	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	929m	North
I480	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	935m	North

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I489	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	946m	North
I495	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	950m	North
I337	St Johns Church	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	953m	North
I455	Central Hotel	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	961m	North West
I503	House - Minna-murra	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	969m	North East
I311	Shopfront Glass	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	973m	North West
I498	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	977m	North
I425	Northern Daily Leader	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	977m	North West
I499	House	Item - General	Local	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	991m	North
I313	Tamworth Railway Station	Item - General	State	Tamworth Regional Local Environmental Plan 2010	21/01/2011	21/01/2011	30/11/2018	998m	North West

Natural Hazards - Bush Fire Prone Land

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340



Data Sources: Bush Fire Prone Land: © NSW Rural Fire Service 2023. Property Boundaries: © Department Finance, Services & Innovation 2023

Coordinate System: GDA 1994 MGA Zone 56

Date: 19 May 2023

Natural Hazards

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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	0m	On-site
Vegetation Category 1	55m	South
Vegetation Category 3	55m	South

Ecological Constraints

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

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

Ecological Constraints

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer					

Ecological Constraints

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer					

Ecological Constraints

Prince of Wales Park, 545 Peel Street, Tamworth, NSW 2340

NSW BioNet Atlas

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Litoria booroolongensis	Booroolong Frog	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Alectura lathami	Australian Brush-turkey	Endangered Population	Not Sensitive	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black-Cockatoo (inland subspecies)	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Circus assimilis	Spotted Harrier	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Falco subniger	Black Falcon	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Glossopsitta porphyrocephala	Purple-crowned Lorikeet	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Pachycephala inornata	Gilbert's Whistler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pezoporus wallicus wallicus	Eastern Ground Parrot	Vulnerable	Category 3	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Polytelis swainsonii	Superb Parrot	Vulnerable	Category 3	Vulnerable	
Animalia	Aves	Stagonopleura guttata	Diamond Firetail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Critically Endangered	Not Sensitive	Vulnerable	
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	Aprasia parapulchella	Pink-tailed Legless Lizard	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	Simoselaps fasciolatus	Narrow-banded Snake	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Suta flagellum	Little Whip Snake	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Uvidicolus sphyrurus	Border Thick-tailed Gecko	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Dichanthium setosum	Bluegrass	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Euphrasia ruptura		Extinct	Not Sensitive	Extinct	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	

Data does not include NSW category 1 sensitive species.

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LC Code	Location Confidence
Premise Match	Georeferenced to the site location / premise or part of site
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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Land Title Records

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

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

Summary of Owners Report

Address: - 545 Peel Street, Tamworth NSW

Description: - Lot 73 D.P. 1107041

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
	As to Part: -	
18.01.1911	Proclamation of Resumption of land for Public Recreation and Athletic Sports Revoked vide Government Gazette published 24.11.1972 Folio 4761	Government Gazette published 18.01.1911 Folios 357 to 362
	As to Part: -	
31.10.1919	Crown Reserve No. 53575 from Sale for Public Recreation Revoked vide Government Gazette published 24.11.1972 Folio 4761 (Erratum Notice vide Government Gazette published 12.01.1973 Folio 93 – Re. Correct Reserve No.)	Government Gazette published 31.10.1919 Folios 6007 & 6008
	As to Part: -	
19.05.1922	Crown Reserve No. 55415 (From Sale) & 55416 (From Lease Generally) for Public Recreation Revoked vide Government Gazette published 24.11.1972 Folio 4761	Government Gazette published 19.05.1922 Folio 2036
	Continued as to the whole: -	
25.02.1977	Notification of Vesting of Lands in The Council of the City of Tamworth	Government Gazette published 25.02.1977 Folios 782 & 783
25.02.1977 (1977 to Date)	# The Council of the City of Tamworth Now # Tamworth Regional Council	Government Gazette published 25.02.1977 Folios 782 & 783 Now 73/1107041

 # Denotes current registered proprietor

Leases, excluding premises: - NIL

Easements: - NIL

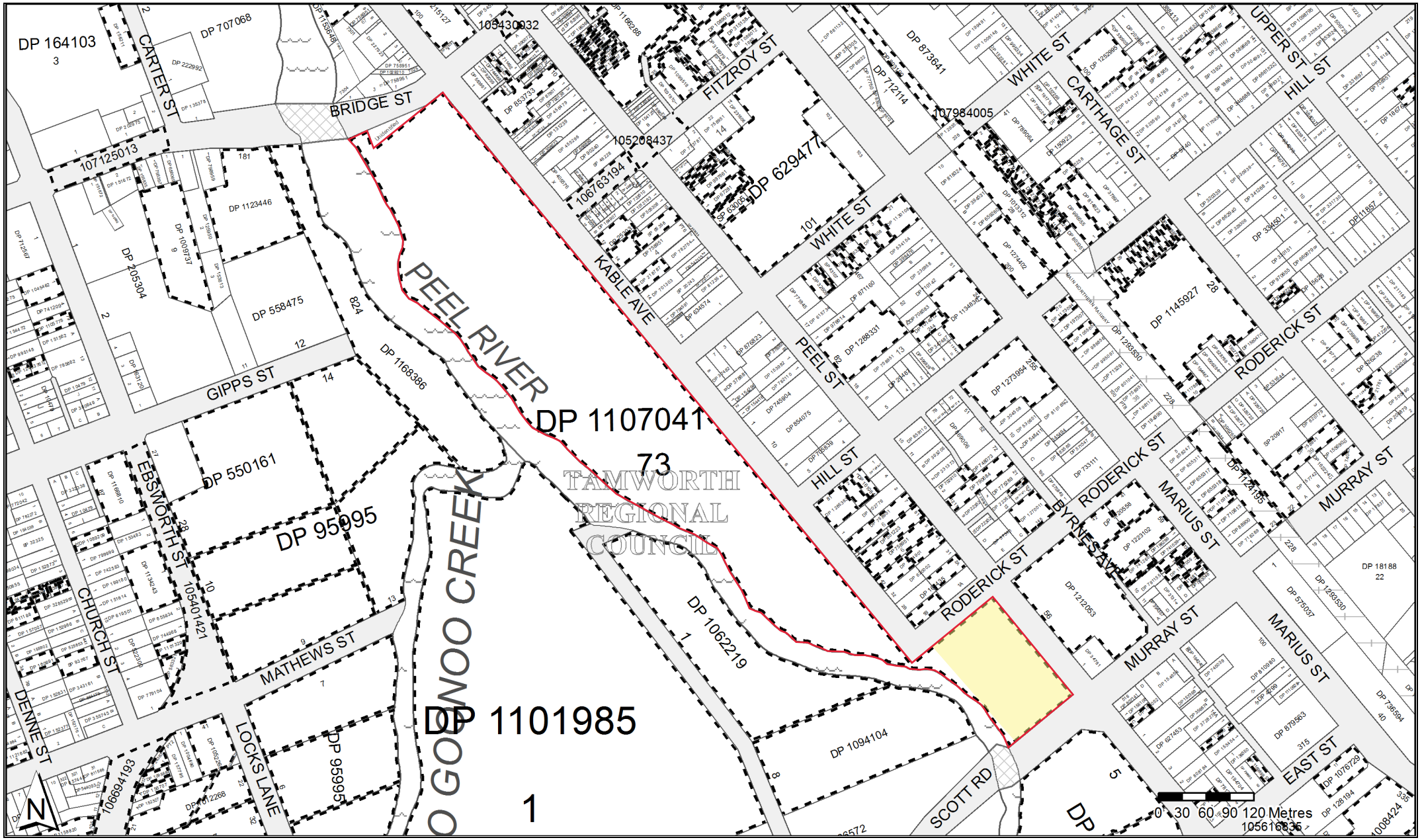
Yours Sincerely,
Taylor Wilson
18th July 2023

Email: mark.groll@infotrack.com.au
Email: taylor.wilson@infotrack.com.au

Cadastral Records Enquiry Report : Lot 73 DP 1107041

Ref : 545 Peel Street, Tamworth

Locality : TAMWORTH
Parish : TAMWORTH
LGA : TAMWORTH REGIONAL
County : INGLIS



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

	Status	Surv/Comp	Purpose
DP1089209			
Lot(s): 33			
CA96956 - LOT 33 DP1089209			
DP1089738			
Lot(s): 1, 2			
DP1092391	REGISTERED	SURVEY	CROWN FOLIO CREATION
CA97023 - LOTS 1-2 DP1089738			
DP1094104			
Lot(s): 8			
CA98215 - LOT 1 DP1062219, LOTS 9-10 DP1094087, LOT 12 DP1094092 AND LOT 8 DP1094104			
DP1095684			
Lot(s): 112			
CA98705 - LOT 112 DP1095684			
DP1099518			
Lot(s): 26			
CA100968 - LOT 26 DP1099518			
DP1100581			
Lot(s): 18			
DP1288805	UNREGISTERED	SURVEY	DELIMITATION
CA101182 - LOT 18 DP1100581			
DP1101329			
Lot(s): 9			
CA100194 - LOT 9 DP1101329			
DP1101985			
Lot(s): 1			
DP1100305	REGISTERED	SURVEY	EASEMENT
DP1104692			
Lot(s): 51, 52, 53			
DP1042938	HISTORICAL	COMPILATION	LIMITED FOLIO CREATION
DP1104909			
Lot(s): 3, 4, 5, 6, 7			
DP1145927	REGISTERED	SURVEY	CONSOLIDATION
Lot(s): 3, 4, 5			
CA100425 - LOTS 3, 4 AND 5 DP1104909			
Lot(s): 6, 7			
CA100424 - LOTS 6 AND 7 DP1104909			
DP1105778			
Lot(s): 79			
CA101087 - LOT 79 DP1105778			
DP1107041			
Lot(s): 73			
DP1185292	REGISTERED	SURVEY	EASEMENT
DP1233551	PRE-ALLOCATED	UNAVAILABLE	SUBDIVISION
DP1239558	REGISTERED	SURVEY	EASEMENT
CA100910 - LOT 73 DP1107041			
NSW GAZ. 25-02-1977 Folio : 782 CROWN LAND DECLARED PUBLIC RESERVE AND VESTED IN TAMWORTH REGIONAL COUNCIL PURSUANT TO THE CROWN LANDS CONSOLIDATION ACT 1913 AFFECTING THE LAND SHOWN IN THE DIAGRAM ACCOMPANYING THIS GAZETTE NOTIFICATION			
DP1109144			
Lot(s): 5			
CA103733 - LOT 5 DP1109144			
DP1110484			
Lot(s): 46, 47			
DP931647	HISTORICAL	SURVEY	UNRESEARCHED
DP1112557			
Lot(s): 368			
CA99815 - LOT 368 DP1112557			

DP 1107041 E

Registered: 13.12.2006

Title System: OLD SYSTEM

Purpose: LIMITED FOLIO CREATION

Ref. Map: T9152-14, 213

Last Plan: ----------

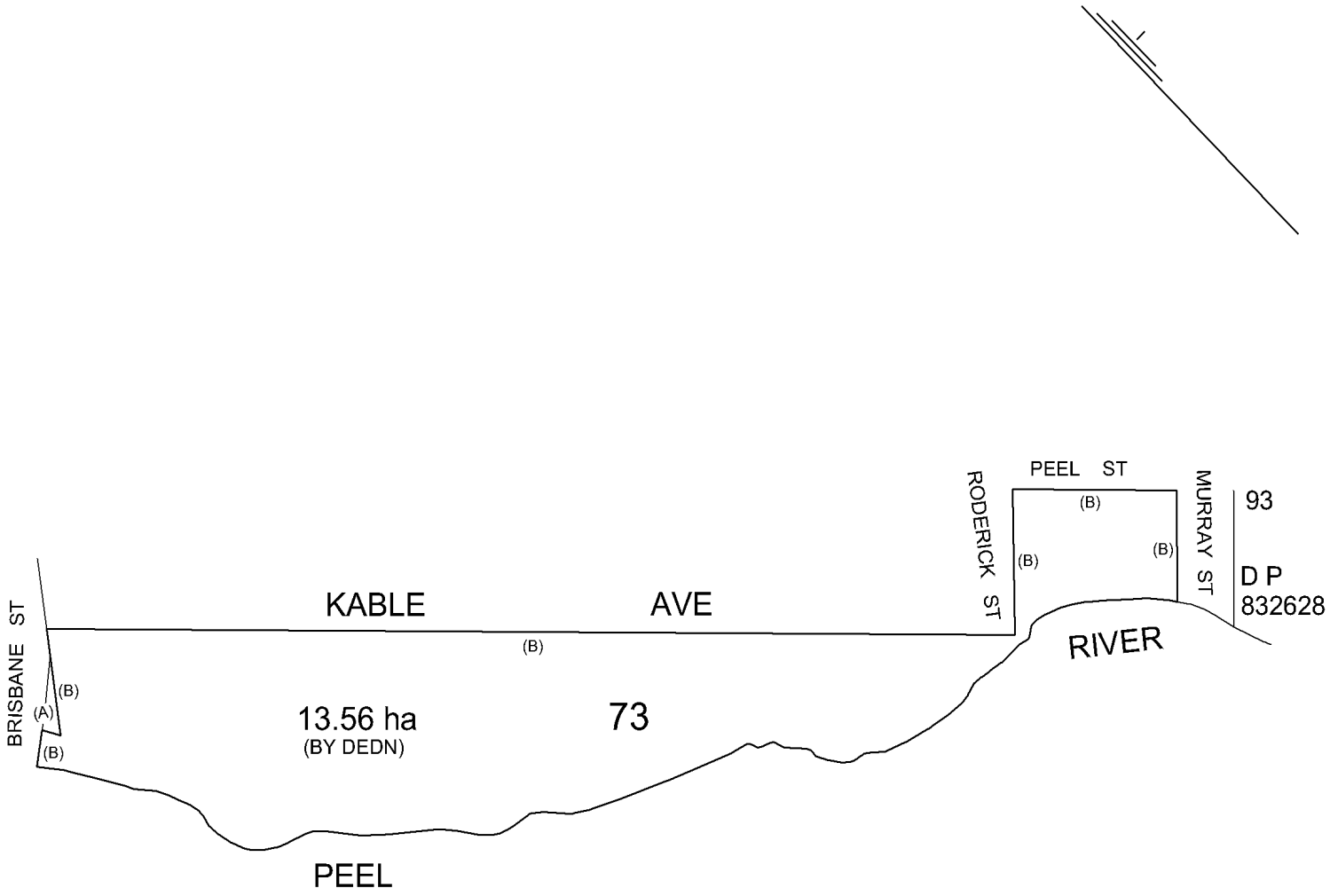
PLAN OF PART OF THE LAND

COMPRISED IN GOV GAZ 25.2.1977 FOL 783

EXCLUDES DP832628 AND MURRAY ST

Lengths are in metres. Reduction Ratio - NTS

Sheet 1 of 1 sheets



(A) CLOSED ROAD GOV GAZ 17.9.1965 FOL 3058
(B) DIMENSIONS ARE NOT AVAILABLE

L.G.A.: TAMWORTH

LOCALITY: TAMWORTH

PARISH: TAMWORTH

COUNTY: INGLIS

THIS PLAN WAS PREPARED SOLELY TO IDENTIFY THE LAND IN THE ABOVE DEED AND THE BOUNDARIES HAVE NOT BEEN INVESTIGATED BY THE REGISTRAR GENERAL

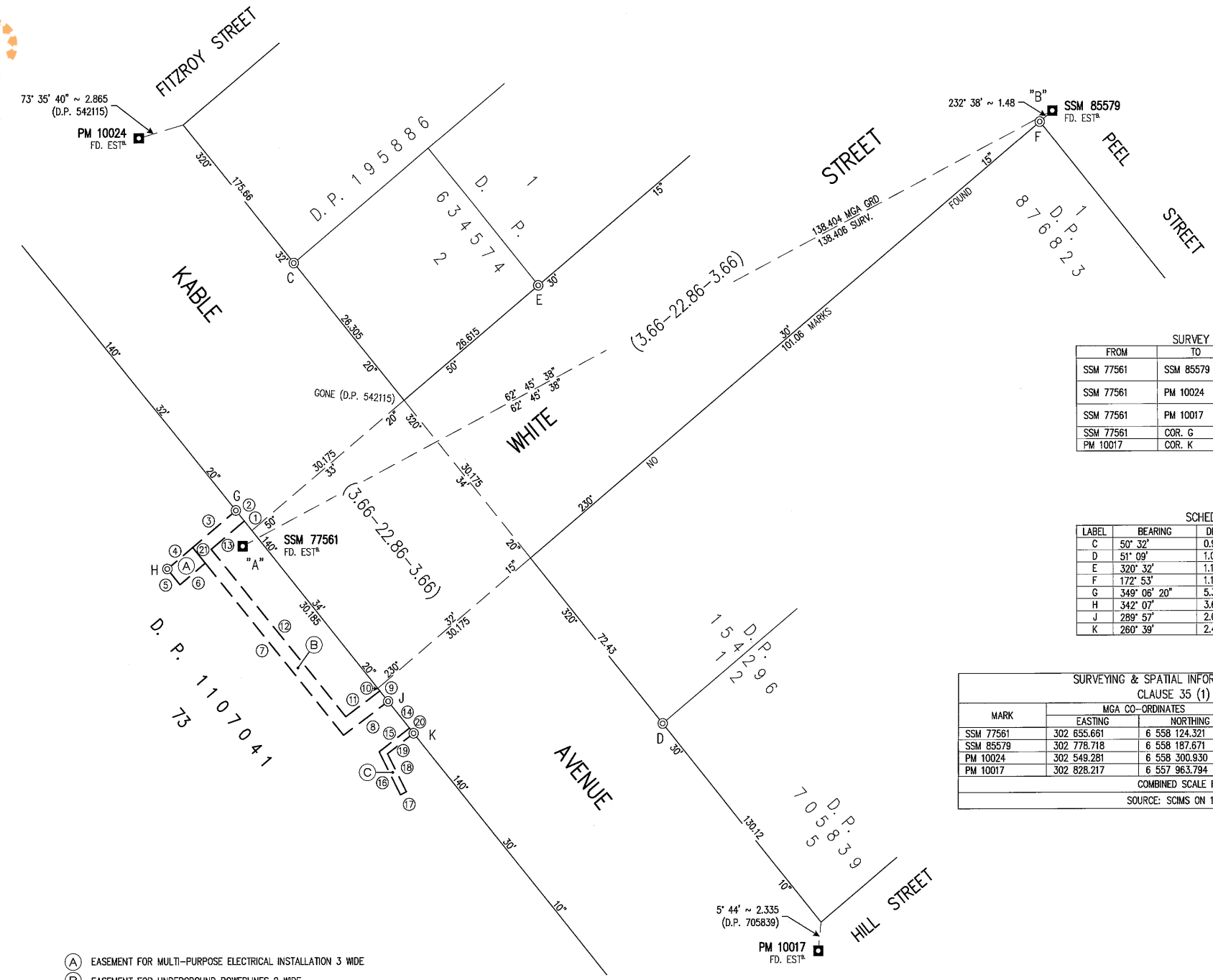
THIS PLAN IS NOT A CURRENT PLAN IN TERMS OF S.7A CONVEYANCING ACT 1919.

PLANS USED IN PREPARATION:

~~781393~~, 257-3100, 48-1393, 1955-3100, GOV GZ 18.1911 F 361, GOV GZ 7.1.1966 F 132, GOV GZ 21.4.1972 F 1410, GOV GZ 24.11.1972 F 4761, GOV GZ 25.2.1977 F 783, 78-1393

LPI Ref. : TCB19/15

PLANS USED AMENED VIDE 2017-532 03.05.2017



SHORT LINE TABLE

No.	BEARING	DISTANCE
1	320° 32' 20"	1.84
2	320° 32' 20"	2.00
3	230° 32' 20"	8.565
4	230° 32' 20"	5.00
5	140° 32' 20"	3.00
6	50° 32' 20"	5.00
7	140° 17' 45"	33.055
8	53° 44' 10"	8.425
9	320° 30' 10"	2.005
10	320° 30' 10"	0.495
11	233° 44' 10"	6.425
12	320° 17' 45"	32.16
13	50° 32' 20"	6.57
14	140° 30' 10"	5.125
15	233° 00' 25"	5.785
16	152° 45' 40"	7.135
17	62° 45' 40"	1.00
18	332° 45' 40"	6.29
19	53° 00' 25"	4.99
20	320° 30' 10"	1.00
21	320° 32' 20"	3.00

SURVEY CO-ORDINATION CONNECTIONS

FROM	TO	BEARING	DISTANCE
SSM 77561	SSM 85579	62° 45' 38" 62° 45' 38"	138.404 MGA GRD 138.406 SURV.
SSM 77561	PM 10024	328° 56' 15" 328° 56' 11"	206.169 MGA GRD 206.166 SURV.
SSM 77561	PM 10017	132° 55' 54" 132° 55' 54"	235.674 MGA GRD 235.672 SURV.
SSM 77561	COR. G	349° 06' 20"	5.37
PM 10017	COR. K	312° 12' 40"	197.75

SCHEDULE OF REFERENCE MARKS

LABEL	BEARING	DISTANCE	DESCRIPTION
C	50° 32'	0.915	RM DH&W FD. D.P. 634574
D	51° 09'	1.00	RM DH&W FD. D.P. 705839
E	320° 32'	1.12	RM DH&W FD. D.P. 634574
F	172° 53'	1.12	RM DH&W's FD. D.P. 876823
G	349° 06' 20"	5.37	RM SSM 77561
H	342° 07'	3.605	RM D.H. & WING
J	289° 57'	2.075	RM D.H. & WING
K	260° 39'	2.47	RM D.H. & WING

SURVEYING & SPATIAL INFORMATION REGULATION 2012:
CLAUSE 35 (1) (b) & 61 (2)

MARK	MGA CO-ORDINATES		ACCURACY		METHOD	ORIGIN
	EASTING	NORTHING	CLASS	ORDER		
SSM 77561	302 655.661	6 558 124.321	B	2	–	SCIMS
SSM 85579	302 778.718	6 558 187.671	C	3	–	SCIMS
PM 10024	302 549.281	6 558 300.930	B	2	–	SCIMS
PM 10017	302 828.217	6 557 963.794	B	2	–	SCIMS

COMBINED SCALE FACTOR 1.00002102 ZONE: 56

SOURCE: SCIMS ON 14 NOVEMBER 2012

(A) EASEMENT FOR MULTI-PURPOSE ELECTRICAL INSTALLATION 3 WIDE
(B) EASEMENT FOR UNDERGROUND POWERLINES 2 WIDE
(C) EASEMENT FOR UNDERGROUND POWERLINES 1 WIDE

Surveyor: GLENN ALFRED ROSE Date of Survey: 03 DEC 2012 Surveyor's Ref: L1810	PLAN OF EASEMENTS WITHIN LOT 73 D. P. 1107041	LGA: TAMWORTH REGIONAL Locality: TAMWORTH Subdivision No: --- Lengths are in metres. Reduction Ratio 1:400	Registered 10.5.2013	DP1185292 P DWG. No. 1810D01

10 20 30 40 50 60 70 Table of mm 100 110 120 130 140 150

PLAN FORM 6 (2012) WARNING: Creasing or folding will lead to rejection

DEPOSITED PLAN ADMINISTRATION SHEET

Office Use Only

Registered: 10.5.2013

Title System: TORRENS

Purpose: EASEMENT

Office Use Only

DP1185292 S

PLAN OF EASEMENTS WITHIN LOT 73 D.P. 1107041

LGA: TAMWORTH REGIONAL

Locality: TAMWORTH

Parish: TAMWORTH

County: INGLIS

Crown Lands NSW/Western Lands Office Approval

I.....(Authorised Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.

Signature:.....

Date:.....

File Number:.....

Office:.....

Subdivision Certificate

I, ...

*Authorised Person/*General Manager/*Accredited Certifier, certify that the provisions of s.109J of the Environmental Planning and Assessment Act 1979 have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.

Signature: .....

Accreditation number: .....

Consent Authority: .....

Date of Endorsment: .....

Subdivision Certificate number: .....

File number: .....

* Strike through if inapplicable.

Survey Certificate

I, GLENN ALFRED ROSE

of Brown and Krippner Pty. Ltd. PO Box 260 (DX6118) Tamworth 2340 a surveyor registered under the Surveying and Spatial Information Act 2002, certify that:

*(a) The land shown in the plan was surveyed in accordance with the Surveying and Spatial Information Regulation 2012, is accurate and the survey was completed on: 03 DECEMBER 2012.....

*(b) The part of the land shown in the plan (*being/*excluding^ .....

.....

.....

was surveyed in accordance with the Surveying and Spatial Information Regulation 2012, is accurate and the survey was completed on:..... the part not surveyed was compiled in accordance with that Regulation.

*(c) The land shown in this plan was compiled in accordance with the Surveying and Spatial Information Regulation 2012.

Signature: Glenn A. Rose Dated: 3rd DEC., 2012

Surveyor ID: 1935

Datum Line: "A – B" (SSM 77561 – SSM 85579)

Type: Urban/Rural

The terrain is *Level–Undulating / *Steep–Mountainous.

* Strike through if inapplicable.

^ Specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey.

Statements of intention to dedicate public roads, public reserves and drainage reserves.

Plans used in the preparation of survey/compilation

D.P. 634574

D.P. 705839

D.P. 876823

D.P. 542115

If space is insufficient use PLAN FORM 6A

Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A

SURVEYOR'S REFERENCE: L 1 8 1 0

Drawing No. 1810D01

PLAN FORM 6A (2012) WARNING: Creasing or folding will lead to rejection

DEPOSITED PLAN ADMINISTRATION SHEET

Office Use Only

Registered: 10.5.2013

Office Use Only

DP1185292

PLAN OF PLAN OF EASEMENTS WITHIN LOT 73
D.P. 1107041

Subdivision Certificate number: .....

Date of Endorsement: .....

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses–See 60(c) SSI Regulation 2012
- Statements of intention to create and release affecting interests in accordance with section 88B Conveyancing Act 1919
- Signatures and seals– see 195D Conveyancing Act 1919
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, AS AMENDED, IT IS INTENDED TO CREATE:–

1. EASEMENT FOR MULTI–PURPOSE ELECTRICAL INSTALLATION 3 WIDE
2. EASEMENT FOR UNDERGROUND POWERLINES 2 WIDE
3. EASEMENT FOR UNDERGROUND POWERLINES 1 WIDE

GENERAL MANAGER

MAYOR

TAMWORTH REGIONAL COUNCIL
The COMMON SEAL of the
ESTABLISHED 2004

ESSENTIAL ENERGY

10/4/2013

GENERAL MANAGER

CHIEF ENGINEER

EXECUTIVE ASSISTANT

If space is insufficient use additional annexure sheet –Plan Form 6A

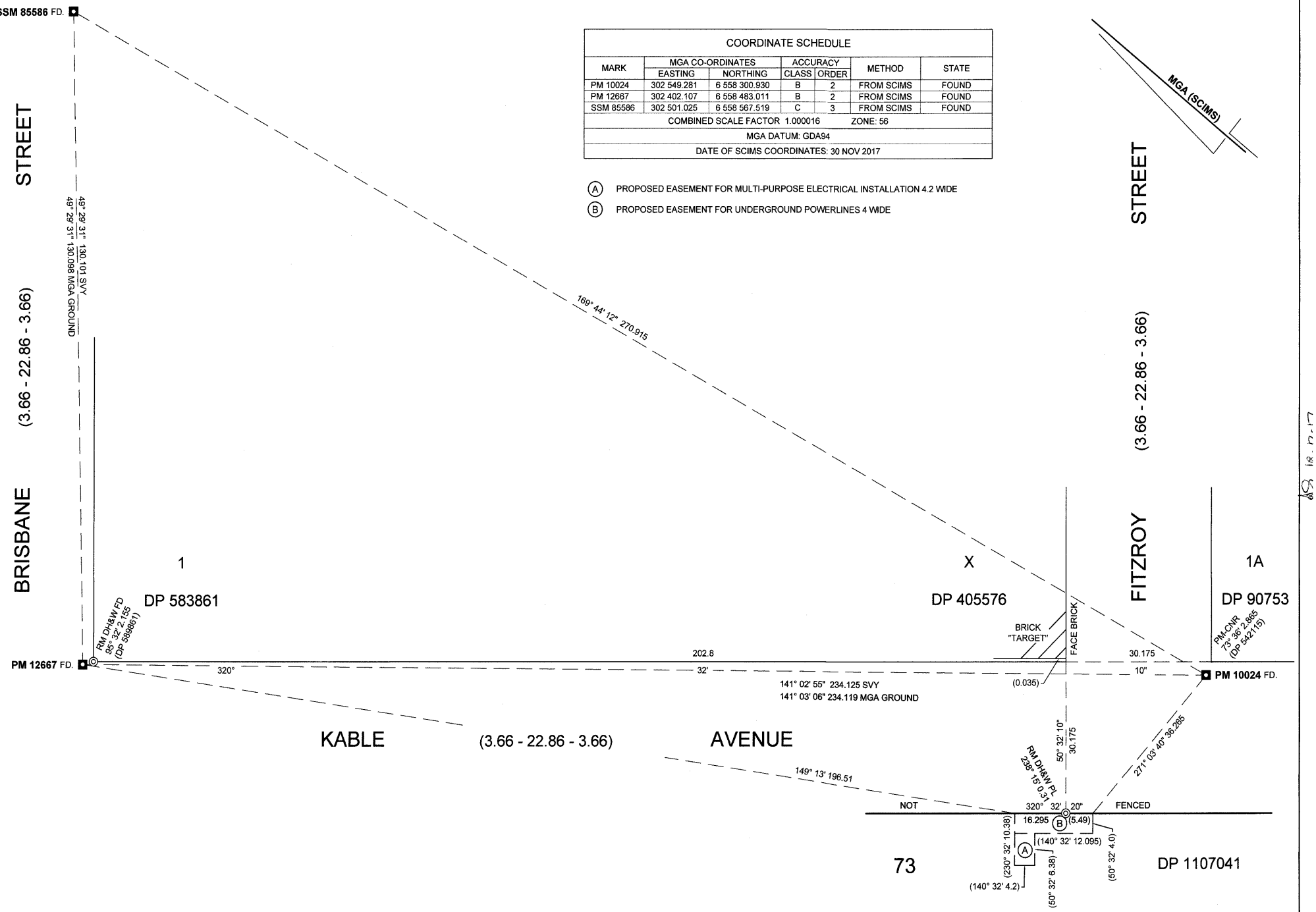
SURVEYOR'S REFERENCE: L 1 8 1 0

Drawing No. 1810D01

COORDINATE SCHEDULE						
MARK	MGA CO-ORDINATES		ACCURACY		METHOD	STATE
	EASTING	NORTHING	CLASS	ORDER		
PM 10024	302 549.281	6 558 300.930	B	2	FROM SCIMS	FOUND
PM 12667	302 402.107	6 558 483.011	B	2	FROM SCIMS	FOUND
SSM 85586	302 501.025	6 558 567.519	C	3	FROM SCIMS	FOUND
COMBINED SCALE FACTOR 1.000016 ZONE: 56						
MGA DATUM: GDA94						
DATE OF SCIMS COORDINATES: 30 NOV 2017						

(A) PROPOSED EASEMENT FOR MULTI-PURPOSE ELECTRICAL INSTALLATION 4.2 WIDE

(B) PROPOSED EASEMENT FOR UNDERGROUND POWERLINES 4 WIDE



SURVEYOR Name: ANDREW PETER SWANE Date: 30 NOV 2017 Reference: L1810.3	**PLAN OF PROPOSED EASEMENTS WITHIN LOT 73 DP 1107041**	LGA: TAMWORTH REGIONAL Locality: TAMWORTH Reduction Ratio 1:500 Lengths are in metres.	Registered 2.2.2018	DP1239558 P DWG. No. 1810D0301

PLAN FORM 6 (2017)	**DEPOSITED PLAN ADMINISTRATION SHEET**	Sheet 1 of 1 sheet(s)

Office Use Only

Registered: 2.2.2018

Title System: TORRENS

Office Use Only

DP1239558 S

PLAN OF PROPOSED EASEMENTS WITHIN LOT 73 DP 1107041

LGA: **TAMWORTH REGIONAL**

Locality: **TAMWORTH**

Parish: **TAMWORTH**

County: **INGLIS**

Survey Certificate

I, ANDREW PETER SWANE

of Brown and Krippner Pty. Ltd. PO Box 260 Tamworth 2340

a surveyor registered under the *Surveying and Spatial Information Act 2002*, certify that:

~~*(a) The land shown in the plan was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, is accurate and the survey was completed on: ....., or~~

*(b) The part of the land shown in the plan (*being/~~*excluding~~** EASEMENTS .....) was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, the part surveyed is accurate and the survey was completed on: 30.11.2017 ..... the part not surveyed was compiled in accordance with that Regulation, or

~~*(c) The land shown in this plan was compiled in accordance with the *Surveying and Spatial Information Regulation 2017*.~~

Datum Line: SSM 85586 - PM 12667

Type: *Urban/~~*Rural~~

The terrain is *Level-Undulating / *Steep-Mountainous.

Signature: ..... Dated: 18-12-17

Surveyor Identification No: 1387

Surveyor registered under the *Surveying and Spatial Information Act 2002*

* Strike out inappropriate words.

** Specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey.

Crown Lands NSW/Western Lands Office Approval

I.....(Authorised Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.

Signature:.....

Date:.....

File Number:.....

Office:.....

Subdivision Certificate

I, ...

*Authorised Person/*General Manager/*Accredited Certifier, certify that the provisions of s.109J of the *Environmental Planning and Assessment Act 1979* have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.

Signature: .....

Accreditation number: .....

Consent Authority: .....

Date of Endorsment: .....

Subdivision Certificate number: .....

File number: .....

* Strike through if inapplicable.

Plans used in the preparation of survey/compilation

DP 542115
DP 589861
DP 1217290
DP1215127

Statements of intention to dedicate public roads, create public reserves and drainage reserves, acquire/resume land.

SURVEYOR'S REFERENCE: L1810.3

Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A

Drawing No. 1810D0301

PROCLAMATION

NEW SOUTH WALES, to wit. } By His Excellency The Right Honourable FREDERIC JOHN NAPIER, BARON CHELMSFORD, Knight Commander of the Most Distinguished Order of Saint Michael and Saint George, Governor of the State of New South Wales and its Dependencies, in the Commonwealth of Australia.

(L.S.)
CHELMSFORD,
Governor.

NOTIFICATION OF RESUMPTION OF LAND UNDER THE CHURCH AND SCHOOL LANDS DEDICATION ACT, 1880, AND THE CHURCH AND SCHOOL LANDS ACT, 1897.

WHEREAS by Indenture of Lease, dated the fourteenth day of November, 1892, made between Her Late Most Gracious Majesty Queen Victoria of the one part, The Honourable Francis Bathurst Suttor, the then Minister of Public Instruction, in the Colony (now State) of New South Wales, of the second part, and Henry Butler, grazier, of Cow Flat, in the said Colony (now State) of the third part, which said Indenture is numbered 1169, and is registered as Church and School Lands Lease No. 943, Bathurst, in the Department of Lands, Sydney, certain land in the county of Bathurst, parish of Apsley, containing an area of 11 acres and 10 perches and more particularly described in the said Indenture, was demised and leased to the said Henry Butler, under the provisions of the Church and School Lands Dedication Act, 1880, subject to the condition that it should be lawful for the Governor for the time being of the said Colony (now State) to resume all or any part of the said land for (inter alia) Squares, Gardens, or other places of public recreation: And whereas, under the provisions of the Church and School Lands Dedication Act, 1880, a Proclamation was published in the Government Gazette of the 28th day of August, 1896, to the effect that His Excellency the Governor, with the advice of the Executive Council of the Colony (now State) of New South Wales approved of the administration of the said Church and School Lands being transferred to the Minister for Lands of the said Colony. And whereas by the Church and School Lands Act, 1897, the said Church and School Lands Dedication Act, 1880, was repealed, subject to the proviso in the first-mentioned Act as more fully set out in section 16 thereof, and the Church and School Lands were vested in Her late Majesty, free from all trusts and provisions affecting the same, but subject to the provisions (inter alia) of the Crown Lands Act of 1884, and any Acts amending the same and of the Act now in recital: And whereas I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the like advice, have sanctioned the resumption of all the land described in the said Indenture, which said land is also described in the Schedule hereto for and in connection with a place of public recreation: Now, therefore, I, the said Governor, with the advice aforesaid, in pursuance of the power and authority conferred upon me by the said Indenture of Lease, and of every other power and authority enabling me in this behalf, do hereby resume all the land described in the said Indenture, and also described in the Schedule hereto for the purpose aforesaid, that is to say, for a place of Public Recreation, to the intent that the said land shall forthwith be vested in His Majesty, his heirs and successors as Crown Lands:—

SCHEDULE.

Description of an area of 11 acres and 10 perches which is hereby resumed for Public Recreation.

All that piece or parcel of land within the following boundaries: Commencing on the right bank of Queen Charlotte's Vale Creek at its intersection with the south boundary of part of W. A. Steel's 320 acres; and bounded thence on the north by that boundary bearing north 89 degrees 43 minutes east 12 chains 20 links; thence on the east by the west side of a 1-chain road bearing south 9 chains 10½ links; thence on the south by the north boundaries of portions 297 and 293 bearing west 11 chains 69 links to the right bank of Queen Charlotte's Vale Creek aforesaid; and thence on the west by that creek downwards, to the point of commencement.

[Ms. 1910-17,302]

REVOCATION OF DEDICATIONS, &c.

WHEREAS under the 105th section of the Crown Lands Act of 1884, power is given for the revocation of any dedication of Crown Land dedicated by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication for Public Recreation and Preservation and Growth of Timber at West Kempsey, dedicated 13th May, 1887, and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the dedication of the said lands, and proclaim that the same shall be and is hereby declared to be revoked:—

THE SCHEDULE REFERRED TO.

Description of 6 acres 2 roods of land at West Kempsey, the dedication of which is hereby revoked.

All that piece or parcel of land situate in the parish of Yarravel, county of Dudley, and State of New South Wales, containing an area of 6 acres 2 roods: Commencing on the left bank of the Macleay River at its intersection with the north-western side of Kemp-street; and bounded thence on the south-east by that street bearing north 15 degrees east 1 chain 13 links; on the east by the west side of that street bearing north 6 chains 32 links to the south-eastern side of Ferry-street; on the north-west by that street bearing south 55 degrees 30 minutes west 16 chains 52 links; on the south-west by a line bearing south 34 degrees 30 minutes east 3 chains 65 links to the left bank of the Macleay River aforesaid; and on the south-east by that bank downwards, to the point of commencement. Plan D. 5-2,446.

[Ms. 1910-13,030]

WHEREAS under the 105th section of the Crown Lands Act of 1884, and the 7th section of the Public Trusts Act, 1897, power is given for the revocation of part of any dedication of Crown Land dedicated by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication for Permanent Common at Bingara, area 731 acres 3 roods, dedicated 13th May, 1879, so far only as it affects the part of the said area containing 10 acres described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the said dedication in so far as it applies to or affects the said 10 acres of land, and proclaim that the said dedication shall be and is hereby revoked so far only as it applies to or affects the said part:—

THE SCHEDULE REFERRED TO.

Description of 10 acres, part of the 731 acres 3 roods of land originally dedicated for Permanent Common, the dedication of which part is hereby revoked.

Commencing at a point on a northern boundary of permanent common, dedicated 13th May, 1879, distant about 69 chains west of the most eastern north-eastern corner of the permanent common; and bounded thence by a line bearing south 10 chains 71 links; thence by a line bearing west 5 chains 38 links to the right bank of Tea Tree Creek; thence by that bank of that creek downwards to a point due west of a corner bearing 77 degrees 23 minutes 25 chains 68 links from the southern corner of recreation reserve, dedicated 6th January, 1880; thence by a line bearing east 4 chains 36 links to the corner above mentioned; thence by an eastern boundary of abovementioned permanent common bearing south 11 chains 97 links; thence by a northern boundary of the permanent common bearing east 1 chain, to the point of commencement;—being measured portion 163 of 10 acres,—as shown on plan M. 2,433-1,789.

[Ms. 1910-18,316]

WHEREAS under the 105th section of the Crown Lands Act of 1884, power is given for the revocation of any dedication of Crown Land dedicated by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation

PROCLAMATION—*continued.*

REVOCATION OF DEDICATIONS, &c.—*continued.*

of the dedication of the land at Raleigh, area 8 acres 2 roods 18 perches, dedicated 12th April, 1889, for General Cemetery, and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the dedication of the said 8 acres 2 roods 18 perches, and proclaim that the same shall be and is hereby declared to be revoked:—

THE SCHEDULE REFERRED TO.

Description of 8 acres 2 roods 18 perches of land dedicated for General Cemetery, the dedication of which is hereby revoked.

All that piece or parcel of land situated in the parish of South Bellingen, county of Raleigh, and State of New South Wales, containing an area of 8 acres 2 roods 18 perches,—as shown on plan R. 8-1,941: Commencing on the eastern side of a road 1 chain wide at the south-west corner of portion 389 of 35 acres 1 rood 10 perches; and bounded thence on the west by that road dividing it from portion 150 of 37 acres 2 roods bearing south 6 chains 89 links; on the south by a road 1 chain wide dividing it from portion 151 of 11 acres bearing east 12 chains 20·6 links; on the south-east by a road 1 chain wide along the left bank of the South Arm of Bellingen River bearing north 40 degrees 55 minutes east 9 chains 12 links; on part of the north by part of the south boundary of portion 389 aforesaid bearing west 4 chains 41·3 links; on the north-west and north east by lines bearing south 58 degrees 9 minutes west 5 chains 54 links and north 69 degrees 13 minutes west 8 chains 23 links respectively; and on the remainder of the north by part of the south boundary of portion 389 aforesaid bearing west 134 links, to the point of commencement.
[Ms. 1910-18,312]

WHEREAS under the 105th section of the Crown Lands Act of 1884, and the 7th section of the Public Trusts Act, 1897, power is given for the revocation of part of any dedication of Crown Land dedicated by the Crown, and for the making of any new dedication thereof: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication for Public Recreation Ground at Moulamein, area 231 acres, dedicated 31st December, 1878, so far only as it affects the part of the said area containing 13½ acres (about), described in the Schedule hereto, and for the re-dedication of the said area of 13½ acres (about) for Public Road has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the said dedication in so far as it applies to or affects the said 13½ acres (about) of land, and proclaim that the said dedication shall be and is hereby revoked so far only as it applies to or affects the said part, and the said area of 13½ acres (about), is hereby re-dedicated for Public Road:—

THE SCHEDULE REFERRED TO.

Description of 13½ acres (about), part of the 231 acres of land originally dedicated for Public Recreation Ground, the dedication of which part is hereby revoked.

All that piece or parcel of land containing an area of 13½ acres (about), as covered by survey of road between Moulamein and Keri Keri, within the Moulamein Recreation Ground, dedicated 31st December, 1878,—and shown on plan catalogued R. 9,731-1,603.

Description of area which is hereby re-dedicated for Public Road.

Crown Land, 300 links wide, included within part of the road from Moulamein to Keri Keri (formerly part of Moulamein Recreation Ground, dedicated 31st December, 1878), as surveyed between portions 52 and 19,—and shown on plan catalogued R. 9,731-1,603.
[Ms. 1910-18,310]

WHEREAS under the 105th section of the Crown Lands Act of 1884, and the 7th section of the Public Trusts Act, 1897, power is given for the revocation of part of any dedication of Crown Land dedicated by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication for Public Road at Double Bay, area 35 perches (about), dedicated 8th May, 1835, so far only as it affects the part of the said area containing about 4¾ perches, and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the said dedication in so far as it applies to or affects the said 4¾ perches (about) of land, and proclaim that the said dedication shall be and is hereby revoked so far only as it applies to or affects the said part:—

THE SCHEDULE REFERRED TO.

Description of 4¾ perches (about), part of the 35 perches (about) of land originally dedicated for Public Road, the dedication of which part is hereby revoked.

County of Cumberland, parish of Alexandria, at Double Bay, Municipality of Woollahra, area about 4¾ perches. Part of the boundary road, containing about 35 perches, originally provided in subdivision of the Crown estate by dedication of 8th May, 1835: Commencing at the north-eastern corner of allotment 29, William Macdonald's 2 roods 4 perches grant; and bounded thence by fenced lines bearing northerly 27 links and north-westerly about 220 links; by a creek south-westerly and by the north-eastern boundaries of allotments 28 and 29,—as shown on plan D. 1-875, south-easterly.
[Ms. 1910-18,309]

WHEREAS under the 105th section of the Crown Lands Act of 1884, the 41st section of the Crown Lands Act of 1889, and the 7th section of the Public Trusts Act, 1897, power is given for the revocation of part of any dedication and grant of Crown Land dedicated and granted by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication and grant for Permanent Common at Inverell, area 740 acres 10 perches (residue), dedicated 19th May, 1868, so far only as they affect the part of the said area containing 740 acres 10 perches (residue), and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the said dedication and grant in so far as they apply to or affect the said 740 acres 10 perches (residue) of land described in the Schedule hereto, and proclaim that the said dedication and grant shall be and are hereby revoked so far only as they apply to or affect the said part:—

THE SCHEDULE REFERRED TO.

Description of 740 acres 10 perches (residue), part of the 812 acres originally dedicated for a Permanent Common at Inverell, the dedication and grant of which part are hereby revoked.

All that piece or parcel of land in the parish of Inverell, county of Gough, and State of New South Wales, now containing an area of 740 acres 10 perches: Commencing on the right bank of the Macintyre River at the south-east corner of portion 181 of 43 acres ex. road; and bounded thence on the west by the east boundary of that portion, a line crossing a road 1 chain wide and the east boundary of portion 182 in all bearing north 59 chains 51 links; on the south by the north boundary of portion 182 bearing west 30 chains; again on the west by a road 1 chain wide dividing it from portions 175, 176, and 177 of 20 acres, 23 acres 1 rood 8 perches, and 23 acres 1 rood 8 perches respectively bearing north 14 chains 30 links; on the north by the south boundaries of portions 455 and 454 of 12 acres 2 roods 20 perches and 22 acres 2 roods 10 perches respectively, a line crossing a road 1 chain wide, and the south boundaries of portions 453 and 452 of 24 acres 1 rood 20 perches and 38 acres 3 roods 30 perches respectively, in all bearing east 60 chains; on the east by a line bearing south 124 chains 81 links to the right bank of the Macintyre River aforesaid, and by that bank downwards to point of commencement, but exclusive of an area of 39 acres 30 perches, being reserve 35,408 for night-soil depôt, notified 19th November, 1902,—as shown on plan Ms. 965 Ac., and an area of 32 acres 3 roods within reserve 28,393 for rifle range, notified 15th October, 1898,—as shown on plan Ms. 695 Ac. Roll. Again commencing on the left bank of the Macintyre River, at the north-west corner of portion 184 of 64 acres; and bounded thence on the east by the west boundaries of that portion and portion 183 of 46 acres and a line in all bearing south 40 chains 80 links; on the south by a line bearing west 60 chains; on the west by a road 30 links wide dividing it from portion 241 of 58 acres and a line in all bearing north 52 chains 61 links to the left bank of the Macintyre River aforesaid; and by that bank upwards, to the point of commencement. Plan G. 183-1,761.
[Ms. 1910-20,309]

PROCLAMATION—*continued*

REVOCATION OF DEDICATIONS, &c.—*continued*.

WHEREAS under the 105th section of the Crown Lands Act of 1884, power is given for the revocation of any dedication of Crown Land dedicated by the Crown: Now, therefore I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication for Public School Site at Millingandi, dedicated 21st October, 1884, and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the dedication of the said land, and proclaim that the same shall be and is hereby declared to be revoked:—

THE SCHEDULE REFERRED TO.

Description of 2 acres of land at Millingandi, the dedication of which is hereby revoked.

All that piece or parcel of land in the parish of Panbula, county of Auckland, and State of New South Wales, containing an area of 2 acres: Commencing on the north-eastern side of a road 1 chain wide, dividing it from portions 59 and 52 of 72 acres 2 roods and 60 acres respectively, at the south-west corner of portion 110 of 80 acres; and bounded thence on the south-west by that road bearing north 66 degrees 15 minutes west 4 chains 16½ links; on the west by an east boundary of portion 174 bearing north 4 chains 42 links; on the north by a south boundary of that portion bearing east 3 chains 81 links; and on the east by part of the west boundary of portion 110 aforesaid, bearing south 6 chains 9½ links, to the point of commencement,—being portion 62. Plan A. 2,665-2,008.
[Ms. 1910-18,318]

WHEREAS under the 105th section of the Crown Lands Act of 1884, the 41st section of the Crown Lands Act of 1889, and the 7th section of the Public Trusts Act, 1897, power is given for the revocation of part of any dedication and grant of Crown Land dedicated and granted by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication and grant for Public Recreation Ground at Grafton, area about 16 acres, dedicated 14th November, 1879, so far only as it affects the parts of the said area containing 2 acres 16 perches and described in the Schedule hereto: And I do hereby with such advice as aforesaid, wholly revoke the said dedication and grant in so far as they apply to or affect the said 2 acres 16 perches of land described in the Schedule hereto, and proclaim that the said dedication and grant shall be and are hereby revoked so far only as they apply to or affect the said part:—

THE SCHEDULE REFERRED TO.

Description of 2 acres 16 perches, part of 16 acres originally dedicated for a Public Recreation Ground at Grafton, the dedication and grant of which part are hereby revoked.

All that piece or parcel of land in the city of Grafton, parish of Great Marlow, county of Clarence, and State of New South Wales containing an area of 2 acres 16 perches: Commencing at the intersection of the north-west side of Mary-street with the south-west side of Oliver-street; and bounded thence on the north-east by the latter street bearing north 63 degrees 40 minutes west 5 chains; on the north-west by a line bearing south 26 degrees 20 minutes west 3 chains 30 links to the left bank of Alumy Creek; on the south-west by that creek downwards to the north-west side of Mary-street aforesaid; and on the south-east by that street bearing north 26 degrees 11 minutes east 5 chains 10 links, to the point of commencement,—being allotment 1 of section 49. Plan G. 85-1,359.
[Ms. 1910-18,317]

WHEREAS under the 105th section of the Crown Lands Act of 1884, and the 41st section of the Crown Lands Act of 1889 and the 7th section of the Public Trusts Act, 1897, power is given for the revocation of part of any dedication and grant of Crown Land dedicated and granted by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication and grant for General Cemetery at Guyong, area 7 acres 1 rood 39 perches, dedicated 15th August, 1871, so far only as it affects the parts of the said area containing 3 acres 1 rood 39 perches and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the said dedication and grant in so far as they apply to or affect the said 3 acres 1 rood 39 perches of land described in the Schedule hereto, and proclaim that the said dedication and grant shall be and are hereby revoked so far only as they apply to or affect the said part.

THE SCHEDULE REFERRED TO.

Description of 3 acres 1 rood 39 perches, part of the 7 acres 1 rood 39 perches originally dedicated for a General Cemetery at Guyong, the dedication and grant of which part are hereby revoked.

All that piece or parcel of land situate in the parish of Colville, county of Bathurst, and State of New South Wales, containing an area of 3 acres 1 rood 39 perches: Commencing on the northern side of a road 1 chain wide at a point bearing north and distant 1 chain from the most northern north-east corner of portion 152 of 32 acres 3 roods; and bounded thence on the south by that road dividing it from that portion bearing west 3 chains 50 links; on the west by the eastern boundary of Special Lease No. 1,864 of 5 acres bearing north 10 chains; on the north by the southern side of Knapp-street bearing east 3 chains 50 links to a road 1 chain 50 links wide dividing it from portion 187 of 7 acres 3 roods 11 perches; and on the east by that road bearing south 10 chains, to the point of commencement,

NOTE.—Reserve 46,155 for Cemetery, notified this day, is in lieu of the above.
[Ms. 1910-18,311]

WHEREAS under the 105th section of the Crown Lands Act of 1884, and the 7th section of the Public Trusts Act, 1897, power is given for the revocation of part of any dedication of Crown Land dedicated by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication for Recreation Ground at Moulamein, area 231 acres, dedicated 31st December, 1878, so far only as it affects the part of the said area containing 151 acres, being the residue of the said 231 acres, and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the said dedication in so far as it applies to or affects the said 151 acres of land, and proclaim that the said dedication shall be and is hereby revoked so far only as it applies to or affects the said part:—

THE SCHEDULE REFERRED TO.

Description of 151 acres, residue of the 231 acres of land originally dedicated for Recreation Ground, the dedication of which part is hereby revoked.

All that piece or parcel of land containing 151 acres, situate in the parish of Moulamein, county of Wakool, and State of New South Wales: Commencing at the north-east corner of portion 18; and bearing thence south 89 degrees 32 minutes west 40 chains 19 links; thence south 61 chains 62 links; thence north 78 degrees east 13 chains 9 links; thence north 32 chains 16 links; thence east 27 chains 39 links; and thence north 27 chains 7 links, to point of commencement. Plans W. 213-1,917 Roll; Ms. 374 Hy.
[Ms. 1910-18,315]

WHEREAS under the 105th section of the Crown Lands Act of 1884, power is given for the revocation of any dedication of Crown Land dedicated by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication for Public School site at Cudgell Creek, dedicated 21st October, 1882, and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the dedication of the said land and proclaim that the same shall be and is hereby declared to be revoked:—

THE SCHEDULE REFERRED TO.

Description of 2 acres of land at Cudgell Creek, the dedication of which is hereby revoked.

All that piece or parcel of land situate in the parish of Burrangong, county of Monteagle, and State of New South Wales, containing an area of 2 acres: Commencing at a point bearing west and distant 1 chain from the south-west corner of portion 133 of 119 acres 2 roods; and bounded thence on the south by a line bearing west 4 chains 48 links; on the west by a line bearing north 4 chains 47 links; on the north by a line bearing east 4 chains 48 links; and on the east by a line bearing south 4 chains 47 links, to the point of commencement. Plan P. 835-1,978.
[Ms. 1910-13,032]

PROCLAMATION—*continued.*

REVOCATION OF DEDICATION, &c.—*continued.*

WHEREAS under the 105th section of the Crown Lands Act of 1884, and the 41st section of the Crown Lands Act of 1889, power is given for the revocation of any dedication and grant of Crown Land dedicated and granted by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication of the whole and grants of parts of the land at Turi, area 7 acres 2 roods, dedicated 17th October, 1876, for General Cemetery, and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the said dedication and grants of parts of the said land, and proclaim that the said dedication and grants shall be and are hereby revoked:—

THE SCHEDULE REFERRED TO.

Description of 7 acres 2 roods of land, the dedication of which and grants of parts of which are hereby revoked.

County of Parry, parish of Turi, containing an area of 7 acres 2 roods: Commencing at the south-western corner of portion 154; and bounded thence on the north by the southern boundary of that portion east 8 chains to the western boundary of portion 153; thence on the east by part of that boundary of that portion south 10 chains 39 links to the northern boundary of portion 42; thence on the south by part of that boundary of that portion north 89 degrees 50 minutes west 8 chains to the eastern boundary of portion 156; thence on the west by part of that boundary of that portion, by a line and by part of the eastern boundary of portion 157 north 10 chains 37 links, to the point of commencement;—but exclusive of a road 100 links wide. Plan catalogued C. 499-1,984.

[Ms. 1910-12,551]

WHEREAS under the 105th section of the Crown Lands Act of 1884, power is given for the revocation of any dedication of Crown Land dedicated by Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication for Public Reservoir and Watering-place at Cargo, dedicated 13th April, 1888, and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the dedication of the said land, and proclaim that the same shall be and is hereby declared to be revoked:—

THE SCHEDULE REFERRED TO.

Description of 2 acres 2 roods 20 perches at Cargo, the dedication of which is hereby revoked.

All that piece or parcel of land situated in the county of Ashburnham, parish and town of Cargo, containing an area of 2 acres 2 roods 20 perches: Commencing at the intersection of the north-east side of Smith-street with the south-east side of Belmore-street; and bounded thence by part of that side of Belmore-street north-easterly to the south-west side of Church-street; thence by part of that side of that street south-easterly to the north-west side of Thompson-street; thence by part of that side of that street south-westerly to meet a line parallel to and distant 1 chain in rectangular distance westerly from the western boundary of section 32; thence by that parallel line bearing south 36 minutes east 3 chains 75·7 links; thence by a line bearing south 75 degrees 53 minutes west 2 chains 54½ links to the south-east corner of allotment 1, section 12; thence by the eastern boundary of that allotment northerly to the easternmost corner of S. Mayne's allotment 77; thence by part of the north-east boundary of that allotment north-westerly to the southernmost corner of D. L. Bayliss' allotment 78; thence by the south-east boundaries of that allotment, allotment 79 and their prolongation north-easterly to the north-east side of Smith-street aforesaid; and thence by part of that side of that street north-westerly, to the point of commencement.

[Ms. 1910-13,034]

WHEREAS under the 105th section of the Crown Lands Act of 1884, and the 7th section of the Public Trusts Act, 1897, power is given for the revocation of part of any dedication of Crown Land dedicated by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication for Public Reservoir and Watering Place at Cargo, area 206 acres 23 perches, dedicated 13th April, 1888, so far only as it affects the part of the said area containing 173 acres 2 roods 23 perches, and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the said dedication in so far as it applies to or affects the said 173 acres 2 roods 23 perches of land, and proclaim that the said dedication shall be and is hereby revoked so far only as it applies to or affects the said part:—

THE SCHEDULE REFERRED TO.

Description of 173 acres 2 roods 23 perches, part of the 206 acres 23 perches of land originally dedicated for Public Reservoir and Watering Place, the dedication of which part is hereby revoked.

All that piece or parcel of land situated in the county of Ashburnham, parish of Cargo, containing an area of about 173 acres 2 roods 23 perches: Commencing on the south-east side of Sharp-street, at the westernmost corner of portion 62 of 7 acres 0 roods 9 perches; and bounded thence by the south-east side of Sharp-street bearing south 41 degrees 32 minutes west 7 chains 77 links to the south-west side of Hamilton-street; by that side of that street bearing north 43 degrees 58 minutes west 7 chains 27 links to the south-east side of Hutton-street; by that side of that street bearing south 46 degrees 3 minutes 40 seconds west 13 chains 43 links to the east extremity of the south side of Graham-street; by the south side of that street bearing west 14 chains 14 links; by lines bearing south 23 minutes east about 34 chains 48 links, north 29 degrees 32 minutes east about 7 chains, north 26 degrees 28 minutes east 37 chains 17 links, south 69 degrees 2 minutes east 2 chains, south 15 degrees 32 minutes west 37 chains 17 links, south 12 degrees 28 minutes west about 4 chains 25 links, east 11 chains 30 links to a peg which bears south 48 degrees 50 minutes west 47 links from a box-tree marked WR; by lines bearing north 4 chains 90 links and east 31 chains 29 links to a peg on the western side of a road 1 chain wide which bears south 16 degrees west 66½ links from a box-tree marked WR; by the western and south-western sides of that road bearing north 21 chains 70 links, and north 9 degrees 52 minutes west 15 chains 42 links to the south-eastern corner of portion 313 of 5 acres 2 roods; by the south and west boundaries of that portion west 10 chains 33 links, and north 59 degrees west 7 chains 97·7 links, to the point of commencement.

[Ms. 1910-13,034]

WHEREAS under the 105th section of the Crown Lands Act of 1884, power is given for the revocation of any dedication of Crown Land dedicated by the Crown: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication of the land at Biamble, area 2 acres, dedicated 15th January, 1886, for Public School site, and described in the Schedule hereto, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the dedication of the said 2 acres of land, and proclaim that the same shall be and is hereby declared to be revoked:—

THE SCHEDULE REFERRED TO.

Description of 2 acres of land dedicated for Public School site, the dedication of which is hereby revoked.

County of Gowen, parish of Bandulla, containing an area of 2 acres: Commencing at the south-eastern corner of portion 64 of 548 acres, exclusive of road; and bounded thence on the west by part of an eastern boundary of that portion north 5 chains; on the north by a line east 4 chains; on the east by a line south 5 chains to the northern boundary of portion 6 of 640 acres; thence on the south by part of that boundary of that portion west 4 chains, to the point of commencement;—being measured portion 27, as shown on plan catalogued P. 1,376-1,978.

[Ms. 1910-13,033]

PROCLAMATION—*continued.*

REVOCATION OF DEDICATIONS, &c.—*continued.*

WHEREAS under the 105th section of the Crown Lands Act of 1884, and the 7th section of the Public Works Act, 1897, power is given for the revocation of part of any dedication of Crown Land dedicated by the Crown, and for the making of any new dedication thereof: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the reservation or appropriation of the land at Sydney known as The Domain, area 90 acres, reserved or appropriated by Colonial Secretary's letter, No. 15, of 1855, for Public Recreation, so far only as it affects the part of the said area containing 1 rood 31 perches, described in the Schedule hereto, and for the re-dedication of the said area of 1 rood 31 perches, and also described in the Schedule hereto for site for Public Library, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the said reservation or appropriation, in so far as it applies to or affects the said 1 rood 31 perches of land, and proclaim that the said reservation or appropriation shall be and is hereby revoked, so far only as it applies to or affects the said area of 1 rood 31 perches, which is hereby re-dedicated for site for Public Library:—

SCHEDULE REFERRED TO.

Description of 1 rood 31 perches, part of the 90 acres of land originally reserved or appropriated for Public Recreation, the reservation or appropriation of which is hereby revoked,

County of Cumberland, parish of St. James, area 1 rood 31 perches: Commencing at a point within the Outer Domain bearing south 59 degrees 4 minutes east 2 chains 47 5/10 links from the intersection of the south-western side of Bent-street with the western side of Macquarie-street, City of Sydney; bounded thence on the north by a line bearing north 86 degrees 50 minutes east 13 4/10 links by 78 5/10 links of a convex curve of 50 links radius (the chord of which bears north 86 degrees 50 minutes east 70 6/10 links), and by a line bearing north 86 degrees 50 minutes east 68 links; thence on the east by a line bearing south 3 degrees 10 minutes east 19 links; thence on the north-east generally by lines bearing south 65 degrees 3 minutes east 24 1/10 links, north 83 degrees 5 minutes east 9 5/10 links, south 80 degrees 50 minutes east 9 links, south 56 degrees east 27 5/10 links, south 38 degrees 25 minutes east 8 5/10 links, and south 27 degrees 2 minutes east 1 chain 45 1/10 links; thence on the south by a line bearing south 86 degrees 45 minutes west 2 chains 77 5/10 links; and thence on the west by a line bearing north 3 degrees 10 minutes west 16 1/10 links, by 79 1/10 links of a convex curve of 50 links radius (the chord of which bears north 3 degrees 10 minutes west 71 1/10 links); and by a line bearing north 3 degrees 10 minutes west 1 chain 2 5/100 links, to the point of commencement,—as shown on plan Ms. 3,238 Sy.
[Ms. 1910-12,555]

WHEREAS under the 105th section of the Crown Lands Act of 1884, and the 41st section of the Crown Lands Act of 1889, power is given for the revocation of any dedication or grant of the Crown Land dedicated and granted by the Crown, and for the making of any new dedication thereof: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, as such Governor as aforesaid, with the advice of the Executive Council of the said State, do hereby declare that all preliminary action in connection with the proposed revocation of the dedication and grant of the land at Tamworth, area 17 acres 2 roods 3 perches dedicated 3rd January, 1907, for Show, Recreation and Athletic Sports Ground, and described in the Schedule hereto, and for the re-dedication of part of the said land containing 14 acres 2 roods 36 perches, and also described in the Schedule hereto for Public Recreation and Athletic Sports, has been duly taken: And I do hereby, with such advice as aforesaid, wholly revoke the said dedication and grant, and proclaim that the said dedication and grant shall be and are hereby revoked, and the area of 14 acres 2 roods 36 perches is hereby re-dedicated for Public Recreation and Athletic Sports:—

THE SCHEDULE REFERRED TO.

Description of 17 acres 2 roods 3 perches of land, the dedication and grant of which are hereby revoked.

County of Inglis, parish of Tamworth, town of Tamworth, area 17 acres 2 roods 3 perches. Commencing at the intersection of the south-eastern side of Brisbane-street with the south-western side of Lower-street; bounded thence on the north-east by part of that side of Lower-street bearing south 48 degrees east 27 chains 12 links; on the south-east by a line south 42 degrees west 4 chains 15·1 links; on the south-west by lines bearing respectively north 60 degrees 3 minutes west 17 chains 42·5 links, north 21 degrees 59 minutes west 3 chains 39·9 links, north 54 degrees 58 minutes west 1 chain 41 links, north 42 degrees 29 minutes west 2 chains 69·1 links, north 28 degrees 17 minutes west 3 chains 12·6 links to the south-eastern side of Brisbane-street aforesaid; and on the north-west by part side of that street bearing north 42 degrees east 5 chains 50·7 links, to the point of commencement,—as shown on plan Ms. 597 Th.

Description of an area of 14 acres 2 roods 36 perches, which is hereby re-dedicated for Public Recreation and Athletic Sports.

County of Inglis, parish of Tamworth, town of Tamworth, area 14 acres 2 roods 36 perches: Commencing at the intersection of the south-eastern side of Brisbane-street with the south-western side of Lower-street; and bounded thence on the north-east by that side of Lower-street bearing south 48 degrees east 21 chains 62 links; on the south-east by a line bearing south 42 degrees west 5 chains 67½ links; on the south-west by lines bearing respectively north 60 degrees 3 minutes west 11 chains 80¼ links, north 21 degrees 59 minutes west 3 chains 39 9/10 links, north 54 degrees 58 minutes west 1 chain 41 links, north 42 degrees 29 minutes west 2 chains 69 1/10 links, north 28 degrees 17 minutes west 3 chains 12 6/10 links to the south-eastern side of Brisbane-street aforesaid; and on the north-west by that street bearing north 42 degrees east 5 chains 50 7/10 links, to the point of commencement,—as shown on plans T. 48 and T. 78-1,393 and Ms. 257 Th.
[Ms. 1910-13,035]

WITHDRAWALS FROM IMPROVEMENT LEASES Nos. 274, 442, and 1,225 FOR ROADWAY.

WHEREAS under the provisions of the Crown Lands Acts Improvement Leases Nos. 274, 442, and 1,225 were granted subject to a special condition that at any time any part of the land may be withdrawn for any public purpose declared under the Crown Lands Acts: And whereas roadway has been duly declared to be, and the same is a public purpose as aforesaid: And whereas it has become necessary to withdraw certain lands from lease for the purpose aforesaid: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, the Governor aforesaid, with the advice of the Executive Council, in accordance with the terms of the special condition, and in pursuance of the powers vested in me in that behalf, do hereby withdraw from the said Improvement Leases Nos. 274, 442, and 1,225, the areas described in the Schedule hereto, for Roadway:—

SCHEDULE REFERRED TO.

EASTERN DIVISION.

LAND DISTRICT OF WELLINGTON, AND MACQUARIE SHIRE.

Withdrawn from Improvement Lease No. 274, held by Charles Grant Tindal and Charles F. Tindal.

County of Wellington, parish of Kerr, containing an area of 6 acres. The Crown Lands within the boundaries of the road, 1 chain wide, from the western boundary of the lease easterly to the eastern boundary of Macquarie Shire.
[Roads 1910-663]

Withdrawn from Improvement Lease No. 442, held by Charles Ernest Suttor.

County of Wellington, parish of Kerr, containing an area of 13 acres. The Crown Lands within the boundaries of the road, 1 chain wide, from the south-eastern corner of portion 23, easterly to the west boundary of the lease.
[Roads 1910-663]

Withdrawn from Improvement Lease No. 1,225, held by Sydney Wm. Webb.

County of Bligh, parish of Guroba, containing an area of 10 acres. The Crown Lands within the boundaries of the reserved road within Improvement Lease No. 1,225, Block 511, extending from the north-western corner of this lease easterly to the right bank of the Cudgegong River.
[Roads 1910-663]

PROCLAMATIONS—*continued.*

WITHDRAWAL FROM 18TH SECTION LEASE No. 33 FOR TRAVELLING STOCK AND CAMPING.

WHEREAS by a condition attached to lease No. 33, under the 18th section of the Crown Lands Act Amendment Act, 1903, power is given for the withdrawal from the lease of any land required for any public purpose: And whereas "Travelling Stock and Camping" have been duly declared to to be and the same are public purposes under the provisions of section 4 of the Crown Lands Act of 1884: And whereas it has become necessary to withdraw certain land from lease for the purposes aforesaid: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, the Governor aforesaid, do, in pursuance of the power and authority in that behalf contained in such condition of the said lease, hereby declare that the land hereunder described shall be and the same is hereby withdrawn from lease No. 33, under the 18th section of the Crown Lands Act Amendment Act, 1903, held by the executors of the late D. P. Keogh, for travelling stock and camping:—

CENTRAL DIVISION.

LAND DISTRICT OF COONAMBLE, AND WINGADEE SHIRE.

County of Leichhardt, parish of Magometon, containing an area of about 640 acres. The Crown Lands within the boundaries of reserve 46,198 from sale (46,199 from license and lease generally) for travelling stock and camping, notified this day.
[Ms. 1910-21,176]

Given under my Hand and Seal, at Sydney, this seventeenth day of January, in the year of our Lord one thousand nine hundred and eleven, and in the first year of His Majesty's Reign.

By His Excellency's Command,
NIEL NIELSEN.

4599] GOD SAVE THE KING!

PROCLAMATION

NEW SOUTH WALES, to wit. } By His Excellency The Right Honourable FREDERIC JOHN NAPIER, BARON CHELMSFORD, Knight Commander of the Most Distinguished Order of Saint Michael and Saint George, Governor of the State of New South Wales and its Dependencies, in the Commonwealth of Australia

(L.S.)
CHELMSFORD,
Governor.

REVOCATION OF PARTS OF SPECIAL AREAS.

WHEREAS certain portions of Crown Land were set apart as Special Areas by Proclamations of 29th April, 1893: And whereas it is deemed expedient to revoke parts of such Special Areas: Now, therefore, I, FREDERIC JOHN NAPIER, BARON CHELMSFORD, the Governor aforesaid, with the advice of the Executive Council, do hereby proclaim that so much of the said Proclamations as relate to the lands hereunder described shall be revoked and absolutely cease and determine from and after the publication hereof in the Government Gazette:—

Land District.	Division.	No. of Special Area.	Date of Proclamation.	County.	Parish.	Shire.	Area.	Part revoked.	Papers No.
Young ...	Eastern ...	17,597	29 April, 1893...	Monteagle	Illunie	Burrangong ..	a. r. p. 240 0 0	That part within portions 111 of 145 acres and 112 of 95 acres, parish of Illunie.	Clo. Sett. 1910-6,028.
Do ...	do ...	17,596	29 " " ...	do ...	Bendick Murrell and Wambanumba.	do ...	174 0 0	That part within portion 91 of 61 acres, parish of Bendick Murrell, and portion 213 of 113 acres, parish of Wambanumba.	do

The above are within Settlement Purchase Area No. 24, notified this day.

Given under my Hand and the Seal of the said State, at Sydney, this seventeenth day of January, in the year of our Lord one thousand nine hundred and eleven, and in the first year of His Majesty's Reign.

By His Excellency's Command,
NIEL NIELSEN.

[4648] GOD SAVE THE KING!

[4628]

Department of Lands,
Sydney, 18th January, 1911.

RESERVE FROM SALE AND LEASE FOR CAMPING.

NOTICE of Acquisition by the Crown of land, under section 46 of the Crown Lands Act of 1889; the reservation from sale and lease of such land; and the granting of other land in exchange.

HIS Excellency the Governor, with the advice of the Executive Council, directs it to be notified that, under the provisions of section 46 of the Crown Lands Act of 1889, the portion of land specified in the first Schedule hereunder has been acquired in exchange for the land specified in the second Schedule; and that the land so acquired has, in accordance with the provisions of that section, become reserved from sale and lease for camping for which purpose the exchange was made.

The reserve will be noted as No. 46,240 from sale and lease.

[Aln. 1910-2,876]

NIEL NIELSEN.

EASTERN DIVISION.

LAND DISTRICT OF INVERELL.

Within the resumed area of Inverell and Elsmore Holding No. 81A.

First Schedule (Land Acquired).					Second Schedule (Land Exchanged for Land Acquired).				
Portion.	Parish.	County.	Area.	Cat. No. of Plan.	Portion.	Parish.	County.	Area.	Cat. No. of Plan.
.....	Swanbrook...	Gough ..	a. r. p. 20 0 0	Ms. 1,114 Ac.	89	Swanbrook...	Gough ..	a. r. p. 20 0 0	G. 5,930-1,761.

[2896] Department of Lands,
Sydney, 31st October, 1919.

RESERVES FROM SALE AND LEASE GENERALLY.

IT is hereby notified that, in pursuance of the provisions of the 28th and 29th sections of the Crown Lands Consolidation Act, 1913, the Crown Lands hereunder described shall be reserved from sale for public purposes hereinafter respectively specified, and reserved and exempted from lease generally, and they are hereby reserved and exempted accordingly.

W. G. ASHFORD, Minister for Lands.

EASTERN DIVISION.

For Public School Purposes.

LAND DISTRICT OF MOLONG, AND MACQUARIE SHIRE.

No. 53,580 from sale (53,581 from lease generally). County of Gordon, parish of Narragal, containing an area of 4 acres 0 roods 30 perches. The Crown Lands within portion 153. Plan G. 3,589-1,567.
[Ms. 1919-9,604]

For Public Hall.

LAND DISTRICT OF BELLINGEN, AND DORRIGO SHIRE.

No. 53,595 from sale (53,596 from lease generally). County of Fitzroy, parish of Bligh, village of Dorrigo, containing an area of 1 rood 21¼ perches. The Crown Lands bounded by the south boundary of allotment 13, section 17, a lane 31 links wide, Cudgery and Myrtle streets.
[Ms. 1919-9,963]

For Rubbish Depôt.

LAND DISTRICT OF ALBURY, AND HUME SHIRE.

No. 53,578 from sale (53,579 from lease generally). County of Goulburn, parish of Bowna (within the suburban boundaries village of Bowna), containing an area of about 1 acre. The Crown Lands bounded on the north-east by section 25; on the south-west by the reserve for police paddock, and extending from the north-west side of Church-street to Mullanjandra Creek.
[Ms. 1919-8,280]

CENTRAL DIVISION.

For Commonage.

LAND DISTRICT OF GRENFELL, AND WEDDIN SHIRE.

No. 53,587 from sale (53,588 from lease generally). County of Monteagle, parish of Brundah, containing an area of about 38 acres. The Crown Lands within the following boundaries: Commencing at the north-west corner of portion 565 of 2 acres; and bounded thence by a line west to the south-east corner of portion 1,329; and bounded thence by that portion and portions 1,269, 1,276, 1,281, 1,199, 1,212, 1,228, 1,227, and 1,303, in a generally southerly direction to the south-east corner of the latter portion; thence by a line, the southern boundaries of portions 1,310, 1,311, 1,312, and 1,313, and the easterly prolongation thereof easterly to portion 1,210; thence by that portion, portions 1,291 and 576 to the most northerly corner of the latter portion; a line to the most westerly corner of portion 1,319; by that portion to its most northerly corner; a line to the most westerly corner of portion 1,320; by that portion, portion 581, and the northerly prolongation of its north-west boundary to a point east of the south-east corner of portion 565; thence by the south and west boundaries of that portion in a generally northerly direction to the point of commencement;—but exclusive of portion 579 of 2 acres. Includes portions 577, 578, 580, 1,310, 1,311, 1,312, 1,313. Plans M. 2,445, 2,448, and 5,697-1,780.

NOTE.—The included parts of Grenfell Population Area, proclaimed 29th August, 1885, and reserve 950, from occupation under miners right or business or mineral license, notified 28th March, 1906, are not affected by this notification. Includes part of reserve from sale for temporary common, at Grenfell, notified 26th September, 1881, reserve 14,554 from lease for temporary common, notified 3rd October, 1891, and reserve from annual lease or occupation license, notified 13th April, 1892; also reserve 44,378 from sale for water supply, notified 22nd September, 1909 (about 2¾ acres), water reserve 44,752, notified 12th January, 1910 (about 11 acres), and part water reserve 1,220, notified 20th July, 1877 (about 22 acres), revoked this day.
[Ms. Ls. 1919-4,720]

For Water Supply.

No. 53,589 from sale (53,590 from lease generally). County of Monteagle, parish of Brundah, containing an area of about 181 acres. The Crown Lands within the following boundaries: Commencing at the south-eastern corner of reserve 51,749 from sale (51,750 from lease generally) for rifle range, notified 6th October, 1916; and bounded thence easterly by portion 1,250, and a road; thence northerly and easterly by portion 1,193 to the south-east corner of portion 1,161; thence by the east and north boundaries of that portion generally northerly and easterly to its most westerly north-west corner; thence westerly and north-westerly by portions 99 and 96, parish of Melyra, county of Forbes; and thence south-westerly by the rifle range afore mentioned to the point of commencement;—includes portion 1,161 of 121 acres, shown on plan M. 5,141-1,780.

NOTES.—The included parts of Grenfell Population Area, proclaimed 29th August, 1885, and reserve 950 from occupation under miners right and business or mineral license, notified 28th March, 1906, are not affected by this notification. Includes the whole of water reserve 39,928 from sale (39,929 from lease generally), notified 18th November, 1905 (121 acres); also parts of reserve from sale for temporary common at Grenfell, notified 26th September, 1881, reserve 14,554 from lease for temporary common, notified 3rd October, 1891, and reserve from annual lease or occupation license, notified 13th April, 1892, revoked this day.
[Ms. Ls. 1919-4,720]

[2895] Department of Lands,
Sydney, 31st October, 1919.

RESERVES FROM SALE.

IT is hereby notified that, in pursuance of the provisions of the 28th section of the Crown Lands Consolidation Act, 1913, the Crown lands hereunder described shall be reserved from sale for the public purposes hereinafter respectively specified, and they are hereby reserved accordingly.

W. G. ASHFORD, Minister for Lands.

CENTRAL DIVISION.

For Access.

LAND DISTRICT OF HAY, AND CARRATHOOL SHIRE.

Within annual lease No. 1906-43.

No. 53,582. County of Sturt, parish of Munro, containing an area of about 225 acres. The Crown Lands separating portion 23 from portion 24.

NOTE.—Part (about 225 acres) of classification reserve, notified 2nd November, 1910, and part (about 225 acres) of reserve 46,019 from after-auction tender, notified 16th November, 1910, included in the above, are hereby revoked.
[Ms. 1919-8,791]

For Trigonometrical Purposes.

LAND DISTRICT OF HAY, AND CARRATHOOL SHIRE.

Within occupation license No. 848.

No. 53,583. County of Sturt, parish of Tabbita, containing an area of 25 acres. The Crown Lands surrounding Tabbita trigonometrical station; and bounded by portions 8 and 9.

NOTE.—Includes part (about 9 acres) of trigonometrical reserve 34,726, notified 12th July, 1902, which part is hereby revoked.
[Ms. 1919-8,787]

LAND DISTRICT OF HILLSTON, AND CARRATHOOL SHIRE.

Within occupation license No. 865.

No. 53,584. County of Nicholson, parish of Goolgowi South, containing an area of 120 acres. The Crown Lands within the boundaries of portion marked T.R., surrounding Broadford trigonometrical station. Plan Ms. 1,272 Hy.

NOTE.—Trigonometrical reserve 40,827, notified 5th September, 1906 (27 acres), and part (93 acres) of classification reserve, notified 2nd November, 1910, included in the above, are hereby revoked.
[Ms. 1919-10,328]

Within annual lease 1911-16.

No. 53,585. County of Nicholson, parish of Stackpoole, containing an area of 37 acres 3 roods. The Crown Lands within the boundaries of portion marked T.R., surrounding Wollarma trigonometrical station. Plan Ms. 1,274 Hy.

NOTE.—Trigonometrical reserve 40,728 (14 acres), notified 25th July, 1906, and part (23¾ acres) of classification reserve, notified 2nd November, 1910, included in the above, are hereby revoked.
[Ms. 1919-10,327]

For Travelling Stock.

LAND DISTRICT OF WARREN, AND MARTHAGUY SHIRE.

No. 53,599. County of Oxley, parish of Warren, containing an area of 124 acres 3 roods 6 perches. The Crown Lands within the boundaries of measured portion 38 of 40 acres, ex road, as shown on plan C. 23-2,000, and also 84 acres 3 roods 6 perches (being parts of portions 36 and 35), within the following boundaries: Commencing on the Macquarie River, at the eastern corner of portion 38 aforesaid; thence south-westerly to the southern corner thereof; thence south 42 degrees 23 minutes east 15 chains and ½ link; thence north 45 degrees 23 minutes east to Macquarie River; thence by that river north-westerly to point of commencement;—as shown on plan Misc. 1,368 Do.
[Aln. 1919-6,677]

For Public Hall.

LAND DISTRICT OF MOREE, AND BOOMI SHIRE.

No. 53,592. County of Stapylton, parish of Goorara, containing an area of 2 roods. The Crown Lands within the boundaries of allotment 1 of section 23,—as shown on plan catalogued Garah South 10.
[Ms. 1919-10,988]

EASTERN DIVISION.

For Public Recreation.

LAND DISTRICT OF TAMWORTH, AND TAMWORTH MUNICIPALITY.

No. 53,575. County of Inglis, parish of Tamworth, containing an area of about 3 acres. The Crown Lands within the following boundaries: Commencing at the intersection of the south-western side of Peel with the south-eastern side of Roderick-street; and bounded thence on the north-west by Roderick-streeet bearing south-westerly to the prolongation of the north-eastern side of Lower-street; thence on the south-east by that prolongation bearing south-easterly 1 chain; thence by a line bearing south-easterly to a point on the north-western side of Murray-street, 1 chain 50 links south-westerly from its intersection with the south-western side of Peel-street; on the south-east by Murray-street north-easterly; and on the north-east by Peel-street north-westerly to the point of commencement.

NOTE.—Embraces part (about 3 acres) of reserve 10,070 for water and access, notified 9th November, 1889, which part is hereby revoked.
[Ms. 1919-10,483]

For Plantation.

LAND DISTRICT OF TUMBARUMBA, AND HOLBROOK SHIRE.

No. 53,586. County of Goulburn, parish of Currajong, containing an area of 1 rood. The Crown Lands within the boundaries of portion 18. Plan G. 3,702-1,475.
[Ms. 1919-9,883]

[2906] Department of Lands,
Sydney, 31st October, 1919.

NOTIFICATION SETTING APART CROWN LANDS FOR ADDITIONAL SUBURBAN HOLDING.

IT is hereby notified that, in pursuance of the provisions of section 129A of the Crown Lands Consolidation Act, 1913, the Crown Lands comprised within the area hereunder described are hereby set apart for additional suburban holding, and shall become and be available therefor on and after the 8th December, 1919. It is further notified that the capital value upon which rental shall be lodged shall be £72 for the block. Any additional holding acquired shall be be subject to the same conditions (where applicable) which attach to the particular original holding in virtue of which the additional holding was applied for.

NOTE.—All information may be obtained from, and all forms of application will be filled in by, the Crown Lands Agent free of cost, if so desired by the applicant.

W. G. ASHFORD, Minister for Lands.

EASTERN DIVISION.

METROPOLITAN LAND DISTRICT, AND HORNSBY SHIRE.

County of Cumberland, parish of South Colah, containing an area of 7 acres 1 rood 37 perches. The Crown Lands within the boundaries of portion 433. Plan C. 3,066-2,030 Roll.

NOTE.—The included part (7 acres 1 rood 37 perches) of Suburban Holding Area No. 1,058, notified 1st August, 1919, is hereby revoked.
[Ms. 1919-9,093]

[2905] Department of Lands,
Sydney, 31st October, 1919.

NOTIFICATION SETTING APART CROWN LANDS FOR ADDITIONAL CROWN-LEASE.

IT is hereby notified that, in pursuance of the provisions of section 85 of the Crown Lands Consolidation Act, 1913, the Crown Lands comprised within the area hereunder described are hereby set apart for additional Crown-lease, and shall become and be available therefor on and after the 8th December, 1919. It is further notified that the capital value upon which rental shall be lodged shall be £1 1s. per acre.

The land set apart is exempt from the operation of general license under the Forestry Regulations.

Any additional holding acquired shall be subject to the same conditions (where applicable) which attach to the particular original holding, in virtue of which the additional holding was applied for.

NOTE.—All information may be obtained from, and all forms ot application will be filled in by, the Crown Lands Agent free of cost, if so desired by the applicant.

W. G. ASHFORD, Minister for Lands.

CENTRAL DIVISION.

LAND DISTRICT OF NYNGAN, AND BOGAN SHIRE.

County of Flinders, parishes of Umang and Wharfdale, containing an area of about 2,550 acres. The Crown Lands bounded by State Forest No. 74, dedicated 18th February, 1914, portion 9, parish of Wharfdale: scrub lease 70, portion 3, parish of Umang, and portion 16, parish of Belah.

NOTE.—That part of classification reserve, notified 17th August, 1917, within the above (about 2,550 acres) is hereby revoked.
[Ms. 1919-10,233]

[2910] Department of Lands,
Sydney, 31st October, 1919.

NOTIFICATION SETTING APART CROWN LANDS FOR ADDITIONAL CONDITIONAL PURCHASE, CONDITIONAL LEASE, ADDITIONAL CONDITIONAL PURCHASE LEASE, ADDITIONAL HOMESTEAD SELECTION, ADDITIONAL HOMESTEAD FARM, ADDITIONAL SETTLEMENT LEASE, OR ADDITIONAL CROWN-LEASE.

IT is hereby notified that, in pursuance of the provisions of section 85 of the Crown Lands Consolidation Act, 1913, the Crown Lands comprised within the area hereunder described are hereby set apart for additional conditional purchase or conditional lease (not being conditional lease taken up in virtue of and at the same time as original conditional purchases within the same area), additional conditional purchase lease, additional homestead selection, additional homestead farm, additional settlement lease, or additional Crown-lease, and shall become and be available therefor on and after the 8th December, 1919. It is further notified that the price of the land for additional conditional purchase, or the capital value upon which provisional rental (where required) shall be lodged, shall be 10s. per acre, except that the provisional rental to be lodged with an application for a conditional lease or an additional settlement lease shall be 2d. per acre. Any additional holding acquired shall be subject to the same conditions (if any, and where applicable) which attach to the particular original holding, in virtue of which the additional holding was applied for.

NOTE.—All information may be obtained from, and all forms of application will be filled in by, the Crown Lands Agent free of cost, if so desired by the applicant.

W. G. ASHFORD, Minister for Lands.

EASTERN DIVISION.

LAND DISTRICT OF BRAIDWOOD, AND TALLAGANDA SHIRE.

County of St. Vincent, parish of Budawang, containing an area of 77 acres. The Crown Lands within the boundaries of portion 31. Plan V. 3,223-2,013.

NOTE.—Reserve under section 206 and part of area set apart for additional conditional- purcase, at 10s. per acre, conditional lease, additional conditional purchase lease, additional homestead selection, or additional settlement lease, 9th February, 1910, covering the above portion, are hereby revoked.
[Ms. 1919-8,696]

[7547] Department of Lands,
Sydney, 19th May, 1922.

CROWN LANDS NOT AVAILABLE FOR SETTLEMENT UNTIL FURTHER NOTIFICATION.

IN pursuance of the provisions of section 84 of the Crown Lands Consolidation Act, 1913, it is hereby notified that the Crown Lands comprised within the tracts or areas hereunder described shall not be available for the purpose of any application until a further notification has been published in the Gazette.

W. E. WEARNE, Minister for Lands.

CENTRAL DIVISION.

LAND DISTRICT OF NARRANDERA, AND YANKO SHIRE.

County of Cooper, parish of Bundidgerry, containing an area of about 335 acres. The Crown Lands within the boundaries of block B of Suburban Holding Area 1,386, notified 6th January, 1922, revoked this day.
[Ms. 1922-3,377]

LAND DISTRICT OF GRENFELL, AND WEDDIN SHIRE.

County of Forbes, parish of Bogolong, containing an area of about 190 acres. The Crown Lands within the following boundaries: Commencing on the easterly prolongation of the northern boundary of portion 60 at a point 5 chains rectangularly distant from the north-eastern corner of that portion; and bounded thence by a line east to Ooma Creek; by that creek upwards, and by portions 124, 125, 47, and 26 to meet a line parallel to and 5 chains rectangularly distant north-easterly from the south-western side of the road from Forbes to Grenfell; by that parallel line, and by lines north-westerly and northerly, parallel to and 5 chains in rectangular distance easterly from the eastern boundaries of portion 60, to the point of commencement.
[Ms. 1922-2,645]

County of Forbes, parish of Bogolong, containing an area of about 50 acres. The Crown Lands within the following boundaries: Commencing at the most northerly north-eastern corner of portion 14; and bounded thence by a line east to portion 53; thence by part of a north-western, a south-western, and part of a south-eastern boundary of that portion to a point 5 chains distant south-westerly from the northern extremity of the most easterly south-western boundary of the portion; by a line south-easterly parallel to the south-western boundary aforesaid, to meet the westerly prolongation of the southern boundary of portion 53; by that prolongation easterly to the south-western side of the road aforesaid; and thence by that side of that road, portion 50, Ooma Creek, and portion 14, to the point of commencement.
[Ms. 1922-2,645]

[7548] Department of Lands,
Sydney, 19th May, 1922.

RESERVES FROM SALE AND LEASE GENERALLY.

IT is hereby notified that, in pursuance of the provisions of the 28th and 29th sections of the Crown Lands Consolidation Act, 1913, the Crown Lands hereunder described shall be reserved from sale for the public purposes hereinafter respectively specified and reserved and exempted from lease generally, and they are hereby reserved and exempted accordingly.

W. E. WEARNE, Minister for Lands.

EASTERN DIVISION.

For Public Recreation.

LAND DISTRICT OF TAMWORTH, AND TAMWORTH MUNICIPALITY.

No. 55,415 from sale (55,416 from lease generally). County of Inglis, parish of Tamworth, containing an area of about 1¼ acres. The Crown Lands bounded by Roderick-street, R. 53,575 for public recreation, notified 31st October, 1919, Murray-street, and the Peel River.
[Ms. 1922-2,469]

No. 55,417 from sale (55,418 from lease generally). Couny of Inglis, parish of Tamworth, containing an area of about 3 acres. The Crown Lands within the boundaries of section 21, town of Tamworth.

No. 55,419 from sale (55,420 from lease generally). County of Inglis, parish of Tamworth, containing an area of about 3 acres. The Crown Lands within the boundaries of section 20, town of Tamworth.

No. 55,421 from sale (55,422 from lease generally). County of Inglis, parish of Tamworth, containing an area of about 3 acres. The Crown Lands within the boundaries of section 19, town of Tamworth.

No. 55,423 from sale (55,424 from lease generally). County of Inglis, parish of Tamworth, containing an area of about 1 acre. The Crown Lands bounded by Darling-street, Lower-street, and the Peel River.
[Ms. 1922-2,469]

CENTRAL DIVISION.

For Travelling Stock and Camping.

LAND DISTRICT OF COOTAMUNDRY CENTRAL, AND ILLABO SHIRE.

No. 55,428 from sale (55,429 from lease generally). County of Clarendon, parish of Houlaghan, containing an area of 9 acres 2 roods 17 perches, ex. road. The Crown Lands within the boundaries of measured portion 159. Plan C. 3,834-1,578.
[Ms. 1922-3,419]

For Public Pound.

LAND DISTRICT OF COROWA, AND BERRIGAN SHIRE.

No. 55,426 from sale (55,427 from lease generally). County of Denison, parish of Gereldery, containing an area of 2 acres. The Crown Lands within the boundaries of portion 140. Plan D. 1,853-1,798.
[Ms. 1922-3,349]

NOTE.—Includes part (2 acres) of R. 27,353 for future suburban settlement, notified 5th March, 1898, and part (2 acres) of R. 32,494 from sale (32,495 from license and annual lease) for temporary common, notified 3rd April, 1901, revoked this day.

[7549] Department of Lands,
Sydney, 19th May, 1922.

RESERVES FROM SALE.

IT is hereby notified that, in pursuance of the provisions of the 28th section of the Crown Lands Consolidation Act, 1913, the Crown Lands hereunder described shall be reserved from sale for the public purposes hereinafter respectively specified, and they are hereby reserved accordingly.

W. E. WEARNE, Minister for Lands.

For Quarry.

CENTRAL DIVISION.

LAND DISTRICT OF GRENFELL, AND WEDDIN SHIRE.

No. 55,414. County of Forbes, parish of Warraderry, containing an area of about 12½ acres. The Crown Lands within the following boundaries: Commencing at the north-western corner of portion 43; and bounded thence by part of the western boundary of that portion south 18 chains; thence by lines west 7¼ chains and north to the north-western boundary of portion 34; and thence by part of that boundary north-easterly, to the point of commencement.
[Misc. 1922-2,926]

For Access

EASTERN DIVISION.

METROPOLITAN LAND DISTRICT, AND WARRINGAH SHIRE.

No. 55,425. County of Cumberland, parish of Manly Cove, containing an area of 1 rood 25¼ perches. The Crown Lands within the boundaries of measured portion 1,687,—as shown upon plan catalogued C. 2,908-2,030.
[Occ. 1922-2,050]

[7553] Department of Lands,
Sydney, 19th May, 1922.

RESERVE FROM SALE GENERALLY.

IT is hereby notified that, in pursuance of the provisions of the 29th section of the Crown Lands Consolidation Act, 1913, the Crown Lands hereunder described shall be and are hereby temporarily reserved from sale generally.

W. E. WEARNE, Minister for Lands.

CENTRAL DIVISION.

LAND DISTRICT OF PARKES, AND GOOBANG SHIRE.

No. 55,430. County of Ashburnham, parish of Bunbury, containing an area of about 105 acres. The Crown Lands within the boundaries of lease under improvement conditions No. 22. Plan Ms. 860 Fs.
[Occ. 1922-2,670]

(317) Sydney, 24th November, 1972.

NOTIFICATION OF ADDITIONS TO DEDICATIONS OF LANDS FOR PUBLIC PURPOSES UNDER THE CROWN LANDS CONSOLIDATION ACT, 1913

AN abstract of the intended additions to dedications of the areas of Crown lands described in the Schedule hereto for public purposes therein mentioned having been duly laid before both Houses of Parliament in the State of New South Wales, in accordance with the provisions of section 24 of the Crown Lands Consolidation Act, 1913, it is hereby notified that such lands are added to the dedications for the public purposes mentioned in notification.

T. L. LEWIS, Minister for Lands.

Parish	County	Portion	Allotment	Section	Locality	Area	Purpose of Intended Dedication	No. of Papers	Cat. No. of Plans
Kiama	Camden	*	..	..	Kiama	sq metres 7 168 (about).	Added to dedication for public recreation and showground gazetted 26th August, 1908.	P. 6255/B	K. 441249, Ms 11192 Sy, Ms 11193 Sy.
* Portions broadarrow in plans Ms 11192 Sy and Ms 11193 Sy and allotments 1 REM, 2, 8, 9 REM, and 10 REM, section 3.									
Orange	Wellington	200	..	..	Orange	hectares 3·996	Added to dedication for racecourse gazetted 1st July, 1873.	P. 6084/B	....
Billinudgel	Rous	412	..	..	Mullumbimby	sq metres 2 681	Added to Mullumbimby Showground dedicated 29th November, 1929.	P. 6199/B	R. 9057-1759.
Maitland	Northumberland.	..	1	115	Town of East Maitland	hectares 1·070	(Addition) public recreation dedicated 25th June, 1892.	P. 64-2203	....
Tamworth	Inglis	*	..	..	City of Tamworth	7·499 (about).	Addition to dedication for public recreation and athletic sports ground notified Gazette 18th January, 1911.	P. 71-3318	....
* About 18 acres 2 roods 5 perches being R. 53576 for public recreation, R. 55416 for public recreation, R.54578 for public recreation, R. 54165 for public recreation, R. 67413 for public recreation, R. 55692 for public recreation, notified respectively, 31st October, 1919, 19th May, 1922, 29th April, 1921, 17th September, 1920, 4th March, 1938, 29th September, 1922, such reserves being hereby revoked, and the parts of Hill and Roderick Streets closed vide Government Gazette of 21st April, 1972.									
Narira	Dampier	*	..	..	Cobargo	hectares 2·982	Added to dedication for showground gazetted 20th December, 1887.	P. 6143/B	....
* Portion 273 and the closed road adjoining the northern boundary of portion 237.									
Bohnock	Gloucester	*	..	..	Old Bar	hectares 8·122	Added to dedication for public recreation gazetted 25th July, 1884.	P. 69-2499	....
* The lands comprised in R. 54070 for public recreation notified 6th August, 1920 (including portion 167), such reserve being hereby revoked.									
Concord	Cumberland	*	..	..	Concord	sq metres 6 968	Added to dedication for public recreation gazetted 4th January, 1924.	P. 72-1130	Ms 6281, Ms 6282 Sy.
* The lands comprised in R. 57917 and R. 67650 for public recreation notified 9th April, 1925, and 3rd June, 1938, respectively, such reserves being hereby revoked.									
Guntawang	Phillip	419	..	..	Gulgong	hectares 2·565	Added to dedication for showground gazetted 8th January, 1884.	P. 6174/B	....
Yarrabandini	Dudley	*	..	..	Frederickton	sq metres 6 981	Added to dedication for public recreation gazetted 25th July, 1884.	P. 72-392	....
* Closed road adjoining the eastern boundary of portion 191. NOTE: R. 82597 for public recreation notified 27th May, 1960, is hereby revoked.									
Berowra	Cumberland	152	..	..	Glenorie	sq metres 619·6	For public recreation	P. 72-1201	....

(1248) Sydney, 12th January, 1973.

ERRATUM

IN the notification appearing in the Government Gazette of 27th October, 1972, folio 4265, referring to the addition to freehold Conditional Purchase 1868-307, the description should have read portion 148, and not as notified. Ten. 72-3856.

T. L. LEWIS, Minister for Lands.

(1349) Sydney, 12th January, 1973.

ERRATUM

IN the notice appearing in the Government Gazette of 22nd December, 1972, extending the terms of Special Leases, Special Lease "1961-3 Queanbeyan" should read "1961-12 Queanbeyan"; holder, Kevin Martin Grady. Ten. 72-6680.

T. L. LEWIS, Minister for Lands.

(1268) Sydney, 12th January, 1973.

ERRATUM

IN the Government Gazette notification of 24th November, 1972, relating to the addition of land to the dedication for Public Recreation and Athletic Sports Ground at Tamworth it was incorrectly noted that R. 53576 was revoked by the above action. The reserve revoked should have been R. 53575 and the above notice is hereby so amended. Pks 71-3318.

T. L. LEWIS, Minister for Lands.

(1276) Sydney, 12th January, 1973.

NOTIFICATION OF PROPOSED CLOSING OF ROADS

NOTICE is hereby given under the provisions of the Public Roads Act, 1902, that the Minister for Lands proposes to consider the closing of the roads hereunder specified for the purposes indicated.

All persons interested are hereby called upon to set forth in writing addressed to the Under Secretary for Lands within one month from the date of publication of this notice any objections which may appear to them to exist to these proposals.

T. L. LEWIS, Minister for Lands.

Descriptions

Land District and Shire—Corowa

Non-public lane within section 20, Parish and Village Savernake, County Denison. Rds 72-1783.

NOTE: If the road is closed it is proposed to be added to a Special Purchase Application.

Land District—Temora Central; Shire—Coolamon

Parish Warri, County Bourke, the part of the private subdivision road adjoining the northern boundary of the railway within portion 48 REM, not included in the survey of and not required to preserve the continuity of proposed new road R. 33664-1603R. (Council No. 378.) Rds 72-1784.

Land District and Shire—Gunning

Parishes Jerrawa and Dalton, County King, the parts of public road, R. 3338-1603, Sht 5, within portion 15 (Parish Jerrawa), and the part of public reserved road within portion 343 (Parish Dalton) rendered unnecessary by and not required to preserve continuity of proposed new roads R. 33661-1603 and R. 33662-1603R. (Council reference No. 16420.) Rds 72-1787.

Land District—Tamworth; Shire—Peel

Parish and Town Currabubula, County Buckland, the parts (three) of the public reserved road within portion 350 not included in the survey of and not required to preserve continuity of the proposed road R. 33680-1603R. (Council 72/R/26.) Rds 72-1821.

Parish Turi, County Parry, public reserved road within portion 68; public road separating portion 160 from portion 152; not included in the survey and not required to preserve continuity of proposed road R. 33682-1603. (Council: 72.R. 26.) Rds 73-2.

Parish Clift, County Buckland, the parts of the road within portions 1 and 68 not included in the survey and not required to preserve continuity of the proposed road R. 33660-1603. (Council's reference: 72/R/26.) Rds 73-23.

Land District—Windsor; Shire—Colo

Parish Meehan, County Cook, the part of public road within portion 45 rendered unnecessary by and not required to preserve continuity of proposed new road R. 33685-1603R. (Council reference No. 164W(5).2, Plan 2309-12.) Rds 73-3.

Parish Bilpin, County Cook, the parts of Ghost Hill Road within portion 16 rendered unnecessary by and not required to preserve continuity of proposed new road R. 33686-1603R. (Council reference No. 164G(3), Plan 704.1.) Rds 73-4.

Parish Meehan, County Cook, the part of West Portland Road within portion 50 not included in the survey and not required to preserve continuity of the proposed road R. 33670-1603. (Council's reference: 164W(5)2.) Rds 73-6.

Land District—Bellingen; Shire—Coffs Harbour

Town Coffs Harbour, Parish Coff, County Fitzroy, the part of Orlando Street separating portion 413 from section 54 rendered unnecessary by and not required to preserve continuity of proposed new road R. 33687-1603R, and not required for proposed reserve for plantation. (Council reference No. T5/04/42.) Rds 73-5.

Land District—Lismore; Shire—Gundurimba

Parish Lismore, County Rous, the road separating portions 143 and 126 from portion 171 rendered unnecessary by and not required to preserve continuity of proposed new road R. 33683-1603R. (Council's reference No. 3256.) Rds 73-29.

(1275) Sydney, 12th January, 1973.

NOTIFICATION OF PROPOSED OPENING OF ROAD

NOTICE is hereby given under the provisions of the Public Roads Act, 1902, that the Minister for Lands proposes to consider the opening of the road described hereunder.

All persons interested are hereby called upon to set forth in writing and forward to the Under Secretary for Lands within one month from the date of publication of this notice any objections which may appear to them to exist to this proposal.

Plans illustrating this proposal may be inspected at the office of the Department of Lands in Sydney or for a period of one month from the date of this notice, at the office of the Crown Land Agent for the Land District specified.

T. L. LEWIS, Minister for Lands.

Description

Parish Termeil, County St Vincent, Land District Nowra, Shire Shoalhaven

Proposed widening of road from Kioloa to Bawley Point within portion 104, vide plan R. 33684-1603R. (Council 72-2427.) Rds 73-1.

Donald Walker and Patricia Mary Walker

Proposed resumption: About 218 square metres—freehold—part portion 104.

Nunderah Estates Pty Limited

Proposed resumption: About 2 585 square metres (in two parts)—freehold—part portion 104.

(1277) Sydney, 12th January, 1973.

NOTIFICATION OF CLOSING OF ROADS

IN pursuance of the provisions of the Public Roads Act, 1902, as amended, it is hereby notified that the roads hereunder specified are hereby closed; that the lands comprised therein shall be freed and discharged from any rights of the public or any person to the same as highways.

T. L. LEWIS, Minister for Lands.

Descriptions

Land District—Singleton; Shire—Patrick Plains

Benalla Pastoral Co. Pty Limited, 6.208 hectares. Road 20.115 metres wide separating portions 2, 1 and 63 from portions 27, 72, 71 and 74, being lot 1, Deposited Plan 244152, Parish Gotha, County Durham. Rds 72-835.

Land District—Casino; Shire—Tomki

Vincent Joseph Newby and Deanna Daphne Newby, 3.266 hectares. Road 40.23 metres wide and variable width separating portion 17 (Parish Hogarth, County Richmond) from portion 9 and end of closed road, being lot 1 on Deposited Plan 244138, Parish Nandabah, County Richmond. Rds 72-1005.

Land District and Shire—Corowa

Alfred Henry Rhodes, 3.126 hectares. Reserved non-public road 20.115 metres wide within portion 193, being lot 1, Deposited Plan 244137, Parish Gordon, County Hume. Rds 72-1142.

Land District—Molong; Shire—Boree

Muriel Joyce Cassidy, 8 538 square metres. Road 20.115 metres wide separating portion 208 from portions 88 and 198, being lot 1, Deposited Plan 244140, Parish Collett, County Ashburnham. Rds 72-1145.

LAND VESTED IN THE MINISTER FOR PUBLIC WORKS AND PORTS

Land District—Metropolitan; Municipality—Randwick

Parish Botany, County Cumberland, 692.9 square metres at Matraville, being the "Road of Access" 6.01 metres wide within the external boundaries of the land shown in plan Ms 5683 Sy. Ten. 73-9140 (H.S.)

LAND OWNED BY THE HOUSING COMMISSION OF NEW SOUTH WALES

Land District—Metropolitan; Municipality—Randwick

Parish Botany, County Cumberland, 2.769 hectares, being lots 1 to 35 inclusive, deposited plan 251284, and comprising the whole of Certificates of Title, volume 12995, folios 126 to 160 inclusive. Ten. 71-4291.

LAND VESTED IN THE N.S.W. PLANNING AND ENVIRONMENT COMMISSION

Land District—Bega; Shire—Imlay

Parish Wonboyn, County Auckland, 32.37 hectares excluding road, being portion 7, comprised in Crown Grant, volume 1573, folio 28. Pks 76-1043.

LAND VESTED IN THE N.S.W. PLANNING AND ENVIRONMENT COMMISSION

Land District—Bega; Shire—Imlay

Parish Bimmil, County Auckland, 4.36 hectares, being portion 6, comprised in Certificate of Title, vol. 10645, folio 13. Pks 76-1042.

(5638) Sydney, 25th February, 1977.

ADDITIONS TO RESERVES FROM SALE

IN pursuance of the provisions of section 28, Crown Lands Consolidation Act, 1913, I declare that the Crown lands hereunder described shall be added to the lands within the reserves specified in parenthesis hereunder and are thereby added accordingly.

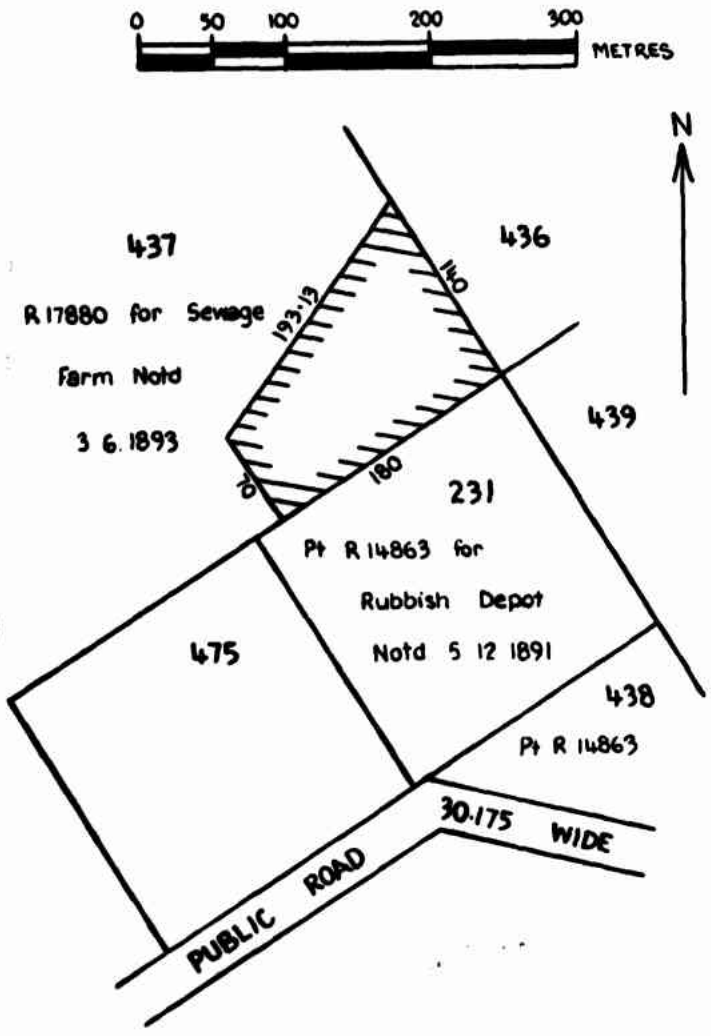
W. F. CRABTREE, Minister for Lands.

FOR RUBBISH DEPOT

Land District and Shire—Cootamundra

Parish Cootamundra, County Harden, area about 1.8 hectares, being part portion 437 shown by hatched edging on diagram hereunder (R. 14863, notified 5th December, 1891). The affected part of R. 17880 for Sewage Farm, notified 3rd June, 1893, is hereby revoked. Pks 77-52.

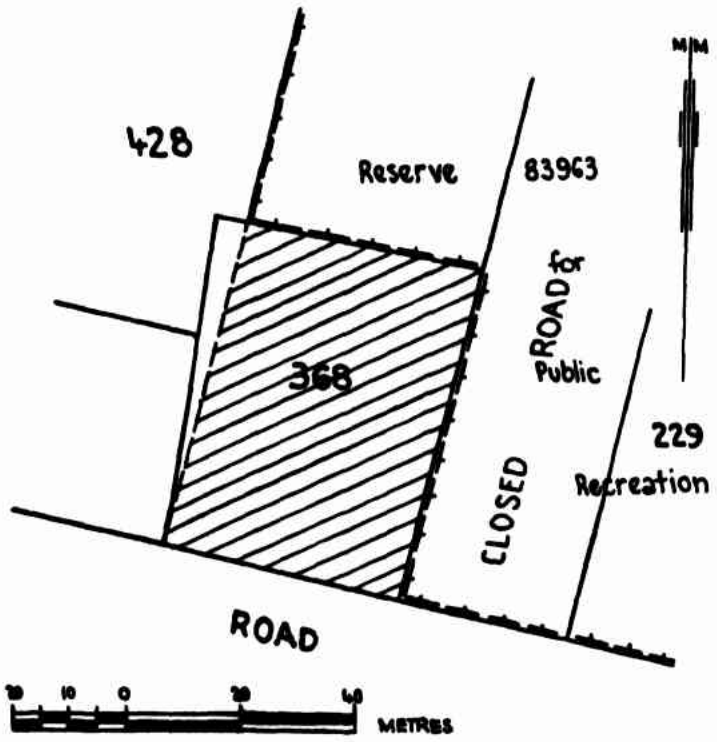
DIAGRAM



FOR PUBLIC RECREATION

Land District—Lismore; Municipality—Ballina

Parish Ballina, County Rous, area about 2 450 square metres, being the part of portion 368 shown by hatching on the diagram hereunder, suburban lands, Town Ballina (Reserve 83963, notified 24th August, 1962). Ten. 71-9564.



(5639) Sydney, 25th February, 1977.

NOTIFICATION OF VESTING OF LANDS IN PURSUANCE OF THE PROVISIONS OF SECTION 37AAA OF THE CROWN LANDS CONSOLIDATION ACT, 1913

IN pursuance of the subject provisions, I, WILLIAM FREDERICK CRABTREE, Minister for Lands, being of the opinion that—

(a) the lands described in the First to the Fourth Schedules and in each Part of the Fifth to the Seventh Schedules hereto are respectively a public reserve or are suitable for use as a public reserve within the meaning of the Local Government Act, 1919; and

(b) it is proper that, having regard to the purpose (if any) for which the lands described in the First to the Fourth Schedules and in each Part of the Fifth to the Seventh Schedules are used, those lands should be respectively vested in the council specified in each Schedule,

do, by this notification, respectively vest the lands described in each of those Schedules in the council specified therein for an estate in fee simple subject to the following reservations and exceptions unto Her Majesty Elizabeth the Second, by the Grace of God, Queen of Australia and Her Other Realms and Territories, Head of the Commonwealth, Her Heirs and Successors of—

(i) all minerals which those lands contain with full power and authority for Her Majesty, Her Heirs and Successors and such person or persons as shall from time to time be authorized by Her Majesty, Her Heirs or Successors to enter upon those lands and to search for, mine, dig and remove those minerals;

(ii) all such parts and so much of those lands as may hereafter be required for public ways in over and through the same to be set out by His Excellency the Governor for the time being of the State of New South Wales or some person by him authorized in that respect with full power for Her Majesty, Her Heirs and Successors and for His Excellency the Governor as aforesaid, by such person or persons as shall be by Her Majesty, Her Heirs or Successors or His Excellency the Governor as aforesaid authorized in that behalf to make and conduct all such public ways; and

(iii) the right of full and free ingress, egress and regress into out of and upon those lands for the several purposes aforesaid or any of them.

The lands described in the First to the Fourth Schedules and in each Part of the Fifth to the Seventh Schedules hereto are respectively declared to be a public reserve for the purposes of the Local Government Act, 1919.

This notification shall take effect on and from the date of publication of this Gazette.

Signed at Sydney, this 14th day of February, 1977.

W. F. CRABTREE, Minister for Lands.

V.S. No. 49; Pks 77-87.

FIRST SCHEDULE

Land District and Shire—Tenterfield

Parish Tenterfield, County Clive, 1 644 square metres in the Town of Tenterfield, dedicated for Public Recreation 4th August, 1933, and being allotment 21 of section 12. Plan Tenterfield 52.

The lands in this Schedule are vested in The Council of the Shire of Tenterfield.

SECOND SCHEDULE

Land District and City—Maitland

Parish Maitland, County Northumberland, 1.272 hectares at East Maitland, dedicated for Public Recreation 23rd July, 1889, and being allotment 14 of section 40. The area of this land is limited to the surface and to a depth of 20 metres below the surface.

The lands in this Schedule are vested in The Council of the City of Maitland.

THIRD SCHEDULE

Land District and Municipality—Taree

Parish Taree, County Macquarie, 3.946 hectares in the Town of Taree, dedicated for Recreation 9th October, 1891, and being portion 127. Plan M. 2836-666.

The lands in this Schedule are vested in The Council of the Municipality of Taree.

FOURTH SCHEDULE

Land District—Bega; Shire—Mumbulla

Parish Colombo, County Auckland, 3.98 hectares in the Village of Bemboka, dedicated for Public Recreation 9th August, 1887, and being portion 124. Plan C. 1-2208.

The lands in this Schedule are vested in The Council of the Shire of Mumbulla.

FIFTH SCHEDULE

Part 1

Land District and Municipality—Kiama

Parish Kiama, County Camden, 2.405 hectares at Saddleback Mountain, dedicated for Public Recreation 3rd September, 1913, and being part portions 109, 110 and 111 as shown on Plans Ms 3784 Sy and Ms 20700 Sy. The area of this land is limited to the surface and to a depth of 20 metres below the surface.

Part 2

Land District and Municipality—Kiama

Parish Kiama, County Camden, 1.518 hectares at Saddleback Mountain, dedicated for Public Recreation 20th November, 1912, and being part portion 112 as shown on Plan Ms 3784 Sy. The area of this land is limited to the surface and to a depth of 20 metres below the surface.

The lands in this Schedule are vested in The Council of the Municipality of Kiama.

SIXTH SCHEDULE

Part 1

Land District and City—Tamworth

Parish Tamworth, County Inglis, about 13.56 hectares at Tamworth, dedicated for Public Recreation and Athletic Sports Ground 18th January, 1911, and being the land bounded by Kable Avenue, Roderick Street, Peel Street, R. 88781 for Public Recreation notified 24th November, 1972, Peel River and Public Road shown on Plan Ms 1955 Th R.

Part 2

Land District and City—Tamworth

Parish Tamworth, County Inglis, 4.35 hectares at Tamworth, dedicated for Recreation Reserve 8th October, 1898, and being sections 69 and 70. Plan Tam. 64.

Part 3

Land District and City—Tamworth

Parish Tamworth, County Inglis, 2.663 hectares at Tamworth, dedicated for Recreation Reserve 9th June, 1897, and being section 68. Plan Tam. 63.

The lands in this Schedule are vested in The Council of the City of Tamworth.

SEVENTH SCHEDULE

Part 1

Land District and Municipality—Inverell

Parish Inverell, County Gough, about 1.821 hectares in the Town of Inverell, dedicated for Public Recreation 24th December, 1897, and being the land bounded by Campbell Street, allotment 1 of section 86 and the southwesterly prolongation of its northwestern boundary, and the right bank of the Macintyre River, but excluding portion 280.

Part 2

Land District and Municipality—Inverell

Parish Inverell, County Gough, 1.416 hectares in the Town of Inverell, dedicated for Athletic Sports Ground 9th July, 1895, and being allotment 3 of section 71. Plan Inverell 23.

Part 3

Land District and Municipality—Inverell

Parish Inverell, County Gough, 3.178 hectares in the Town of Inverell, dedicated for Public Recreation 22nd March, 1883, and being section 85 excluding allotments 1 and 2. Plan N. 114-1834.

The lands in this Schedule are vested in The Council of the Municipality of Inverell.

(5642) Sydney, 25th February, 1977.

WITHDRAWAL OF RESERVES FROM CONTROL OF PASTURES PROTECTION BOARDS

IN pursuance of the provisions of section 42 (1), Pastures Protection Act, 1934, the parts of the reserves specified hereunder are hereby withdrawn from the control of the Pastures Protection Boards for the Pastures Protection Districts.

W. F. CRABTREE, Minister for Lands.

Land Board District—Dubbo; Pastures Protection District—Coonabarabran

Parish Bone Bone, County Gowen, Reserve No. 35,771 for Travelling Stock. Part withdrawn—About 8.0 hectares, being the part within portion 75. Ten. 76-533.

(Placed under control, Gazette 26th June, 1936.)

Land Board District—Dubbo; Pastures Protection District—Coonabarabran

Parish Bone Bone, County Gowen, Reserve No. 6670 for Travelling Stock and Camping. Part withdrawn—About 16.0 hectares, being the part within portion 75 and the reserved road traversing that portion. Ten. 76-533.

(Placed under control, Gazette 26th June, 1936.)

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

(L.S.) A. R. CUTLER, *Governor.*

IT is hereby notified and declared by His Excellency the Governor, upon whom has been conferred the decoration of the Victoria Cross, Knight Commander of the Most Distinguished Order of Saint Michael and Saint George, Knight Commander of the Royal Victorian Order, Commander of the Most Excellent Order of the British Empire, Knight of the Most Venerable Order of St John of Jerusalem, Governor of the State of New South Wales and its Dependencies, in the Commonwealth of Australia, with the advice of the Executive Council, that the land hereunder described has been resumed under the Public Works Act, 1912, for the following public purpose, namely, for the establishment of a public recreation ground at Bullawa Creek by addition to Mount Kaputar National Park and is vested in the Minister for Lands as Constructing Authority on behalf of Her Majesty.

Signed and sealed at Sydney, this 2nd day of February, 1977.

By His Excellency's Command,

P. D. HILLS, for Minister for Lands.

GOD SAVE THE QUEEN!

DESCRIPTION

Land District—Narrabri; Shire—Namoi

Parishes Coryah and Ningadhun, County Nandewar, 2 309 hectares, excluding roads, being portions 55, 58 and 66, Parish Coryah, and portions 19, 20, 23, 26, 27, 30 and part 38, Parish Ningadhun, and being also the whole of the land comprised in Conditional Leases 1909-22, 1910-11, 1910-16, 1910-31 and 1915-16 Narrabri, Crown Lease 1920-18 Narrabri and Certificates of Title, volume 4991, folio 9, volume 5113, folio 242, volume 5155, folio 111, and volume 6104, folio 243.

(5290)

LAND REGISTRY SERVICES Historical Search

InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
18/7/2023 4:23PM

FOLIO: 73/1107041

First Title(s): OLD SYSTEM
Prior Title(s): GZ 25021977 FOL 783

Recorded	Number	Type of Instrument	C.T. Issue
13/12/2006	DP1107041	DEPOSITED PLAN	FOLIO CREATED EDITION 1
13/12/2006	CA100910	CONVERSION ACTION	
10/5/2013	DP1185292	DEPOSITED PLAN	EDITION 2
7/12/2015	AJ860976	LEASE	EDITION 3
15/2/2016	AK215531	SUB-LEASE	
19/2/2016	AK228633	DEPARTMENTAL DEALING	
17/3/2016	AK296464	MORTGAGE OF LEASE	
9/12/2016	AK988108	TRANSFER OF LEASE	
4/12/2017	AM708832	TRANSFER OF LEASE	
4/12/2017	AM708833	MORTGAGE OF LEASE	
2/2/2018	DP1239558	DEPOSITED PLAN	
26/3/2018	AM864571	TRANSFER GRANTING EASEMENT	
21/5/2018	AM569141	REJECTED - REQUEST	
22/9/2020	AQ337526	VARIATION OF LEASE	
22/9/2020	AQ337527	VARIATION OF LEASE	
17/6/2022	AS202073	VARIATION OF LEASE	
17/6/2022	AS202074	TRANSFER OF LEASE	EDITION 4
16/11/2022	AS559982	DISCHARGE OF MORTGAGE	
16/11/2022	AS585028	DISCHARGE OF MORTGAGE	EDITION 5
18/11/2022	AS643435	MORTGAGE OF LEASE	EDITION 6

*** END OF SEARCH ***

545 Peel Street, Tamworth PRINTED ON 18/7/2023

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 73/1107041

SEARCH DATE	TIME	EDITION NO	DATE
18/7/2023	4:23 PM	6	18/11/2022

LAND

LOT 73 IN DEPOSITED PLAN 1107041
AT TAMWORTH
LOCAL GOVERNMENT AREA TAMWORTH REGIONAL
PARISH OF TAMWORTH COUNTY OF INGLIS
TITLE DIAGRAM DP1107041

FIRST SCHEDULE

TAMWORTH REGIONAL COUNCIL (CA100910)

SECOND SCHEDULE (9 NOTIFICATIONS)

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1 THE LAND WITHIN DESCRIBED IS PUBLIC RESERVE
2 RESERVATIONS AND EXCEPTIONS OF MINERALS AND RIGHTS TO MINE. SEE GOVERNMENT GAZETTE 25021977 FOL 783
3 LIMITED TITLE. LIMITATION PURSUANT TO SECTION 28T(4) OF THE REAL PROPERTY ACT, 1900. THE BOUNDARIES OF THE LAND COMPRISED HEREIN HAVE NOT BEEN INVESTIGATED BY THE REGISTRAR GENERAL.
4 DP1185292 EASEMENT FOR MULTI - PURPOSE ELECTRICAL INSTALLATION 3 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1185292
5 DP1185292 EASEMENT FOR UNDERGROUND POWERLINES 2 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1185292
6 DP1185292 EASEMENT FOR UNDERGROUND POWERLINES 1 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN DP1185292
7 AJ860976 LEASE TO GENJAY PTY LIMITED OF THE BUILDING KNOWN AS "HOPSCOTCH RESTAURANT & BAR", BICENTENNIAL PARK, KABLE AVENUE, TAMWORTH. EXPIRES: 27/11/2025. OPTION OF RENEWAL: 10 YEARS WITH 1 FURTHER OPTION OF 10 YEARS.
AK215531 LEASE OF LEASE AK215531 TO CHALKED ENTERPRISE PTY LTD (SEE AS202074). EXPIRES: 26/11/2025. OPTION OF RENEWAL: 9 YEARS & 364 DAYS, AND A FURTHER OPTION OF 9 YEARS & 364 DAYS.
AM708832 TRANSFER OF LEASE AJ860976 LESSEE NOW DWONE JONES & JOHN KENNETH LYNCH
AQ337526 VARIATION OF LEASE AJ860976 EXPIRY DATE NOW 27/11/2030.
AQ337527 VARIATION OF LEASE AK215531 EXPIRY DATE NOW 26/11/2030. OPTION OF RENEWAL: PRESERVED.
AS202073 VARIATION OF LEASE AK215531 OPTION OF RENEWAL: PRESERVED.

END OF PAGE 1 - CONTINUED OVER

FOLIO: 73/1107041 PAGE 2

SECOND SCHEDULE (9 NOTIFICATIONS) (CONTINUED)

AS643435 MORTGAGE OF LEASE AJ860976 TO JUDO BANK PTY LTD

8 AM864571 EASEMENT FOR MULTI-PURPOSE ELECTRICAL INSTALLATION 4.2 WIDE AFFECTING THE PART DESIGNATED (A) IN DP1239558

9 AM864571 EASEMENT FOR UNDERGROUND POWER LINE(S) 4 WIDE AFFECTING THE PART DESIGNATED (B) IN DP1239558

NOTATIONS

UNREGISTERED DEALINGS: PP DP1233551.

*** END OF SEARCH ***

Section 10.7 Certificates

Tamworth REGIONAL COUNCIL

PO Box 555
Tamworth NSW 2340
P 02 6767 5555 E trc@tamworth.nsw.gov.au
www.tamworth.nsw.gov.au
ABN: 52 631 074 450

Certificate No: *PC2023-2790*
Date: *19 May 2023*
Applicants Ref: *E36020PD*

PLANNING CERTIFICATE
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Applicant:

JK Geotechnics
PO Box 976
NORTH RYDE BC NSW 1670

Owner (as recorded by Council):

Tamworth Regional Council
PO Box 555
TAMWORTH NSW 2340

Land: Kable Avenue TAMWORTH NSW 2340
Part Lot 73 DP 1107041

This certificate is provided pursuant to Section 10.7(2)(5) of the Act. At the date of this certificate, the subject land is affected by the following matters.

Names of relevant planning instruments and development control plans

Note: Current environmental planning instruments (State environmental planning policies, regional environmental plans and local environmental plans) may be viewed at the NSW Government legislation web-site – www.legislation.nsw.gov.au.

Names of relevant State Environmental Planning Policies

1. State Environmental Planning Policy (Building Sustainability Index BASIX) 2004
2. State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
3. State Environmental Planning Policy (Housing) 2021
4. State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development
5. State Environmental Planning Policy (Biodiversity and Conservation) 2021
6. State Environmental Planning Policy (Industry and Employment) 2021
7. State Environmental Planning Policy (Planning Systems) 2021
8. State Environmental Planning Policy (Primary Production) 2021
9. State Environmental Planning Policy (Resilience and Hazards) 2021
10. State Environmental Planning Policy (Resources and Energy) 2021
11. State Environmental Planning Policy (Transport and Infrastructure) 2021
12. State Environmental Planning Policy (Precincts—Central River City) 2021
13. State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021
14. State Environmental Planning Policy (Precincts—Regional) 2021
15. State Environmental Planning Policy (Precincts—Western Parkland City) 2021

Local Environmental Plan

16. Tamworth Regional Local Environmental Plan 2010

Development Control Plans

17. Tamworth Regional Development Control Plan 2010.

Draft Environmental Planning Policies and Draft Development Control Plans

18. The following proposed environmental planning instruments and draft development control plans are or have been the subject of community consultation or on public exhibition under the Environmental Planning and Assessment Act 1979, may apply to the carrying out of development on the land:

- **Tamworth Flood Risk Management Plan –** The proposed Tamworth Flood Risk Management Plan documents were on public exhibition between Tuesday 04 April - Friday 19 May 2023, and recommends strategies for the mitigation of future flooding in Tamworth. To view the Plan, visit Council's MyTRC Online Community at https://haveyoursay.tamworth.nsw.gov.au/tamworth-flood-risk-management-plan

Detailed information on all Draft Environmental Planning Policies are available at the NSW Department of Planning and Environment website.

Zoning and land use under relevant LEPs

19. The subject land is affected by the Tamworth Regional Local Environmental Plan 2010. Under this plan, the land is zoned –

RE1 Public Recreation

1. Objectives of zone

- To enable land to be used for public open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.

2. Permitted without consent

Environmental protection works; Moorings; Roads

3. Permitted with consent

Aquaculture; Boat sheds; Building identification signs; Business identification signs; Camping grounds; Car parks; Caravan parks; Charter and tourism boating facilities; Centre-based child care facilities; Community facilities; Crematoria; Electricity generating works; Entertainment facilities; Environmental facilities; Function centres; Helipads; Information and education facilities; Kiosks; Markets; Medical centres; Recreation areas; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Respite day care centres; Restaurants or cafes; Sewage treatment plants; Shops; Waste or resource management facilities; Water recreation structures; Water supply systems

4. Prohibited

Commercial premises; Neighbourhood shops; Any other development not specified in item 2 or 3.

E2 Commercial Centre

1 Objectives of zone

- To strengthen the role of the commercial centre as the centre of business, retail, community and cultural activity.
- To encourage investment in commercial development that generates employment opportunities and economic growth.
- To encourage development that has a high level of accessibility and amenity, particularly for pedestrians.
- To enable residential development only if it is consistent with the Council's strategic planning for residential development in the area.
- To ensure that new development provides diverse and active street frontages to attract pedestrian traffic and to contribute to vibrant, diverse and functional streets and public spaces.

2 **Permitted without consent**

Roads

3 **Permitted with consent**

Amusement centres; Artisan food and drink industries; Attached dwellings; Backpackers' accommodation; Boarding houses; Centre-based child care facilities; Commercial premises; Community facilities; Creative industries; Entertainment facilities; Function centres; Home industries; Hostels; Hotel or motel accommodation; Information and education facilities; Local distribution premises; Medical centres; Mortuaries; Multi dwelling housing; Oyster aquaculture; Passenger transport facilities; Places of public worship; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Registered clubs; Residential flat buildings; Respite day care centres; Restricted premises; Shop top housing; Tank-based aquaculture; Vehicle repair stations; Veterinary hospitals; Any other development not specified in item 2 or 4

4 **Prohibited**

Agriculture; Airstrips; Air transport facilities; Animal boarding or training establishments; Boat building and repair facilities; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Farm stay accommodation; Forestry; Freight transport facilities; Heavy industrial storage establishments; Helipad; Highway service centres; Industrial retail outlet; Industrial training facilities; Industries; Jetties; Liquid fuel depots; Marinas; Mooring pens; Moorings; Open cut mining; Recreation facilities (major); Research stations; Residential accommodation; Rural industries; Service stations; Sex services premises; Storage premises; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle sales or hire premises; Warehouse or distribution centres; Waste or resource management facilities; Water recreation structures; Wharf or boating facilities; Wholesale supplies

Additional permitted uses

20. The land is not subject to additional permissible uses under Schedule 1 of the Tamworth Regional Local Environmental Plan 2010.

Development standards for the erection of a dwelling house

21. There are no development standards that apply to the land with fixed minimum land dimensions for the erection of a dwelling house.

Biodiversity Conservation Act 2016

22. The land is not identified in an area of outstanding biodiversity value under the Biodiversity Conservation Act 2016

Conservation Area

23. The land is not identified in the Tamworth Regional Local Environmental Plan 2010 as being located in a conservation area.

Environmental Heritage Item

24. No environmental planning instrument identifies an item of environmental heritage on the land.

Contributions Plan

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

- Tamworth Regional Council Section 94 (Direct) Development Contributions Plan 2013 applies to the land.
- Tamworth Regional Council Section 94 (Indirect) Development Contributions Plan 2013 applies to the land.

26. The land is not land in a special contributions area under the Act, Division 7.1.

Complying Development

27. Complying Development may be carried out on the land under the following codes contained within the State Environmental Planning Policy (Exempt & Complying Development Codes) 2008:

- Part 3 - General Housing Code
- Part 3B - Low Rise Housing Diversity Code
- Part 3C - Greenfield Housing Code
- Part 3D - Inland Code
- Part 4 - Housing Alterations Code
- Part 4A - General Development Code
- Part 5 –Industrial and Business Alterations Code
- Part 5A - Industrial and Business Buildings Code
- Part 5B - Container Recycling Facilities Code
- Part 6 - Subdivisions Code
- Part 7 - Demolition Code
- Part 8 - Fire Safety Code

If complying development may not be carried on the land under the above codes, it is because of the provisions of Clauses 1.17A(1)(c) to (e), (2), (3), and (4), 1.18(1)(c3) and 1.19 of the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Council does not have sufficient information to ascertain the reason why complying development may not be carried out under the Policy. Contact Councils Development Hub on development@tamworth.nsw.gov.au for any enquiries relating to the reason why complying development may not be carried out on the land.

Exempt development

28. Exempt Development may be carried out on the land under the following codes contained within Part 2 of the State Environmental Planning Policy (Exempt & Complying Development Codes) 2008:

- Division 1 - General Exempt Development Code
- Division 2 - Advertising and Signage Exempt Development Code
- Division 3 - Temporary Uses and Structures Exempt Development Code

Affected building notices and building product rectifications orders

29. Council is not aware of any affected building notice is in force on the land.

30. Council is not aware of any building product rectification order is in force on the land that has not been fully complied with.

31. Council is not aware of any notice of intention to make a building product rectification order on the land which is outstanding.

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

Land reserved for acquisition

32. The land is not subject to acquisition by a public authority under any environmental planning instrument, deemed environmental planning instrument or draft environmental planning instrument, as referred to in Section 3.15 of the Act.

Road widening and road realignment

33. The subject land is not affected by any road widening or realignment proposal under either Division 2 of Part 3 of the Roads Act 1993, any environmental planning instrument or any resolution of Council.

Flood related development control information

34. The land is within the flood planning area and subject to flood related development controls set out in the provisions of the Tamworth Regional Local Environmental Plan 2010 (Clause 5.21) and the Tamworth Regional Development Control Plan 2010 (Development on Flood Affected Land).

Note: It is unknown to Council the full extent of land affected by the flood planning area and therefore you should conduct investigations necessary for determining flood levels in relation to the land. At this time Council adopts 1:100 + 0.5m freeboard as the Flood Planning Level.

Council and other public authority policies on hazard risk restrictions

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

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

Note: The land to which this certificate relates is not subject to the matters identified by Section 59(2) of the Contaminated Land Management Act 1997. You should carry out your own investigations to determine if the site forms part of the list of NSW contaminated sites notified to the NSW Environment Protection Agency. Further investigations by others may be required if it is considered the site may be contaminated.

Bushfire Prone Land

36. The land is identified as “bushfire prone land” (either whole or part) on the Bushfire Prone Land Map, certified by the NSW Rural Fire Service on 28 July 2022. Council has not, by resolution, adopted a policy to restrict development on the land in respect to bushfire for that reason.

Information Regarding Loose-Fill Asbestos Insulation

37. Some residential homes located in the Tamworth Regional Council Local Government Area have been identified as containing loose fill asbestos insulation, for example in the roof space.

You should make your own enquiries as to the age of the buildings on the land to which this certificate relates and, if it contains a building constructed prior to 1980, it is strongly recommended that any potential purchaser obtain advice from a licensed asbestos assessor to determine whether loose-fill asbestos is present in any building on the land and, if so, the health risks (if any) this may pose for the building’s occupants.

Contact NSW Fair Trading for further information.

Mine subsidence

38. The land has not been proclaimed to be a mine subsidence district within the meaning of Coal Mine Subsidence Compensation Act 2017.

Paper subdivision information

39. a) There is no adopted development plan that applies to this land or that is proposed to be subject to a consent ballot.
b) There is no subdivision order that applies to the land.

Property vegetation plans

40. Council has not been advised that a Property Vegetation Plan under the Native Vegetation Act 2003 applies to the subject land.

Biodiversity stewardship sites

41. Council has not been advised by the Chief Executive of the Office of Environment and Heritage that the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the Biodiversity Conservation Act, 2016. Note. Biodiversity stewardship agreements include biobanking agreements under Part 7A of the Threatened Species Conservation Act, 1995 that are taken to be biodiversity stewardship agreements under Part 5 of the Biodiversity Conservation Act, 2016.

Biodiversity certified land

42. Council has not been advised that the land is biodiversity certified land within the meaning of Part 8 of the Biodiversity Conservation Act, 2016. Note. Biodiversity certified land includes land certified under Part 7AA of the Threatened Species Conservation Act 1995, that is taken to be certified under Part 8 of the Biodiversity Conservation Act 2016.

Orders under trees (disputes between neighbours) act 2006

43. No order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

Annual charges under local government act 1993 for coastal protection services that relate to existing coastal protection works

44. Not applicable to the subject land.

Western Sydney aerotropolis

45. Not applicable to the subject land.

Development consent conditions for seniors housing

46. Council is not aware of any current site compatibility certificate that has been issued under Clause 79 of State Environmental Planning Policy (Housing) 2021 in respect of proposed development on the land.

Site Compatibility Certificates and Conditions for Affordable Rental Housing

47. Council is not aware of any valid site compatibility certificate being issued under Part 2 of State Environmental Planning Policy (Housing) 2021 or any former site compatibility certificate being issued under Clause 37 of State Environmental Planning Policy (Affordable Rental Housing) 2009, in respect of development on the land.

Additional information provided pursuant to Section 10.7(2)&(5)

48. For information regarding buildings and structures on the land, please obtain a Building Information Certificate under Section 6.26 of the Environmental Planning and Assessment Act 1979.

Development Division
Liveable Communities Directorate

19 May 2023

Council Records

DOC CODE 2
DOC TYPE 2
SUBJECT 100
FOLIO 1100

CP/DS/DA 77/93

MEMO TO:	Acting General Manager/Town Clerk - [redacted]
COPY TO:	Parks and Gardens Manager - [redacted]
DATE:	17 June 1993
SUBJECT:	Development Application No. 77/93 for a Velodrome Bicycle Facility on Section 7, Cnr Peel and Roderick Streets, Tamworth.
RESPONSE DATE:	N/A

Environmental Planning and Assessment Act, 1979.

NOTICE TO APPLICANT OF DETERMINATION OF A DEVELOPMENT APPLICATION

Pursuant to Section 92 of the Act, notice is hereby given of the determination by Council of Development Application No. 77/93 for a Velodrome Bicycle Facility on Section 7, Cnr Peel and Roderick Streets, Tamworth.

In the determination of this application Council considered all matters listed under Section 90 of the Act.

The development application has been determined by the granting of consent subject to the following conditions:-

1.0 **Planning Services**

1.2 All proposed building, site works or property improvement indicated on the submitted plans or otherwise required under the terms of this consent being completed prior to occupation of the premises.

Reason: To ensure compliance with the provisions of the Environmental Planning and Assessment Act, 1979.

1.3 Informal on-site car parking accommodation being provided for a minimum of fifteen (15) vehicles and such being set out generally in accordance with the details indicated on the submitted plans, except as otherwise provided by the conditions of this consent.

Reason: To ensure the provision of adequate on-site parking facilities commensurate with the demand likely to be generated by the proposed development.

1.4 A suitable sign indicating that vehicles exiting the site must turn left into Roderick Street shall be erected adjacent to the point of egress.

Reason: To ensure that clear direction is provided to the drivers of vehicles leaving the premises in order to facilitate the orderly and efficient use of driveway access and in the interest of traffic safety and convenience.

1.5 All vehicular movement to and from the site being in a forward direction.

Reason: To ensure that the proposed development does not give rise to vehicle reversing movements on or off the Public Road with consequent traffic accident potential and reduction in road efficiency.

1.6 The Murray, Peel and Roderick Streets perimeter of the site shall be intensively landscaped to the satisfaction of the Planning Services Manager. Full details of species, quantities and state of maturity shall accompany the required building application.

Reason: To screen the elevation of the batters.

Note: Special attention shall be paid to the planting adjacent to the intersections to ensure that adequate sight distance is available.

1.7 The landscaped area of the development is to be maintained at all times in accordance with the approved landscape plan.

Reason: To ensure that the landscape component of the development is maintained to an acceptable standard.

1.8 Prior to works commencing, a survey shall be conducted to identify the perimeter of the site. An Identification Survey, prepared by a Registered Surveyor, shall be conducted and a copy submitted to Council as soon as practicable.

Reason: To ensure the development is wholly contained within the subject land.

2.0 <u>Works & Technical Services</u>

2.1 Sealed driveway(s) shall be provided between the kerb and gutter and the property boundary in accordance with Council's Guidelines (copy attached).

Reason: To provide permanent, clearly defined access to the site.

2.2 A metered water service shall be provided to service the amenities building.

Reason: To provide a water service.

2.3 The cycle track shall be located so that it is not built over any sewer manhole.

Reason: So that access to Council's sewer is maintained.

2.4 The cycle track shall be located at least 2m clear of Council's stormwater main.

Reason: To ensure that the main can be accessed in the future.

2.5 All service entry points such as manholes shall be raised to the adjusted surface level of full cost to the applicant.

Reason: To ensure access to services is maintained.

2.6 Completed Engineering drawings which indicate areas of fill and extents of batters shall be submitted and approved <u>prior to the start of any works.</u>

Reason: So that the effects of the development on infrastructure and footpath levels can be determined.

Note: A concrete footpath, constructed in accordance with Council's Guidelines, is required along the full Peel Street frontage of the site.

3.0 Section 94 Contributions

3.1 Council is satisfied that the proposed development is likely to increase the demand for the following public amenities and public services within the area:

* water headworks; and
* sewerage headworks.

Pursuant to Section 94 of the Environmental Planning and Assessment Act, 1979 Council requires the payment of a monetary contribution of:

* $1478 toward the augmentation of water supply; and
* $1233 toward the augmentation of the sewerage system.

The contributions should be paid prior to release of the building application.

The contributions required by this condition is allowed by and determined in accordance with the Tamworth Section 94 Contributions Plan made by the Council on 1 December, 1992, a copy of which may be inspected at the office of the Council.

This approval became effective on 17 June 1993 (Section 93 of the Act) and will lapse unless the proposed development is commenced within two (2) years of the approval date (Section 99 of the Act).

Under the provisions of Section 97 of the Act you may (within twelve (12) months of receipt of this notice) appeal to the Land and Environment Court against conditions imposed should you feel they are unreasonable.

All conditions imposed by Council shall be observed as non-compliance is an offence under the Act.

It should be noted that it will be necessary to have building plans and specifications approved by Council's Building Department before commencing any work.

Council's Building Services advise of the following matters to be taken into consideration:

* A Building Application shall be lodged in accordance with the provisions of the Local Government Act, 1919 (as amended), the Ordinances thereunder, and the Building Code of Australia.

Please address any enquiries concerning conditions of consent to the relevant department of Council.

W R LaHaye
Environmental Services Director

TAMWORTH CITY COUNCIL

DEVELOPMENT APPLICATION FOR

CONSTRUCTION OF A 250m CYCLE TRACK

Statement of Environmental Effects

(a) General

For many years Council has been in the process of upgrading No. 1 Oval and the first stage was the construction of the No. 1 Oval Pavilion.

The second stage is to relocate the Cycle Track to an appropriate site. After much investigation, the portion of unused parkland at Prince of Wales oval adjacent to the new Murray Street bridge was considered more than adequate to meet the needs of the cycling association.

The development application is for the earthworks and construction of a 250m cement racing quality cycle track with clubhouse. (Indicative details provided using Steel Grip Systems information appended).

(b) Traffic and Parking

The cycle facilities are to be developed for use in December, 1994.

From that time the track will be utilised for both training and competition. These sessions would involve approximately 30 - 40 persons.

It is considered that the street parking allowed in the vicinity of the Prince of Wales Park would be sufficient for vehicles involved in such training and competition circumstances, however, extra parking for approximately 15-20 cars will be made available behind the clubhouse.

(c) Amenities

Amenities proposed (as shown on the provided plans) are specified male/female toilets including shower facilities.

(d) Drainage

"V" drains will be placed around the perimeter of the track at the base and will feed into the present storm water drain which is located under the proposed site.

(e) Residential Area

The nearest residential homes are located in East and Murray Streets and are surrounded by various commercial business sites.

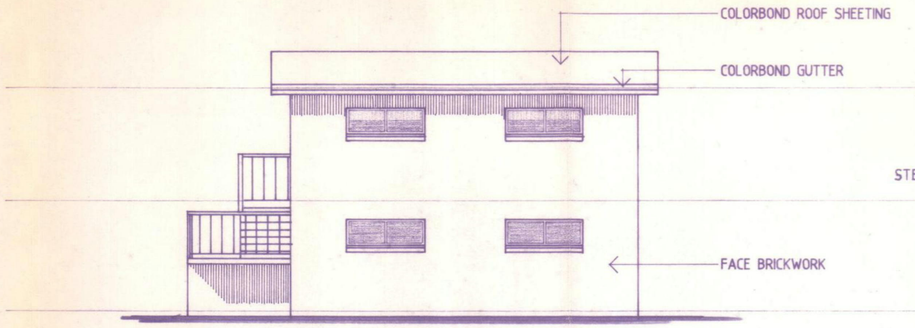
(f) Lighting

Floodlighting will be installed in the future and it is anticipated that no more than six stands will be located at the site and the lighting will not interfere with nearby residences. Most residents in the immediate vicinity are commercial, as already indicated.

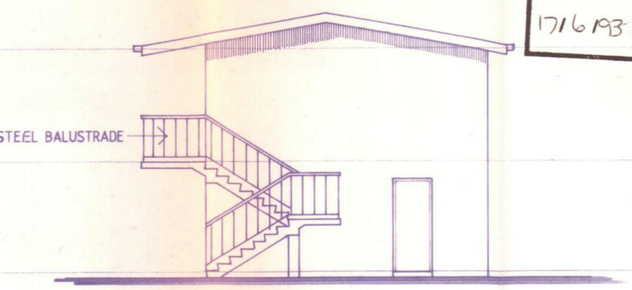
(g) Cost Breakdown:

Earthworks	$ 35,000
Building	$ 44,000
Concrete	$ 56,000
Lights	$ 40,000
	$175,000

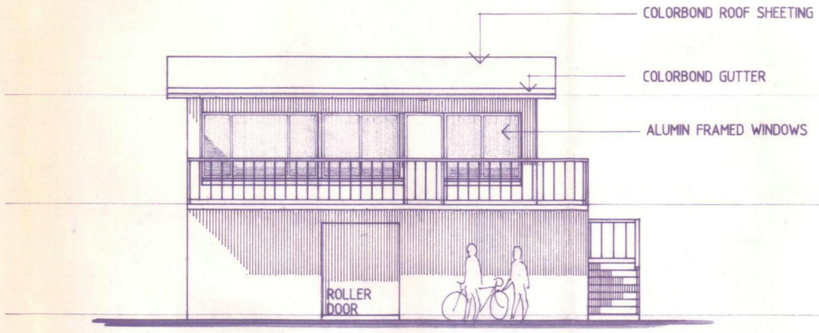
FIRST FLOOR PLAN



WEST ELEVATION



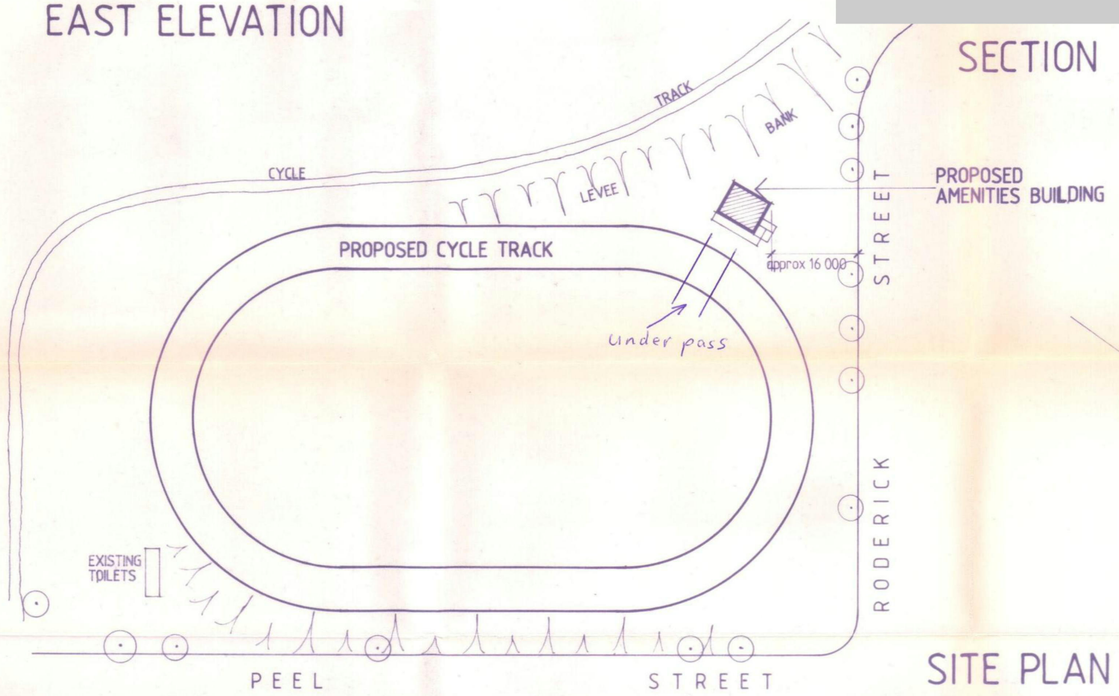
NORTH ELEVATION



EAST ELEVATION

SECTION

GROUND FLOOR PLAN SCALE :- 1:100



SITE PLAN SCALE :- 1:8000

PROPOSED AMENITIES BUILDING AT PRINCE OF WALES PARK CNR PEEL & RODERICK STS. TAMWORTH FOR TAMWORTH AMATEUR CYCLE CLUB

BLEKTON PTY LTD
A.C.N. 003057752
Architectural Drafting & Design Service
20 Murray St. Tamworth. P.O. Box 845 ph:(067) 665412 fax: 665944

DATE: 1-4-93
SCALE: 1:100
REF No: 1312-93

Construction Certificate

FORM 11

issued under the Environmental Planning and Assessment Act 1979
Section 109c(1)(c) & 109II

FILE COPY

Certificate No. C 526/02
Application No. C 526/02
Development Consent No. DA 601/02
Officer Responsible: Catherine Pyne

Applicant's Details

Name: TAMWORTH CYCLE CLUB INC.

Address: PO BOX 1587, TAMWORTH 2340,

Reference: N/A

HREP	
DOC	31371-02
FOLIO	16
BHOP	
C/R	2

Property Identification

PRINCE OF WALES PARK, 545 PEEL STREET, TAMWORTH

Locality TAMWORTH

Classification & Description of Development

Class: 10b ANCILLARY STRUCTURE
Description: Installation of Light Poles and Fittings to Velodrome

Determination

This application has been determined by granting approval on: 20/05/02
This construction certificate will expire at the same time as the development consent relied on.

Attachments

- Schedule of essential fire safety measures (if applicable)
- Conditions required to be attached by the Regulations

Approved Plans and Specifications Relied on

- 18/04/02 PLANS PROVIDED BY APPLICANT

Certificate

The Tamworth City Council certifies that the work:, if completed in accordance with these plans and specifications, will comply with the requirements of s81A(5) of the *Environmental Planning & Assessment Act 1979.*

CLyne ..... 6 JUNE 2002 .....

For: D M Lewis **Date**
Development & Approvals Manager

Note: Prior to commencement of any work, you must appoint a Principal Certifying Authority (PCA). The PCA may be either an Accredited Certifier or Council. The PCA will issue Compliance Certificates in respect of inspections, processes and products required by the Development Consent and if required, an Occupation Certificate (or interim Occupation Certificate). You must advise Council of the appointment of a PCA by submitting a FORM 7 application a minimum of 2 days before work commences.

RAY WALSH HOUSE
437 PEEL STREET,

TAMWORTH NSW 2340
TELEPHONE: (02) 6755 4555

PO BOX 555 TAMWORTH 2340
DX 6125 FAX (02) 6755 4499

ABN 93 752 522 800

FILE COPY

In reply please quote:
LS/D 601/02

If telephoning ask for:
Catherine Pyne
Environment & Planning Services

Please address all correspondence
to the General Manager

20 May 2002

TAMWORTH CYCLE CLUB
PO BOX 1587
TAMWORTH 2340

FREP	20195-02
DOC	26917-02
FOLIO	12
PROP	
C/R	2

Dear Sir/Madam

Environmental Planning and Assessment Act 1979
NOTICE TO APPLICANT OF DETERMINATION OF A DEVELOPMENT APPLICATION

Pursuant to Section 81(1)(a) of the Act, notice is hereby given of the determination by Council of the following development application.

Development Application No. 601/02

Subject Land: Prince of Wales Park, Sec 7, 545 Peel Street, Tamworth

Description: Installation of Light Poles & Fittings To Velodrome

In the determination of this application Council considered all matters listed under Section 79C of the Act. The development application has been determined by the **granting of consent subject to the conditions** listed below. The conditions have been imposed in accordance with the Environmental Planning and Assessment Act and Council's adopted policies.

Please note, this approval became effective on 20 May 2002 (Section 83 of the Act) and will lapse unless the proposed development is commenced within five (5) years of the approval date (Section 95 of the Act).

1.0 Compliance with Building Code of Australia

1.1 All building work must be carried out in accordance with the provisions of the Building Code of Australia.

2.0 General

2.1 The development must be carried out in accordance with the Development Application and accompanying plans, drawings and other documents as amended by conditions of this consent Any amendment to the development or to these conditions will require the consent of the Council.

2.2 All proposed building, site works or property improvement indicated on the submitted plans or otherwise required under the terms of this consent shall be completed prior to occupation of

the premises to ensure compliance with the provisions of the Environmental Planning and Assessment Act, 1979.

2.3 To confirm and clarify the terms of Council's approval, to mitigate any nuisance, and as provided for by Section 80 of the Environmental Planning and Assessment Act, 1979, the lighting shall be extinguished by 10.30pm.

2.4 To confirm the development meets the nominated requirements, certification from an appropriately qualified person is to be submitted to Council once the lights are installed to confirm that the technical requirements of *DCP 9 – Outdoor Lighting Guidelines* and *AS 4282:1997 Control of the Obtrusive Effects of Outdoor Lighting* are satisfied.

3.0 Inspections

3.1 ***Inspection*** - When building works have reached the following stages an inspection is to be arranged by contacting Council's Customer Service Centre by phoning 67554 555 (or by Facsimile 6755 4499) by 4:00pm the day before the inspection is required.

Please advise Council if the work will not be ready at the appointed time. Failure to do so may incur an additional inspection fee of $50.

(i) Pier holes, pads or bulk piers before concrete is poured;

(ii) Final inspection before the structure is occupied.

All conditions imposed by Council shall be observed as non-compliance is an offence under the Act.

Under the provisions of Section 97 of the Act you may (within twelve [12] months of receipt of this notice) appeal to the Land and Environment Court against conditions imposed should you feel they are unreasonable.

Please address any enquiries concerning this consent to Catherine Pyne of Council's Development & Approvals Division on (02) 6755 4537.

Yours faithfully

D M Lewis
Development & Approvals Manager

STATEMENT OF ENVIRONMENTAL EFFECTS

Proposed lighting of Tamworth Velodrome

Site: Tamworth Velodrome, Prince of Wales Oval, Corner of Peel & Roderick Streets, Tamworth. Section 7 – Area 18200sqm.(no subdivision available).

Intended Purpose: To illuminate the existing cycle race track & internal grounds to enable night time competition cycle races.

Frequency of Use: It is intended that the lights will operate on Monday, Wednesday, Friday & Saturday nights between the hours of 7pm and 10pm.

Compliance: This development application will comply with AS 4282:1997 'Control of Obtrusive Effects of Outdoor Lighting' and Tamworth City Council 'Guidelines for Outdoor Lighting' (Development Control Plan No.9).

Vegetation: Apart from the turf on the ground, there is no existing vegetation within the internal confines of the area to be illuminated.

Noise: Noise levels will be consistent with the conduct of a cycle race competition with the occasional use of a public address system.

General Comment: Fourteen (14) light fittings will be mounted on six (6) 15metre fixed tapered octagonal poles. (specifications as per attached details).

As the ground level of the site is up to 4.2 metres below the ground level of the surrounding area and the 15 metre light poles will be buried to a depth of 1.8metres it is considered that there will be minimal spillage of light to the surrounding area.

Aeroscreen Glare Shields will be fitted to all 14 light fittings to minimise light spillage.

SafeWork NSW Records

Mitchell Delaney

From: Alexis Diodati
Sent: Tuesday, 18 July 2023 12:12 PM
To: Mitchell Delaney
Subject: Fwd: SafeWork NSW: 00844985 –Site Search application – Result not found [ref:_00D281hl6J._500Mn5KgwH:ref]

Get Outlook for iOS

Regards
Alexis Diodati
Environmental Scientist

T: +612 9888 5000
D: 0424 578 006
E: ADiodati@jkenvironments.com.au
www.jkenvironments.com.au

PO Box 976
NORTH RYDE BC NSW 1670
115 Wicks Road
MACQUARIE PARK NSW 2113

JKEnvironments

From: Licensing <licensing@safework.nsw.gov.au>
Sent: Tuesday, July 18, 2023 12:11:14 PM
To: adiodati@jkenvironments.com.au <adiodati@jkenvironments.com.au>
Subject: SafeWork NSW: 00844985 –Site Search application – Result not found [ref:_00D281hl6J._500Mn5KgwH:ref]

Security Classification: Sensitive Personal
Please do not amend the subject line of this email

Dear Alexis

Re: Site Search for Schedule 11 Hazardous Chemicals on premises Application – Result not found

I refer to your application for a Site Search for Schedule 11 Hazardous Chemicals on premises, received by SafeWork NSW on 29 May 2023 for the following site: Lot 73, DP 1107041, Peel Street, Tamworth NSW

A search of the records held by SafeWork NSW has not located any records pertaining to the above-mentioned premises.

If you have any further information or if you have any questions, please use one of the following options, quoting the SafeWork NSW enquiry reference number: 00844985

- Email: licensing@safework.nsw.gov.au
- Phone: 13 10 50

Kind regards

Kim Brearley
Licensing Representative
SafeWork NSW | Better Regulation Division
Department of Customer Service
p- 13 10 50
e- licensing@safework.nsw.gov.au | www.customerservice.nsw.gov.au
Level 3, 32 Mann Street, Gosford, NSW 2250

ref:_00D281hl6J._500Mn5KgwH:ref

Appendix C: Laboratory Results Summary Tables

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 325358

Client Details

Client	JK Environments
Attention	Mitchell Delaney
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E36020PD, Tamworth**
Number of Samples	37 Soil, 1 Water
Date samples received	09/06/2023
Date completed instructions received	09/06/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/06/2023
Date of Issue	17/07/2023
Reissue Details	This report replaces R00 due to amendments to sample ID's

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 ***

Asbestos Approved By
Analysed by Asbestos Approved Analyst: Nyovan Moonean
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Dragana Tomas, Senior Chemist
Hannah Nguyen, Metals Supervisor
Liam Timmins, Organics Supervisor
Lucy Zhu, Asbestos Supervisor

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		325358-1	325358-4	325358-6	325358-11	325358-15
Your Reference	UNITS	BH6	BH6	BH7	BH8	BH10
Depth		0-0.1	2.4-2.6	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	06/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	15/06/2023	15/06/2023	15/06/2023	15/06/2023	15/06/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	91	115	99	100	99

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		325358-17	325358-18	325358-23	325358-26	325358-27
Your Reference	UNITS	BH10	BH11	BH12	BH12	BH14
Depth		1.8-2	0-0.1	0-0.1	3.5-3.7	0-0.1
Date Sampled		07/06/2023	07/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	15/06/2023	15/06/2023	15/06/2023	15/06/2023	15/06/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	106	103	97	95	111

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		325358-31	325358-33	325358-34	325358-36	325358-37
Your Reference	UNITS	BH15	BH15	SDUP1	TS1	TB1
Depth		0-0.1	1.85-2.0	-	-	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023	06/06/2023	06/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	15/06/2023	15/06/2023	15/06/2023	15/06/2023	15/06/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	[NA]	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	[NA]	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	[NA]	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	90%	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	89%	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	90%	<1
m+p-xylene	mg/kg	<2	<2	<2	90%	<2
o-Xylene	mg/kg	<1	<1	<1	90%	<1
Naphthalene	mg/kg	<1	<1	<1	[NT]	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	[NT]	<1
Surrogate aaa-Trifluorotoluene	%	102	101	108	87	100

svTRH (C10-C40) in Soil						
Our Reference		325358-1	325358-4	325358-6	325358-11	325358-15
Your Reference	UNITS	BH6	BH6	BH7	BH8	BH10
Depth		0-0.1	2.4-2.6	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	06/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	160	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	160	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	170	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	170	<50
Surrogate o-Terphenyl	%	85	83	86	88	88

svTRH (C10-C40) in Soil						
Our Reference		325358-17	325358-18	325358-23	325358-26	325358-27
Your Reference	UNITS	BH10	BH11	BH12	BH12	BH14
Depth		1.8-2	0-0.1	0-0.1	3.5-3.7	0-0.1
Date Sampled		07/06/2023	07/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	180	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	180	230	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	180	410	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	71	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	71	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	190	310	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	190	380	<50	<50
Surrogate o-Terphenyl	%	82	89	92	85	85

svTRH (C10-C40) in Soil				
Our Reference		325358-31	325358-33	325358-34
Your Reference	UNITS	BH15	BH15	SDUP1
Depth		0-0.1	1.85-2.0	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50
Surrogate o-Terphenyl	%	84	83	84

PAHs in Soil						
Our Reference		325358-1	325358-4	325358-6	325358-11	325358-15
Your Reference	UNITS	BH6	BH6	BH7	BH8	BH10
Depth		0-0.1	2.4-2.6	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	06/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.1	0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.07	0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	0.3	0.2	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	95	95	95	94	93

PAHs in Soil						
Our Reference		325358-17	325358-18	325358-23	325358-26	325358-27
Your Reference	UNITS	BH10	BH11	BH12	BH12	BH14
Depth		1.8-2	0-0.1	0-0.1	3.5-3.7	0-0.1
Date Sampled		07/06/2023	07/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1
Pyrene	mg/kg	<0.1	0.1	0.6	0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	0.6	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.06	0.4	0.06	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	0.2	3.7	0.2	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	0.6	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	0.6	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	0.7	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	93	95	94	91	94

PAHs in Soil				
Our Reference		325358-31	325358-33	325358-34
Your Reference	UNITS	BH15	BH15	SDUP1
Depth		0-0.1	1.85-2.0	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	93	91	92

Organochlorine Pesticides in soil						
Our Reference		325358-1	325358-6	325358-11	325358-15	325358-18
Your Reference	UNITS	BH6	BH7	BH8	BH10	BH11
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	81	77	76	90

Organochlorine Pesticides in soil					
Our Reference		325358-23	325358-27	325358-31	325358-34
Your Reference	UNITS	BH12	BH14	BH15	SDUP1
Depth		0-0.1	0-0.1	0-0.1	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	79	84	78	80

Organophosphorus Pesticides						
Our Reference		325358-1	325358-6	325358-11	325358-15	325358-18
Your Reference	UNITS	BH6	BH7	BH8	BH10	BH11
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion (Methyl)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	81	77	76	90

Organophosphorus Pesticides					
Our Reference		325358-23	325358-27	325358-31	325358-34
Your Reference	UNITS	BH12	BH14	BH15	SDUP1
Depth		0-0.1	0-0.1	0-0.1	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion (Methyl)	mg/kg	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	79	84	78	80

PCBs in Soil						
Our Reference		325358-1	325358-6	325358-11	325358-15	325358-18
Your Reference	UNITS	BH6	BH7	BH8	BH10	BH11
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	81	77	76	90

PCBs in Soil					
Our Reference		325358-23	325358-27	325358-31	325358-34
Your Reference	UNITS	BH12	BH14	BH15	SDUP1
Depth		0-0.1	0-0.1	0-0.1	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	79	84	78	80

Acid Extractable metals in soil						
Our Reference		325358-1	325358-4	325358-6	325358-11	325358-15
Your Reference	UNITS	BH6	BH6	BH7	BH8	BH10
Depth		0-0.1	2.4-2.6	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	06/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Arsenic	mg/kg	4	4	4	5	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	24	26	14	17	21
Copper	mg/kg	33	37	30	49	30
Lead	mg/kg	48	14	12	15	9
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	17	18	11	13	14
Zinc	mg/kg	58	53	46	81	48

Acid Extractable metals in soil						
Our Reference		325358-17	325358-18	325358-23	325358-26	325358-27
Your Reference	UNITS	BH10	BH11	BH12	BH12	BH14
Depth		1.8-2	0-0.1	0-0.1	3.5-3.7	0-0.1
Date Sampled		07/06/2023	07/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Arsenic	mg/kg	<4	4	5	4	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	22	15	21	21	26
Copper	mg/kg	37	41	38	39	36
Lead	mg/kg	8	16	35	20	13
Mercury	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Nickel	mg/kg	18	12	16	12	22
Zinc	mg/kg	37	98	83	64	68

Acid Extractable metals in soil					
Our Reference		325358-31	325358-33	325358-34	325358-39
Your Reference	UNITS	BH15	BH15	SDUP1	BH6 - [TRIPLICATE]
Depth		0-0.1	1.85-2.0	-	0-0.1
Date Sampled		08/06/2023	08/06/2023	08/06/2023	06/06/2023
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Arsenic	mg/kg	<4	4	4	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	18	19	25	25
Copper	mg/kg	37	41	36	36
Lead	mg/kg	13	20	14	14
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	13	13	17	18
Zinc	mg/kg	66	45	57	61

Moisture						
Our Reference		325358-1	325358-4	325358-6	325358-11	325358-15
Your Reference	UNITS	BH6	BH6	BH7	BH8	BH10
Depth		0-0.1	2.4-2.6	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	06/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Moisture	%	12	18	7.7	14	11

Moisture						
Our Reference		325358-17	325358-18	325358-23	325358-26	325358-27
Your Reference	UNITS	BH10	BH11	BH12	BH12	BH14
Depth		1.8-2	0-0.1	0-0.1	3.5-3.7	0-0.1
Date Sampled		07/06/2023	07/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Moisture	%	17	4.4	8.5	16	12

Moisture				
Our Reference		325358-31	325358-33	325358-34
Your Reference	UNITS	BH15	BH15	SDUP1
Depth		0-0.1	1.85-2.0	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023
Moisture	%	13	15	10

Asbestos ID - soils NEPM - ASB-001						
Our Reference		325358-1	325358-6	325358-11	325358-15	325358-18
Your Reference	UNITS	BH6	BH7	BH8	BH10	BH11
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	19/06/2023	19/06/2023	19/06/2023	19/06/2023	19/06/2023
Sample mass tested	g	495.16	542.53	392.67	448.1	349.61
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM - ASB-001				
Our Reference		325358-23	325358-27	325358-31
Your Reference	UNITS	BH12	BH14	BH15
Depth		0-0.1	0-0.1	0-0.1
Date Sampled		08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil
Date analysed	-	19/06/2023	19/06/2023	19/06/2023
Sample mass tested	g	428.25	530.84	343.8
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–
FA and AF Estimation*	g	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001

vTRH(C6-C10)/BTEXN in Water		
Our Reference		325358-35
Your Reference	UNITS	FR-Shovel
Depth		-
Date Sampled		06/06/2023
Type of sample		Water
Date extracted	-	13/06/2023
Date analysed	-	14/06/2023
TRH C_6 - C_9	µg/L	44
TRH C_6 - C_{10}	µg/L	47
TRH C_6 - C_{10} less BTEX (F1)	µg/L	47
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	92
Surrogate toluene-d8	%	104
Surrogate 4-BFB	%	90

svTRH (C10-C40) in Water		
Our Reference		325358-35
Your Reference	UNITS	FR-Shovel
Depth		-
Date Sampled		06/06/2023
Type of sample		Water
Date extracted	-	13/06/2023
Date analysed	-	14/06/2023
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
Total +ve TRH (C10-C36)	µg/L	<50
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Total +ve TRH (>C10-C40)	µg/L	<50
Surrogate o-Terphenyl	%	72

PAHs in Water		
Our Reference		325358-35
Your Reference	UNITS	FR-Shovel
Depth		-
Date Sampled		06/06/2023
Type of sample		Water
Date extracted	-	13/06/2023
Date analysed	-	13/06/2023
Naphthalene	µg/L	<0.2
Acenaphthylene	µg/L	<0.1
Acenaphthene	µg/L	<0.1
Fluorene	µg/L	<0.1
Phenanthrene	µg/L	<0.1
Anthracene	µg/L	<0.1
Fluoranthene	µg/L	<0.1
Pyrene	µg/L	<0.1
Benzo(a)anthracene	µg/L	<0.1
Chrysene	µg/L	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2
Benzo(a)pyrene	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5
Total +ve PAH's	µg/L	<0.1
Surrogate p-Terphenyl-d14	%	91

Metals in Water - Dissolved		
Our Reference		325358-35
Your Reference	UNITS	FR-Shovel
Depth		-
Date Sampled		06/06/2023
Type of sample		Water
Date digested	-	13/06/2023
Date analysed	-	13/06/2023
Arsenic - Dissolved	mg/L	<0.05
Cadmium - Dissolved	mg/L	<0.01
Chromium - Dissolved	mg/L	<0.01
Copper - Dissolved	mg/L	0.6
Lead - Dissolved	mg/L	<0.03
Mercury - Dissolved	mg/L	<0.0005
Nickel - Dissolved	mg/L	<0.02
Zinc - Dissolved	mg/L	<0.02

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. **NOTE** #1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF) **NOTE** #2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.

Method ID	Methodology Summary
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
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	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			15/06/2023	1	15/06/2023	15/06/2023		15/06/2023	15/06/2023
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	110	133
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	110	133
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	115	131
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	117	139
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	102	127
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	108	133
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	112	139
Naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	124	1	91	95	4	103	109

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	15/06/2023	15/06/2023		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	27	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	27	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	27	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	27	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	27	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	27	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	27	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	27	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	27	111	101	9	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			15/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	111	106
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<100	<100	0	119	112
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	<100	<100	0	114	122
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	111	106
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	<100	<100	0	119	112
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	<100	<100	0	114	122
Surrogate o-Terphenyl	%		Org-020	91	1	85	85	0	88	85

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	27	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	27	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	27	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	27	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	27	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	27	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	27	85	85	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			14/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	93
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	99	97
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	84
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	95
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	101
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	99	110
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	93	98
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	<0.05	<0.05	0	86	101
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	94	1	95	96	1	89	87

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	27	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	27	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	27	94	94	0	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			14/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	96
HCB	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	99
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	101	111
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	97	111
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	100
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	98	111
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	115
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	80	105
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	96
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	80	99
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	76	1	92	84	9	79	81

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	27	84	78	7	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			14/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	94	110
Chlorpyriphos-methyl	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	105	117
Dimethoate	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	78	112
Fenitrothion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	83	124
Malathion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	95	122
Parathion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	82	121
Ronnel	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	93	102
Coumaphos	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Parathion (Methyl)	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	76	1	92	84	9	79	81

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Parathion (Methyl)	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	27	84	78	7	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			14/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	90	100
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	76	1	92	84	9	79	81

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	27	84	78	7	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date prepared	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			14/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
Arsenic	mg/kg	4	Metals-020	<4	1	4	4	0	110	#
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	103	71
Chromium	mg/kg	1	Metals-020	<1	1	24	24	0	106	98
Copper	mg/kg	1	Metals-020	<1	1	33	35	6	106	129
Lead	mg/kg	1	Metals-020	<1	1	48	14	110	101	87
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	108	106
Nickel	mg/kg	1	Metals-020	<1	1	17	17	0	103	87
Zinc	mg/kg	1	Metals-020	<1	1	58	61	5	104	107

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	27	4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	27	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	27	26	25	4	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	27	36	37	3	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	27	13	13	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	27	22	20	10	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	27	68	64	6	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Date analysed	-			14/06/2023	[NT]	[NT]	[NT]	[NT]	14/06/2023	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	97	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	100	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	86	[NT]	[NT]	[NT]	[NT]	85	[NT]
Surrogate toluene-d8	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate 4-BFB	%		Org-023	88	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Date analysed	-			14/06/2023	[NT]	[NT]	[NT]	[NT]	14/06/2023	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	90	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	90	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
Surrogate o-Terphenyl	%		Org-020	63	[NT]	[NT]	[NT]	[NT]	72	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Date analysed	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Naphthalene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	76	[NT]
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	85	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	69	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	64	[NT]	[NT]	[NT]	[NT]	84	[NT]

QUALITY CONTROL: Metals in Water - Dissolved					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date digested	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Date analysed	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Arsenic - Dissolved	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	107	[NT]
Cadmium - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	97	[NT]
Chromium - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	101	[NT]
Copper - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	106	[NT]
Lead - Dissolved	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	100	[NT]
Mercury - Dissolved	mg/L	0.0005	Metals-021	<0.0005	[NT]	[NT]	[NT]	[NT]	108	[NT]
Nickel - Dissolved	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	101	[NT]
Zinc - Dissolved	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	97	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Acid Extractable Metals in Soil:
-The laboratory RPD acceptance criteria has been exceeded for 325358-1 for Pb. Therefore a triplicate result has been issued as laboratory sample number 325358-39.
- # Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E36020PD Date Results Required: STANDARD Page: 2 of 2	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Mdelaney@jkenvironments.com.au

Location:	Tamworth						Sample Preserved in Esky on Ice										
Sampler:	OB						Tests Required										
Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6	Combo 3	Asbestos (WA 500mL)	Asbestos (Detection)	BTEX						
8/06/2023	26	BH12	3.3-3.5	G	0	Silty Clay		X									
8/06/2023	27	BH14	0-0.1	G,A	0	F: Silty Clay	X		X								
8/06/2023	28	BH14	0.3-0.5	G,A	0	F: Silty Clay											
8/06/2023	29	BH14	1.8-2	G,A	0.3	F: Silty Clay											
8/06/2023	30	BH14	3.3-3.5	G,A	0.7	Silty Clay											
8/06/2023	31	BH15	0-0.1	G,A	0	F: Silty Clay	X		X								
8/06/2023	32	BH15	0.8-1	G,A	0	F: Silty Clay											
8/06/2023	33	BH15	1.8-2	G,A	0	Silty Clay		X									
6/06/2023	34	SDUP 1	NA	G	0	Soil	X										
7/06/2023	50	SDUP 2	NA	G	0	Soil	X	PLEASE SEND to ENVIRO LAB VIC									
6-8/06/23	35	FR-Shovel	NA	G1, V, H	NA	Water		X									
6-8/06/23	36	TS1	NA	V	NA	Sand					X						
6-8/06/23	37	TB1	NA	V	NA	Sand		X									
	38	B12	3.5-3.7														

ENVIROLAB

Envirolab Services
25 Research Drive
Croydon South VIC 3136
Ph: (03) 9763 2500

Job No: 377865
Date Received: 9/6/23
Time Received: 12:25pm
Received By: AG
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None
8.0°C

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 325358.
Date Received: 9/6/23
Time Received: 1610
Received By: EW
Temp: Cool/Ambient
Cooling: Ice/Ice
Security: Intact/Broken/None

Remarks (comments/detection limits required):	Sample Containers: G - 250mg Glass Jar G1 - 500mL Amber Glass Bottle V - BTEX Vial A - Ziplock Asbestos Bag P - Plastic Bag H - HNO3 Wash PVC

Relinquished By: MD	Date: 9.6.23	Time:	Received By: EW	Date: 9/6/23

Relinquished by: ELS SYD
Da Hyun Lee
13/6/23 @ 1200

Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph 03 9763 2500 fax 03 9763 2633
melbourne@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	Mitch Delaney

Sample Login Details

Your reference	E36020PD
Envirolab Reference	37865
Date Sample Received	14/06/2023
Date Instructions Received	14/06/2023
Date Results Expected to be Reported	20/06/2023

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	8.0
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Pamela Adams	Chris De Luca
Phone: 03 9763 2500	**Phone: 03 9763 2500**
Fax: 03 9763 2633	**Fax: 03 9763 2633**
Email: padams@envirolab.com.au	**Email: cdeluca@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph 03 9763 2500 fax 03 9763 2633
melbourne@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	TRH Soil C10-C40 NEPM	PAHs in Soil	OCP in Soil	OP in Soil	PCBsin Soil	Acid Extractable metalsin soil
SDUP2	✓	✓	✓	✓	✓	✓	✓

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.

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melbourne@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 37865

Client Details

Client	JK Environments
Attention	Mitch Delaney
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E36020PD**
Number of Samples	1 Soil
Date samples received	14/06/2023
Date completed instructions received	14/06/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	20/06/2023
Date of Issue	20/06/2023

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Chris De Luca, Assistant Lab Manager
Tara White, Metals Team Leader
Tianna Milburn, Senior Chemist

Authorised By
Pamela Adams, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	17/06/2023
vTRH C_6 - C_9	mg/kg	<25
vTRH C_6 - C_{10}	mg/kg	<25
TRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total BTEX	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	90

TRH Soil C10-C40 NEPM		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	18/06/2023
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	94

PAHs in Soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	17/06/2023
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j&k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Total +ve PAH's	mg/kg	0.1
Benzo(a)pyrene TEQ calc (Zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc (Half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc (PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d_{14}	%	92

OCP in Soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	17/06/2023
alpha-BHC	mg/kg	<0.1
Hexachlorobenzene	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve reported Aldrin + Dieldrin	mg/kg	<0.1
Total +ve reported DDT+DDD+DDE	mg/kg	<0.1
Surrogate 2-chlorophenol-d4	%	78

OP in Soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	17/06/2023
Azinphos-methyl	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Chlorpyrifos	mg/kg	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Dichlorovos	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Ethion	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Parathion	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Coumaphos	mg/kg	<0.1
Disulfoton	mg/kg	<0.1
Fenamiphos	mg/kg	<0.1
Fenthion	mg/kg	<0.1
Methidathion	mg/kg	<0.1
Mevinphos	mg/kg	<0.1
Methyl Parathion	mg/kg	<0.1
Phorate	mg/kg	<0.1
Phosalone	mg/kg	<0.1
Surrogate 2-chlorophenol-d4	%	78

PCBs in Soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	17/06/2023
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate 2-fluorobiphenyl	%	108

Acid Extractable metals in soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date digested	-	17/06/2023
Date analysed	-	19/06/2023
Arsenic	mg/kg	6
Cadmium	mg/kg	<0.4
Chromium	mg/kg	19
Copper	mg/kg	54
Lead	mg/kg	15
Mercury	mg/kg	<0.1
Nickel	mg/kg	14
Zinc	mg/kg	88

Moisture		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date prepared	-	16/06/2023
Date analysed	-	17/06/2023
Moisture	%	12

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105°C for a minimum of 12 hours.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	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. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD or GC-MS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Note, For OCs the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. 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. 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-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
vTRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	119	[NT]
vTRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	119	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	112	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	109	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	116	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	128	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	117	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	95	[NT]	[NT]	[NT]	[NT]	97	[NT]

QUALITY CONTROL: TRH Soil C10-C40 NEPM					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	105	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	105	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	107	[NT]
Surrogate o-Terphenyl	%		Org-020	93	[NT]	[NT]	[NT]	[NT]	86	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	120	[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]	126	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	122	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	[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]	122	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	122	[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]	112	[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]	120	[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-d_{14}	%		Org-022/025	92	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: OCP in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Hexachlorobenzene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	87	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	124	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	117	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-chlorophenol-d4	%		Org-022/025	104	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: OP in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
Azinphos-methyl	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyrifos	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Diazinon	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	124	[NT]
Dichlorovos	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Fenitrothion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Malathion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methyl Parathion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-chlorophenol-d4	%		Org-022/025	104	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
Aroclor 1016	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	130	[NT]
Aroclor 1260	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-fluorobiphenyl	%		Org-022/025	108	[NT]	[NT]	[NT]	[NT]	108	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date digested	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
Date analysed	-			19/06/2023	[NT]	[NT]	[NT]	[NT]	19/06/2023	[NT]
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	[NT]	[NT]	111	[NT]
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	[NT]	[NT]	108	[NT]
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	105	[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.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	Mitchell Delaney

Sample Login Details

Your reference	E36020PD, Tamworth
Envirolab Reference	325358
Date Sample Received	09/06/2023
Date Instructions Received	09/06/2023
Date Results Expected to be Reported	19/06/2023

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	37 Soil, 1 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	11
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Extra sample received: B12/3.5-3.7
TB1: only 1 x vial received, sample will be analysed for vTRH/BTEX only

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Water - Dissolved	On Hold
BH6-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH6-0.4-0.5													✓
BH6-1.3-1.5													✓
BH6-2.3-2.5	✓	✓	✓				✓						
BH6-3.3-3.5													✓
BH7-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH7-0.3-0.5													✓
BH7-1.3-1.5													✓
BH7-2.3-2.5													✓
BH7-3.3-3.5													✓
BH8-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH8-0.3-0.5													✓
BH8-1.3-1.5													✓
BH8-2.3-2.5													✓
BH10-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH10-0.3-0.5													✓
BH10-1.8-2	✓	✓	✓				✓						
BH11-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH11-0.8-1													✓
BH11-1.8-2													✓
BH11-2.8-3													✓
BH11-3-3.2													✓
BH12-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH12-0.8-1													✓
BH12-1.8-2													✓
BH12-3.3-3.5	✓	✓	✓				✓						
BH14-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH14-0.3-0.5													✓
BH14-1.8-2													✓
BH14-3.3-3.5													✓
BH15-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH15-0.8-1													✓

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Water - Dissolved	On Hold
BH15-1.8-2	✓	✓	✓				✓						
SDUP1	✓	✓	✓	✓	✓	✓	✓						
FR-Shovel									✓	✓	✓	✓	
TS1	✓												
TB1	✓												
B12-3.5-3.7													✓

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.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E36020PD Date Results Required: STANDARD Page: 1 of 2	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Mdelaney@jkenvironments.com.au

Location:	Tamworth	Sample Preserved in Esky on Ice
Sampler:	OB	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6	Combo 3	Asbestos (WA 500mL)	Asbestos (Detection)	BTEX								
6/06/2023	1	BH6	0-0.1	G, A	0	F: Silty Clay	X		X										
6/06/2023	2	BH6	0.4-0.5	G, A	0	F: Silty Clay													
6/06/2023	3	BH6	1.3-1.5	G, A	0	F: Silty Clay													
6/06/2023	4	BH6	2.3-2.5	G, A	0	Silty Clay		X											
6/06/2023	5	BH6	3.3-3.5	G, A	0	Silty Clay													
7/06/2023	6	BH7	0-0.1	G, A	0	F: Silty Clay	X		X										
7/06/2023	7	BH7	0.3-0.5	G, A	0	F: Silty Clay													
7/06/2023	8	BH7	1.3-1.5	G, A	0	F: Silty Clay													
7/06/2023	9	BH7	2.3-2.5	G, A	0	F: Silty Clay													
7/06/2023	10	BH7	3.3-3.5	G, A	0	Silty Clay													
7/06/2023	11	BH8	0-0.1	G, A	0	F: Silty Clay	X		X										
7/06/2023	12	BH8	0.3-0.5	G, A	0	F: Silty Clay													
7/06/2023	13	BH8	1.3-1.5	G, A	0	Silty Clay													
7/06/2023	14	BH8	2.3-2.5	G, A	0	Silty Clay													
7/06/2023	15	BH10	0-0.1	G, A	0	F: Silty Clay	X		X										
7/06/2023	16	BH10	0.3-0.5	G, A	0	F: Silty Clay													
7/06/2023	17	BH10	1.8-2	G, A	0	Silty Clay		X											
7/06/2023	18	BH11	0-0.1	G, A	0	F: Silty Clay	X		X										
7/06/2023	19	BH11	0.8-1	G, A	0	F: Silty Clay													
7/06/2023	20	BH11	1.8-2	G, A	0	F: Silty Clay													
7/06/2023	21	BH11	2..8-3	G, A	0	F: Silty Clay													
7/06/2023	22	BH11	3-3.2	G	0	Silty Clay													
8/06/2023	23	BH12	0-0.1	G, A	0	F: Silty Clay	X		X										
8/06/2023	24	BH12	0.8-1	G, A	0	F: Silty Clay													
8/06/2023	25	BH12	1.8-2	G, A	0	F: Silty Clay													

Remarks (comments/detection limits required):

Sample Containers:
G - 250mg Glass Jar
A - Ziplock Asbestos Bag
P - Plastic Bag

Environmental Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

AB

JO: 325388.

Date Received: 9/6/23.

Time Received: 1610

Received By: EW

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken

11°C.

Relinquished By: MD	Date: 9.6.23	Time:	Received By: EW	Date: 9/6/23.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD	JKE Job Number: E36020PD	JKEnvironments
12 ASHLEY STREET		REAR OF 115 WICKS ROAD
CHATSWOOD NSW 2067		MACQUARIE PARK, NSW 2113
P: (02) 99106200	Date Results Required: STANDARD	P: 02-9888 5000 F: 02-9888 5001
F: (02) 99106201		Attention: Mdelaney@jkenvironments.com.au
Attention: Aileen	Page: 2 of 2	

Location:	Tamworth	Sample Preserved in Esky on Ice
Sampler:	OB	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6	Combo 3	Asbestos (WA 500mL)	Asbestos (Detection)	BTEX							
8/06/2023	26	BH12	3.3-3.5	G	0	Silty Clay		X										
8/06/2023	27	BH14	0-0.1	G,A	0	F: Silty Clay	X		X									
8/06/2023	28	BH14	0.3-0.5	G,A	0	F: Silty Clay												
8/06/2023	29	BH14	1.8-2	G,A	0.3	F: Silty Clay												
8/06/2023	30	BH14	3.3-3.5	G,A	0.7	Silty Clay												
8/06/2023	31	BH15	0-0.1	G,A	0	F: Silty Clay	X		X									
8/06/2023	32	BH15	0.8-1	G,A	0	F: Silty Clay												
8/06/2023	33	BH15	1.8-2	G,A	0	Silty Clay		X										
6/06/2023	34	SDUP 1	NA	G	0	Soil	X											
7/06/2023	50	SDUP 2	NA	G	0	Soil	X	PLEASE SEND to ENVIRO LAB VIC										
6-8/06/23	35	FR-Shovel	NA	G1, V, H	NA	Water		X										
6-8/06/23	36	TS1	NA	V	NA	Sand					X							
6-8/06/23	37	TB1	NA	V	NA	Sand		X										
	38	B12	3.5-3.7															

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

AB

Job No: 325358.
Date Received: 9/6/23
Time Received: 1610
Received By: GW
Temp: Cool/Ambient
Cooling: Ice/Ice
Security: Intact/Broken

Remarks (comments/detection limits required):

Sample Containers:
G - 250mg Glass Jar G1 - 500mL Amber Glass Bottle V - BTEX Vial
A - Ziplock Asbestos Bag
P - Plastic Bag H - HNO3 Wash PVC

Relinquished By: MD	Date: 9.6.23	Time:	Received By: GW	Date: 9/6/23

Appendix D: Borehole Logs

JKGeotechnics

BOREHOLE LOG

Borehole No. 1

1/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 378.5m

Date: 5/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			FILL: Silty sand, fine to medium grained, dark brown, trace of igneous gravel, clay nodules and root fibres.	D			GRASS COVER
										w>PL			
					N = 10 3,6,4				FILL: Silty clay, medium plasticity, dark brown, trace of fine to medium grained sand, fine to medium grained igneous gravel, and root fibres.			400 450 500	APPEARS MODERATELY TO WELL COMPACTED
						1							
					N = 16 5,6,10							>600 >600 >600	
						2							
								CI	Silty CLAY: medium plasticity, brown.	w>PL	St- VSt		ALLUVIAL
					N = 8 2,3,5	3						200 200 200	
						4		SP	Silty gravelly SAND: fine to coarse grained, grey and orange brown, fine to coarse grained sub-rounded and sub angular alluvial gravel, trace of clay fines, with silty sandy gravel bands.	M	L		BANDS OF LOW AND MODERATE 'TC' BIT RESISTANCE
					N = 8 4,4,4								
G.W. ON COMPLET-ION AND AFTER 1 HR ▶						5							
					N = 7 6,3,4	6				W			
AFTER 3 DAYS ▼						7							

JKGeotechnics

BOREHOLE LOG

Borehole No. 1 2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 378.5m

Date: 5/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
					N = 32 12,16,15	8		SP	Silty gravelly SAND: fine to coarse grained, grey and orange brown, fine to coarse grained sub-rounded and sub angular alluvial gravel, trace of clay fines, with silty sandy gravel bands.	W	D		
					N = SPT 15/150mm REFUSAL	9		-	GREYWACKE: fine grained, grey.	DW	L-M		BALDWIN FORMATION
						10			END OF BOREHOLE AT 10.0m				HIGH 'TC' BIT RESISTANCE 'TC' BIT REFUSAL
						11							
						12							
						13							
						14							

JKGeotechnics

BOREHOLE LOG

Borehole No. 2

1/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 381.5m

Date: 5/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION					N = 11 5,6,5	0			FILL: Silty sand, fine to medium grained, dark brown, trace of igneous gravel, clay fines and root fibres.	D M			GRASS COVER APPEARS MODERATELY TO WELL COMPACTED
						1			FILL: Silty clayey gravel, fine grained, grey and dark brown, sub-angular, igneous, trace of root fibres.	w>PL			
					N = 17 4,8,9	2			FILL: Silty clay, medium plasticity, dark brown, trace of fine grained igneous gravel and root fibres.			350 370 300	
					N = 9 3,3,6	3			as above, but red brown and dark brown.			190 190 190	
						4		CI	Silty CLAY: medium plasticity, dark brown.	w≈PL	Hd		ALLUVIAL
					N = 12 5,5,7	5				w>PL		>600 >600 >600	
					N = 21 4,9,12	6						>600 >600 >600	
						7							

JKGeotechnics

BOREHOLE LOG

Borehole No. **2** 2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 381.5m

Date: 5/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
				■				CH	Silty CLAY: high plasticity, dark brown.	w>PL	Hd		
									END OF BOREHOLE AT 7.5m				
						8							
						9							
						10							
						11							
						12							
						13							
						14							

JKGeotechnics

BOREHOLE LOG

Borehole No. 3

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 381.5m

Date: 6/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION						0			FILL: Silty clay, medium plasticity, brown, trace of fine to medium grained sand, and fine to medium grained igneous gravel, plastic fragments and root fibres.	w<PL			GRASS COVER
										w≈PL			APPEARS MODERATELY COMPACTED
					N = 12 3,6,6							430 450 530	
						1			FILL: Silty gravelly clay, medium plasticity, brown and grey, sub-rounded and sub-angular, igneous gravel, trace of fine to medium grained sand, plastic fragments and root fibres.				
					N = 12 4,5,7							530	
						2							
									as above, but trace of ash, without plastic fragments.	w>PL			
					N = 6 3,4,2	3							
									FILL: Silty clay, medium plasticity, brown, trace of fine to coarse grained, sub-angular, igneous gravel.				
						4							
								CI	Silty CLAY: medium plasticity, dark brown, trace of fine to medium grained sub-angular alluvial gravel.	w>PL	VSt- Hd	350 350 400	ALLUVIAL
					N = 10 3,4,6	5							
									as above, but brown.				BAND OF VERY LOW 'TC' BIT RESISTANCE
					N = SPT 10/50mm REFUSAL	6			Silty CLAY: medium plasticity, yellow brown, trace of fine to medium grained sand, and fine grained, sub-angular, alluvial gravel.				
								-	GREYWECKE: fine grained, grey.	DW	M-H		BALDWIN FORMATION HIGH 'TC' BIT RESISTANCE
						7							

JKGeotechnics

BOREHOLE LOG

Borehole No. **3** 2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 381.5m

Date: 6/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
									GREYWECKE: as above.	DW	H		
									END OF BOREHOLE AT 7.1m				'TC' BIT REFUSAL
						8							
						9							
						10							
						11							
						12							
						13							
						14							

JKGeotechnics

BOREHOLE LOG

Borehole No. 4 1/1

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 380.5m

Date: 6/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION						0			FILL: Silty sand, fine to medium grained, brown, trace of fine to medium grained igneous gravel, clay fines and root fibres.	D			GRASS COVER APPEARS POORLY TO MODERATELY COMPACTED
					N = 15 5,7,6	1			FILL: Silty clay, medium plasticity, brown, trace of sub-angular, igneous gravel, fine to medium grained sand, and root fibres.	w>PL			
					N = 6 3,2,4	2						200 220 220	
					N > 3 6,3/50mm REFUSAL	3		-	GREYWACKE: fine to medium grained, grey.	DW	M-H	520 440 400	BALDWIN FORMATION MODERATE TO HIGH 'TC' BIT RESISTANCE
						4							
									END OF BROREHOLE AT 4.5m				'TC' BIT REFUSAL
						5							
						6							
						7							

JKGeotechnics

BOREHOLE LOG

Borehole No. 5

1/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 381.5m

Date: 6/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
ON COMPLET-ION AND AFTER 2 DAYS						0			FILL: Silty clay, medium plasticity, brown, trace of fine to medium grained sand, igneous gravel and root fibres.	w<PL			GRASS COVER APPEARS WELL COMPACTED
					N = 18 6,10,8				FILL: Silty clay, medium plasticity, dark brown, trace of fine to medium grained sand, igneous gravel, and root fibres.	w>PL		380 400 350	
						1							
					N = 14 4,7,7							280 250 220	
						2							
					N = 16 6,7,9	3			FILL: Silty clay, medium plasticity, dark brown, trace of fine grained, sub-rounded and sub-angular, alluvial and igneous gravel.	w>PL		350 380 330	
						4		GP	Clayey GRAVEL: fine grained, grey, sub-rounded, alluvial.	D			ALLUVIAL HIGH 'TC' BIT RESISTANCE
						5		CI	Silty CLAY: medium plasticity, dark brown, trace of coarse grained, sub-angular, alluvial gravel.	w>PL	Hd	600 350 >600	SOIL STRENGTH RESISTANCE
					N = 25 6,11,14	6			as above, but yellow brown and orange brown, trace of fine grained, sub-angular, alluvial gravel.				
						7							

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BOREHOLE LOG

Borehole No. 5 2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 381.5m

Date: 6/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
				■				CI	Silty CLAY: medium plasticity, yellow brown and orange brown, trace of fine grained, sub-angular, alluvial gravel.	w>PL	Hd		
						8			END OF BOREHOLE AT 7.5m				GROUNDWATER MONITORING WELL INSTALLED TO 7.5m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 4.5m TO 7.5m. CASING 4.5m TO 0.1m. 2mm SAND FILTER PACK 4.2m TO 7.5m. BENTONITE SEAL 1.9m TO 4.2m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
						9							
						10							
						11							
						12							
						13							
						14							

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BOREHOLE LOG

Borehole No. 6

1/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 379.5m

Date: 6/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION						0			FILL: Silty clay, medium plasticity, brown, trace of igneous gravel, fine to medium grained sand, glass fragments and root fibres.	w>PL			GRASS COVER APPEARS MODERATELY COMPACTED
					N = 12 6,6,6	1						410 400 400	SCREEN: 10.61kg 0-0.1m, NO FCF
					N = 9 7,4,5	2			as above, but orange brown and brown, without glass fragments.			230 260 250	INSUFFICIENT RETURN FOR SCREEN SAMPLE
					N = 11 4,5,6	3		CI	Silty clay, medium plasticity, dark brown and brown.	w>PL	VSt	230 310 250	ALLUVIAL
					N = 16 5,7,0	4					VSt- Hd	320 410 380	
					N = 22 7,9,13	5		CI	Silty CLAY: medium plasticity, brown, trace of fine to coarse grained, sub-rounded and sub-angular, alluvial gravel.		Hd	460 470 540	
						6							
						7							

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BOREHOLE LOG

Borehole No. 6

2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 379.5m

Date: 6/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
				■					Silty CLAY: medium plasticity, brown, trace of fine to coarse grained, sub-rounded and sub-angular, alluvial gravel.	w>PL	Hd		
									END OF BOREHOLE AT 7.5m				
						8							
						9							
						10							
						11							
						12							
						13							
						14							

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BOREHOLE LOG

Borehole No. 7 1/1

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 380.5m

Date: 7/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION						0			FILL: Silty clay, medium plasticity, brown, with igneous gravel, trace of fine to medium grained sand, glass fragments and root fibres.	w<PL			GRASS COVER APPEARS MODERATELY COMPACTED
					N = 9 4,4,5				FILL: Silty clay, medium plasticity, orange brown mottled brown, trace of sub-rounded and sub-angular igneous gravel.	w>PL		320 300 400	SCREEN: 10.01kg 0-0.1m, NO FCF
						1							
					N = 10 4,5,5							400 380 320	INSUFFICIENT RETURN FOR SCREEN SAMPLE
						2							
								CI	Silty CLAY: medium plasticity, orange brown, trace of fine to coarse grained, sub-angular and sub-rounded, sedimentary gravel.	w>PL	Hd		ALUVIAL
					N = 24 6,10,14	3						500 510 530	
									Silty gravelly CLAY: medium plasticity, yellow brown, coarse grained, sub-rounded and sub-angular alluvial gravel.	M			LOW TO MODERATE 'TC' BIT RESISTANCE BAND
						4							
					N = SPT 8/50mm REFUSAL			-	GREYWACKE: fine to medium grained, grey.	DW	L-M		TOO GRAVELLY FOR HP TESTING BALDWIN FORMATION LOW TO MODERATE 'TC' BIT RESISTANCE
						5							
						6			END OF BOREHOLE AT 5.9m				'TC' BIT REFUSAL
						7							

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BOREHOLE LOG

Borehole No. 8

1/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 378.0m

Date: 7/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			FILL: Silty clay, medium plasticity, dark brown, with igneous gravel, trace of fine to medium grained sand, and root fibres.	w<PL			GRASS COVER
					N = 13 3,6,7					w≈PL		>600 >600 >600	APPEARS WELL COMPACTED
						1							SCREEN: 10.10kg 0-0.1m, NO FCF
													INSUFFICIENT RETURN FOR SCREEN SAMPLE
					N = 8 5,3,5			CI	Silty CLAY: medium plasticity,dark brown, trace of roots.	w>PL	St- VSt	190 210 210	ALLUVIAL
						2							
					N = 18 5,8,10	3					VSt- Hd	390 390 410	
						4		CH	Silty CLAY: high plasticity, brown, trace of fine grained, sub-rounded and sub-angular, alluvial gravel.				
					N = 14 5,7,7							300 380 400	
						5							
					N = SPT 8/150mm REFUSAL	6			as above, but with fine to coarse grained sub-rounded and sub-angular alluvial gravel.		St- VSt	180 190 200	VERY LOW 'TC' BIT RESISTANCE BAND
						7							

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BOREHOLE LOG

Borehole No. 8 2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 378.0m

Date: 7/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
ON COMPLET-ION ▼				■				CH	Silty CLAY: high plasticity, brown, fine to coarse grained, sub-rounded and sub-angular, alluvial gravel.	w>PL	St- VSt		
									END OF BOREHOLE AT 7.5m				
						8							
						9							
						10							
						11							
						12							
						13							
						14							

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BOREHOLE LOG

Borehole No. 9

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 376.5m

Date: 7/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			FILL: Silty clay, medium plasticity, brown, trace of fine to medium grained sand, igneous gravel and root fibres.	w≈PL			GRASS COVER
								CI	Silty CLAY: medium plasticity, dark brown, trace of sub-angular and sub-rounded alluvial gravel, and roots.	w>PL	VSt- Hd	400 400 410	ALLUVIAL
					N = 13 4,6,7	1							
					N = 19 6,6,13						Hd	>600 >600 550	
						2							BANDS OF LOW AND MODERATE 'TC' BIT RESISTANCE
					N = 17 9,9,8	3		SM	Silty SAND: fine to coarse grained, orange brown, with clay fines, trace of fine to coarse grained, sub-angular and sub-rounded alluvial gravel.	M	MD		
▼						4		CI	Silty sandy CLAY: medium plasticity, brown, fine to coarse grained sand, trace of fine to coarse grained, sub-angular and sub-rounded, alluvial gravel.	w>PL	St		
					N = 12 2,3,9				Silty CLAY: medium plasticity, orange brown and brown, with fine to coarse grained sand, trace of coarse grained sub-angular alluvial gravel.			110 150 180	
▼ ON COMPLET-ION						5			Silty gravelly CLAY: low plasticity, brown, fine to coarse grained sub-angular and sub-rounded alluvial gravel, trace of fine to coarse grained sand.				
					N > 13 8,13/ 150mm REFUSAL	6		GP	Sandy GRAVEL: fine to coarse grained sub-angular, alluvial, grey and brown, fine to coarse grained sand, trace of clay fines.	W	MD		
								GP	Silty clayey GRAVEL: fine to coarse grained sub-angular and sub-rounded, alluvial, grey and brown, trace of fine to medium grained sand.				
						7							

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BOREHOLE LOG

Borehole No. 9 2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 376.5m

Date: 7/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
								GP	Silty clayey GRAVEL: fine to coarse grained sub-angular and sub-rounded, alluvial, grey and brown, trace of fine to medium grained sand.	W	St		HIGH RESISTANCE BAND
						8			END OF BOREHOLE AT 7.5m				GROUNDWATER MONITORING WELL INSTALLED TO 5.5m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 2.5m TO 5.5m. CASING 2.5m TO 0.1m. 2mm SAND FILTER PACK 2.2m TO 5.5m. BENTONITE SEAL 0.9m TO 2.2m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
						9							
						10							
						11							
						12							
						13							
						14							

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BOREHOLE LOG

Borehole No. 10

1/1

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 378.0m

Date: 7/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			FILL: Silty clay, medium plasticity, brown, trace of fine to medium grained sand, igneous gravel and root fibres.	w≈PL			GRASS COVER SCREEN: 10.07kg 0-0.1m, NO FCF
					N = 13 4,5,8			CI	Silty CLAY: medium plasticity, dark brown and brown, trace of roots and root fibres.	w>PL	St	150 130	ALLUVIAL TOO FRIABLE FOR HP TESTING
ON COMPLET-ION						1							
					N = 13 5,5,8						VSt	280 220 300	INSUFFICIENT RETURN FOR SCREEN SAMPLE
						2			Silty CLAY: medium plasticity, brown mottled orange brown, trace of fine to coarse grained alluvial gravel.		Hd		
					N = 22 8,10,22	3						430 430 490	
						4		GP	Clayey GRAVEL: fine to coarse grained sub-angular and sub-rounded alluvial, grey brown, trace of fine to coarse grained sand.	M	D		
					N = 49 14,21,28	5							
▶					N = 26 10,11,15	6							
						7			END OF BOREHOLE AT 6.5m				'TC' BIT REFUSAL

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BOREHOLE LOG

Borehole No. 11

1/1

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 382.5m

Date: 7/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION						0			FILL: Silty clay, medium plasticity, brown, with igneous gravel, trace of root fibres.	w<PL			GRASS COVER
					N = 23 12,12,11					w>PL			APPEARS WELL COMPACTED
						1							SCREEN: 10.01kg 0-0.1m, NO FCF
					N = 15 2,5,10				as above, but trace of slag.			370 180 350	INSUFFICIENT RETURN FOR SCREEN SAMPLE
						2							
					N = 12 4,5,7	3		CI	Silty CLAY: medium plasticity, orange brown, trace of fine to coarse grained, sub-angular and sub-rounded alluvial gravel.	w>PL	St	150 150 160	ALLUVIAL
						4							
					N = 19 5,9,10						VSt	220 220 220	
						5			Silty gravelly CLAY: medium plasticity, orange brown and grey, sub-rounded alluvial gravel, trace of fine to coarse grained sand.				
						6			END OF BOREHOLE AT 6.0m				
						7							

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BOREHOLE LOG

Borehole No. **12** 1/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 382.0m

Date: 8/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
						0			FILL: Silty clay, medium plasticity, brown, with igneous gravel, trace of fine to medium grained sand, ash and root fibres.	w<PL			GRASS COVER APPEARS WELL COMPACTED
					N = 15 4,8,7	1						50 550 560	SCREEN: 10.10kg 0-0.1m, NO FCF
									as above, but dark brown, without ash.	w>PL			APPEARS MODERATELY COMPACTED
					N = 7 5,4,3	2						400 400 450	INSUFFICIENT RETURN FOR SCREEN SAMPLE
									FILL: Silty clay, medium plasticity, brown, trace of fine to medium grained sand, fine to coarse grained igneous gravel, and glass fragments.				
					N = 7 4,3,4	3						160 160 160	
								CI	Silty CLAY: medium plasticity, dark brown.	w>PL	Hd		ALLUVIAL
						4							
					N = 13 7,7,6							410 410 >600 >600	
						5							
						6						>600 >600 >600	
					N = 37 17,15,22								
									Silty CLAY: as below				
						7							

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BOREHOLE LOG

Borehole No. 12 2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 382.0m

Date: 8/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
								CI	Silty CLAY: medium plasticity, brown mottled orange brown, fine to coarse grained, sub-angular and sub-rounded alluvial gravel.	w>PL	Hd		
					N = 35 10,18,21	8						580 570 550	
▼ ON COMPLET-ION					N = SPT 12/50mm REFUSAL	9		GP	Clayey GRAVEL: fine to coarse grained, sub-rounded and sub-angular alluvial, grey and brown.	M	(D)		BANDS OF MODERAE AND HIGH 'TC' BIT RESISTANCE
					N = SPT 10/50mm REFUSAL	10							
▶						11			Silty clayey GRAVEL: fine to coarse grained, sub-angular and sub-rounded alluvial, brown and grey.	W			
					N = SPT 9/50mm REFUSAL	12							
						13			END OF BOREHOLE AT 13.0m				'TC' BIT REFUSAL
						14							

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BOREHOLE LOG

Borehole No. **13** 1/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 381.5m

Date: 8/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION						0			FILL: Silty clay, medium plasticity, yellow brown, trace of igneous gravel, and root fibres.	w≈PL			GRASS COVER APPEARS WELL COMPACTED
					N = 16 5,7,9							400 400 430	
						1							
					N = 14 3,5,9				as above, but trace of ash.			280 280 240	
						2			FILL: Silty clay, medium plasticity, orange brown, trace of igneous gravel.	w>PL			
					N = 21 3,11,10	3		CI	Silty CLAY: medium plasticity, dark brown, trace of sub-angular alluvial gravel.	w>PL	VSt	260 260 280	ALLUVIAL
						4							
					N = 21 7,10,11	5		GP	Silty gravelly SAND: fine to coarse grained, brown, sub-angular and sub-rounded alluvial gravel, trace of clay fines.	M	MD		
								CI	Silty gravelly CLAY: medium plasticity, grey and brown, fine to coarse grained, sub-angular and sub-rounded alluvial gravel.		Hd		
										w>PL			
									Silty CLAY: medium plasticity, dark brown.				
					N = 24 10,11,13	6						430 430 410	
						7							

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BOREHOLE LOG

Borehole No. **13** 2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 381.5m

Date: 8/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
				■				CI	Silty CLAY: medium plasticity, dark brown.	w>PL	Hd		
									END OF BOREHOLE AT 7.3m				'TC' BIT REFUSAL
						8							
						9							
						10							
						11							
						12							
						13							
						14							

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BOREHOLE LOG

Borehole No. **14** 1/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 380.0m

Date: 8/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION	■			■		0			FILL: Silty clay, low plasticity, yellow brown, with igneous gravel, trace of fine to medium grained sand, and root fibres.	w<PL			GRASS COVER
					N = 19 5,10,9				as above, but medium plasticity, without fine to medium grained sand.	w≈PL		550 510 560	APPEARS WELL COMPACTED
						1				w>PL			SCREEN: 10.35kg 0-0.1m, NO FCF
					N = 10 5,4,6				as above, but orange brown and yellow brown.			250 220 260	INSUFFICIENT RETURN FOR SCREEN SAMPLE
						2		CI	Silty CLAY: medium plasticity, dark brown.	w>PL	F-St		ALLUVIAL
					N = 13 3,6,7	3		GP	Sandy GRAVEL: fine to coarse grained sub-angular and sub-rounded alluvial, dark brown, fine to coarse grained sand.	M	(MD)	200 150 150	
								GC	Silty clayey GRAVEL: fine to coarse grained sub-angular and sub-rounded alluvial, dark brown.				
						4		CI	Silty CLAY: medium plasticity, dark brown.	w>PL	VSt		
					N = 18 7,8,10							340 340 350	
						5			as above, but brown, trace of sub-angular and sub-rounded alluvial gravel.				
					N = 31 12,16,15	6		GC	Silty clayey GRAVEL: fine to coarse grained sub-angular and sub-rounded alluvial, dark brown, fine to coarse grained sand.		D		OCCASIONAL BANDS OF LOW 'TC' BIT RESISTANCE
						7							

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BOREHOLE LOG

Borehole No. **14** 2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 380.0m

Date: 8/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
								GC	Silty clayey GRAVEL: fine to coarse grained sub-angular and sub-rounded alluvial, dark brown, fine to coarse grained sand.	w>PL	D		
									END OF BOREHOLE AT 7.5m				
						8							
						9							
						10							
						11							
						12							
						13							
						14							

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BOREHOLE LOG

Borehole No. **15** 1/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 380.5m

Date: 8/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION	■			■		0			FILL: Silty clay, medium plasticity, brown, with igneous gravel, trace of fine to medium grained sand, and root fibres.	w<PL			GRASS COVER APPEARS WELL COMPACTED
				■	N = 19 6,10,19							550 550 500	 SCREEN: 10.27kg 0-0.1m, NO FCF
	■					1			as above, but orange brown.	w>PL			 INSUFFICIENT RETURN FOR SCREEN SAMPLE
				■	N = 11 4,5,6							250 250 260	
	■					2		CI	Silty CLAY: medium plasticity, dark brown.	w>PL	VSt	250 200 310	ALLUVIAL
				■	N = 9 3,4,5	3					St- VSt	210 190 220	
						4			Silty CLAY: medium plasticity, brown.				
				■	N = 17 6,7,10						Hd	550 550 500	
						5							
				■	N = 20 9,10,10	6					F-St	200 140 150	
									Silty CLAY: medium plasticity, brown and orange brown, trace of fine to medium grained sand, and alluvial gravel.				
						7							

JKGeotechnics

BOREHOLE LOG

Borehole No. **15** 2/2

Client: UNIVERSITY OF NEW ENGLAND

Project: PROPOSED UNIVERSITY BUILDING

Location: PRINCE OF WALES PARK, PEEL STREET, TAMWORTH, NSW

Job No.: 36020PN **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 380.5m

Date: 8/6/23 **Datum:** AHD

Plant Type: JK305 **Logged/Checked by:** N.A.P./N.E.S.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
								CI	Silty CLAY: medium plasticity, brown and orange brown, trace of fine to medium grained sand, and alluvial gravel.	w>PL	F-St		
									END OF BOREHOLE AT 7.5m				
						8							
						9							
						10							
						11							
						12							
						13							
						14							

ENVIRONMENTAL LOGS EXPLANATION NOTES

INTRODUCTION

These notes have been provided to amplify the environmental report in regard to classification methods, field procedures and certain matters relating to the logging of soil and rock. Not all notes are necessarily relevant to all reports.

Where geotechnical borehole logs are utilised for environmental purpose, reference should also be made to the explanatory notes included in the geotechnical report. Environmental logs are not suitable for geotechnical purposes.

The ground is a product of continuing natural and man-made processes and therefore exhibits a variety of characteristics and properties which vary from place to place and can change with time. Environmental studies include gathering and assimilating limited facts about these characteristics and properties in order to understand or predict the behaviour of the ground on a particular site under certain conditions. This report may contain such facts obtained by inspection, excavation, probing, sampling, testing or other means of investigation. If so, they are directly relevant only to the ground at the place where and time when the investigation was carried out.

DESCRIPTION AND CLASSIFICATION METHODS

The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726:2017 *'Geotechnical Site Investigations'*. In general, descriptions cover the following properties – soil or rock type, colour, structure, strength or density, and inclusions. Identification and classification of soil and rock involves judgement and the Company infers accuracy only to the extent that is common in current geoenvironmental practice.

Soil types are described according to the predominating particle size and behaviour as set out in the attached soil classification table qualified by the grading of other particles present (eg. sandy clay) as set out below:

Soil Classification	Particle Size
Clay	< 0.002mm
Silt	0.002 to 0.075mm
Sand	0.075 to 2.36mm
Gravel	2.36 to 63mm
Cobbles	63 to 200mm
Boulders	> 200mm

Non-cohesive soils are classified on the basis of relative density, generally from the results of Standard Penetration Test (SPT) as below:

Relative Density	SPT 'N' Value (blows/300mm)
Very loose (VL)	< 4
Loose (L)	4 to 10
Medium dense (MD)	10 to 30
Dense (D)	30 to 50
Very Dense (VD)	> 50

Cohesive soils are classified on the basis of strength (consistency) either by use of a hand penetrometer, vane shear, laboratory testing and/or tactile engineering examination. The strength terms are defined as follows.

Classification	Unconfined Compressive Strength (kPa)	Indicative Undrained Shear Strength (kPa)
Very Soft (VS)	≤ 25	≤ 12
Soft (S)	> 25 and ≤ 50	> 12 and ≤ 25
Firm (F)	> 50 and ≤ 100	> 25 and ≤ 50
Stiff (St)	> 100 and ≤ 200	> 50 and ≤ 100
Very Stiff (VSt)	> 200 and ≤ 400	> 100 and ≤ 200
Hard (Hd)	> 400	> 200
Friable (Fr)	Strength not attainable – soil crumbles	

Rock types are classified by their geological names, together with descriptive terms regarding weathering, strength, defects, etc. Where relevant, further information regarding rock classification is given in the text of the report. In the Sydney Basin, 'shale' is used to describe fissile mudstone, with a weakness parallel to bedding. Rocks with alternating inter-laminations of different grain size (eg. siltstone/claystone and siltstone/fine grained sandstone) are referred to as 'laminite'.

INVESTIGATION METHODS

The following is a brief summary of investigation methods currently adopted by the Company and some comments on their use and application. All methods except test pits, hand auger drilling and portable Dynamic Cone Penetrometers require the use of a mechanical rig which is commonly mounted on a truck chassis or track base.

Test Pits: These are normally excavated with a backhoe or a tracked excavator, allowing close examination of the insitu soils and 'weaker' bedrock if it is safe to descend into the pit. The depth of penetration is limited to about 3m for a backhoe and up to 6m for a large excavator. Limitations of test pits are the problems associated with disturbance and difficulty of reinstatement and the consequent effects on close-by structures. Care must be taken if construction is to be carried out near test pit locations to either properly recompact the backfill during construction or to design and construct the

structure so as not to be adversely affected by poorly compacted backfill at the test pit location.

Hand Auger Drilling: A borehole of 50mm to 100mm diameter is advanced by manually operated equipment. Refusal of the hand auger can occur on a variety of materials such as obstructions within any fill, tree roots, hard clay, gravel or ironstone, cobbles and boulders, and does not necessarily indicate rock level.

Continuous Spiral Flight Augers: The borehole is advanced using 75mm to 115mm diameter continuous spiral flight augers, which are withdrawn at intervals to allow sampling and insitu testing. This is a relatively economical means of drilling in clays and in sands above the water table. Samples are returned to the surface by the flights or may be collected after withdrawal of the auger flights, but they can be very disturbed and layers may become mixed. Information from the auger sampling (as distinct from specific sampling by SPTs or undisturbed samples) is of limited reliability due to mixing or softening of samples by groundwater, or uncertainties as to the original depth of the samples. Augering below the groundwater table is of even lesser reliability than augering above the water table.

Rock Augering: Use can be made of a Tungsten Carbide (TC) bit for auger drilling into rock to indicate rock quality and continuity by variation in drilling resistance and from examination of recovered rock cuttings. This method of investigation is quick and relatively inexpensive but provides only an indication of the likely rock strength and predicted values may be in error by a strength order. Where rock strengths may have a significant impact on construction feasibility or costs, then further investigation by means of cored boreholes may be warranted.

Wash Boring: The borehole is usually advanced by a rotary bit, with water being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be assessed from the cuttings, together with some information from "feel" and rate of penetration.

Mud Stabilised Drilling: Either Wash Boring or Continuous Core Drilling can use drilling mud as a circulating fluid to stabilise the borehole. The term 'mud' encompasses a range of products ranging from bentonite to polymers. The mud tends to mask the cuttings and reliable identification is only possible from intermittent intact sampling (eg. from SPT and U50 samples) or from rock coring, etc.

Continuous Core Drilling: A continuous core sample is obtained using a diamond tipped core barrel. Provided full core recovery is achieved (which is not always possible in very low strength rocks and granular soils), this technique provides a very reliable (but relatively expensive) method of investigation. In rocks, NMLC or HQ triple tube core barrels, which give a core of about 50mm and 61mm diameter, respectively, is usually used with water flush. The length of core recovered is compared to the length drilled and any length not recovered is shown as NO CORE. The location of NO CORE recovery is determined on site by the supervising engineer; where the location is uncertain, the loss is placed at the bottom of the drill run.

Standard Penetration Tests: Standard Penetration Tests (SPT) are used mainly in non-cohesive soils, but can also be used in cohesive soils, as a means of indicating density or strength and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289.6.3.1–2004 (R2016) *'Methods of Testing Soils for Engineering Purposes, Soil Strength and Consolidation Tests – Determination of the Penetration Resistance of a Soil – Standard Penetration Test (SPT)'*.

The test is carried out in a borehole by driving a 50mm diameter split sample tube with a tapered shoe, under the impact of a 63.5kg hammer with a free fall of 760mm. It is normal for the tube to be driven in three successive 150mm increments and the 'N' value is taken as the number of blows for the last 300mm. In dense sands, very hard clays or weak rock, the full 450mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form:

- In the case where full penetration is obtained with successive blow counts for each 150mm of, say, 4, 6 and 7 blows, as

  N = 13
  4, 6, 7

- In a case where the test is discontinued short of full penetration, say after 15 blows for the first 150mm and 30 blows for the next 40mm, as

  N > 30
  15, 30/40mm

The results of the test can be related empirically to the engineering properties of the soil.

A modification to the SPT is where the same driving system is used with a solid 60° tipped steel cone of the same diameter as the SPT hollow sampler. The solid cone can be continuously driven for some distance in soft clays or loose sands, or may be used where damage would otherwise occur to the SPT. The results of this Solid Cone Penetration Test (SCPT) are shown as 'N_c' on the borehole logs, together with the number of blows per 150mm penetration.

LOGS

The borehole or test pit logs presented herein are an interpretation of the subsurface conditions, and their reliability will depend to some extent on the frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will enable the most reliable assessment, but is not always practicable or possible to justify on economic grounds. In any case, the boreholes or test pits represent only a very small sample of the total subsurface conditions.

The terms and symbols used in preparation of the logs are defined in the following pages.

Interpretation of the information shown on the logs, and its application to design and construction, should therefore take into account the spacing of boreholes or test pits, the method of drilling or excavation, the frequency of sampling and testing and the possibility of other than 'straight line' variations between the boreholes or test pits. Subsurface conditions between boreholes or test pits may vary significantly from conditions encountered at the borehole or test pit locations.

GROUNDWATER

Where groundwater levels are measured in boreholes, there are several potential problems:

- Although groundwater may be present, in low permeability soils it may enter the hole slowly or perhaps not at all during the time it is left open.
- A localised perched water table may lead to an erroneous indication of the true water table.
- Water table levels will vary from time to time with seasons or recent weather changes and may not be the same at the time of construction.
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must be washed out of the hole or 'reverted' chemically if reliable water observations are to be made.

More reliable measurements can be made by installing standpipes which are read after the groundwater level has stabilised at intervals ranging from several days to perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from perched water tables or surface water.

FILL

The presence of fill materials can often be determined only by the inclusion of foreign objects (eg. bricks, steel, etc) or by distinctly unusual colour, texture or fabric. Identification of the extent of fill materials will also depend on investigation methods and frequency. Where natural soils similar to those at the site are used for fill, it may be difficult with limited testing and sampling to reliably assess the extent of the fill.

The presence of fill materials is usually regarded with caution as the possible variation in density and material type is much greater than with natural soil deposits. Consequently, there is an increased risk of adverse environmental characteristics or behaviour. If the volume and nature of fill is of importance to a project, then frequent test pit excavations are preferable to boreholes.

LABORATORY TESTING

Laboratory testing has not been undertaken to confirm the soil classification and rock strengths indicated on the environmental logs unless noted in the report.

SYMBOL LEGENDS

SOIL


FILL


TOPSOIL


CLAY (CL, CI, CH)


SILT (ML, MH)


SAND (SP, SW)


GRAVEL (GP, GW)


SANDY CLAY (CL, CI, CH)


SILTY CLAY (CL, CI, CH)


CLAYEY SAND (SC)


SILTY SAND (SM)


GRAVELLY CLAY (CL, CI, CH)


CLAYEY GRAVEL (GC)


SANDY SILT (ML, MH)


PEAT AND HIGHLY ORGANIC SOILS (Pt)

ROCK


CONGLOMERATE


SANDSTONE


SHALE/MUDSTONE


SILTSTONE


CLAYSTONE


COAL


LAMINITE


LIMESTONE


PHYLLITE, SCHIST


TUFF


GRANITE, GABBRO


DOLERITE, DIORITE


BASALT, ANDESITE


QUARTZITE

OTHER MATERIALS


BRICKS OR PAVERS


CONCRETE


ASPHALTIC CONCRETE

CLASSIFICATION OF COARSE AND FINE GRAINED SOILS

Major Divisions		Group Symbol	Typical Names	Field Classification of Sand and Gravel	Laboratory Classification	
Coarse grained soil (more than 65% of soil excluding oversize fraction is greater than 0.075mm)	GRAVEL (more than half of coarse fraction is larger than 2.36mm	GW	Gravel and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 4$ $1 < C_c < 3$
		GP	Gravel and gravel-sand mixtures, little or no fines, uniform gravels	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		GM	Gravel-silt mixtures and gravel-sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	Fines behave as silt
		GC	Gravel-clay mixtures and gravel-sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	Fines behave as clay
	SAND (more than half of coarse fraction is smaller than 2.36mm)	SW	Sand and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 6$ $1 < C_c < 3$
		SP	Sand and gravel-sand mixtures, little or no fines	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		SM	Sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	N/A
		SC	Sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	

Major Divisions		Group Symbol	Typical Names	Field Classification of Silt and Clay			Laboratory Classification
				Dry Strength	Dilatancy	Toughness	% < 0.075mm
Fine grained soils (more than 35% of soil excluding oversize fraction is less than 0.075mm)	SILT and CLAY (low to medium plasticity)	ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or silt with low plasticity	None to low	Slow to rapid	Low	Below A line
		CL, CI	Inorganic clay of low to medium plasticity, gravelly clay, sandy clay	Medium to high	None to slow	Medium	Above A line
		OL	Organic silt	Low to medium	Slow	Low	Below A line
	SILT and CLAY (high plasticity)	MH	Inorganic silt	Low to medium	None to slow	Low to medium	Below A line
		CH	Inorganic clay of high plasticity	High to very high	None	High	Above A line
		OH	Organic clay of medium to high plasticity, organic silt	Medium to high	None to very slow	Low to medium	Below A line
	Highly organic soil	Pt	Peat, highly organic soil	–	–	–	–

Laboratory Classification Criteria

A well graded coarse grained soil is one for which the coefficient of uniformity $Cu > 4$ and the coefficient of curvature $1 < C_c < 3$. Otherwise, the soil is poorly graded. These coefficients are given by:

$$C_U = \frac{D_{60}}{D_{10}} \qquad and \qquad C_C = \frac{(D_{30})^2}{D_{10}\, D_{60}}$$

Where D_{10}, D_{30} and D_{60} are those grain sizes for which 10%, 30% and 60% of the soil grains, respectively, are smaller.

NOTES:

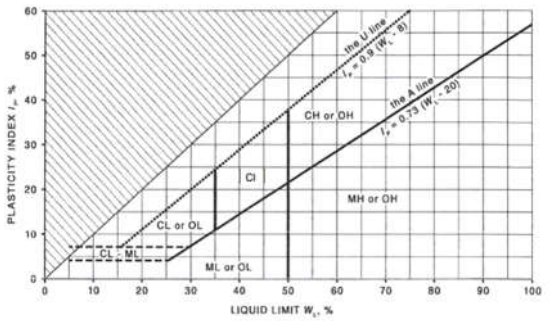
1 For a coarse grained soil with a fines content between 5% and 12%, the soil is given a dual classification comprising the two group symbols separated by a dash; for example, for a poorly graded gravel with between 5% and 12% silt fines, the classification is GP-GM.

2 Where the grading is determined from laboratory tests, it is defined by coefficients of curvature (C_c) and uniformity (C_u) derived from the particle size distribution curve.

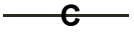
3 Clay soils with liquid limits > 35% and ≤ 50% may be classified as being of medium plasticity.

4 The U line on the Modified Casagrande Chart is an approximate upper bound for most natural soils.

Modified Casagrande Chart for Classifying Silts and Clays according to their Behaviour



LOG SYMBOLS

Log Column	Symbol	Definition
Groundwater Record		Standing water level. Time delay following completion of drilling/excavation may be shown.
		Extent of borehole/test pit collapse shortly after drilling/excavation.
		Groundwater seepage into borehole or test pit noted during drilling or excavation.
Samples	ES	Sample taken over depth indicated, for environmental analysis.
	U50	Undisturbed 50mm diameter tube sample taken over depth indicated.
	DB	Bulk disturbed sample taken over depth indicated.
	DS	Small disturbed bag sample taken over depth indicated.
	ASB	Soil sample taken over depth indicated, for asbestos analysis.
	ASS	Soil sample taken over depth indicated, for acid sulfate soil analysis.
	SAL	Soil sample taken over depth indicated, for salinity analysis.
Field Tests	N = 17 4, 7, 10	Standard Penetration Test (SPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration. 'Refusal' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	N_c = 5 7 3R	Solid Cone Penetration Test (SCPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration for 60° solid cone driven by SPT hammer. 'R' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	VNS = 25 PID = 100	Vane shear reading in kPa of undrained shear strength. Photoionisation detector reading in ppm (soil sample headspace test).
Moisture Condition (Fine Grained Soils)	w > PL $w \approx$ PL w < PL $w \approx$ LL w > LL	Moisture content estimated to be greater than plastic limit. Moisture content estimated to be approximately equal to plastic limit. Moisture content estimated to be less than plastic limit. Moisture content estimated to be near liquid limit. Moisture content estimated to be wet of liquid limit.
(Coarse Grained Soils)	D M W	DRY – runs freely through fingers. MOIST – does not run freely but no free water visible on soil surface. WET – free water visible on soil surface.
Strength (Consistency) Cohesive Soils	VS S F St VSt Hd Fr ( )	VERY SOFT – unconfined compressive strength ≤ 25kPa. SOFT – unconfined compressive strength > 25kPa and ≤ 50kPa. FIRM – unconfined compressive strength > 50kPa and ≤ 100kPa. STIFF – unconfined compressive strength > 100kPa and ≤ 200kPa. VERY STIFF – unconfined compressive strength > 200kPa and ≤ 400kPa. HARD – unconfined compressive strength > 400kPa. FRIABLE – strength not attainable, soil crumbles. Bracketed symbol indicates estimated consistency based on tactile examination or other assessment.
Density Index/ Relative Density (Cohesionless Soils)	VL L MD D VD ( )	**Density Index (I_D) Range (%)** / **SPT 'N' Value Range (Blows/300mm)** VERY LOOSE ≤ 15 / 0 – 4 LOOSE > 15 and ≤ 35 / 4 – 10 MEDIUM DENSE > 35 and ≤ 65 / 10 – 30 DENSE > 65 and ≤ 85 / 30 – 50 VERY DENSE > 85 / > 50 Bracketed symbol indicates estimated density based on ease of drilling or other assessment.
Hand Penetrometer Readings	300 250	Measures reading in kPa of unconfined compressive strength. Numbers indicate individual test results on representative undisturbed material unless noted otherwise.

Log Column	Symbol	Definition
Remarks	'V' bit	Hardened steel 'V' shaped bit.
	'TC' bit	Twin pronged tungsten carbide bit.
	T_{60}	Penetration of auger string in mm under static load of rig applied by drill head hydraulics without rotation of augers.
	Soil Origin	The geological origin of the soil can generally be described as: RESIDUAL – soil formed directly from insitu weathering of the underlying rock. No visible structure or fabric of the parent rock. EXTREMELY WEATHERED – soil formed directly from insitu weathering of the underlying rock. Material is of soil strength but retains the structure and/or fabric of the parent rock. ALLUVIAL – soil deposited by creeks and rivers. ESTUARINE – soil deposited in coastal estuaries, including sediments caused by inflowing creeks and rivers, and tidal currents. MARINE – soil deposited in a marine environment. AEOLIAN – soil carried and deposited by wind. COLLUVIAL – soil and rock debris transported downslope by gravity, with or without the assistance of flowing water. Colluvium is usually a thick deposit formed from a landslide. The description 'slopewash' is used for thinner surficial deposits. LITTORAL – beach deposited soil.

Classification of Material Weathering

Term		Abbreviation		Definition
Residual Soil		RS		Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are no longer visible, but the soil has not been significantly transported.
Extremely Weathered		XW		Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are still visible.
Highly Weathered	Distinctly Weathered (Note 1)	HW	DW	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is significantly changed by weathering. Some primary minerals have weathered to clay minerals. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores.
Moderately Weathered		MW		The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable, but shows little or no change of strength from fresh rock.
Slightly Weathered		SW		Rock is partially discoloured with staining or bleaching along joints but shows little or no change of strength from fresh rock.
Fresh		FR		Rock shows no sign of decomposition of individual minerals or colour changes.

NOTE 1: The term 'Distinctly Weathered' is used where it is not practicable to distinguish between 'Highly Weathered' and 'Moderately Weathered' rock. 'Distinctly Weathered' is defined as follows: *'Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores'*. There is some change in rock strength.

Rock Material Strength Classification

Term	Abbreviation	Uniaxial Compressive Strength (MPa)	Guide to Strength	
			Point Load Strength Index $Is_{(50)}$ (MPa)	Field Assessment
Very Low Strength	VL	0.6 to 2	0.03 to 0.1	Material crumbles under firm blows with sharp end of pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 30mm thick can be broken by finger pressure.
Low Strength	L	2 to 6	0.1 to 0.3	Easily scored with a knife; indentations 1mm to 3mm show in the specimen with firm blows of the pick point; has dull sound under hammer. A piece of core 150mm long by 50mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
Medium Strength	M	6 to 20	0.3 to 1	Scored with a knife; a piece of core 150mm long by 50mm diameter can be broken by hand with difficulty.
High Strength	H	20 to 60	1 to 3	A piece of core 150mm long by 50mm diameter cannot be broken by hand but can be broken by a pick with a single firm blow; rock rings under hammer.
Very High Strength	VH	60 to 200	3 to 10	Hand specimen breaks with pick after more than one blow; rock rings under hammer.
Extremely High Strength	EH	> 200	> 10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.

Appendix E: Laboratory Report(s) & COC Documents

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CERTIFICATE OF ANALYSIS 325358

Client Details

Client	JK Environments
Attention	Mitchell Delaney
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E36020PD, Tamworth**
Number of Samples	37 Soil, 1 Water
Date samples received	09/06/2023
Date completed instructions received	09/06/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	19/06/2023
Date of Issue	17/07/2023
Reissue Details	This report replaces R00 due to amendments to sample ID's

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Liam Timmins, Organics Supervisor
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vTRH(C6-C10)/BTEXN in Soil						
Our Reference		325358-1	325358-4	325358-6	325358-11	325358-15
Your Reference	UNITS	BH6	BH6	BH7	BH8	BH10
Depth		0-0.1	2.4-2.6	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	06/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	15/06/2023	15/06/2023	15/06/2023	15/06/2023	15/06/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	91	115	99	100	99

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		325358-17	325358-18	325358-23	325358-26	325358-27
Your Reference	UNITS	BH10	BH11	BH12	BH12	BH14
Depth		1.8-2	0-0.1	0-0.1	3.5-3.7	0-0.1
Date Sampled		07/06/2023	07/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	15/06/2023	15/06/2023	15/06/2023	15/06/2023	15/06/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	106	103	97	95	111

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		325358-31	325358-33	325358-34	325358-36	325358-37
Your Reference	UNITS	BH15	BH15	SDUP1	TS1	TB1
Depth		0-0.1	1.85-2.0	-	-	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023	06/06/2023	06/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	15/06/2023	15/06/2023	15/06/2023	15/06/2023	15/06/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25	[NA]	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	[NA]	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	[NA]	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	90%	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	89%	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	90%	<1
m+p-xylene	mg/kg	<2	<2	<2	90%	<2
o-Xylene	mg/kg	<1	<1	<1	90%	<1
Naphthalene	mg/kg	<1	<1	<1	[NT]	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	[NT]	<1
Surrogate aaa-Trifluorotoluene	%	102	101	108	87	100

svTRH (C10-C40) in Soil						
Our Reference		325358-1	325358-4	325358-6	325358-11	325358-15
Your Reference	UNITS	BH6	BH6	BH7	BH8	BH10
Depth		0-0.1	2.4-2.6	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	06/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	160	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	160	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	170	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	170	<50
Surrogate o-Terphenyl	%	85	83	86	88	88

svTRH (C10-C40) in Soil						
Our Reference		325358-17	325358-18	325358-23	325358-26	325358-27
Your Reference	UNITS	BH10	BH11	BH12	BH12	BH14
Depth		1.8-2	0-0.1	0-0.1	3.5-3.7	0-0.1
Date Sampled		07/06/2023	07/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	180	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	180	230	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	180	410	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	71	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	71	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	190	310	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	190	380	<50	<50
Surrogate o-Terphenyl	%	82	89	92	85	85

svTRH (C10-C40) in Soil				
Our Reference		325358-31	325358-33	325358-34
Your Reference	UNITS	BH15	BH15	SDUP1
Depth		0-0.1	1.85-2.0	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50
Surrogate o-Terphenyl	%	84	83	84

PAHs in Soil						
Our Reference		325358-1	325358-4	325358-6	325358-11	325358-15
Your Reference	UNITS	BH6	BH6	BH7	BH8	BH10
Depth		0-0.1	2.4-2.6	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	06/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.1	0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.07	0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	0.3	0.2	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	95	95	95	94	93

PAHs in Soil						
Our Reference		325358-17	325358-18	325358-23	325358-26	325358-27
Your Reference	UNITS	BH10	BH11	BH12	BH12	BH14
Depth		1.8-2	0-0.1	0-0.1	3.5-3.7	0-0.1
Date Sampled		07/06/2023	07/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1
Pyrene	mg/kg	<0.1	0.1	0.6	0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	0.6	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.06	0.4	0.06	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	0.2	3.7	0.2	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	0.6	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	0.6	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	0.7	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	93	95	94	91	94

PAHs in Soil				
Our Reference		325358-31	325358-33	325358-34
Your Reference	UNITS	BH15	BH15	SDUP1
Depth		0-0.1	1.85-2.0	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	93	91	92

Organochlorine Pesticides in soil						
Our Reference		325358-1	325358-6	325358-11	325358-15	325358-18
Your Reference	UNITS	BH6	BH7	BH8	BH10	BH11
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	81	77	76	90

Organochlorine Pesticides in soil					
Our Reference		325358-23	325358-27	325358-31	325358-34
Your Reference	UNITS	BH12	BH14	BH15	SDUP1
Depth		0-0.1	0-0.1	0-0.1	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	79	84	78	80

Organophosphorus Pesticides						
Our Reference		325358-1	325358-6	325358-11	325358-15	325358-18
Your Reference	UNITS	BH6	BH7	BH8	BH10	BH11
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion (Methyl)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	81	77	76	90

Organophosphorus Pesticides					
Our Reference		325358-23	325358-27	325358-31	325358-34
Your Reference	UNITS	BH12	BH14	BH15	SDUP1
Depth		0-0.1	0-0.1	0-0.1	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion (Methyl)	mg/kg	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	79	84	78	80

PCBs in Soil						
Our Reference		325358-1	325358-6	325358-11	325358-15	325358-18
Your Reference	UNITS	BH6	BH7	BH8	BH10	BH11
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	81	77	76	90

PCBs in Soil					
Our Reference		325358-23	325358-27	325358-31	325358-34
Your Reference	UNITS	BH12	BH14	BH15	SDUP1
Depth		0-0.1	0-0.1	0-0.1	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	79	84	78	80

Acid Extractable metals in soil						
Our Reference		325358-1	325358-4	325358-6	325358-11	325358-15
Your Reference	UNITS	BH6	BH6	BH7	BH8	BH10
Depth		0-0.1	2.4-2.6	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	06/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Arsenic	mg/kg	4	4	4	5	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	24	26	14	17	21
Copper	mg/kg	33	37	30	49	30
Lead	mg/kg	48	14	12	15	9
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	17	18	11	13	14
Zinc	mg/kg	58	53	46	81	48

Acid Extractable metals in soil						
Our Reference		325358-17	325358-18	325358-23	325358-26	325358-27
Your Reference	UNITS	BH10	BH11	BH12	BH12	BH14
Depth		1.8-2	0-0.1	0-0.1	3.5-3.7	0-0.1
Date Sampled		07/06/2023	07/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Arsenic	mg/kg	<4	4	5	4	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	22	15	21	21	26
Copper	mg/kg	37	41	38	39	36
Lead	mg/kg	8	16	35	20	13
Mercury	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Nickel	mg/kg	18	12	16	12	22
Zinc	mg/kg	37	98	83	64	68

Acid Extractable metals in soil					
Our Reference		325358-31	325358-33	325358-34	325358-39
Your Reference	UNITS	BH15	BH15	SDUP1	BH6 - [TRIPLICATE]
Depth		0-0.1	1.85-2.0	-	0-0.1
Date Sampled		08/06/2023	08/06/2023	08/06/2023	06/06/2023
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Arsenic	mg/kg	<4	4	4	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	18	19	25	25
Copper	mg/kg	37	41	36	36
Lead	mg/kg	13	20	14	14
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	13	13	17	18
Zinc	mg/kg	66	45	57	61

Moisture						
Our Reference		325358-1	325358-4	325358-6	325358-11	325358-15
Your Reference	UNITS	BH6	BH6	BH7	BH8	BH10
Depth		0-0.1	2.4-2.6	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	06/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Moisture	%	12	18	7.7	14	11

Moisture						
Our Reference		325358-17	325358-18	325358-23	325358-26	325358-27
Your Reference	UNITS	BH10	BH11	BH12	BH12	BH14
Depth		1.8-2	0-0.1	0-0.1	3.5-3.7	0-0.1
Date Sampled		07/06/2023	07/06/2023	08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023	14/06/2023	14/06/2023
Moisture	%	17	4.4	8.5	16	12

Moisture				
Our Reference		325358-31	325358-33	325358-34
Your Reference	UNITS	BH15	BH15	SDUP1
Depth		0-0.1	1.85-2.0	-
Date Sampled		08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	13/06/2023	13/06/2023	13/06/2023
Date analysed	-	14/06/2023	14/06/2023	14/06/2023
Moisture	%	13	15	10

Asbestos ID - soils NEPM - ASB-001						
Our Reference		325358-1	325358-6	325358-11	325358-15	325358-18
Your Reference	UNITS	BH6	BH7	BH8	BH10	BH11
Depth		0-0.1	0-0.1	0-0.1	0-0.1	0-0.1
Date Sampled		06/06/2023	07/06/2023	07/06/2023	07/06/2023	07/06/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	19/06/2023	19/06/2023	19/06/2023	19/06/2023	19/06/2023
Sample mass tested	g	495.16	542.53	392.67	448.1	349.61
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001

Asbestos ID - soils NEPM - ASB-001				
Our Reference		325358-23	325358-27	325358-31
Your Reference	UNITS	BH12	BH14	BH15
Depth		0-0.1	0-0.1	0-0.1
Date Sampled		08/06/2023	08/06/2023	08/06/2023
Type of sample		Soil	Soil	Soil
Date analysed	-	19/06/2023	19/06/2023	19/06/2023
Sample mass tested	g	428.25	530.84	343.8
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos#1	g/kg	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–
FA and AF Estimation*	g	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001

vTRH(C6-C10)/BTEXN in Water		
Our Reference		325358-35
Your Reference	UNITS	FR-Shovel
Depth		-
Date Sampled		06/06/2023
Type of sample		Water
Date extracted	-	13/06/2023
Date analysed	-	14/06/2023
TRH C_6 - C_9	µg/L	44
TRH C_6 - C_{10}	µg/L	47
TRH C_6 - C_{10} less BTEX (F1)	µg/L	47
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	92
Surrogate toluene-d8	%	104
Surrogate 4-BFB	%	90

svTRH (C10-C40) in Water		
Our Reference		325358-35
Your Reference	UNITS	FR-Shovel
Depth		-
Date Sampled		06/06/2023
Type of sample		Water
Date extracted	-	13/06/2023
Date analysed	-	14/06/2023
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
Total +ve TRH (C10-C36)	µg/L	<50
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Total +ve TRH (>C10-C40)	µg/L	<50
Surrogate o-Terphenyl	%	72

PAHs in Water		
Our Reference		325358-35
Your Reference	UNITS	FR-Shovel
Depth		-
Date Sampled		06/06/2023
Type of sample		Water
Date extracted	-	13/06/2023
Date analysed	-	13/06/2023
Naphthalene	µg/L	<0.2
Acenaphthylene	µg/L	<0.1
Acenaphthene	µg/L	<0.1
Fluorene	µg/L	<0.1
Phenanthrene	µg/L	<0.1
Anthracene	µg/L	<0.1
Fluoranthene	µg/L	<0.1
Pyrene	µg/L	<0.1
Benzo(a)anthracene	µg/L	<0.1
Chrysene	µg/L	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2
Benzo(a)pyrene	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5
Total +ve PAH's	µg/L	<0.1
Surrogate p-Terphenyl-d14	%	91

Metals in Water - Dissolved		
Our Reference		325358-35
Your Reference	UNITS	FR-Shovel
Depth		-
Date Sampled		06/06/2023
Type of sample		Water
Date digested	-	13/06/2023
Date analysed	-	13/06/2023
Arsenic - Dissolved	mg/L	<0.05
Cadmium - Dissolved	mg/L	<0.01
Chromium - Dissolved	mg/L	<0.01
Copper - Dissolved	mg/L	0.6
Lead - Dissolved	mg/L	<0.03
Mercury - Dissolved	mg/L	<0.0005
Nickel - Dissolved	mg/L	<0.02
Zinc - Dissolved	mg/L	<0.02

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. **NOTE** #1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF) **NOTE** #2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.

Method ID	Methodology Summary
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
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	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			15/06/2023	1	15/06/2023	15/06/2023		15/06/2023	15/06/2023
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	110	133
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	110	133
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	115	131
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	117	139
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	102	127
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	108	133
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	112	139
Naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	124	1	91	95	4	103	109

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	15/06/2023	15/06/2023		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	27	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	27	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	27	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	27	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	27	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	27	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	27	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	27	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	27	111	101	9	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			15/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	111	106
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<100	<100	0	119	112
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	<100	<100	0	114	122
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	111	106
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	<100	<100	0	119	112
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	<100	<100	0	114	122
Surrogate o-Terphenyl	%		Org-020	91	1	85	85	0	88	85

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	27	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	27	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	27	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	27	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	27	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	27	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	27	85	85	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			14/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	93
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	99	97
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	84
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	95
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	101
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	99	110
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	93	98
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	<0.05	<0.05	0	86	101
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	94	1	95	96	1	89	87

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	27	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	27	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	27	94	94	0	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			14/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	96
HCB	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	99
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	101	111
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	97	111
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	100
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	98	111
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	115
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	80	105
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	96
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	80	99
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	76	1	92	84	9	79	81

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
HCB	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	[NT]	27	84	78	7	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			14/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	94	110
Chlorpyriphos-methyl	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	105	117
Dimethoate	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	78	112
Fenitrothion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	83	124
Malathion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	95	122
Parathion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	82	121
Ronnel	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	93	102
Coumaphos	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Parathion (Methyl)	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	76	1	92	84	9	79	81

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Parathion (Methyl)	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	27	84	78	7	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date extracted	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			14/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	90	100
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	76	1	92	84	9	79	81

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	[NT]	27	84	78	7	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	325358-6
Date prepared	-			13/06/2023	1	13/06/2023	13/06/2023		13/06/2023	13/06/2023
Date analysed	-			14/06/2023	1	14/06/2023	14/06/2023		14/06/2023	14/06/2023
Arsenic	mg/kg	4	Metals-020	<4	1	4	4	0	110	#
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	103	71
Chromium	mg/kg	1	Metals-020	<1	1	24	24	0	106	98
Copper	mg/kg	1	Metals-020	<1	1	33	35	6	106	129
Lead	mg/kg	1	Metals-020	<1	1	48	14	110	101	87
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	108	106
Nickel	mg/kg	1	Metals-020	<1	1	17	17	0	103	87
Zinc	mg/kg	1	Metals-020	<1	1	58	61	5	104	107

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	27	13/06/2023	13/06/2023		[NT]	[NT]
Date analysed	-			[NT]	27	14/06/2023	14/06/2023		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	27	4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	27	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	27	26	25	4	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	27	36	37	3	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	27	13	13	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	27	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	27	22	20	10	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	27	68	64	6	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Date analysed	-			14/06/2023	[NT]	[NT]	[NT]	[NT]	14/06/2023	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	97	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	100	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	86	[NT]	[NT]	[NT]	[NT]	85	[NT]
Surrogate toluene-d8	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate 4-BFB	%		Org-023	88	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Date analysed	-			14/06/2023	[NT]	[NT]	[NT]	[NT]	14/06/2023	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	90	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	90	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
Surrogate o-Terphenyl	%		Org-020	63	[NT]	[NT]	[NT]	[NT]	72	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Date analysed	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Naphthalene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	76	[NT]
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	85	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	69	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	64	[NT]	[NT]	[NT]	[NT]	84	[NT]

QUALITY CONTROL: Metals in Water - Dissolved					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date digested	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Date analysed	-			13/06/2023	[NT]	[NT]	[NT]	[NT]	13/06/2023	[NT]
Arsenic - Dissolved	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	107	[NT]
Cadmium - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	97	[NT]
Chromium - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	101	[NT]
Copper - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	106	[NT]
Lead - Dissolved	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	100	[NT]
Mercury - Dissolved	mg/L	0.0005	Metals-021	<0.0005	[NT]	[NT]	[NT]	[NT]	108	[NT]
Nickel - Dissolved	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	101	[NT]
Zinc - Dissolved	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	97	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Acid Extractable Metals in Soil:
-The laboratory RPD acceptance criteria has been exceeded for 325358-1 for Pb. Therefore a triplicate result has been issued as laboratory sample number 325358-39.
- # Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E36020PD Date Results Required: STANDARD Page: 2 of 2	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Mdelaney@jkenvironments.com.au

Location:	Tamworth						Sample Preserved in Esky on Ice										
Sampler:	OB						Tests Required										
Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6	Combo 3	Asbestos (WA 500mL)	Asbestos (Detection)	BTEX						
8/06/2023	26	BH12	3.3-3.5	G	0	Silty Clay		X									
8/06/2023	27	BH14	0-0.1	G,A	0	F: Silty Clay	X		X								
8/06/2023	28	BH14	0.3-0.5	G,A	0	F: Silty Clay											
8/06/2023	29	BH14	1.8-2	G,A	0.3	F: Silty Clay											
8/06/2023	30	BH14	3.3-3.5	G,A	0.7	Silty Clay											
8/06/2023	31	BH15	0-0.1	G,A	0	F: Silty Clay	X		X								
8/06/2023	32	BH15	0.8-1	G,A	0	F: Silty Clay											
8/06/2023	33	BH15	1.8-2	G,A	0	Silty Clay		X									
6/06/2023	34	SDUP 1	NA	G	0	Soil	X										
7/06/2023	50	SDUP 2	NA	G	0	Soil	X	PLEASE SEND to ENVIRO LAB VIC									
6-8/06/23	35	FR-Shovel	NA	G1, V, H	NA	Water		X									
6-8/06/23	36	TS1	NA	V	NA	Sand					X						
6-8/06/23	37	TB1	NA	V	NA	Sand		X									
	38	B12	3.5-3.7														

ENVIROLAB

Envirolab Services
25 Research Drive
Croydon South VIC 3136
Ph: (03) 9763 2500

Job No: 377865
Date Received: 9/6/23
Time Received: 12:25pm
Received By: AG
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None
8.0°C

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 325358.
Date Received: 9/6/23
Time Received: 1610
Received By: EW
Temp: Cool/Ambient
Cooling: Ice/Ice
Security: Intact/Broken/None

Remarks (comments/detection limits required):	Sample Containers: G - 250mg Glass Jar G1 - 500mL Amber Glass Bottle V - BTEX Vial A - Ziplock Asbestos Bag P - Plastic Bag H - HNO3 Wash PVC

Relinquished By: MD	Date: 9.6.23	Time:	Received By: EW	Date: 9/6/23

Relinquished by: ELS SYD
Da Hyun Lee
13/6/23 @ 1200

Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph 03 9763 2500 fax 03 9763 2633
melbourne@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	Mitch Delaney

Sample Login Details

Your reference	E36020PD
Envirolab Reference	37865
Date Sample Received	14/06/2023
Date Instructions Received	14/06/2023
Date Results Expected to be Reported	20/06/2023

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	8.0
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Pamela Adams	Chris De Luca
Phone: 03 9763 2500	**Phone: 03 9763 2500**
Fax: 03 9763 2633	**Fax: 03 9763 2633**
Email: padams@envirolab.com.au	**Email: cdeluca@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph 03 9763 2500 fax 03 9763 2633
melbourne@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	TRH Soil C10-C40 NEPM	PAHs in Soil	OCP in Soil	OP in Soil	PCBsin Soil	Acid Extractable metalsin soil
SDUP2	✓	✓	✓	✓	✓	✓	✓

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.

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melbourne@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 37865

Client Details

Client	JK Environments
Attention	Mitch Delaney
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E36020PD**
Number of Samples	1 Soil
Date samples received	14/06/2023
Date completed instructions received	14/06/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	20/06/2023
Date of Issue	20/06/2023

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Chris De Luca, Assistant Lab Manager
Tara White, Metals Team Leader
Tianna Milburn, Senior Chemist

Authorised By
Pamela Adams, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	17/06/2023
vTRH C_6 - C_9	mg/kg	<25
vTRH C_6 - C_{10}	mg/kg	<25
TRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total BTEX	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	90

TRH Soil C10-C40 NEPM		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	18/06/2023
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	94

PAHs in Soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	17/06/2023
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j&k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Total +ve PAH's	mg/kg	0.1
Benzo(a)pyrene TEQ calc (Zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc (Half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc (PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d_{14}	%	92

OCP in Soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	17/06/2023
alpha-BHC	mg/kg	<0.1
Hexachlorobenzene	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve reported Aldrin + Dieldrin	mg/kg	<0.1
Total +ve reported DDT+DDD+DDE	mg/kg	<0.1
Surrogate 2-chlorophenol-d4	%	78

OP in Soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	17/06/2023
Azinphos-methyl	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Chlorpyrifos	mg/kg	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Dichlorovos	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Ethion	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Parathion	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Coumaphos	mg/kg	<0.1
Disulfoton	mg/kg	<0.1
Fenamiphos	mg/kg	<0.1
Fenthion	mg/kg	<0.1
Methidathion	mg/kg	<0.1
Mevinphos	mg/kg	<0.1
Methyl Parathion	mg/kg	<0.1
Phorate	mg/kg	<0.1
Phosalone	mg/kg	<0.1
Surrogate 2-chlorophenol-d4	%	78

PCBs in Soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date extracted	-	16/06/2023
Date analysed	-	17/06/2023
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate 2-fluorobiphenyl	%	108

Acid Extractable metals in soil		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date digested	-	17/06/2023
Date analysed	-	19/06/2023
Arsenic	mg/kg	6
Cadmium	mg/kg	<0.4
Chromium	mg/kg	19
Copper	mg/kg	54
Lead	mg/kg	15
Mercury	mg/kg	<0.1
Nickel	mg/kg	14
Zinc	mg/kg	88

Moisture		
Our Reference		37865-1
Your Reference	UNITS	SDUP2
Date Sampled		07/06/2023
Type of sample		Soil
Date prepared	-	16/06/2023
Date analysed	-	17/06/2023
Moisture	%	12

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105°C for a minimum of 12 hours.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	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. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD or GC-MS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Note, For OCs the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. 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. 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-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
vTRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	119	[NT]
vTRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	119	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	112	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	109	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	116	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	128	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	117	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	95	[NT]	[NT]	[NT]	[NT]	97	[NT]

QUALITY CONTROL: TRH Soil C10-C40 NEPM					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	105	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	105	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	107	[NT]
Surrogate o-Terphenyl	%		Org-020	93	[NT]	[NT]	[NT]	[NT]	86	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	120	[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]	126	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	122	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	[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]	122	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	122	[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]	112	[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]	120	[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-d_{14}	%		Org-022/025	92	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: OCP in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Hexachlorobenzene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	87	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	124	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	117	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-chlorophenol-d4	%		Org-022/025	104	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: OP in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
Azinphos-methyl	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyrifos	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Diazinon	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	124	[NT]
Dichlorovos	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Fenitrothion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Malathion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenthion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Mevinphos	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methyl Parathion	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phosalone	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-chlorophenol-d4	%		Org-022/025	104	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			16/06/2023	[NT]	[NT]	[NT]	[NT]	16/06/2023	[NT]
Date analysed	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
Aroclor 1016	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	130	[NT]
Aroclor 1260	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 2-fluorobiphenyl	%		Org-022/025	108	[NT]	[NT]	[NT]	[NT]	108	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date digested	-			17/06/2023	[NT]	[NT]	[NT]	[NT]	17/06/2023	[NT]
Date analysed	-			19/06/2023	[NT]	[NT]	[NT]	[NT]	19/06/2023	[NT]
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	[NT]	[NT]	111	[NT]
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	[NT]	[NT]	108	[NT]
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	105	[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.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	Mitchell Delaney

Sample Login Details

Your reference	E36020PD, Tamworth
Envirolab Reference	325358
Date Sample Received	09/06/2023
Date Instructions Received	09/06/2023
Date Results Expected to be Reported	19/06/2023

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	37 Soil, 1 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	11
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Extra sample received: B12/3.5-3.7
TB1: only 1 x vial received, sample will be analysed for vTRH/BTEX only

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Water - Dissolved	On Hold
BH6-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH6-0.4-0.5													✓
BH6-1.3-1.5													✓
BH6-2.3-2.5	✓	✓	✓				✓						
BH6-3.3-3.5													✓
BH7-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH7-0.3-0.5													✓
BH7-1.3-1.5													✓
BH7-2.3-2.5													✓
BH7-3.3-3.5													✓
BH8-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH8-0.3-0.5													✓
BH8-1.3-1.5													✓
BH8-2.3-2.5													✓
BH10-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH10-0.3-0.5													✓
BH10-1.8-2	✓	✓	✓				✓						
BH11-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH11-0.8-1													✓
BH11-1.8-2													✓
BH11-2.8-3													✓
BH11-3-3.2													✓
BH12-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH12-0.8-1													✓
BH12-1.8-2													✓
BH12-3.3-3.5	✓	✓	✓				✓						
BH14-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH14-0.3-0.5													✓
BH14-1.8-2													✓
BH14-3.3-3.5													✓
BH15-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓					
BH15-0.8-1													✓

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	Metals in Water - Dissolved	On Hold
BH15-1.8-2	✓	✓	✓				✓						
SDUP1	✓	✓	✓	✓	✓	✓	✓						
FR-Shovel									✓	✓	✓	✓	
TS1	✓												
TB1	✓												
B12-3.5-3.7													✓

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.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E36020PD Date Results Required: STANDARD Page: 1 of 2	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Mdelaney@jkenvironments.com.au

Location:	Tamworth	Sample Preserved in Esky on Ice
Sampler:	OB	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6	Combo 3	Asbestos (WA 500mL)	Asbestos (Detection)	BTEX								
6/06/2023	1	BH6	0-0.1	G, A	0	F: Silty Clay	X		X										
6/06/2023	2	BH6	0.4-0.5	G, A	0	F: Silty Clay													
6/06/2023	3	BH6	1.3-1.5	G, A	0	F: Silty Clay													
6/06/2023	4	BH6	2.3-2.5	G, A	0	Silty Clay		X											
6/06/2023	5	BH6	3.3-3.5	G, A	0	Silty Clay													
7/06/2023	6	BH7	0-0.1	G, A	0	F: Silty Clay	X		X										
7/06/2023	7	BH7	0.3-0.5	G, A	0	F: Silty Clay													
7/06/2023	8	BH7	1.3-1.5	G, A	0	F: Silty Clay													
7/06/2023	9	BH7	2.3-2.5	G, A	0	F: Silty Clay													
7/06/2023	10	BH7	3.3-3.5	G, A	0	Silty Clay													
7/06/2023	11	BH8	0-0.1	G, A	0	F: Silty Clay	X		X										
7/06/2023	12	BH8	0.3-0.5	G, A	0	F: Silty Clay													
7/06/2023	13	BH8	1.3-1.5	G, A	0	Silty Clay													
7/06/2023	14	BH8	2.3-2.5	G, A	0	Silty Clay													
7/06/2023	15	BH10	0-0.1	G, A	0	F: Silty Clay	X		X										
7/06/2023	16	BH10	0.3-0.5	G, A	0	F: Silty Clay													
7/06/2023	17	BH10	1.8-2	G, A	0	Silty Clay		X											
7/06/2023	18	BH11	0-0.1	G, A	0	F: Silty Clay	X		X										
7/06/2023	19	BH11	0.8-1	G, A	0	F: Silty Clay													
7/06/2023	20	BH11	1.8-2	G, A	0	F: Silty Clay													
7/06/2023	21	BH11	2..8-3	G, A	0	F: Silty Clay													
7/06/2023	22	BH11	3-3.2	G	0	Silty Clay													
8/06/2023	23	BH12	0-0.1	G, A	0	F: Silty Clay	X		X										
8/06/2023	24	BH12	0.8-1	G, A	0	F: Silty Clay													
8/06/2023	25	BH12	1.8-2	G, A	0	F: Silty Clay													

Remarks (comments/detection limits required):

Sample Containers:
G - 250mg Glass Jar
A - Ziplock Asbestos Bag
P - Plastic Bag

Environmental Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

AB

JO: 325388.

Date Received: 9/6/23.

Time Received: 1610

Received By: EW

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken

11°C.

Relinquished By: MD	Date: 9.6.23	Time:	Received By: EW	Date: 9/6/23.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD	JKE Job Number: E36020PD	JKEnvironments
12 ASHLEY STREET		REAR OF 115 WICKS ROAD
CHATSWOOD NSW 2067		MACQUARIE PARK, NSW 2113
P: (02) 99106200	Date Results Required: STANDARD	P: 02-9888 5000 F: 02-9888 5001
F: (02) 99106201		Attention: Mdelaney@jkenvironments.com.au
Attention: Aileen	Page: 2 of 2	

Location:	Tamworth	Sample Preserved in Esky on Ice
Sampler:	OB	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6	Combo 3	Asbestos (WA 500mL)	Asbestos (Detection)	BTEX							
8/06/2023	26	BH12	3.3-3.5	G	0	Silty Clay		X										
8/06/2023	27	BH14	0-0.1	G,A	0	F: Silty Clay	X		X									
8/06/2023	28	BH14	0.3-0.5	G,A	0	F: Silty Clay												
8/06/2023	29	BH14	1.8-2	G,A	0.3	F: Silty Clay												
8/06/2023	30	BH14	3.3-3.5	G,A	0.7	Silty Clay												
8/06/2023	31	BH15	0-0.1	G,A	0	F: Silty Clay	X		X									
8/06/2023	32	BH15	0.8-1	G,A	0	F: Silty Clay												
8/06/2023	33	BH15	1.8-2	G,A	0	Silty Clay		X										
6/06/2023	34	SDUP 1	NA	G	0	Soil	X											
7/06/2023	50	SDUP 2	NA	G	0	Soil	X	PLEASE SEND to ENVIRO LAB VIC										
6-8/06/23	35	FR-Shovel	NA	G1, V, H	NA	Water		X										
6-8/06/23	36	TS1	NA	V	NA	Sand					X							
6-8/06/23	37	TB1	NA	V	NA	Sand		X										
	38	B12	3.5-3.7															

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

AB

Job No: 325358.
Date Received: 9/6/23
Time Received: 1610
Received By: GW
Temp: Cool/Ambient
Cooling: Ice/Ice
Security: Intact/Broken

Remarks (comments/detection limits required):

Sample Containers:
G - 250mg Glass Jar G1 - 500mL Amber Glass Bottle V - BTEX Vial
A - Ziplock Asbestos Bag
P - Plastic Bag H - HNO3 Wash PVC

Relinquished By: MD	Date: 9.6.23	Time:	Received By: GW	Date: 9/6/23

Appendix F: Report Explanatory Notes

QA/QC Definitions

The QA/QC terms used in this report are defined below. The definitions are in accordance with US EPA publication SW-846, entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (1994)[14] methods and those described in *Environmental Sampling and Analysis, A Practical Guide,* (1991)[15]. The NEPM (2013) is consistent with these documents.

A. Practical Quantitation Limit (PQL), Limit of Reporting (LOR) & Estimated Quantitation Limit (EQL)

These terms all refer to the concentration above which results can be expressed with a minimum 95% confidence level. The laboratory reporting limits are generally set at ten times the standard deviation for the Method Detection Limit for each specific analyte. For the purposes of this report the LOR, PQL, and EQL are considered to be equivalent.

When assessing laboratory data it should be borne in mind that values at or near the PQL have two important limitations: *"The uncertainty of the measurement value can approach, and even equal, the reported value. Secondly, confirmation of the analytes reported is virtually impossible unless identification uses highly selective methods. These issues diminish when reliably measurable amounts of analytes are present. Accordingly, legal and regulatory actions should be limited to data at or above the reliable detection limit*" (Keith, 1991).

B. Precision

The degree to which data generated from repeated measurements differ from one another due to random errors. Precision is measured using the standard deviation or Relative Percent Difference (RPD).

C. Accuracy

Accuracy is a measure of the agreement between an experimental result and the true value of the parameter being measured (i.e. the proximity of an averaged result to the true value, where all random errors have been statistically removed). The assessment of accuracy for an analysis can be achieved through the analysis of known reference materials or assessed by the analysis of surrogates, field blanks, trip spikes and matrix spikes. Accuracy is typically reported as percent recovery.

D. Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is primarily dependent upon the design and implementation of the sampling program. Representativeness of the data is partially ensured by the avoidance of contamination, adherence to sample handing and analysis protocols and use of proper chain-of-custody and documentation procedures.

E. Completeness

Completeness is a measure of the number of valid measurements in a data set compared to the total number of measurements made and overall performance against DQIs. The following information is assessed for completeness:

- Chain-of-custody forms;
- Sample receipt form;
- All sample results reported;
- All blank data reported;

[14] US EPA, (1994). *SW-846: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* (US EPA SW-846)

[15] Keith., H, (1991). *Environmental Sampling and Analysis, A Practical Guide*

- All laboratory duplicate and RPDs calculated;
- All surrogate spike data reported;
- All matrix spike and lab control spike (LCS) data reported and RPDs calculated;
- Spike recovery acceptable limits reported; and
- NATA stamp on reports.

F. Comparability

Comparability is the evaluation of the similarity of conditions (e.g. sample depth, sample homogeneity) under which separate sets of data are produced. Data comparability checks include a bias assessment that may arise from the following sources:

- Collection and analysis of samples by different personnel; Use of different techniques;
- Collection and analysis by the same personnel using the same methods but at different times; and
- Spatial and temporal changes (due to environmental dynamics).

G. Blanks

The purpose of laboratory and field blanks is to check for artefacts and interferences that may arise during sampling, transport and analysis.

H. Matrix Spikes

Samples are spiked with laboratory grade standards to detect interactive effects between the sample matrix and the analytes being measured. Matrix Spikes are reported as a percent recovery and are prepared for 1 in every 20 samples. Sample batches that contain less than 20 samples may be reported with a Matrix Spike from another batch. The percent recovery is calculated using the formula below. Acceptable recovery limits are 70% to 130%.

$$\frac{\text{(Spike Sample Result – Sample Result) x 100}}{\text{Concentration of Spike Added}}$$

I. Surrogate Spikes

Samples are spiked with a known concentration of compounds that are chemically related to the analyte being investigated but unlikely to be detected in the environment. The purpose of the Surrogate Spikes is to check the accuracy of the analytical technique. Surrogate Spikes are reported as percent recovery.

J. Duplicates

Laboratory duplicates measure precision, expressed as Relative Percent Difference. Duplicates are prepared from a single field sample and analysed as two separate extraction procedures in the laboratory. The RPD is calculated using the formula where D1 is the sample concentration and D2 is the duplicate sample concentration:

$$\frac{(D1 - D2) \times 100}{\{(D1 + D2)/2\}}$$

Appendix G: Data (QA/QC) Evaluation

Data (QA/QC) Evaluation

A. INTRODUCTION

This Data (QA/QC) Evaluation forms part of the validation process for the DQOs documented in Section 6.1 of this report. Checks were made to assess the data in terms of precision, accuracy, representativeness, comparability and completeness. These 'PARCC' parameters are referred to collectively as DQIs and are defined in the Report Explanatory Notes attached in the report appendices.

1. Field and Laboratory Considerations

The quality of the analytical data produced for this project has been considered in relation to the following:

- Sample collection, storage, transport and analysis;
- Laboratory PQLs;
- Field QA/QC results; and
- Laboratory QA/QC results.

2. Field QA/QC Samples and Analysis

A summary of the field QA/QC samples collected and analysed for this investigation is provided in the following table:

Sample Type	Sample Identification	Frequency (of Sample Type)	Analysis Performed
Intra-laboratory duplicate (soil)	SDUP1 (primary sample BH6 0-0.1m)	Approximately 8% of primary samples	Heavy metals, TRH/BTEX, PAHs, OCPs, OPPs and PCBs
Inter-laboratory duplicate (soil)	SDUP2 (primary sample BH7 0-0.1m)	Approximately 8% of primary samples	Heavy metals, TRH/BTEX, PAHs, OCPs, OPPs and PCBs
Trip spike (soil)	TS1 (6/6/23)	One for the investigation to demonstrate adequacy of preservation, storage and transport methods	BTEX
Trip blank (soil)	TB1 (6/6/23)	One for the investigation to demonstrate adequacy of storage and transport methods	BTEX
Rinsate (soil SPT)	FR-shovel (7/6/22)	One for the investigation to demonstrate adequacy of decontamination methods	Heavy Metals, TRH/BTEX and PAHs

The results for the field QA/QC samples are detailed in the laboratory summary Table S7 attached to the investigation report and are discussed in the subsequent sections of this Data (QA/QC) Evaluation report.

3. Data Assessment Criteria

JKE adopted the following criteria for assessing the field and laboratory QA/QC analytical results:

Field Duplicates

Acceptable targets for precision of field duplicates in this report will be 30% or less, consistent with NEPM (2013). RPD failures will be considered qualitatively on a case-by-case basis taking into account factors such as the concentrations used to calculate the RPD (i.e. RPD exceedance where concentrations are close to the PQL are typically not as significant as those where concentrations are reported at least five or 10 times the PQL), sample type, collection methods and the specific analyte where the RPD exceedance was reported.

Field/Trip Blanks and Rinsates

Acceptable targets for field blank and rinsate samples in this report will be less than the PQL for organic analytes. Metals will be considered on a case-by-case basis with regards to typical background concentrations in soils and published drinking water guidelines for waters.

Trip Spikes

Acceptable targets for trip spike samples in this report will be 70% to 130%.

Laboratory QA/QC

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which is outlined in the laboratory reports. These criteria were developed and implemented in accordance with the laboratory's NATA accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

A summary of the acceptable limits adopted by the primary laboratory (Envirolab) is provided below:

RPDs

- Results that are <5 times the PQL, any RPD is acceptable; and
- Results >5 times the PQL, RPDs between 0-50% are acceptable.

Laboratory Control Samples (LCS) and Matrix Spikes

- 70-130% recovery acceptable for metals and inorganics;
- 60-140% recovery acceptable for organics; and
- 10-140% recovery acceptable for VOCs.

Surrogate Spikes

- 60-140% recovery acceptable for general organics; and
- 10-140% recovery acceptable for VOCs.

Method Blanks

- All results less than PQL.

B. DATA EVALUATION

1. Sample Collection, Storage, Transport and Analysis

Samples were collected by trained field staff in accordance. Field sampling procedures were designed to be consistent with relevant guidelines, including NEPM (2013) and other guidelines made under the CLM Act 1997.

Appropriate sample preservation, handling and storage procedures were adopted. Laboratory analysis was undertaken within specified holding times in accordance with Schedule B(3) of NEPM (2013) and the laboratory NATA accredited methodologies.

JKE note that the temperature on receipt of soil samples was reported to be up to 11°C. JKE understand that the temperature is measured at the laboratory using an infrared temperature probe by scanning the outside of the sample container (i.e. one sample jar/container at the time of registering the samples). This procedure is not considered to be robust as there is a potential for the outside of the jar to warm to ambient temperature, or at least to increase from that of the internal contents, relatively quickly. On this basis, JKE is of the opinion that the temperatures reported on the Sample Receipts are unlikely to be reliable or representative of the overall batch. This is further supported by the trip spike recovery results (discussed further below) which reported adequate recovery in the range of 89% to 90%.

Envirolab noted that the asbestos results were reported to be consistent with the recommendations in NEPM (2013), however this level of reporting is outside the scope of their NATA accreditation. In the absence of other available analytical methods for asbestos, this was found to be acceptable for the purpose of this investigation.

Review of the project data also indicated that:

- COC documentation was adequately maintained;
- Sample receipt advice documentation was provided for all sample batches;
- All analytical results were reported; and
- Consistent units were used to report the analysis results.

2. Laboratory PQLs

Appropriate PQLs were adopted for the analysis and all PQLs were below the SAC.

3. Field QA/QC Sample Results

Field Duplicates

The results indicated that field precision was acceptable. RPD non-conformances were reported for some analytes as discussed below:

- Elevated RPDs were reported for lead in SDUP1/BH6 (0-0.1m); and
- Elevated RPDs were reported for arsenic, chromium, copper, zinc, fluoranthene and benzo(a)pyrene in SDUP1/BH6 (0-0.1m).

Values outside the acceptable limits have been attributed to sample heterogeneity and the difficulties associated with obtaining homogenous duplicate samples of heterogeneous matrices, and also due to results

close to the PQLs. As both the primary and duplicate sample results were less than the SAC, the exceedances are not considered to have had an adverse impact on the data set as a whole.

Field/Trip Blanks

During the investigation, one soil trip blank was placed in the esky during sampling and transported back to the laboratory. The BTEX results were all less than the PQLs, therefore cross contamination between samples that may have significance for data validity did not occur.

JKE scheduled sampling on the sand bank sample for other analytes including Heavy Metals, TRH and PAHs, as shown on the COC. However, the laboratory inadvertently omitted to capture the requested analysis on the Sample Receipt. Significant concentrations Heavy Metals, TRH and PAHs, were not encountered in the soil samples analysed.

Considering the primary soil results and the results of other field QA/QC sampling, JKE is of the opinion that the potential for cross-contamination is low.

Rinsates

The water rinsate results were all less than the PQLs with the exception of copper and light fraction TRH (C_6-C_{10}). Low-level metals concentrations are typical in potable water which was used to decontaminate (wash down) soil sampling equipment. The detectable concentration of light fraction TRH is most likely attributed to trihalomethanes. These compounds are breakdown products from the chlorination process and are common in potable water at the concentration reported (the Australian drinking water guideline for total trihalomethanes is 250µg/L). Significant concentrations of heavy metals (including lead) and TRH were not encountered in the soil's samples analysed.

The water rinsate was collected form the shovel used during the asbestos quantification sampling. A water rinsate was not collected from the potable water used decontaminate (wash down) SPT split spoon soil sampling equipment, although we note that the same robust decontamination was used.

Considering the primary soil results and the results of other field QA/QC sampling, JKE is of the opinion that the potential for cross-contamination is low.

Trip Spikes

The results ranged from 89% to 90% and indicated that field preservation methods were appropriate. The trip spike results indicated that field preservation methods were appropriate.

4. Laboratory QA/QC

The analytical methods implemented by the laboratory were performed in accordance with their NATA accreditation and were consistent with Schedule B(3) of NEPM (2013). The frequency of data reported for the laboratory QA/QC (i.e. duplicates, spikes, blanks, LCS) was considered to be acceptable for the purpose of this investigation.

A review of the laboratory QA/QC data identified the following minor non-conformances:

- Lab report No. 325358: The laboratory RPD criteria for the sample BH6 0-0.1m for lead was exceeded. Therefore a triplicate was prepared; and
- Lab report No. 325358: metals precent recovery was not possible due to the inhomogeneous nature of the element/s in the sample/s. However, an acceptable recovery was obtained for the LCS.

C. DATA QUALITY SUMMARY

JKE is of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

Non-conformances were reported for some field QA/QC samples and laboratory QA/QC analysis. These non-conformances were considered to be sporadic and minor, and were not considered to be indicative of systematic sampling or analytical errors. On this basis, these non-conformances are not considered to materially impact the report findings.

Appendix H: Guidelines and Reference Documents

Acid Sulfate Soils Management Advisory Committee (ASSMAC), (1998). Acid Sulfate Soils Manual

Australian and New Zealand Environment Conservation Council (ANZECC), (2000). Australian and New Zealand Guidelines for Fresh and Marine Water Quality

Canadian Council of Ministers of the Environment, (1999). Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)

CRC Care, (2011). Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document

Contaminated Land Management Act 1997 (NSW)

Department of Land and Water Conservation, (1997). 1:25,000 Acid Sulfate Soil Risk Map Series

Managing Land Contamination, Planning Guidelines SEPP55 – Remediation of Land (1998)

National Health and Medical Research Council (NHMRC), (2021). National Water Quality Management Strategy, Australian Drinking Water Guidelines 2011

NSW Department of Environment and Conservation, (2007). Guidelines for the Assessment and Management of Groundwater Contamination

NSW EPA, (2014). Waste Classification Guidelines - Part 1: Classifying Waste

NSW EPA, (2015). Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997

NSW EPA, (2017). Guidelines for the NSW Site Auditor Scheme, 3rd Edition

NSW EPA, (2020). Consultants Reporting on Contaminated Land, Contaminated Land Guidelines

NSW EPA, (2022). *Sampling design part 1 - application*, Contaminated Land Guidelines

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

Olszowy, H., Torr, P., and Imray, P., (1995). Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

Protection of the Environment Operations Act 1997 (NSW)

State Environmental Planning Policy (Resilience and Hazards) 2021 (NSW)

World Health Organisation (WHO), (2008). Petroleum Products in Drinking-water, Background document for the development of WHO Guidelines for Drinking Water Quality

Western Australia Department of Health, (2021). Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia