



Preliminary Site Investigation
2 Settlers Boulevard, Chisholm NSW

Prepared for: AVID Residential Estate Pty Ltd C/-ADW Johnson Pty Ltd
EP4322.002 7 November 2025



Preliminary Site Investigation

2 Settlers Boulevard, Chisholm NSW

AVID Residential Estate Pty Ltd C/-ADW Johnson Pty Ltd
L35, One International Towers,
100 Barangaroo Avenue, Sydney NSW 2000

7 November 2025

Our Ref: EP4322.001 v1

LIMITATIONS

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This report has been reviewed and approved by Paul Simpson, a CEnvP SC, of EP Risk Management Pty Ltd.

Paul Simpson
Principal Environmental Engineer
Certified Environmental Practitioner
Site Contamination (No. SC40916)



Sydney (Head Office)
13.01, 80 Mount Street
North Sydney, NSW 2060
T 02 9922 5021
W www.eprisk.com.au

Melbourne
22/1 Ricketts Road
Mount Waverley, VIC 3149
T 03 8540 7300

Newcastle
3/19 Bolton Street
Newcastle, NSW 2300
T 02 4048 2845

Brisbane
PO Box 28
The Gap, QLD 4061
T 07 3506 0233

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Sydney (Head Office)
 13.01, 80 Mount Street
 North Sydney, NSW 2060
T 02 9922 5021
W www.eprisk.com.au

Melbourne
 22/1 Ricketts Road
 Mount Waverley, VIC 3149
T 03 8540 7300

Newcastle
 3/19 Bolton Street
 Newcastle, NSW 2300
T 02 4048 2845

Brisbane
 PO Box 28
 The Gap, QLD 4061
T 07 3506 0233

Executive Summary

EP Risk was engaged by AVID to undertake a Preliminary Site Investigation (PSI) for a Site located at 2 Settlers Boulevard, Chisholm, NSW (the Site). It is understood the client requires a PSI for the development application for the proposed residential subdivision as required in accordance with State Environmental Planning Policy (SEPP) Resilience and Hazards 2021.

The PSI was required to assess whether any contaminating activities are likely to have occurred at the Site which may present a human health or ecological risk under the proposed land use.

Based on the review of the historical information, the Site had historically been used for rural agricultural and poultry farming purposes from approximately 1970 until 2004, was used as a laydown area in 2010 until further redevelopment to a residential housing office and café.

The Site had historically been assessed by GHD (2004) and potentially contaminating activities identified to have been undertaken at the Site included historical filling and former poultry farming infrastructure. The former poultry sheds were decommissioned and potential asbestos impact remediated and validated by Environ (2009) as suitable for residential land use. Additional soil assessment by JBS&G (2018) of imported materials after use of the Site as a laydown area for redevelopment of adjacent land in 2010 did not report any exceedances of the adopted criteria.

A total of twelve soil samples from twelve test pits advanced to a maximum depth of 3.0 m BGL (or prior refusal) were collected and analysed for the contaminants of potential concern (COPC) in this PSI. No exceedances to the human-health or ecological criteria were reported. No anthropogenic materials were observed in test pits advanced into fill materials.

Overall, based on previous investigations, remediation and validation works as well as the results of this assessment, conceptual site model, and analytical testing for the proposed development, no complete source-pathway-receptor linkages were identified.

EP Risk considers that the Site is suitable for the proposed residential land use subject to the development and implementation of an unexpected finds protocol.

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1 Introduction

EP Risk Management Pty Ltd (EP Risk) was engaged by AVID Residential Estate Pty Ltd C/- ADW Johnson (AVID) to undertake a Preliminary Site Investigation (PSI) for a property located at 2 Settlers Boulevard, Chisholm, New South Wales (NSW) (the Site). It is understood the Site is proposed to be developed for residential use (Proposed Development) and the PSI is required as part of the development application (DA) and in accordance with State Environmental Planning Policy (SEPP) (Resilience and Hazards) 2021.

1.1 Site Identification

The Site identification details are presented in **Table 1**

Table 1 – Site Identification	
Item	Description
Address	2 Settlers Boulevard, Chisholm, NSW, 2322
Legal Description	The Site is legally described as part Lot 9120 in Deposited Plan (DP) 1295941 and part Lot 9100 DP 1301709.
Approximate Area	Approximately 1.95 hectares (ha).
Municipality	Maitland City Council (Council)
Zoning	The Maitland Local Environment Plan (LEP) 2011 identifies the Site as R1 – General Residential.

1.2 Proposed Development

It is understood the Site is proposed to be developed as a residential subdivision.

1.3 Objective

The PSI was required to assess whether contaminating activities are likely to have occurred at the Site which may present a human health or ecological risk under the proposed (residential) land use.

1.4 Scope of Work

The scope of work completed to achieve the objective included:

- Preparation of all work health and safety documentation and procure dial before you dig information.
- Undertake an inspection of the Site to observe onsite and offsite conditions.
- Advance a total of twelve test pits to a maximum depth of 3.0 m below ground level (BGL).
- Screening of surface materials with a 7mm screen for the assessment of asbestos containing material (ACM).
- Collection of samples from intervals of 0-0.1 metres below ground level (m BGL), 0.5 m BGL, 1.0 m BGL and every metre thereafter or prior refusal.
- Analytical testing of soil samples by a National Association of Testing Authorities (NATA) accredited laboratory.

- Preparation of a report with the findings of the investigation in accordance with NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated Land and the National Environment Protection (Assessment of Site Contamination) Measure 1999 (ASC NEPM 2013).

1.5 Technical Framework

- ASC NEPM (2013).
- Protection of the Environment Operations (POEO) Act 1997.
- NSW EPA (2017) *Guidelines for the NSW Auditor Scheme (3rd Edition) (NSW Auditor Guidelines)*.
- NSW EPA (2020) *Contaminated Land Guidelines – Consultants Reporting on Contaminated Land*.
- NSW EPA (2022a) *Contaminated Land Guidelines: Sampling Design part 1 – application*.
- NSW EPA (2022b) *Contaminated Land Guidelines: Sampling Design part 2 – interpretation*.
- State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP).
- The Maitland LEP (2011).
- United State Environment Protection Agency (USEPA) (2006) *Guidance on Systematic Planning Using the Data Quality Objectives Process*, ref: EPA QA/G-4.
- Western Australian (WA) Department of Health (DOH) (2020) *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (DOH 2020).

2 Site Condition and Surrounding Environment

The majority of information provided in the following sections was obtained from the Lotsearch Environmental Risk and Planning Report (Lotsearch, 2025) which was obtained for the Site. A copy of the Lotsearch (2025) report is attached as **Appendix A**.

2.1 Land Use and Layout

The Site is comprised of a large rectangular shaped portion of land, approximately 1.95 Ha in size. An Environmental Scientist from EP Risk attended the Site on the 1st of September 2025 to undertake a Site inspection. General Site features observed are summarised below:

- The Site is currently a sales office, café, and carpark in the north-western portion of the Site.
- The eastern portion of the Site is comprised of sporadic mature tree cover and grassed areas.
- The south-western portion of the Site is comprised of a vacant grassed area.

Photographs of the Site are attached as **Appendix B**.

2.2 Surrounding Land Use

As of the 20 October 2025 the surrounding land use comprised:

- **North:** Residential properties and construction of residential subdivision zoned R1 – General Residential.
- **East:** Residential subdivision developments and dense bushland beyond zoned R1 – General Residential and C3 – Environmental Management.
- **West:** Residential properties zoned R1 – General Residential and R5 – Large Lot Residential.
- **South:** Dense bushland, historical clay quarry and future residential development zoned RU2 – Rural Landscape.

2.3 Environmental Setting

A summary of the information sourced from the Lotsearch (2025) report is summarised in **Table 2**.

Table 2 – Environmental Setting	
Record	Findings
Topography and Hydrology	The Site is relatively flat with a gentle slope to the south east at an elevation ranging between 36 metres above the Australian Height Datum (m AHD) to 42 m AHD. The Site drainage is considered to consist of surface runoff migrating across the Site following surface contours as overland flow towards the storm water network along Raymond Terrace Road.
Geology	Based on the geological data sourced from the NSW Department of Industry, Resources and Energy (Lotsearch, 2021) the Site is underlain by Mulbring Siltstone comprising Guadalupian siltstone, minor claystone, rare thin sandstone and limestone beds, sporadic marine fossils. A small portion of the Site on the western boundary is underlain by Tomago Coal Measures comprising Lopingian sandstone, shale and mudstone, siltstone, coal with sporadic interbeds of shale, claystone, sideritic bands, rare pebble, paraconglomerate.
Soil Landscapes	Based on the soil landscapes data sourced from the NSW OEH (Lotsearch, 2021) the Site is located within the Kurosol soil order. The soil landscapes are the Beresfield Soil Landscape which covers undulating low hills and rises on Permain Sediments in the East Maitland Hills region. The soils consist of moderately deep, moderately well to imperfectly drained Yellow Podzolic Soils, Brown Podzolic Soils and brown Soloths on crests. Well-drained Red Podzolic Soils and red Soloths occur on upper slopes. Moderately well to imperfectly drained brown Soloths and yellow Soloths on sideslopes and deep imperfectly to poorly drained Yellow Podzolic soils, yellow Soloths and Gleyed Podzolic Soils on lower slopes. Limitations comprise high foundation hazard, water erosion hazard, Mine Subsidence District, seasonal waterlogging and high run-on on localised lower slopes, highly acid soils of low fertility.
Hydrogeology	A search of the NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corporation undertaken by Lotsearch (2021) indicated there were no registered groundwater bores located onsite. Review of the Hydrogeology Map of Australia, Lotsearch (2021) identified fractured or fissured, extensive aquifers of low to moderate productivity. Groundwater is inferred to flow towards the southeast following the Site topography.
Natural Occurring Asbestos Potential	No reported naturally occurring asbestos potential has been identified within 1 km of the Site.
Acid Sulfate Soils	Based upon a review of the Maitland LEP (2011), the Site is located within a class 5 Acid Sulfate Soils zone. Works within 500m of adjacent Class 1, 2, 3 or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 m AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk. With reference to the CSIRO Atlas of Australian Acid Sulfate Soil, the Site is located in a Class C zone with an extremely low (1-5%) probability of occurrence with occurrences in small, localised areas. It is considered unlikely that acid sulfate soils would be located at the site that would require management during future redevelopment.

Table 2 – Environmental Setting	
Record	Findings
Dryland Salinity	With reference to the Dryland Salinity Data sourced from Lotsearch (2021), the Site is not mapped within a Dryland Salinity Risk area
Bushfire Prone Area	The Site was listed as a bush fire prone area with vegetation category 1, 3 and Vegetation Buffer located on Site.
Ecology	According to NSW Office of Environment and Health (OEH), no RAMSAR wetlands were reported within 1 km of the Site. Low potential terrestrial groundwater dependant ecosystems (GDEs) were identified on the eastern portion of the Site. Moderate and high potential GDEs were identified within 1km of the Site.
Waste Management Facilities	No waste management facilities were identified within 1 km of the Site.
National Liquid Fuel Facilities	No national liquid fuel facilities were identified within 1 km of the Site.
Mining Subsidence	With reference to the Mining Subsidence District Data sourced from Lotsearch (2021), the Site is not located within a mining subsidence district.
Mining and Exploration Titles	No current mining or exploration titles exist at the Site. A total of four Historical Mining and Exploration Titles exist within the boundaries of the Site, identified for petroleum resources. The most recent end date for the titles was 07/06/2015 for Sydney Oil Co Pty Ltd Australia, Manvane Pty Ltd Australia, Base Resources Ltd, Seahawk Oil Australia and Reading & Bates. Based upon a review of the records, it is unlikely that any mining activities have occurred at the Site.
Cattle Dips	No records of cattle dips were recorded at or within 1 km of the Site according to a search of the Department of Primary Industries Data Base and visual observations of the Site.
Former Gasworks	No former gasworks have been identified at or within 1 km of the Site.

2.4 Regulatory Searches

A summary of the regulatory searches performed by Lotsearch (2025) are summarised in **Table 3**.

Table 3 – Regulatory Searches	
Search	Results
Contaminated Land	As of 29.08.25 there were no records of notice on the NSW Environment Protection Authority (NSW EPA) Contaminated Land Database. There were no records for the Site on the list of NSW contaminated sites notified to the NSW EPA in accordance with the CLM Act 1997.
EPA Notices under the Protection of the Environment Operations Act 1997 (POEO Act 1997)	The NSW EPA issued two penalty notices to a property at 1 Brickworks Road, Thornton, NSW, which is located 622 m south west of the Site. There were records of penalty notices for transport of excess waste to unlawful facility and unlawful use as a waste facility. Based upon the separation distance and topography, it is unlikely that the activities at this property present a potential source of off-site contamination to the Site.
Licensed Activities under the POEO Act 1997	Licensed activities under the POEO Act at or within 1 km of the Site are: Maitland City Council, all waterbodies in the Maitland local government area for other activities, onsite. It is considered unlikely that the licensed activities would present a source of off-site contamination to the Site based upon the nature of the activities, which are common to most waterways in NSW.
Former Licensed Activities under the POEO Act 1997, now revoked or surrendered.	There were four records of Former Licensed Activities under the POEO Act 1997, now surrendered, located at or within 1 km of the Site boundary. They are as follows: - Luhrmann Environment Management Pty Ltd, for waterways throughout NSW, surrendered for other activities / non-scheduled activity – application of herbicides, surrendered on the 06/09/2000. - Robert Orchard, for various waterways throughout NSW, surrendered for other activities / non-scheduled activity – application of herbicides, surrendered on the 07/09/2000. - Sydney Weed and Pest Management Pty Ltd, for waterways throughout NSW – Prospect NSW, 2148, surrendered for other activities / non-scheduled activity – application of herbicides, surrendered on the 09/11/2000. It is considered unlikely that the former licensed activities would present a source of off-site contamination to the Site based upon the nature of the activities, which are common to most waterways in NSW.
Delicensed Activities still regulated by the NSW EPA	No delicensed activities still regulated by the NSW EPA were identified at or within 1 km of the Site.

Table 3 – Regulatory Searches	
Search	Results
NSW EPA per- and poly-fluoroalkyl substances (PFAS) Investigation and Management Programs	No Sites under the NSW PFAS Investigation Program, Defence PFAS Investigation Program, Defence PFAS Management Program or Airservices Australian National PFAS Management Program were identified at or within 1 km of the Site.
Defence 3 Year Regional Contamination Investigation Program	No Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program were identified within 1 km of the Site.
National Unexploded Ordnance (UXO)	A property located 1402m to the west was used for military training and camps during World War II. Based upon the separation distance it is unlikely that these activities would present a source of off-site contamination to the Site.
Heritage	No Environmental Planning Instrument (EPI) heritage items were identified within 1km of the Site which were considered to pose a risk to the Site or impacted by potential contamination at the Site.

3 Site History

The Site history sources utilised during the review included:

- Historical aerial photography.
- Historical business directories.
- Historical title search information.

3.1 Review of Historical Aerial Photos

Aerial photographs were reviewed to identify past land uses of the Site and surroundings. **Table 4** provides a summary of the review.

Table 4 – Historical Aerial Photograph Review	
Year	Description
1954	Site: The Site was comprised of partly cleared land with scattered mature trees. Surroundings: Raymond Terrace Road was located to the south of the Site, the surrounding area was comprised of dense bushland
1966	Site: Additional trees were cleared, and a residential building was constructed adjacent the northern boundary with tracks visible through the Site. Surroundings: A dam was constructed to the northwestern of the Site. Additional structures were constructed to the north of the Site. The vegetation to the west of the Site was heavily cleared.
1977	Site: One poultry shed was constructed on the western portion of the Site which forms part of a larger poultry farm on adjacent land to the north and west. Surroundings: The dam on adjacent land to northwest was infilled. Six poultry sheds were located to the west of the Site. A small dam was constructed to the southwest.
1984	Site: The poultry shed on Site was extended. A small structure was constructed in the south of the Site. Surroundings: An additional poultry shed was constructed the west of the Site.
1993	Site: Minor tracks were located on the northwestern boundary of the Site. Surroundings: Tracks extend to the west of the Site.
2001	Site: The small structure in the south of the Site was removed. Surroundings: No significant changes
2013	Site: All structures including poultry sheds and the residential building were removed from Site. Minor earthworks have occurred on the western portion of the Site. Surroundings: Poultry sheds and existing structures were removed. A sealed road was constructed along the western boundary of the Site. Residential development has been constructed to the northwest of the Site.
2025	Site: A café was constructed on Site comprising two structures and an asphalt driveway and parking lot in the northwestern portion of the Site. Surroundings: The residential development had extended to the west of the Site. Earthworks were occurring to the east and north of the Site.

The aerial photographs reviewed are provided in the Lotsearch (2025) report as **Appendix A**.

3.2 Review of Nearmap photographs

A review of Nearmap photographs were undertaken for the Site over the period of 8 May 2010 to the 28 September 2025, with the following notable activities identified:

- 8 May 2010 – The western portion of the Site is being used as a laydown area for bulk earthworks activities associated with residential development on adjacent land to the north. The eastern portion of the Site remained vacant land with mature trees.
- 25 November 2010 to 4 June 2018 – The eastern portion of the Site has been revegetated with grass and remains vacant, with some landscaping completed in the southwestern corner associated with the entrance to the residential estate.
- 14 June 2018 to 18 October 2019 – Constriction of the current café, display village and carparks.
- 18 October to present – Operation of the café.

3.3 Business Directory Search

No business activities were recorded at the Site. One historical business activity was matched to Raymond Terrace Road which considered of Thornton Fire and Building Brick Co. Pty Ltd. This property was operational between 1961 to 1982 with business activities involving brick, pipe and tile manufacturing and distribution. Thornton Fire and Building Brisk Co. Pty Ltd was located at 51 Brickworks Road, Thornton which is approximately 622 km southwest of the Site. Based upon the separation distance from the Site and topography, the operation of this facility is unlikely to be an off-site source of contamination for the Site.

3.4 Historical Title Search

Historical certificates of title details were reviewed and identified the title being created in 1887 with the proprietor of the Site being John Francis Joseph O'Brien (farmer). Since the title's creation, the title had been transferred eight times with notable owners including Steggles Poultry Pty Ltd from 1970 to 2004. The current owner is Avid Residential Estates Pty Ltd since 2017. Certificates of title, plans of subdivision/title plans and title history search documents are attached as **Appendix C**.

3.5 Summary of Site History

Based on the review of the historical information, the Site was formerly used as rural / agricultural land including poultry farming between 1970 to 2004. The Site was owned by developers since 2004 and is currently utilised as a café associated with the residential development. The surrounding land use comprised rural / agricultural and residential land use.

4 Summary of Previous Investigations

Previous investigations undertaken at the Site include:

- GHD (2004) Preliminary Site Contamination Investigation – Additional Land, Beechwood Homes Thornton North, dated March 2004 (ref: 22/11222/59197).
- Environ (2008) Remedial Action Plan, Waterford County Estate, dated 4 March 2008 (ref: AS130189).
- Environ (2009) Validation Report – Waterford Count Estate, dated 20 August 2009 (ref: AS130265).
- Geotech Solutions (2010) Review of Site Validation Residential Subdivision – Waterford County Chisholm, dated 11 August 2010 (ref: GS727-001/0).
- JBS&G (2018) Preliminary Site Investigation, Waterford County Southern Portion, 2 Settlers Boulevard, 118 Dragonfly Drive and portion of 321-329 McFarlane’s Road, Chisholm, NSW (ref: 54001/114477).

A summary of pertinent outcomes from each previous investigation is provided in **Table 5**

Table 5 – Summary of previous investigations	
Previous Assessment	Comments
GHD 2004	GHD (2004) undertook a Preliminary Site Contamination Assessment on a 90 hectare parcel of land located on Raymond Terrace Road, Thornton, NSW. The Assessment was undertaken on former Lot 43 DP 1009494, Lot 1 DP 1080710, Lot 1 DP 2020389, Lot 1 DP 1020387. The Site is in a portion of Lot 1, DP 1020387. GHD identified potential sources of contamination in the assessment area including the application of pesticides, herbicides and fertilisers, imported fill, paints used on building material, galvanised building products, fuel storage, fibre cement building products, waste disposal areas, burial pits and sewage seepage pits. GHD undertook an inspection of the identified locations of potentially asbestos containing materials at the Site and also held discussions with the demolition contractor (Bartter) who was in the process of demolishing all the structures including the poultry sheds at the time of the assessment. It was confirmed that Poultry Shed 4, which was located at the Site had fibre cement fragments scatted amongst the remains of the shed, a fibre cement sheeting gable and an electrical power box with an asbestos containing backing board. Preliminary sampling and analytical testing of soils from the areas of potential concern was undertaken, which included assessment of the Site. GHD concluded that the majority of the Site was suitable for residential development, expect for a number of locations where additional assessment and management was recommended. Remediation and validation of the former poultry shed footprints was recommended.
Environ 2008	Environ (2008) Prepared a Remediation Action Plan (RAP) for parcels of land including former Lot 121 DP 1108020 and Lot 102387. The Site is in a portion of Lot 1, DP 1020387. The RAP also included additional investigations to supplement the previous assessment (GHD 2004). The additional investigations included further review of historical photographs, a thorough inspection of former turkey shed areas, sampling of soil beneath the former turkey sheds and analytical testing for pesticides, herbicides, lead and asbestos and intrusive test pitting targeting potential burial pit areas. The results of the investigation in the former poultry shed did not identify any contaminant levels above the adopted criteria. No burial pits were identified at the Site during the test pitting assessment. The extent of remediation at the Site was limited to the potential for asbestos at the former poultry shed location, however no asbestos was identified at the surface by Environ. It was considered unlikely for burial pits to be located at the Site; however a thorough inspection was recommended following clearing of vegetation. The proposed remediation approach included scraping of former poultry shed footprints into stockpiles, inspection and off-site disposal as appropriate. A validation sampling, analysis and quality plan (SAQP) was developed for the RAP which included validation sampling of poultry shed footprints and preparation of a validation report.

Table 5 – Summary of previous investigations	
Previous Assessment	Comments
Environ 2009	Environ (2009) prepared a Validation Report for Lot 121 DP 1108020 and Lot 102387 in accordance with the Environ (2008) RAP. The Site is in a portion of Lot 1, DP 1020387. The remediation works at the Site included scraping of the former poultry shed footprint and stockpiling of the scraped material for inspection by Environ. Environ inspected the Site in 30 July 2009 including the scraped area, stockpiled soil and a walkover of the development area noting evidence of potential burial areas. No evidence of asbestos materials or burial pits was noted during the inspection. Validation sampling was undertaken beneath the footprint of the former turkey shed and stockpiled soil for the contaminants of potential concern. All results were reported below the adopted human health criteria and Environ considered that the Site was suitable for the proposed residential land use.
Geotech Solutions 2010	An additional validation assessment was undertaken of Lot 121 DP 1108020 and Lot 102387 in relation to issues raised by Council. It was noted that none of the issues related to the Site.
JBS&G 2018	JBS&G (2018) prepared a Preliminary Site Investigation of parcels of land identified as Lot 4 DP1220220, Lot 2831 DP1238911 and Part Lot 1 DP1020710, which included the Site. Imported stockpiled materials were identified at the Site associated with the use of the Site in 2010 as a laydown area during construction of the residential development on adjacent land to the north. Sampling and analytical testing of imported stockpiled soil was undertaken from 11 test pits targeting stockpiles SP01-SP04, SP06 and SP07. Based upon the analytical results, all of the samples collected from the Site reported concentrations of the contaminants of potential concern below the adopted criteria for residential land use. JBS&G recommended a site management strategy including an unexpected finds protocol is developed and implemented during site development.

5 Sampling and Analysis

5.1 Data Quality Objectives

To assess whether an appropriate sampling strategy was adopted for the PSI, EP Risk adopted the data quality objectives (DQOs) planning process as:

- Recommended in the ASC NEPM 2013.
- Required within the NSW EPA (2017), *Guidelines for the NSW Site Auditors Scheme (3rd edition)*.
- With consideration to technical details outlined in US EPA (2006) *Guidance on Systematic Planning Using the Data Quality Objectives Process*, ref: EPA QA/G-4.

Step 1 – State the Problem

Preliminary Conceptual Site Model based on the Site history review:

- **Sources** – Former agricultural / rural land use including storage of machinery, application of pesticides and herbicides, operation and demolition of poultry sheds and imported soil during redevelopment of adjacent land.
- **Contaminants** – potentially metals (As, Cd, Cr, Cu, Pb, Ni, Hg and Zn¹), organics (TRHs, TPH, BTEX, PAHs, PCBs and OCPs / OPPs²), and asbestos (bonded (non-friable) asbestos containing material (ACM) / asbestos fines (AF) / fibrous asbestos (FA).
- **Media** – The current potential affected media at the Site includes soil. Based on the preliminary nature of this assessment, sampling and reporting is limited to soils onsite.
- **Receptors** – Current site visitors, workers and maintenance workers. Once developed, future Site workers (surface and sub-surface), residents and visitors (adults and children).
- **Pathways** – dermal contact, inhalation of dust and ingestion have been identified as the pathways of concern. Further assessment of groundwater and/or soil gas may be considered based on the findings of this investigation.

The PSI was required to assess whether any contaminating activities are likely to have occurred at the Site which may present a human health or ecological risk for the current or proposed land use.

Step 2, 3 and 5 – Goals of the Study, Required Inputs and Analytical Approach

Given the Site is to be redeveloped into a low-density residential development, the decision-making process for urban redevelopment Sites provided by the NSW EPA (2017) was considered in the development of the following decisions that need to be addressed.

The decision-making process for assessing urban redevelopment Sites was adopted and summarised in **Table 6**.

The inputs required to make the decision are presented in **Table 6**.

The Tier 1 assessment criteria for the contaminants of concern are presented in **Table 6**. These criteria have been adopted to determine whether additional assessment is required and / or whether the Site is suitable for the proposed land use.

¹ Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Mercury and Zinc.

² Total Recoverable Hydrocarbons, Total Petroleum Hydrocarbons, Benzene, Toluene, Ethylbenzene and Xylene, Polynuclear Aromatic Hydrocarbons, Polychlorinated Biphenyls, Organochlorine Pesticides and Organophosphorus Pesticides.

Confirmation that data generated by sampling and analysis are of an acceptable quality to allow reliable comparison to adopted assessment criteria as undertaken by assessment of quality assurance / quality control (QA/QC) as per the data quality indicators (DQIs) established in **Section 6**.

Step 4 – Define the Boundaries of the Study

The spatial boundary is limited to 2 Settlers Boulevard, Chisholm, NSW. The legal description of the Site is Lot 9120 in DP 1295941 and part Lot 9100 DP 1301709, which covers an area approximately 1.95 ha. The maximum proposed depth for the investigation set at 3.0 m BGL for soil. The approximate boundaries are shown in **Figure 1**.

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

Table 6 – Goals of the Study, Required Inputs and Analytical Approach				
Decision	Rule	Inputs/Media	Associated AECs	CoPC
1. Has soil been assessed against relevant health investigation levels (HILs) and health screening levels (HSLs), and has potential for migration of contamination been considered?	The nature and extent of soil impacts will be assessed, and analytical data will be compared against the adopted health and ecological criteria. The following statistical criteria was adopted with respect to soils: Either: the reported concentrations are all below the adopted Site criteria; Or: the average Site concentration for each analyte must be below the adopted Site criterion; no single analyte concentration exceeds 250% of the adopted Site criterion; and the standard deviation of the results must be less than 50% of the site criteria. And: the 95% upper confidence limit ('UCL_{mean}') of the average concentration for each analyte must be below the adopted site criterion. If the statistical criteria stated above are satisfied, and an assessment of risk indicates no unacceptable risks then there is no potential for migration of contamination. Otherwise, there is potential for migration of contamination and further assessments may be required to determine the risk at the Site.	Soil sampling/analysis and Site observations	AEC 1 – Historical Filling AEC 2 – Former poultry farming Infrastructure	Soil – TRH, TPH, BTEX, PAH, PCB, OCP, OPP, heavy metals, asbestos.
2. Are there any issues relating to local area background soil concentrations that exceed relevant investigation levels have been adequately addressed in the Site assessment report(s)?	If the 95% UCL of natural soils, that are considered to not be impacted by potential sources of contamination, exceed adopted health and ecological criteria. Otherwise, additional assessment of background concentrations will be required.			
3. Are there impacts of chemical mixtures?	Is more than one chemical within a group of contaminants considered to have a similar mode of action present which increase the risk of harm? If there is, a hazard quotient (HQ) and Hazard Index (HI) should be calculated from the analytical results for each sample in accordance with NEPM 2013. If the HI is calculated to be greater than 1. Otherwise, there are impacts of chemical mixtures that will require additional assessment.			
4. Are there any potential ecological risks? If yes, have these been assessed? Are there any potential human health risks to the identified Site receptors?	Soil impacts will be assessed, and data will be compared to the adopted criteria. The decisions will be made based on Decisions 1 and 2 above. And: If the reported concentrations are all below the adopted Site criteria and an assessment of risk indicates no unacceptable risks. Otherwise, potential ecological and human health risks have been adequately assessed.			
5. Is there any evidence of, or potential for, migration of contaminants from the Site? Has this been appropriately addressed, including potential risks to offsite receptors, and reported to the Site owner or occupier?	Are chemical contaminants present within natural soil at concentrations exceeding the adopted Site criteria? And: is there a potential transport pathway/mechanism If yes, then there is the potential for offsite migration that will require additional assessment.			
6. Are there any aesthetics issues in fill at the Site?	If there are any unacceptable staining, odours, or significant amounts of anthropogenic fill materials then additional assessment or management will be required.			
7. Is there sufficient information to accurately characterise the Site contamination?	If the total number of samples collected is greater than or equal to the recommended number of sample points in accordance with NSW EPA (2022) Sampling Design Guidelines; And: the likelihood of onsite soil contamination impacting, groundwater, surface water and offsite receptors is considered unlikely. And: no areas which exceeded the adopted criteria require further characterisation.			

Table 6 – Goals of the Study, Required Inputs and Analytical Approach				
Decision	Rule	Inputs/Media	Associated AECs	CoPC
	Then sufficient information to accurately characterise the Site contamination has been provided. Otherwise, justification for a reduced sampling strategy should be provided.			
8. Is further investigation required?	Where indicated in by the answers to any of the above decisions above, further investigation may be required to be developed.			

Step 6 – Specify Performance or Acceptance Criteria

As per EPA (2022) Step 6 of the DQOs process establishes quantitative criteria known as performance or acceptance criteria:

- for decision problems, these are typically tolerable limits on the probability or chance (risk) of the collected data leading to making an erroneous decision (e.g. confidence levels).
- for estimation problems, these are typically an acceptable uncertainty, for example, the width of an uncertainty band or interval, associated with a point estimate at a desired level of statistical confidence (e.g. confidence intervals).

Specify probability limits for false rejection and false acceptance of decision errors.

- Specify the decision rule as a statistical hypothesis test – The null hypothesis is that the material is contaminated and exceeds the adopted criteria. The alternative hypothesis is that the material is not contaminated above the adopted criteria.
- Examine consequences of making incorrect decisions from the test:
 - the material being accepted as suitable for a HIL-A land use when it is not, thereby potentially risking human health or environmental impacts.
 - unnecessary disposal of the material offsite, imposing needless financial and resource burdens on the development project and resulting in an inappropriate waste classification.
- Place acceptable limits on the likelihood of making decision errors, including acceptable alpha (α) and beta (β) risk levels for the hypotheses:
 - null hypothesis (H_0): the 95% UCL, and other requirements, are $>$ the action level.
 - alternate hypothesis (H_A): the 95% UCL, and other requirements, are $\leq$ the action level.
 - Potential outcomes include Type I and Type II errors:
 - Type I error of determining the material is acceptable for the proposed HIL-A land use when it is not (wrongly rejects true H_0).
 - Type II error of determining the material is unacceptable for the proposed HIL-A land use when it is acceptable (wrongly accepts false H_0).
 - For performance criteria, the acceptable limits on the likelihood of making decision errors to be applied are:
 - alpha risk (Type I error) of $\alpha = 0.05$
 - beta risk (Type II error) of $\beta = 0.2$.

No previously collected data is available for use, therefore acceptance criteria are not required.

Step 7 – Sampling Design and Methodology

Various strategies for developing a statistically based sampling plan are identified in EPA (2022) ³, including judgemental, random, systematic, and stratified sampling patterns. Random sampling is considered not appropriate. The specific scope is discussed below.

The minimum recommended sampling density in Table 2 of NSW EPA (2022) is 30 soil sample locations to assess an area of 1.95 ha. The proposed sampling frequency of 12 sampling locations is considered appropriate based upon the preliminary nature of the assessment and given that the Site has previously been assessed, remediated and validated. The main potential contamination is inferred to be associated with historical filling and poultry farming land use across the Site. However, it should be noted depending upon the results of the assessment, additional sampling and testing may be required to comprehensively delineate contamination, which is outside the scope of work provided for a preliminary assessment.

The soil sampling locations are provided as **Figure 2** attached and the scope is detailed in **Table 7** below. EP Risk used Australian Laboratory Services (ALS) and Eurofins as the primary and secondary laboratories, both of which are NATA accredited for the required analysis. The laboratory analysis was undertaken in accordance with **Table 7**.

³ NSW EPA (2022) *Sampling Design Guidelines part 1*.

Table 7 – Sampling and Analysis Plan and Methodology

Media	Scope of Work (Inputs)	Number of Sampling Locations	Samples and Analysis	Adopted Tier 1 Criteria														
Soil	The methodology for soil sampling was as follows: • Soil samples were collected from twelve test pit locations on the 1 September 2025. • Test pits were advanced via a 5-tonne excavator fitted with a 400 mm bucket to a maximum depth of 3.0 m BGL or prior rock refusal. • Soils were logged for type, colour, texture, other characteristics, and indications of contamination as presented in the test pit logs attached as Appendix C. • Collection of soil samples from 0.1 m BGL, 0.5 m BGL, 1.0 m BGL and 2.0 m BGL until a target depth of 3.0 m BGL or refusal (whichever is encountered first). • A dedicated pair of nitrile gloves was used for each sample to prevent cross contamination. • Sufficient soil samples were collected and placed into laboratory prepared sampling jars with a unique sample ID added to the label on each jar. • The sample jars were preserved on ice immediately after sampling and during shipment to a NATA accredited laboratories for analysis. The laboratory chain of custody documentation was completed and accompanied the samples during shipment.	12 Test Pits	Analytical testing by a National Association Testing Authorities (NATA) accredited laboratory of one soil sample per test pit and surface location for the following: • Heavy metals (Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc) - 12 • Organochlorine pesticides (OCP) / Organophosphorus pesticides (OPP) – 12 • Total Recoverable Hydrocarbons (TRH) / Benzene, toluene, xylene, ethylbenzene, Naphthalene (BTEXN) / Polyaromatic Hydrocarbons (PAH) / Polychlorinated biphenyls (PCB) – 12 • Asbestos w/w % - 12 QA/QC Samples as follows: • Duplicates / triplicates (as per primary) – 1 • Rinsate (as per primary) – Metals, TRH, PAH, BTEX, PAHs - 1 • Trip Blank and Spike- BTEX, TRH C6-C9 - 1	For the purposes of assessing the results of analytical testing of soil at the Site, the following guidelines will be considered: • Health-based Criteria for the current and proposed land use: ASC NEPM 2013 Health-based Investigation Levels (HILs) and Health Based Screening Levels (HSLs) for residential land use. • Ecological Criteria: ASC NEPM 2013 Ecological-based Investigation Levels (EILs) and Ecological based Screening Levels (ESLs) for urban residential. • Management Limits: ASC NEPM 2013 management limits are based upon the physical properties of petroleum hydrocarbons to form observable light non-aqueous phase liquid (LNAPL); create fire and explosion hazards or penetrate or damage underground services. The management limits for residential land based on fine soil have been adopted. • Aesthetics: The consultant should also consider the need for remediation based on the ‘aesthetic’ contamination as outlined in Schedule B (1) of the ASC NEPM 2013 that states that ‘there are no numeric Aesthetic Guidelines however site assessment requires balanced consideration of the quality, type and distribution of foreign material or odours in relation to the specific land use and its sensitivity’. Soil odour, discolouration and the presence of anthropogenic materials will need to be assessed during the assessment. The adopted soil criteria for the Site are presented below: <table><tr><th>Guidelines</th><th>COPC</th><th>Adopted Criteria</th></tr><tr><td rowspan="5">ASC NEPM 2013</td><td>Heavy metals/OCP/PCB/ Phenols</td><td> • HIL A (residential land) </td></tr><tr><td>Heavy metals/OCP/PAH</td><td> • EIL (urban residential); < 2 m </td></tr><tr><td>TRH and BTEXN</td><td> • Vapour intrusion HSL A (residential land); 0 - <1m; Sand • ESLs (urban residential); <2m </td></tr><tr><td>TRH</td><td> • Management limits (urban residential); coarse soil. </td></tr><tr><td>AF/FA</td><td> • FA and AF Res A; 0.001% </td></tr></table>	Guidelines	COPC	Adopted Criteria	ASC NEPM 2013	Heavy metals/OCP/PCB/ Phenols	• HIL A (residential land)	Heavy metals/OCP/PAH	• EIL (urban residential); < 2 m	TRH and BTEXN	• Vapour intrusion HSL A (residential land); 0 - <1m; Sand • ESLs (urban residential); <2m	TRH	• Management limits (urban residential); coarse soil.	AF/FA	• FA and AF Res A; 0.001%
Guidelines	COPC	Adopted Criteria																
ASC NEPM 2013	Heavy metals/OCP/PCB/ Phenols	• HIL A (residential land)																
	Heavy metals/OCP/PAH	• EIL (urban residential); < 2 m																
	TRH and BTEXN	• Vapour intrusion HSL A (residential land); 0 - <1m; Sand • ESLs (urban residential); <2m																
	TRH	• Management limits (urban residential); coarse soil.																
	AF/FA	• FA and AF Res A; 0.001%																

5.2 Data Quality Indicators

The acceptable limit of error for sampling techniques and laboratory analysis was defined by the DQIs as follows:

Precision

A measure of the reproducibility of on measurements under a given set of conditions. The relative percent difference (RPD) has been adopted to assess the precision of data between duplicate sample pairs according to the following equation.

$$RPD\% = \frac{[C_p - C_d]}{C_p + C_d} \times 200$$

Where:

C_p = Primary sample

C_d = Duplicate Sample

An acceptance criterion of ±50% had been adopted for inorganic field duplicates and triplicates and ±50% for organic field duplicates and triplicates. However, it should be noted that exceedances of these criteria are common for heterogeneous soil or fill or for low analyte concentrations.

Accuracy

A measure of the bias in the analytical results and can often be attributed to field contamination; insufficient preservation or sample preparation; or inappropriate analytical techniques. Accuracy of the analytical data is assessed by consideration of laboratory control samples and laboratory spikes.

The DQOs, requirements and indicators for the assessment are presented in **Table 8**.

Representativeness

Expresses the accuracy and precision with which sample data represents an environmental condition. Data representativeness was achieved by the collection of samples at an appropriate pattern and density as well as consistent and repeatable sampling techniques and procedures.

Completeness

Refers to, the percentage of data that can be considered valid data. Sufficient data was required to enable an assessment of the Decision Rules.

Comparability

A qualitative comparison of the confidence with which one data set can be compared to another. This was achieved through consistent sampling and analytical testing and reporting techniques.

Table 8 – DQI and Requirements		
DQI	Requirement	Data Quality Assessment (DQA) Criteria
Precision		
Standard operating procedures appropriate and complied with	The sampling methods comply with industry standards and guidelines	Meet requirement
Field duplicates	1 per 20 samples	RPDs < 50%
Field triplicates	1 per 20 samples	RPDs < 50%
Laboratory duplicates	Minimum of 1 per batch per analyte	RPDs < 50%
Accuracy		
Laboratory matrix spikes	1 per batch per volatile/semi-volatile analyte	Recoveries 70% to 130%
Laboratory surrogate spikes	1 per volatile/semi-volatile analyte sample (as appropriate)	Recoveries 70% to 130%
Laboratory control samples	At least 1 per batch per analyte tested for	Result < laboratory reporting limit
Representativeness		
Sampling methodology - preservation	Appropriate for the sample type and analytes	Meet requirement
Decontamination procedures	All sampling equipment to be decontaminated between each sample	Meet requirement
Samples extracted and analysed within holding times	Specific to each analyte	Meet requirement
Laboratory method blanks	At least 1 per batch per analyte tested for	Result < laboratory reporting limit
Trip blanks	1 per lab batch for volatile analytes	Result < laboratory reporting limit
Trip spikes	1 per lab batch for volatile analytes	Recoveries 60-100%
Rinsate	1 per lab batch for volatile analytes	Result < laboratory reporting limit
Comparability		
Sampling approach	Consistent for each sample	Meet requirement
Analysis methodology	Consistent methodology for each sample	Meet requirement
Handling conditions and sampler	Consistent for each sample	Meet requirement

Table 8 – DQI and Requirements

DQI	Requirement	Data Quality Assessment (DQA) Criteria
Field observations and analytical	Field observations to support analytical results	Meet requirement
Consistent laboratory reporting limit	Consistent between primary and secondary laboratories	Meet requirement
Completeness		
Sample receipt acknowledgement	Provided	Yes
Laboratory reports	Provided	Yes
Sampling staff	Consistent sampling staff used.	Meet requirement
Laboratory accreditation	NATA Accredited laboratory for methods used	Meet requirement
Accredited methods	NATA accredited methods used appropriate for each analyte.	Meet requirement
ASC NEPM (2013) lab methods	Lab methods consistent with the ASC NEPM (2013).	Meet requirement
Laboratory reporting limit	Laboratory reporting limit consistent and appropriate	Meet requirement
Consistent weather / field conditions	Consistent	Meet requirement
Chain of custody documentation	Appropriately completed	Meet requirement
Field sampling documentation	Appropriately completed	Meet requirement
Overall data set quality	95% of the data must satisfy the DQIs of both field and laboratory data.	

6 Quality Assurance and Quality Control (QA/QC)

An assessment of the field and laboratory DQI results is presented in **Table 9**.

Table 9 – DQI Results Summary		
DQI	Requirement	DQA
Precision		
Standard operating procedures appropriate and complied with	The sampling methods comply with industry standards and guidelines.	Yes
Field duplicates	1 per 20 samples; and - RPDs < 50%.	Yes Yes
Field triplicates	1 per 20 samples; and - RPDs < 50%.	Yes No ⁴
Laboratory duplicates	- Minimum of 1 per batch per analyte; - RPDs < 50%; and >10%, laboratory specified.	Yes Yes Yes
Accuracy		
Laboratory matrix spikes	1 per batch per volatile/semi-volatile analyte; and - Recoveries >70% to 130%	Yes Yes
Laboratory surrogate spikes	1 per volatile/semi-volatile analyte sample (as appropriate); and - Recoveries 70% to 130%	Yes Yes
Laboratory control samples	- At least 1 per batch for analyte tested; and - Result < laboratory reporting limit	Yes Yes
Representativeness		
Sample methodology - preservation	Appropriate for the sample type and analytes	Yes
Decontamination procedures	All sampling equipment to be decontaminated between each sample	Yes
Samples extracted and analysed within holding times	Specific to each analyte	Yes
Laboratory Method Blanks	- At least 1 per batch per analyte tested for; and - Result < laboratory reporting limit	Yes Yes
Trip blanks	1 per field laboratory reporting limit - Result < laboratory reporting limit	Yes Yes
Trip spikes	1 per field batch for volatile analytes; and - Recoveries 60-100%	Yes Yes
Rinsate	1 per field batch for volatile analytes; and - Result < laboratory reporting limit	Yes Yes

⁴ Two soil triplicate analytes exceeded the adopted quality control criteria. The soil exceedances are attributed to the heterogeneous nature of the soil samples. It is considered that these exceedances of the quality control criteria have not affected the precision of the data set collected in this investigation.

Table 9 – DQI Results Summary		
DQI	Requirement	DQA
Comparability		
Sampling approach	Consistent sampling approach used	Yes
Analysis methodology	Consistent methodology for each sample	Yes
Handling conditions and sampler	Consistent of each sample	Yes
Field observations and analytical	Field observations to support analytical results	Yes
Consistent laboratory reporting limits	Consistent between primary and secondary laboratories	Yes
Completeness		
Sample receipt acknowledgement	Provided	Yes
Laboratory reports	Provided	Yes
Sampling staff	Consistent sampling staff used	Yes
Laboratory accreditation	NATA Accredited laboratory for methods used.	Yes
Accredited methods	NATA accredited methods used appropriate for each analyte	Yes
ASC NEPM (2013) lab methods	Lab methods consistent with the ASC NEPM (2013)	Yes
Laboratory reporting limits	Laboratory reporting limit consistent and appropriate	Yes
Consistent weather / field data	Consistent	Yes
Chain of custody documentation	Provided	Yes
Field sampling documentation	Provided	Yes
Overall data set quality	95% of the data must satisfy the DQIs of both field and laboratory data	Yes

On the basis of the information provided in **Table 9**, EP Risk considers that the DQIs for the project have been met and the data is appropriate for the purposes of this assessment.

7 Results

7.1 Subsurface Conditions

The subsurface conditions encountered in the test pits across the Site are detailed in the attached test pit logs. These should be read in conjunction with the general notes proceeding them, which explain the descriptive terms and classification methods used in the report. In general, the subsurface conditions in the test pits can be summarised as follows:

- TOPSOIL: Silty SAND, fine to medium grained, brown, moist.
- FILL: Silty CLAY: medium to high plasticity, dark grey, with fine to coarse grained sand, sub-angular gravel.
- EXTREMELY WEATHERED ROCK: SANDSTONE, recovered as Sandy GRAVEL: fine to coarse grained sand, dry sub-angular gravels, grey, orange, brown, with cobbles of sandstone.

Groundwater was not observed in any of the test pits at the time of the investigation. It should be noted the groundwater conditions may vary with seasonal and weather conditions along with construction related Site conditions. Detailed soil profile logs are attached as **Appendix D**.

Visual Asbestos on Site

During the Site walkover and intrusive investigation, asbestos was not observed in the vicinity of the sampling locations or within any of the test pits.

Soil Vapour Screening

Signs of visual staining or odours were not observed in any test pits with PID readings all recorded at <1 ppm.

7.2 Soil Analytical Testing

The results of soil analytical testing are contained in the analytical summary tables section at the rear of the report, and the laboratory Certificates of Analysis (COA) are attached as **Appendix E**. Soil analytical results are attached in the **Analytical Tables** section of this report.

Friable Asbestos (AF/FA)

Soil samples were obtained from twelve sampling locations at the Site within the upper topsoil profile to assess the presence of friable asbestos. Friable asbestos fibres were not detected above the limit of reporting and exceedances of the adopted asbestos HSL were not reported.

Heavy Metals / BTEXN / PAH / OCP / OPP / TPH / TRH

BTEXN, PAH, OCP, OPP, TRH and PCBs of the soil samples analysed were reported below the adopted human health and ecological criteria and/or laboratory limit of reporting (LOR).

Aesthetics

No anthropogenic materials were noted on the Sites surface or in any test pit location.

8 Discussion

Based on the decision-making process for assessing urban redevelopment Sites detailed in EPA (2017) and presented in **Table 6**, the decisions required to be made are detailed below.

Has soil been assessed against relevant health investigation levels (HILs) and health screening levels (HSLs), and has potential for migration of contamination been considered?

The individual results of the soil analytical testing have been compared against the health-based criteria with no exceedances reported in any analytical samples. Historical assessments, remediation and validation of the Site has been completed prior to this PSI.

Are there issues relating to local area background soil concentrations that exceed relevant investigation levels have been adequately addressed in the Site assessment reports?

No background soil concentration issues were identified at the Site.

Are there impacts of chemical mixtures?

There were no impacts of chemical mixtures at the Site.

Are there potential ecological risks? If yes, have these been assessed?

The individual results of soil analytical testing have been compared against the relevant health-based criteria, with no exceedances reported in any analytical samples. Historical assessments, remediation and validation of the Site has been completed prior to this PSI.

Is there evidence of, or potential for, migration of contaminants from the Site? Has this been appropriately addressed including potential risks to offsite receptors, and reported to the Site owner or occupier?

All analytical samples reported results under the human-health and ecological criteria, therefore there is a low potential for migration of contaminants from the Site.

Are there aesthetics issues in fill at the Site?

No aesthetic issues in fill were identified at the Site.

Is there sufficient information to accurately characterise the Site contamination?

Previous assessments of the Site have been completed and the former poultry shed was decommissioned and validated. The Site was used as a laydown area during redevelopment of adjacent land in 2010 and subsequent sampling and analytical testing of imported soils completed by JBS&G (2018) which did not report and exceedances of the adopted criteria. The Site was subsequently redeveloped into the current café, display village and carpark.

EP Risk has adopted a preliminary assessment and based on the historical land use, historical assessments and analytical data; the Site presents a low risk of soil contamination associated with the historical land use. The adopted sampling density was sufficient given the historical assessment, remediation and validation of the Site.

The PSI met the adopted data quality objectives and is therefore considered sufficient for the purposes of assessing contamination associated with the historical land use.

Is Further Investigation Required?

No further investigation is required.

Is a Site Management Strategy Required?

It is recommended that an unexpected find protocol is developed and implemented during future redevelopment works.

9 Conceptual Site Model

A conceptual Site model (CSM) has been developed based upon the information provided in previous sections of this report.

Contaminating activities based on the Site inspection and review of historical records, the following activities have occurred at the Site which may have resulted in the potential for contamination. These activities are summarised as follows:

- AEC 1 – Historical Filling
- AEC 2 – Former Poultry Farming Infrastructure

9.1 Affected Media

The potential affected media at the Site is considered to be soil.

9.2 Human and Ecological Receptors

Sensitive receptors identified at and near the Site were considered to be:

- Future residential users and visitors at the Site (ASC NEPM 2013 HIL A and HSL A).
- Future construction and sub-surface maintenance workers at the Site (ASC NEPM 2013 HIL A and HSL A – Residential; Vapour Intrusion HSLs for Intrusive Maintenance Workers (Shallow Trench)).
- Terrestrial fauna and flora at the Site and on adjoining land (ASC NEPM EIL and ESLs).
- Ecosystems dependant on the downgradient creeks and rivers.

9.3 Potential and Complete Exposure Pathways

An analysis of the potential exposure pathways between the COPC and the identified human and ecological receptors are presented in **Table 10**.

Overall, based on this assessment and the conceptual site model for the proposed development, no complete source-pathway-receptor linkage was identified.

Table 10 – Source-Pathway-Receptor Linkages							
Sources				Pathways	Receptors	Linkages	Summary of Findings and Comments
Primary	Secondary	Contaminants	Affected Media	Exposure Pathways			
AEC 1 – Historical Filling	Anthropogenic materials	BTEXN, TRH, PAH and heavy metals, OCP and OPP	Soil	<u>Human Health</u> - Dermal contact - Incidental ingestion	- Future construction and sub-surface maintenance workers. - Future residential users.	Not complete.	JBS&G had previously assessed soil imported to the Site in 2010 associated with bulk earthworks in adjacent land. Based upon the results of sampling and analytical testing in the PSI, all results were reported below the adopted health and ecological criteria.
				<u>Ecological:</u> Uptake by flora and fauna	- Terrestrial fauna and flora at the Site and on adjoining land. - Ecosystems dependant on the downgradient creeks and rivers.		
AEC 2 – Former poultry farming Infrastructure	Anthropogenic materials	BTEXN, TRH, PAH and heavy metals, OCP and OPP	Soil	<u>Human Health</u> - Incidental ingestion - Dermal contact	- Future construction and sub-surface maintenance workers. - Future residential users.	Not Complete	Previous assessments by GHD (2004) identified potential contamination associated with historical poultry farming. The former poultry shed was decommissioned, remediated and validated by Environ (2009). It was considered unlikely that burial pits would be present at the Site and an unexpected finds protocol should be developed and implemented during redevelopment. Based upon the results of sampling and analytical testing in the PSI, all results were reported below the adopted health and ecological criteria.
				<u>Ecological:</u> Uptake by flora and fauna	- Terrestrial fauna and flora at the Site and on adjoining land. - Ecosystems dependant on the downgradient creeks and rivers.		

10 Conclusion

EP Risk was engaged by AVID to undertake a PSI for a Site located at 2 Settlers Boulevard, Chisholm. It is understood the client requires a PSI for the development application for the proposed residential subdivision as required in accordance with SEPP (Resilience and Hazards) 2021.

The PSI was required to assess whether any contaminating activities are likely to have occurred at the Site which may present a human health or ecological risk under the proposed land use.

Based on the review of the historical information, the Site had historically been used for rural agricultural and poultry farming purposes from approximately 1970 until 2004, until further redevelopment to a residential housing office and café.

The Site had historically been assessed by GHD (2004) and potentially contaminating activities identified to have been undertaken at the Site included historical filling and former poultry farming infrastructure. The former poultry sheds were decommissioned and potential asbestos impact remediated and validated by Environ (2009) as suitable for residential land use. Additional soil assessment by JBS&G (2018) of imported materials after use of the Site as a laydown area for redevelopment of adjacent land in 2010 did not report any exceedances of the adopted criteria.

A total of twelve soil samples from twelve test pits advanced to a maximum depth of 3.0 m BGL (or prior refusal) were collected and analysed for the COPC in this PSI. No exceedances to the human-health or ecological criteria were reported. No anthropogenic materials were observed in test pits advanced into fill materials.

Overall, based on previous investigations, remediation and validation works as well as the results of this assessment, conceptual site model, and analytical testing for the proposed development, no complete source-pathway-receptor linkages were identified.

EP Risk considers that the Site is suitable for the proposed residential land use subject to the development and implementation of an unexpected finds protocol.

Figures





Preliminary Site Investigation
Silverwisp Road, Chisholm NSW, Australia
 Job No: EP4322
 Date: 01-10-2025
 Version: v1

Figure 2 - Sampling Locations
Coordinate System: WGS 84
Drawn By: MC **Checked By: NM**
 Scale of regional map not shown



0 10 m 20 m
 Approximate Scale Only

Analytical Tables

	TRH							TPH					BTEXN							
	TRH >C10-C16	TRH >C10-C16 less Naphthalene (F2)*	TRH C6-C10 less BTEX (F1)	TRH >C16-C34	TRH >C34-C40	TRH >C10-C40 (total)*	TRH C6-C10	TRH C6-C9	TRH C10-C14	TRH C15-C28	TRH C29-C36	TRH C10-C36 (Total)	Benzene	Toluene	Ethylbenzene	m&p-Xylenes	o-Xylene	Xylenes - Total*	Sum of BTEX	Naphthalene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	50	50	10	100	100	50	10	10	20	50	50	50	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.5
Soil: NEPM 2013 HILS Human Health, HIL A (Residential with garden/access)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 Human Health, HSL A (Residential with garden/access) - Coarse	130	-	-	-	-	-	50	-	-	-	-	-	0.6	190	NL	-	-	45	-	-
NEPM 2013 ESL, Ecological, Urban Residential & Public Open Space Coarse	-	120	180	1,300	5,600	-	-	-	-	-	-	-	65	105	125	-	-	45	-	-
NEPM 2013 Management Limits - Human Health, Residential, parkland and public open space Coarse	1,000	-	-	2,500	10,000	-	700	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 Ecological, Urban Residential & Public Open Space	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Field ID	Depth	Sampled Date	Soil Type																				
TP01_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	150	< 100	150	< 10	< 10	< 50	110	< 100	110	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP02_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	< 100	< 100	< 50	< 10	< 10	< 50	< 100	< 100	< 50	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP03_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	140	< 100	140	< 10	< 10	< 50	< 100	100	100	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP04_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	120	< 100	120	< 10	< 10	< 50	< 100	< 100	< 50	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP05_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	120	130	250	< 10	< 10	< 50	< 100	130	130	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP06_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	< 100	< 100	< 50	< 10	< 10	< 50	< 100	< 100	< 50	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP07_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	< 100	< 100	< 50	< 10	< 10	< 50	< 100	< 100	< 50	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP08_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	< 100	< 100	< 50	< 10	< 10	< 50	< 100	< 100	< 50	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP09_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	< 100	< 100	< 50	< 10	< 10	< 50	< 100	< 100	< 50	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP10_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	< 100	< 100	< 50	< 10	< 10	< 50	< 100	< 100	< 50	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP11_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	< 100	< 100	< 50	< 10	< 10	< 50	< 100	< 100	< 50	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
TP12_0.1	0.1m	01-09-2025	Coarse	< 50	< 50	< 10	200	100	300	< 10	< 10	< 50	150	110	260	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1

Notes:
This table does not represent the full analytical results, please refer to the laboratory results for full details.

EIL's calculated from the following eSPADE v2.2 data:
Cation Exchange Capacity = 10 cmolc/kg dwt
Soil pH = 5
Iron Content = 0 %
Clay % 20
Traffic Volume = High

	Heavy Metals							
	Asenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	2	0.4	2	5	5	0.1	2	5
Soil: NEPM 2013 HILS Human Health, HIL A (Residential with garden/access)	100	20	100	6,000	300	40	400	7,400
NEPM 2013 Human Health, HSL A (Residential with garden/access) - Coarse	-	-	-	-	-	-	-	-
NEPM 2013 ESL, Ecological, Urban Residential & Public Open Space Coarse	-	-	-	-	-	-	-	-
NEPM 2013 Management Limits - Human Health, Residential, parkland and public open space Coarse	-	-	-	-	-	-	-	-
NEPM 2013 Ecological, Urban Residential & Public Open Space	100	-	-	110	1,100	-	170	310

Field ID	Depth	Sampled Date	Soil Type								
TP01_0.1	0.1m	01-09-2025	Coarse	8	< 1	5	12	14	< 0.1	5	56
TP02_0.1	0.1m	01-09-2025	Coarse	18	< 1	7	< 5	16	< 0.1	2	23
TP03_0.1	0.1m	01-09-2025	Coarse	14	< 1	13	9	16	< 0.1	3	20
TP04_0.1	0.1m	01-09-2025	Coarse	15	< 1	7	< 5	16	< 0.1	3	18
TP05_0.1	0.1m	01-09-2025	Coarse	6	< 1	5	7	16	< 0.1	2	40
TP06_0.1	0.1m	01-09-2025	Coarse	10	< 1	6	8	18	< 0.1	2	78
TP07_0.1	0.1m	01-09-2025	Coarse	10	< 1	5	< 5	16	< 0.1	< 2	46
TP08_0.1	0.1m	01-09-2025	Coarse	17	< 1	7	10	20	< 0.1	2	65
TP09_0.1	0.1m	01-09-2025	Coarse	12	< 1	5	< 5	13	< 0.1	< 2	31
TP10_0.1	0.1m	01-09-2025	Coarse	8	< 1	6	15	16	< 0.1	3	127
TP11_0.1	0.1m	01-09-2025	Coarse	11	< 1	24	12	19	< 0.1	6	75
TP12_0.1	0.1m	01-09-2025	Coarse	6	< 1	7	< 5	12	< 0.1	4	28

Notes:
This table does not represent the full analytical results, please refer to the laboratory results for full details.

EIL's calculated from the folllwing eSPADE v2.2 data:
Cation Exchange Capacity = 10 cmolc/kg dwt
Soil pH = 5
Iron Content = 0 %
Clay % 20
Traffic Volume = High

	Total PCB*	PAH																			
		Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b&f)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAH*	Benzo(a)pyrene TEC (upper bound) *	Benzo(a)pyrene TEC (lower bound) *	Benzo(a)pyrene TEC (medium bound) *	Benz(a,h)anthracene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Soil: NEPM 2013 HILS Human Health, HIL A (Residential with garden/access)	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	3	3	3	-
NEPM 2013 Human Health, HSL A (Residential with garden/access) - Coarse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 ESL, Ecological, Urban Residential & Public Open Space Coarse	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 Management Limits - Human Health, Residential, parkland and public open space Coarse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 Ecological, Urban Residential & Public Open Space	-	-	-	-	-	-	-	-	-	-	-	-	-	170	-	-	-	-	-	-	-

Field ID	Depth	Sampled Date	Soil Type		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
TP01_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP02_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP03_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP04_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP05_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP06_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP07_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP08_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP09_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP10_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP11_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
TP12_0.1	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5
	0.1m	01-09-2025	Coarse		< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	0.6	< 0.5

Notes:
This table does not represent the full analytical results, please refer to the laboratory results for full details.

EIL's calculated from the following eSPADE v2.2 data:
Cation Exchange Capacity = 10 cmolc/kg dwt
Soil pH = 5
Iron Content = 0 %
Clay % 20
Traffic Volume = High

	Organochlorine Pesticides																											
	Endrin ketone	Aldrin and Dieldrin (Total)*	Endosulfan I	Heptachlor	4,4'-DDE	4,4'-DDD	Endrin	Dieldrin	p-HCH (Lindane)	Heptachlor epoxide	4,4'-DDT	Endosulfan II	d-HCH	o-HCH	Aldrin	Hexachlorobenzene	Endosulfan sulphate	Endosulfan (sum)	cis-Chlordane	trans-Chlordane	Chlordanes - Total	DDT + DDE + DDD (Total)*	Endrin aldehyde	Methoxychlor	Ronnel	Toxaphene	Vic EPA IWRG 621 OCP (Total)*	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	
Soil: NEPM 2013 HILS Human Health, HIL A (Residential with garden/access)	-	6	-	6	-	-	10	-	-	-	-	-	-	-	-	10	-	270	-	-	50	240	-	300	-	20	-	
NEPM 2013 Human Health, HSL A (Residential with garden/access) - Coarse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NEPM 2013 ESL, Ecological, Urban Residential & Public Open Space Coarse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NEPM 2013 Management Limits - Human Health, Residential, parkland and public open space Coarse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NEPM 2013 Ecological, Urban Residential & Public Open Space	-	-	-	-	-	-	-	-	-	-	180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Field ID	Depth	Sampled Date	Soil Type																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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Notes:
This table does not represent the full analytical results, please refer to the laboratory results for full details.

EIL's calculated from the following eSPADE v2.2 data:
Cation Exchange Capacity = 10 cmolc/kg dwf
Soil pH = 5
Iron Content = 0 %
Clay % 20
Traffic Volume = High

Organophosphorus pesticides																			
Azinphos-methyl	Demeton-S-methyl	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Ethyl parathion	Methyl parathion	Pirimphos-ethyl	Monocrotophos	Prothiofos	Isonophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyrifos-methyl	Chlorpyrifos	Diazinon	Dichlorvos	
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.2	0.05	0.2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Field ID	Depth	Sampled Date	Soil Type																	
TP01_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP02_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP03_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP04_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP05_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP06_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP07_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP08_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP09_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP10_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP11_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TP12_0.1	0.1m	01-09-2025	Coarse	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.2	< 0.2	< 0.05	< 0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:
This table does not represent the full analytical results, please refer to the laboratory results for full details.

EIL's calculated from the following eSPADE v2.2 data:
Cation Exchange Capacity = 10 cmolc/kg dwf
Soil pH = 5
Iron Content = 0 %
Clay % 20
Traffic Volume = High

*RPD Acceptance Matrix - 50%

*RPD Acceptance Matrix - 50%

*RPD Acceptance Matrix - 50%

*RPD Acceptance Matrix - 50%

*RPD Acceptance Matrix - 50%

TRH	BTEXN							
TRH C6-C10 less BTEX (F1)	Benzene	Toluene	Ethylbenzene	m&p-Xylenes	o-Xylene	Xylenes - Total*	Sum of BTEX	Naphthalene
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
10	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.5

Field ID	Sampled Date									
Trip Blank 01	28-08-2025	< 10	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.2	< 1
Trip Control Spike	28-08-2025	-	< 0.2	3.4	4.4	4.9	2	6.9	14.7	< 1
Trip Spike 01	28-08-2025	-	< 0.2	3.6	4.6	4.9	2	6.9	15.1	< 1
Trip Spike Recovery		-	-	106%	105%	100%	100%	100%	103%	-

Asenic	Cadium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	>C10 - C16 Fraction	>C10 - C16 Fraction minus Naphthalene (F2)	>C10 - C40 Fraction (sum)	>C16 - C34 Fraction	>C34 - C40 Fraction	Acenaphthene
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
0.001	0.0001	0.001	0.001	0.001	0.0001	0.001	0.005	100	100	100	100	100	1

Field ID	Sampled Date												
RW01	01-09-2025	< 0.001	< 0.0001	< 0.001	< 0.001	< 0.0001	< 0.001	< 0.005	< 100	< 100	< 100	< 100	< 1

Notes:
This table does not represent the full analytical results, please refer to the laboratory results for full details.

		Other																															
		Acenaphthylene	Anthracene	Benzene	Benzo(a)pyrene	Benzo(a)anthracene	Benzo(a)pyrene TEQ [zero]	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	C10 - C14 Fraction	C10 - C36 Fraction (sum)	C15 - C28 Fraction	C29 - C36 Fraction	C6 - C10 Fraction minus BTEX (F1)	C6 - C10 Fraction	C6 - C9 Fraction	Chrysene	Dibenz(a,h)anthracene	Ethylbenzene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene (Ex SVOC)	Naphthalene	Sum of polycyclic aromatic hydrocarbons	Phenanthrene	Pyrene	Toluene	Sum of BTEX	meta- & para Xylene	ortho-Xylene	Total Xylenes
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Field ID	Sampled Date	1	1	1	0.5	1	0.5	1	1	1	50	50	100	50	20	20	20	1	1	2	1	1	1	1	5	0.5	1	1	2	1	2	2	2
RW01	01-09-2025	< 1	< 1	< 1	< 0.5	< 1	< 0.5	< 1	< 1	< 1	< 50	< 50	< 100	< 50	< 20	< 20	< 20	< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 5	< 0.5	< 1	< 1	< 2	< 1	< 2	< 2	< 2

Notes:
This table does not represent the full analytical results, please re

	Asbestos									
	Asbestos (Trace)	Asbestos Type	Asbestos Detected	Fibrous Asbestos >7mm	Asbestos (Fines and Fibrous <7mm)	Asbestos (Fines and Fibrous FA+AF)	Weight Used for % Calculation	Organic Fibre	Sample weight (dry)	Synthetic Mineral Fibre
	-	-	g/kg	g	g	% w/w	kg		g	
			0.1	0.0004	0.0004	0.001	0.0001		0.01	
NEPM 2013 Human Health, Asbestos HSL A (Residential with garden/access)	-	-	-	-	-	0.001	-	-	-	-

Field ID	Depth	Sampled Date										
TP01_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.294	No	294	No
TP02_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.297	No	297	No
TP03_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.273	No	273	No
TP04_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.23	No	230	No
TP05_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.365	No	365	No
TP06_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.354	No	354	No
TP07_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.321	No	321	No
TP08_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.411	No	411	No
TP09_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.269	No	269	No
TP10_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.262	No	262	No
TP11_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.264	No	264	No
TP12_0.1	0.1m	01-09-2025	No	NA	No	< 0.0004	< 0.0004	< 0.001	0.284	No	284	No

Appendix A

LOT SEARCH REPORT (2025)



LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 29 Aug 2025 13:16:04

Reference: LS095654 EP

Address: 2 Settlers Boulevard, Chisholm, NSW 2322

Disclaimer:

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

Dataset Listing

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

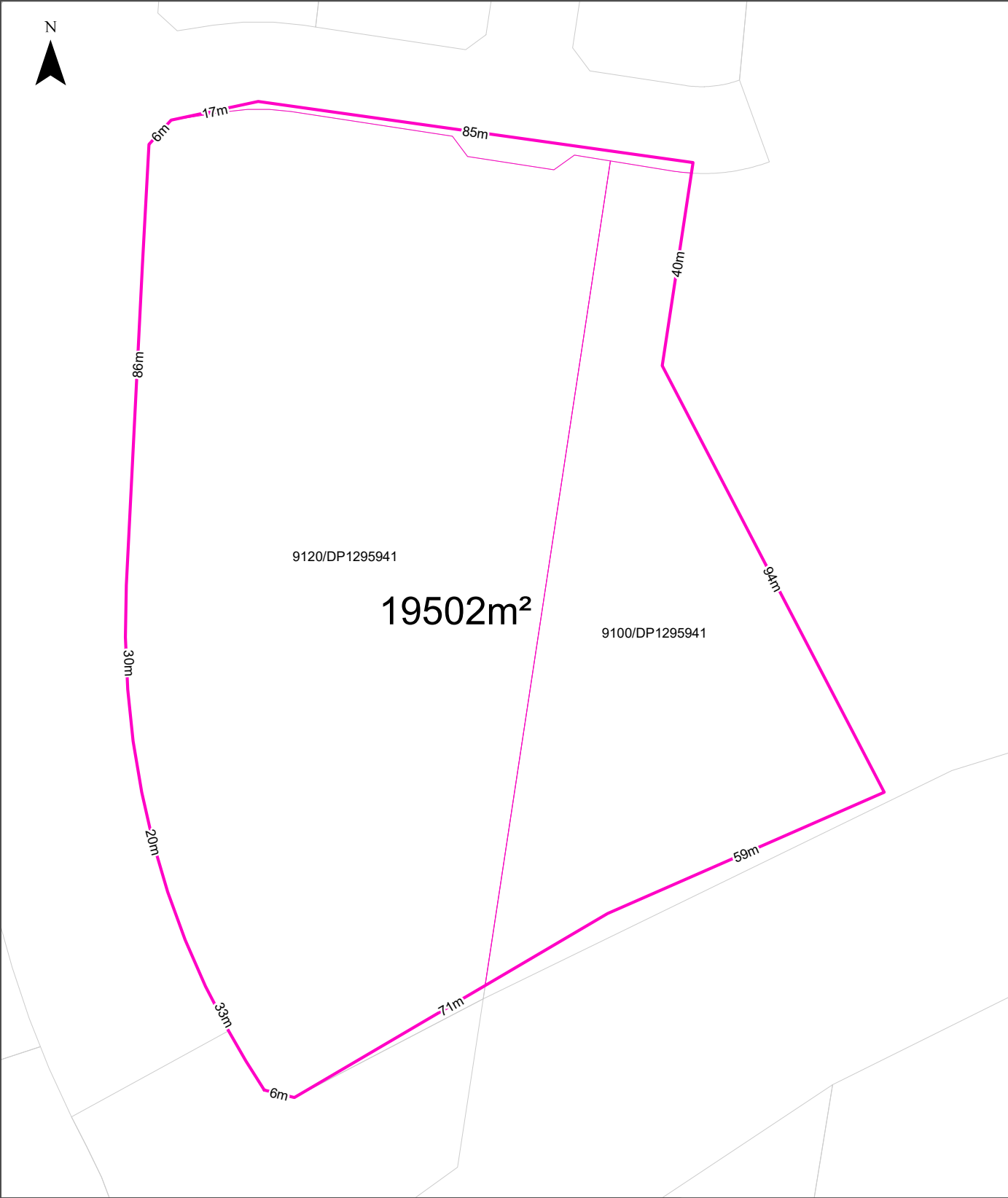
Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Customer Service - Spatial Services	30/07/2025	30/07/2025	Monthly	-	-	-	-
Topographic Data	NSW Department of Customer Service - Spatial Services	20/05/2025	20/05/2025	Annually	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority NSW	13/08/2025	08/07/2025	Monthly	1000m	0	0	0
Contaminated Land Records of Notice	Environment Protection Authority NSW	13/08/2025	13/08/2025	Monthly	1000m	0	0	0
Former Gasworks	Environment Protection Authority NSW	14/08/2025	23/06/2025	Quarterly	1000m	0	0	0
Notices under the POEO Act 1997	Environment Protection Authority NSW	04/08/2025	04/08/2025	Monthly	1000m	0	0	2
National Waste Management Facilities Database	Geoscience Australia	30/05/2025	19/01/2023	Annually	1000m	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	16/10/2024	19/01/2023	Annually	1000m	0	0	0
EPA PFAS Investigation Program	Environment Protection Authority NSW	01/08/2025	05/02/2025	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Australian Department of Defence	14/08/2025	14/08/2025	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Australian Department of Defence	14/08/2025	14/08/2025	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	14/08/2025	21/05/2025	Monthly	2000m	0	0	0
Defence Controlled Areas	Australian Department of Defence	15/07/2025	15/07/2025	Quarterly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Australian Department of Defence	14/08/2025	02/09/2022	Quarterly	2000m	0	0	0
National Unexploded Ordnance (UXO)	Australian Department of Defence	15/07/2025	15/07/2025	Quarterly	2000m	0	0	1
EPA Other Sites with Contamination Issues	Environment Protection Authority NSW	28/11/2024	15/12/2022	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority NSW	25/08/2025	25/08/2025	Monthly	1000m	0	0	1
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority NSW	25/08/2025	25/08/2025	Monthly	1000m	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority NSW	25/08/2025	25/08/2025	Monthly	1000m	0	0	3
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	0	0	0
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	8	8
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	0	0
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	0	0
Points of Interest	NSW Department of Customer Service - Spatial Services	18/08/2025	18/08/2025	Quarterly	1000m	0	0	3
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	18/08/2025	18/08/2025	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	18/08/2025	18/08/2025	Quarterly	1000m	0	0	0
Major Easements	NSW Department of Customer Service - Spatial Services	18/08/2025	18/08/2025	Quarterly	1000m	0	0	0
State Forest	Forestry Corporation of NSW	18/12/2024	11/11/2024	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Geoscience Australia	22/04/2025	19/08/2019	Annually	1000m	1	2	2

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2024	NSW Department of Climate Change, Energy, the Environment and Water	08/08/2025	28/06/2024	Quarterly	1000m	0	0	0
National Groundwater Information System (NGIS) Boreholes	Bureau of Meteorology; Water NSW	30/05/2025	04/03/2025	Annually	2000m	0	0	0
NSW Seamless Geology Single Layer: Rock Units	NSW Department of Primary Industries and Regional Development	19/05/2025	16/04/2024	Annually	1000m	2	2	3
NSW Seamless Geology Single Layer: Geological Boundaries and Faults	NSW Department of Primary Industries and Regional Development	19/05/2025	16/04/2024	Annually	1000m	0	0	1
NSW Seamless Geology Single Layer: Trendlines	NSW Department of Primary Industries and Regional Development	19/05/2025	16/04/2024	Annually	1000m	0	0	0
NSW Seamless Geology Single Layer: Fold Axes	NSW Department of Primary Industries and Regional Development	19/05/2025	16/04/2024	Annually	1000m	0	0	3
Naturally Occurring Asbestos Potential	NSW Department of Primary Industries and Regional Development	05/05/2025	30/09/2015	Annually	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	15/01/2025	17/02/2011	Annually	1000m	1	1	2
Soil Landscapes of Central and Eastern NSW	NSW Department of Climate Change, Energy, the Environment and Water	18/12/2024	27/07/2020	Annually	1000m	1	1	3
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Housing and Infrastructure	31/07/2025	09/05/2025	Monthly	500m	1	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	15/01/2025	21/02/2013	Annually	1000m	1	1	3
Dryland Salinity - National Assessment	Australian Bureau of Agricultural and Resource Economics and Sciences	03/06/2025	15/04/2025	Annually	1000m	0	0	1
Mining Subsidence Districts	NSW Department of Customer Service	18/08/2025	18/08/2025	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Primary Industries and Regional Development	08/08/2025	08/08/2025	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Primary Industries and Regional Development	08/08/2025	08/08/2025	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Primary Industries and Regional Development	08/08/2025	08/08/2025	Monthly	1000m	4	4	6
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Housing and Infrastructure	31/07/2025	08/09/2023	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Housing and Infrastructure	31/07/2025	25/07/2025	Monthly	1000m	1	3	21
Commonwealth Heritage List	Australian Department of Climate Change, Energy, the Environment and Water	23/10/2024	13/04/2022	Annually	1000m	0	0	0
National Heritage List	Australian Department of Climate Change, Energy, the Environment and Water	23/10/2024	13/04/2022	Annually	1000m	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	18/08/2025	25/07/2025	Quarterly	1000m	0	0	0
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Housing and Infrastructure	31/07/2025	25/07/2025	Monthly	1000m	0	0	0
Bush Fire Prone Land	NSW Rural Fire Service	30/07/2025	29/07/2025	Monthly	1000m	3	3	4
NSW Native Vegetation Type Map	NSW Department of Climate Change, Energy, the Environment and Water	28/05/2025	04/10/2024	Quarterly	1000m	2	4	57
Ramsar Wetlands of Australia	Australian Department of Climate Change, Energy, the Environment and Water	19/05/2025	05/03/2025	Annually	1000m	0	0	0
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Terrestrial	Australian Department of Climate Change, Energy, The Environment and Water	20/03/2025	19/06/2024	Annually	1000m	0	0	0

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Marine	Australian Department of Climate Change, Energy, The Environment and Water	20/03/2025	30/06/2022	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	30/05/2025	07/05/2020	Annually	1000m	1	1	3
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	30/05/2025	07/05/2020	Annually	1000m	1	1	5
NSW BioNet Species Sightings	NSW Department of Climate Change, Energy, the Environment and Water	29/07/2025	29/07/2025	Monthly	10000m	-	-	-

Site Diagram

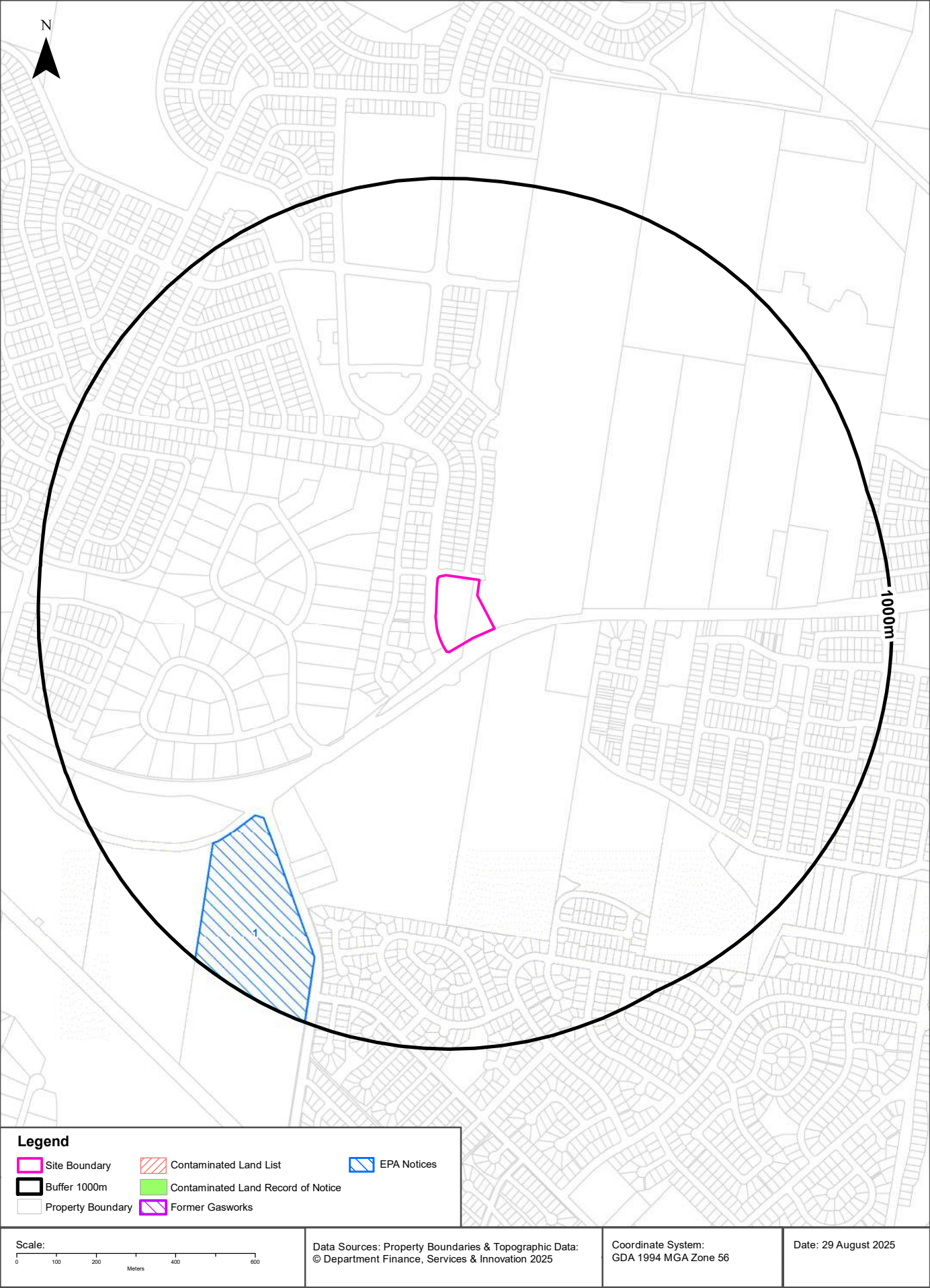
2 Settlers Boulevard, Chisholm, NSW 2322



Legend Site Boundary Internal Parcel Boundaries	Total Area: 19502m ² Total Perimeter: 567m 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.	Scale: 02550 Meters Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2025 Coordinate System: GDA 1994 MGA Zone 56 Date: 29 August 2025
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Contaminated Land

2 Settlers Boulevard, Chisholm, NSW 2322



Contaminated Land

2 Settlers Boulevard, Chisholm, NSW 2322

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
N/A	No records in buffer								

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

© State of New South Wales through the Environment Protection Authority

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

© State of New South Wales through the Environment Protection Authority

Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit

<http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm>

Former Gasworks

Former Gasworks within the dataset buffer:

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

Former Gasworks Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

EPA Notices

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

Map ID	Number	Type	Name	Address	Status	Issued Date	Act	Offence	Offence Date	Loc Conf	Dist	Dir
1	3173524860	Penalty Notice	MACLEAN EXCAVATIONS PTY. LIMITED	1 Brickworks Road, THORNTON, NSW 2322	Issued	19/02/2018	Protection of the Environment Operations Act 1997 - 143(1)(a)	Transport etc excess waste to unlawful facility - other - Corporation	14/12/2017	Premise Match	622m	South West
	3173524393	Penalty Notice	NORTH THORNTON GROUP PTY LTD	1 Brickworks Road, THORNTON, NSW 2322	Issued	18/01/2018	Protection of the Environment Operations Act 1997 - 144(1)	Unlawfully use etc place as waste facility - other officer - Corporation	05/01/2018	Premise Match	622m	South West

NSW EPA Notice Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Waste Management & Liquid Fuel Facilities

2 Settlers Boulevard, Chisholm, NSW 2322

National Waste Management Facilities Database

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

Map ID	Owner	Name	Address	Management Type	Facility Type	Status	Loc Conf	Dist	Dir
N/A	No records in buffer								

Source: Waste Management Facilities Database

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National Liquid Fuel Facilities

National Liquid Fuel Facilities within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Direction
N/A	No records in buffer										

National Liquid Fuel Facilities Data Source: Geoscience Australia

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PFAS Investigation & Management Programs

2 Settlers Boulevard, Chisholm, NSW 2322

EPA PFAS Investigation Program

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

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

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

Defence PFAS Investigation Program

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

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

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

Defence PFAS Management Program

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

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

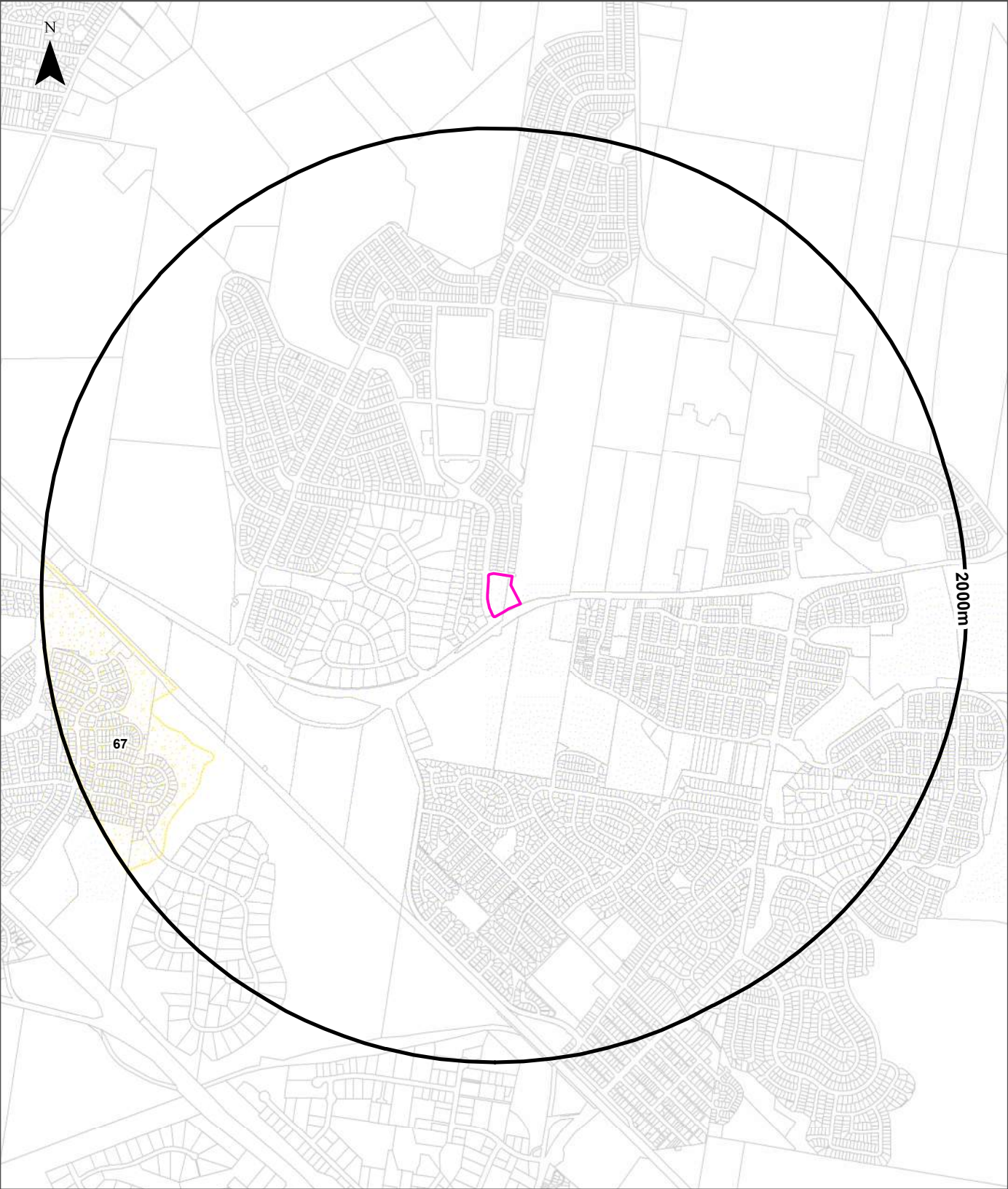
Defence PFAS Management Program Data Custodian: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

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

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

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia



Legend				
Site Boundary	DCA Defence Controlled Area	Defence 3 Year RCIP Known Contamination No Known Contamination	UXO Substantial Potential Slight Potential Remote Potential Sea Dumping of Depth Charges	Information Other Other Sea Dumping Sites

Scale: 02004008001,200 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2025	Coordinate System: GDA 1994 MGA Zone 56	Date: 29 August 2025
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Defence Sites and Unexploded Ordnance

2 Settlers Boulevard, Chisholm, NSW 2322

Defence Controlled Areas (DCA)

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

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

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

Defence 3 Year Regional Contamination Investigation Program (RCIP)

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

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

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

National Unexploded Ordnance (UXO)

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

Site ID	Location Name	Category	Area Description	Additional Information	Commonwealth	Loc Conf	Dist	Dir
67	Maitland	Other	This site was used for Military Training and Camps during WW2.		Not Commonwealth Land	As Supplied	1402m	West

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

EPA Other Sites with Contamination Issues

2 Settlers Boulevard, Chisholm, NSW 2322

EPA Other Sites with Contamination Issues

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

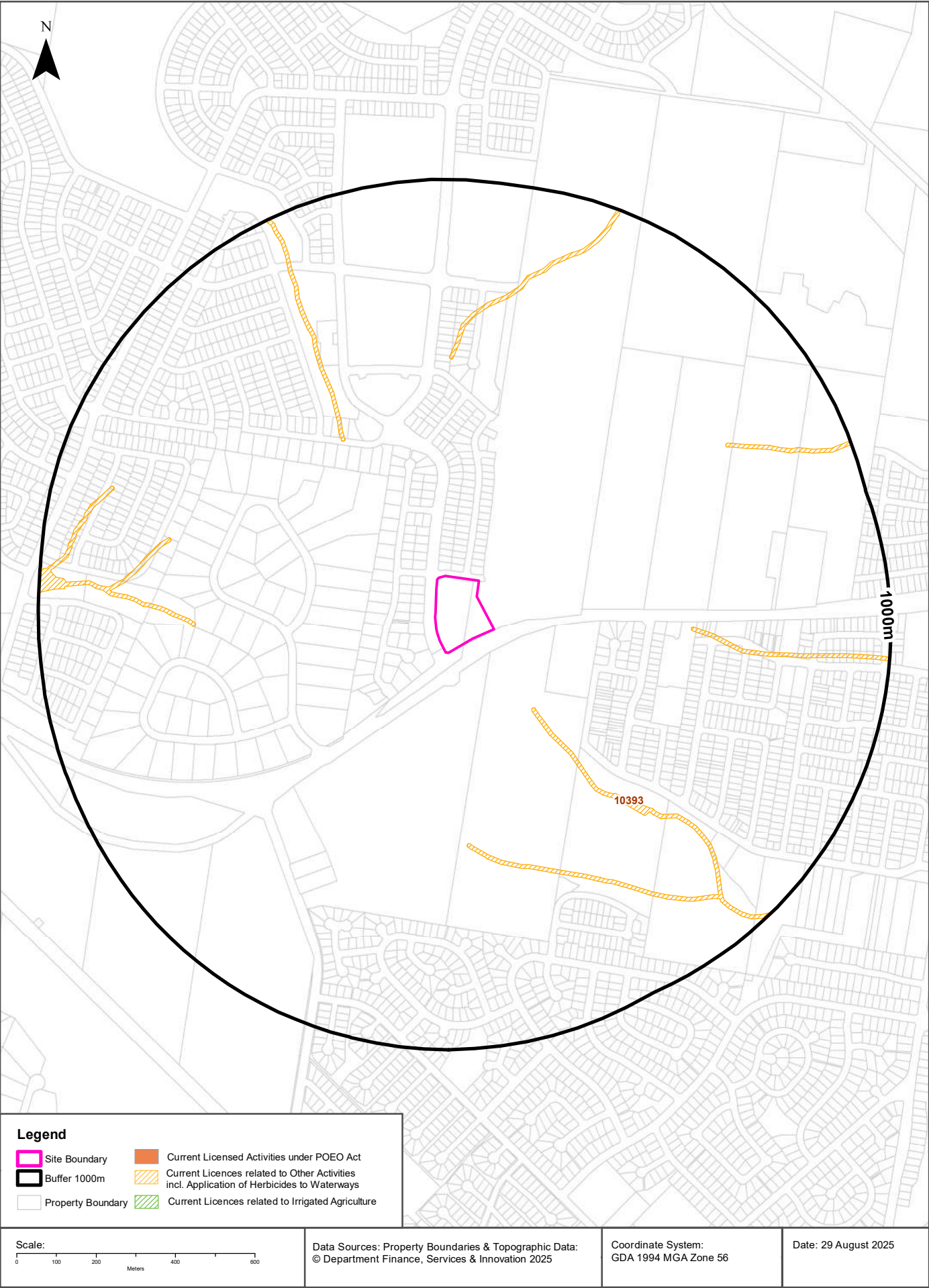
- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill
- Pasminco Lead Abatement Strategy Area

Sites within the dataset buffer:

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

EPA Other Sites with Contamination Issues: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority



EPA Activities

2 Settlers Boulevard, Chisholm, NSW 2322

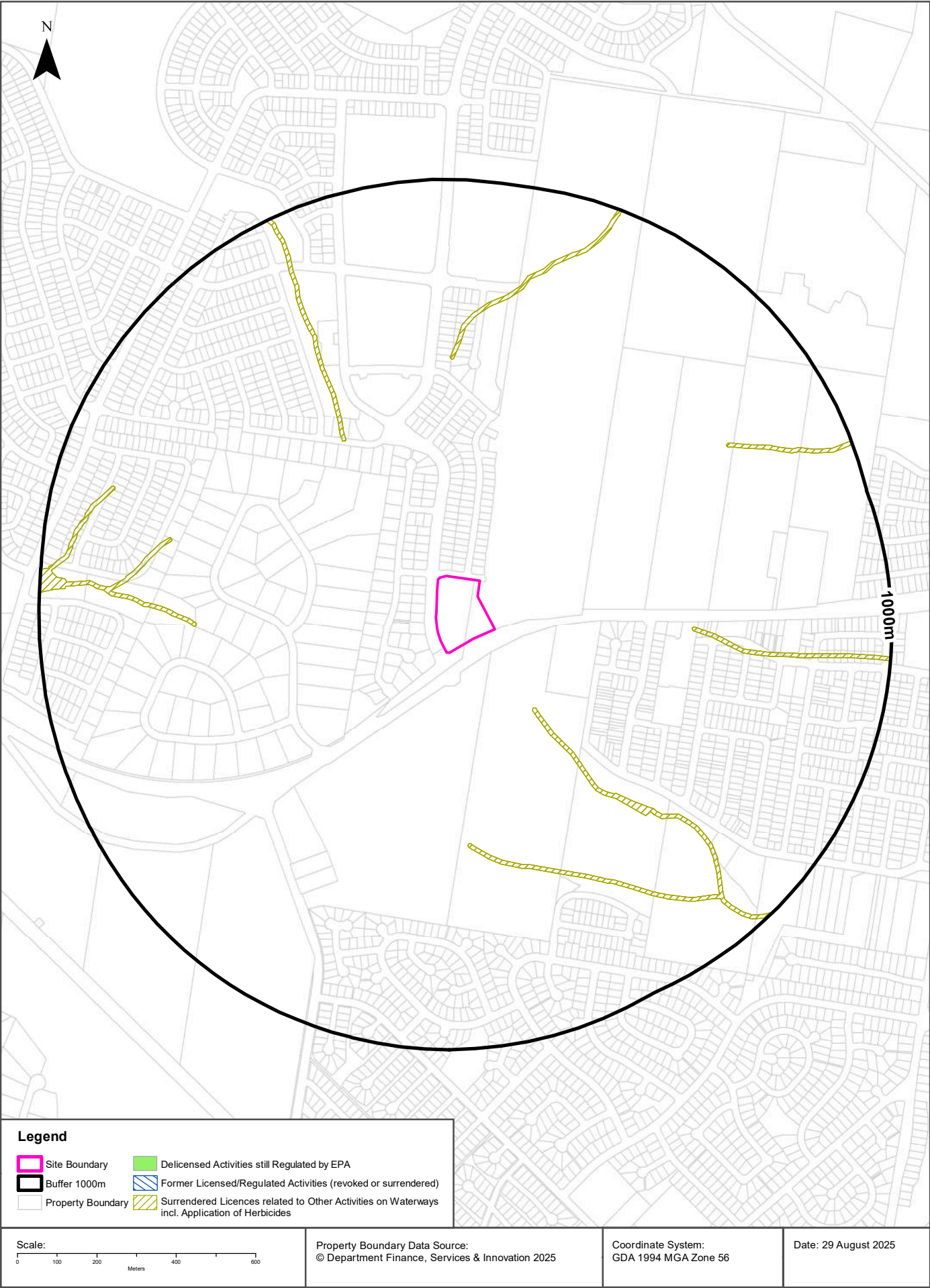
Licensed Activities under the POEO Act 1997

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
10393	MAITLAND CITY COUNCIL	ALL WATERBODIES IN THE MAITLAND LOCAL GOVERNMENT AREA	.	MAITLAND	Other activities	Network of Features	221m	South East

POEO Licence Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority



EPA Activities

2 Settlers Boulevard, Chisholm, NSW 2322

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

© State of New South Wales through the Environment Protection Authority

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

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

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	221m	South East
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	221m	South East
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	221m	South East

Former Licensed Activities Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Historical Business Directories

2 Settlers Boulevard, Chisholm, NSW 2322



Historical Business Directories

2 Settlers Boulevard, Chisholm, NSW 2322

Business Directory Records 1950-1991 Premise or Road Intersection Matches

Potentially contaminative business activities extracted from Universal Business Directories 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
N/A	No records in buffer						

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Business Directory Records 1950-1991

Road or Area Matches

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

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
1	BRICK MFRS. &/OR DIST.	Thornton Fire & Building Brick Co. Pty. Ltd., Raymond Terrace Rd., Thornton 2322	167859	1982	Road Match	15m
	BRICK, PIPE & TILE MANUFACTURERS	Thornton Fire & Building Brick Co. Pty. Ltd., Raymond Terrace Rd., Thornton	638184	1970	Road Match	15m
	BRICK, PIPE & TILE MANUFACTURERS	Thornton Fire & Building Brick Co. Pty. Ltd., Raymond Terrace, Thornton	638185	1970	Road Match	15m
	FIRE CLAY MFRS.	Thornton Fire & Building Brick Co. Pty. Ltd., Raymond Terrace, Thornton	638477	1970	Road Match	15m
	REFRACTORY MATERIALS MFRS. &/OR DIST.	Thornton Fire & Building Brick Co. Pty. Ltd., Raymond Terrace, Thornton	639081	1970	Road Match	15m
	BRICK, PIPE & TILE MANUFACTURERS	Thornton Fire & Building Co. Pty. Ltd., Raymond Terrace Rd., Thornton	638182	1970	Road Match	15m
	BRICK, PIPE & TILE MANUFACTURERS	Thornton Fire & Building Co. Pty. Ltd., Raymond Terrace Rd., Thornton	638183	1970	Road Match	15m
	BRICK, PIPE & TILE MANUFACTURERS	Thornton Fire and Building Brick Co. Pty. Ltd., Raymond Terrace Rd., Thornton	174273	1961	Road Match	15m

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Historical Business Directories

2 Settlers Boulevard, Chisholm, NSW 2322

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
N/A	No records in buffer						

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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
N/A	No records in buffer					

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Aerial Imagery 2025

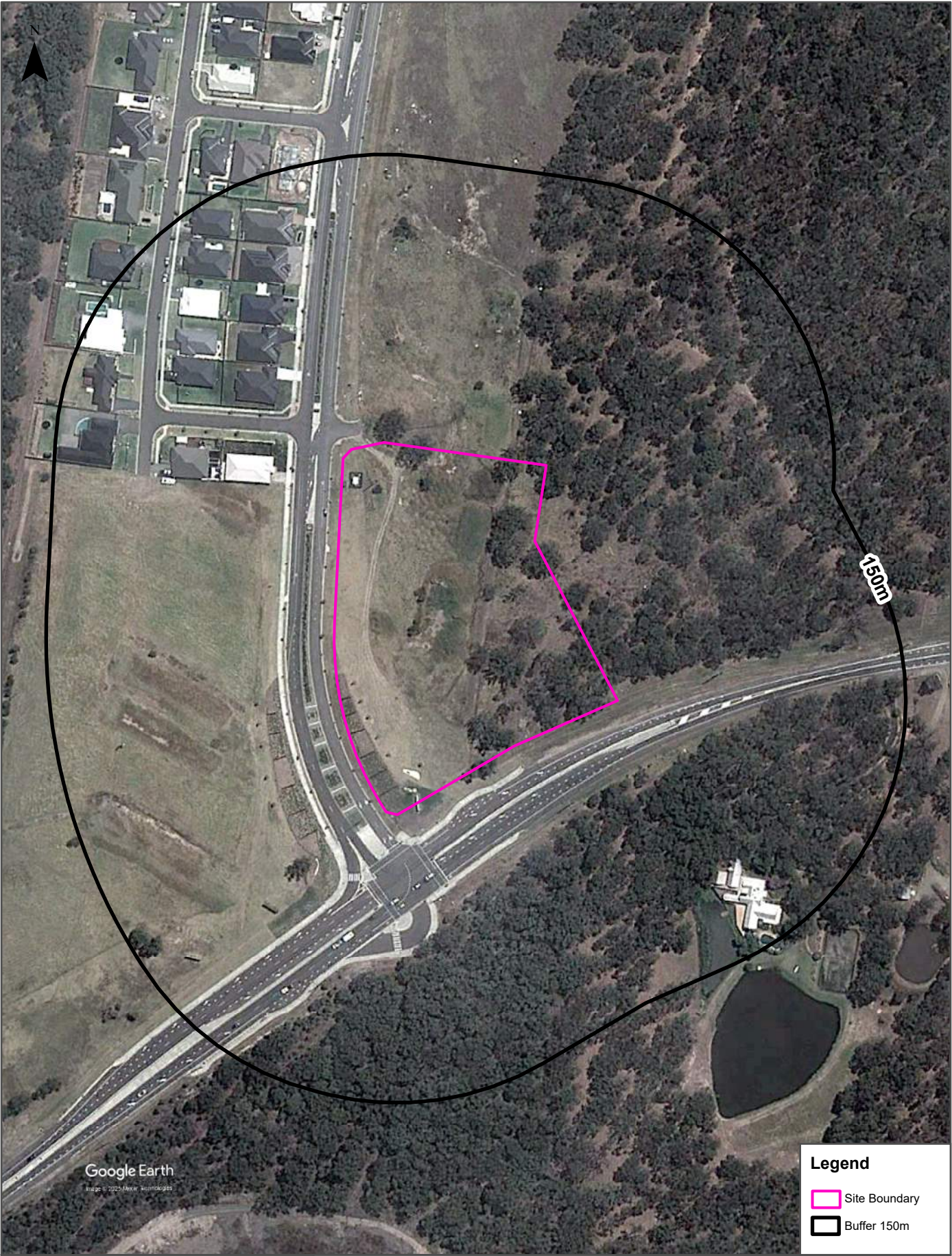
2 Settlers Boulevard, Chisholm, NSW 2322



Scale: 0 30 60 90 120 Meters	Data Source Aerial Imagery: © 2025 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.	Coordinate System: GDA 1994 MGA Zone 56	Date: 29 August 2025
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Aerial Imagery 2013

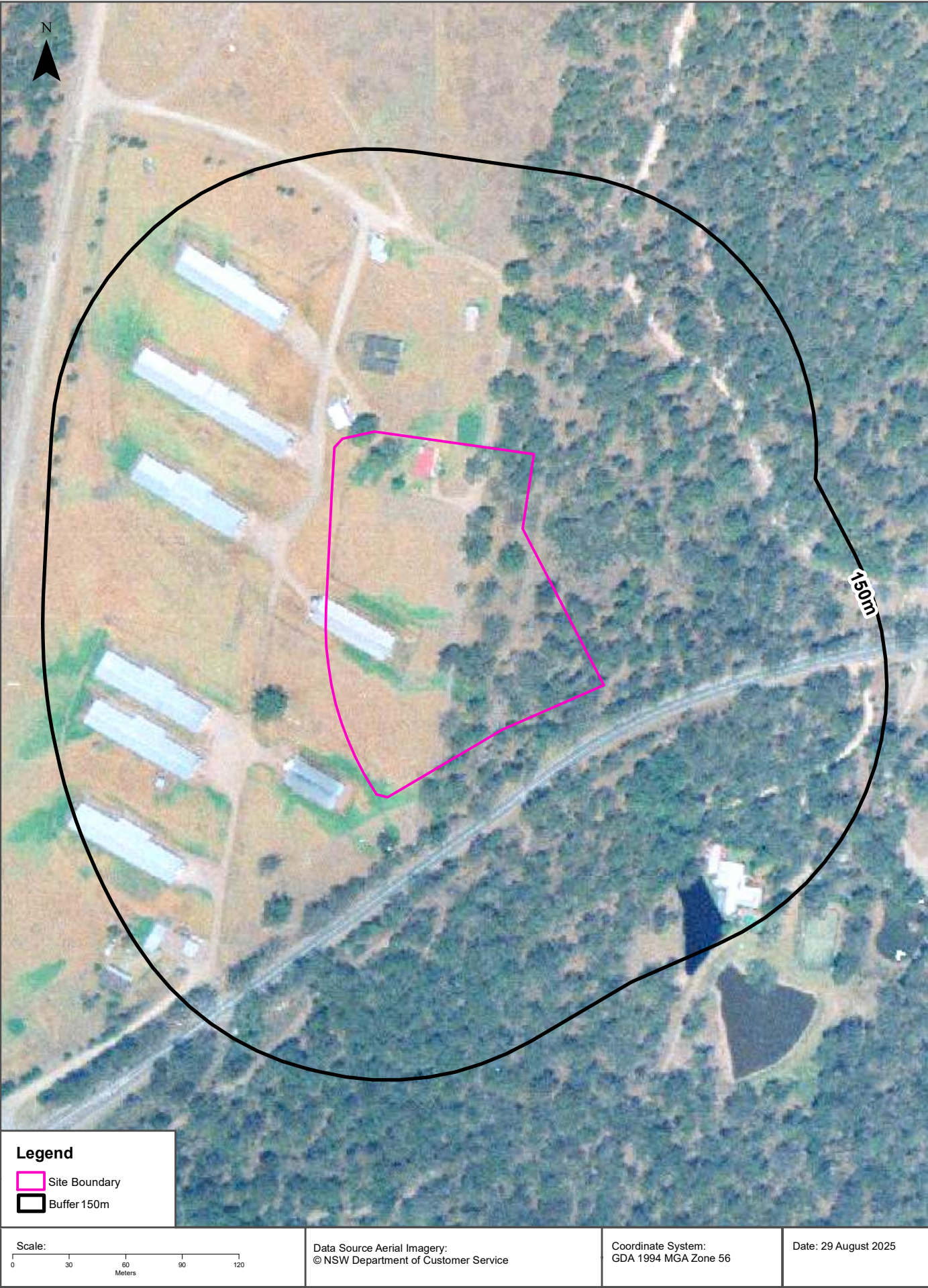
2 Settlers Boulevard, Chisholm, NSW 2322



Scale: 0 30 60 90 120 Meters	Data Source Aerial Imagery: © 2025 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.	Coordinate System: GDA 1994 MGA Zone 56	Date: 29 August 2025
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Aerial Imagery 2001

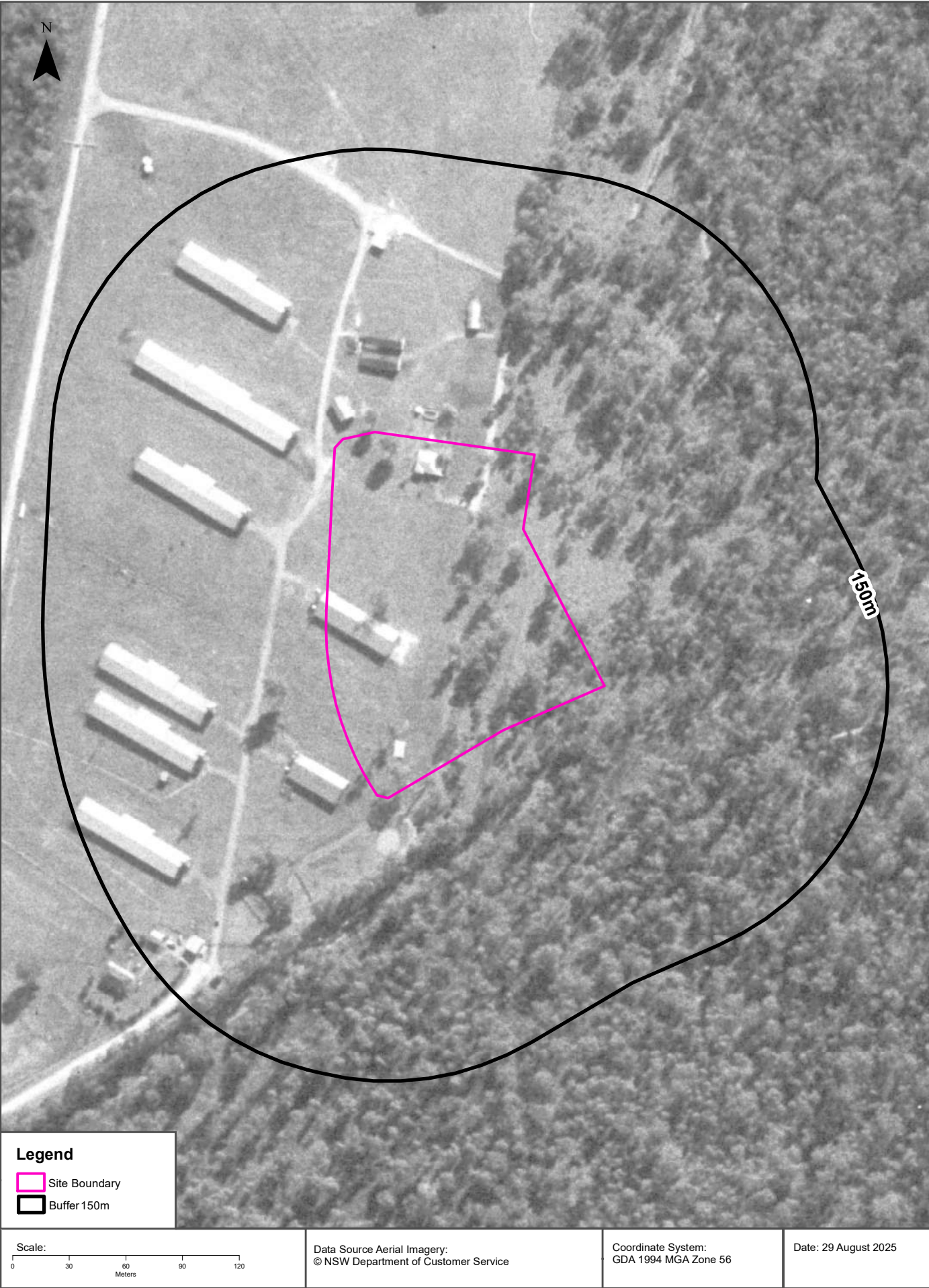
2 Settlers Boulevard, Chisholm, NSW 2322



Aerial Imagery 1993

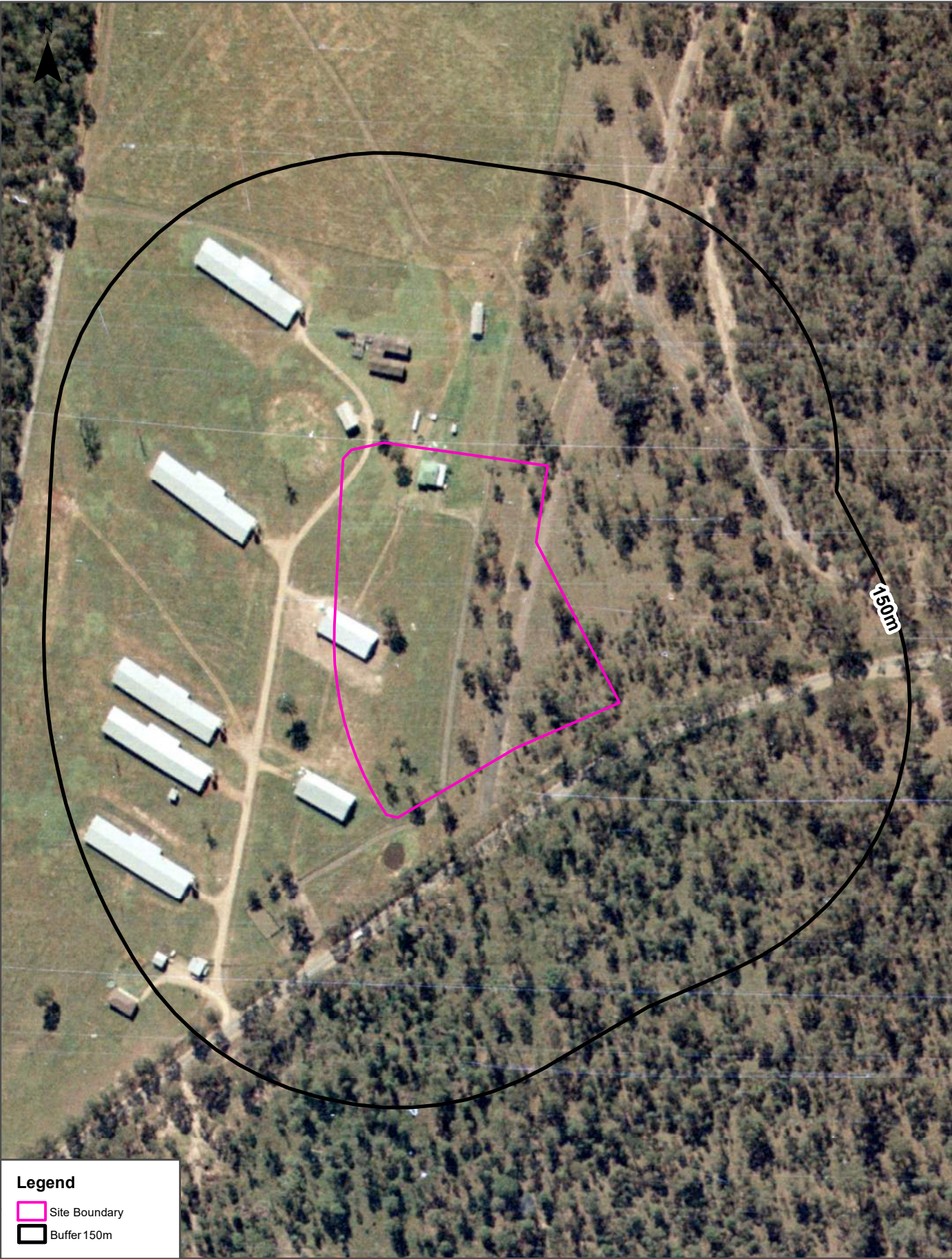
2 Settlers Boulevard, Chisholm, NSW 2322





Aerial Imagery 1977

2 Settlers Boulevard, Chisholm, NSW 2322

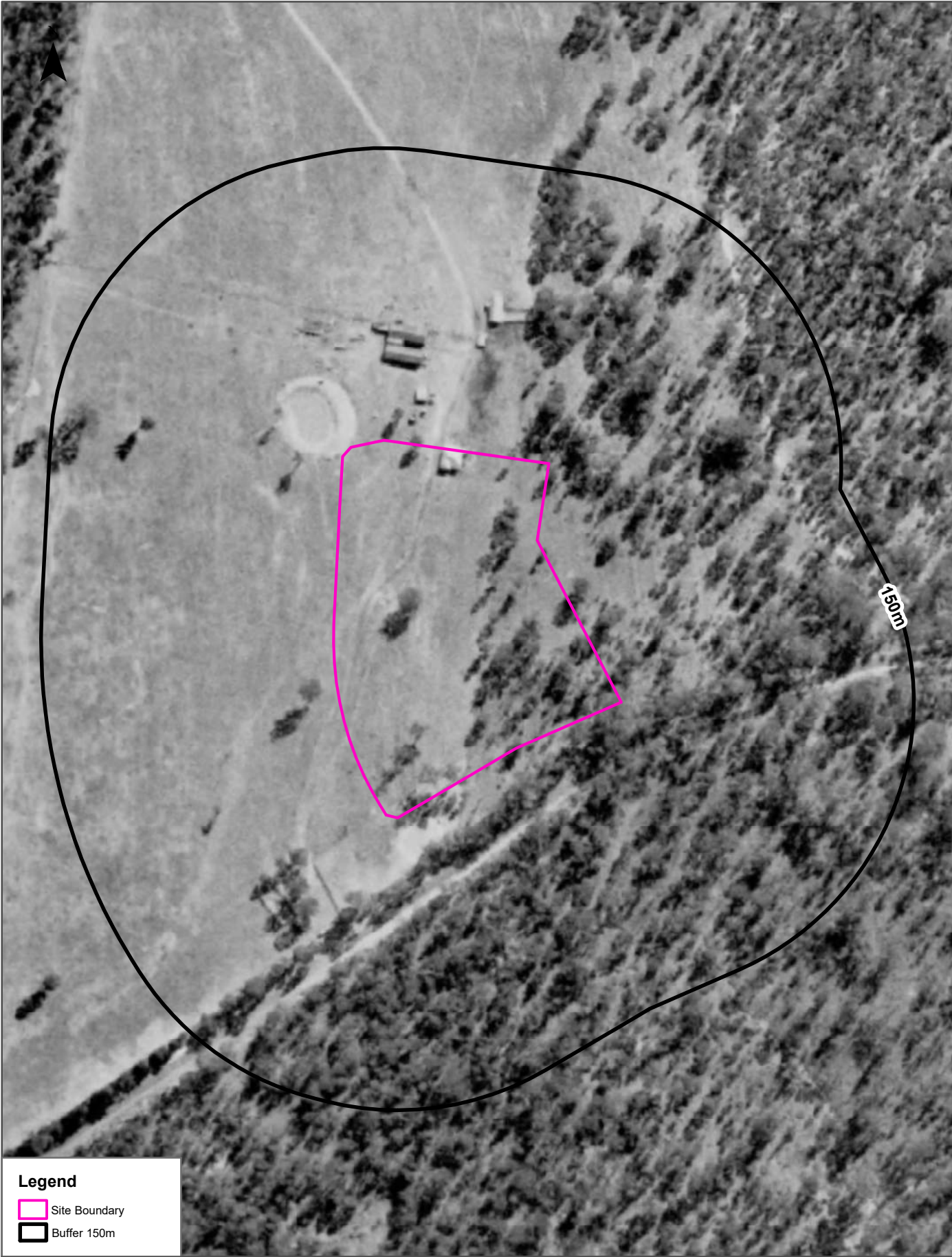


Legend

Site Boundary

Buffer 150m

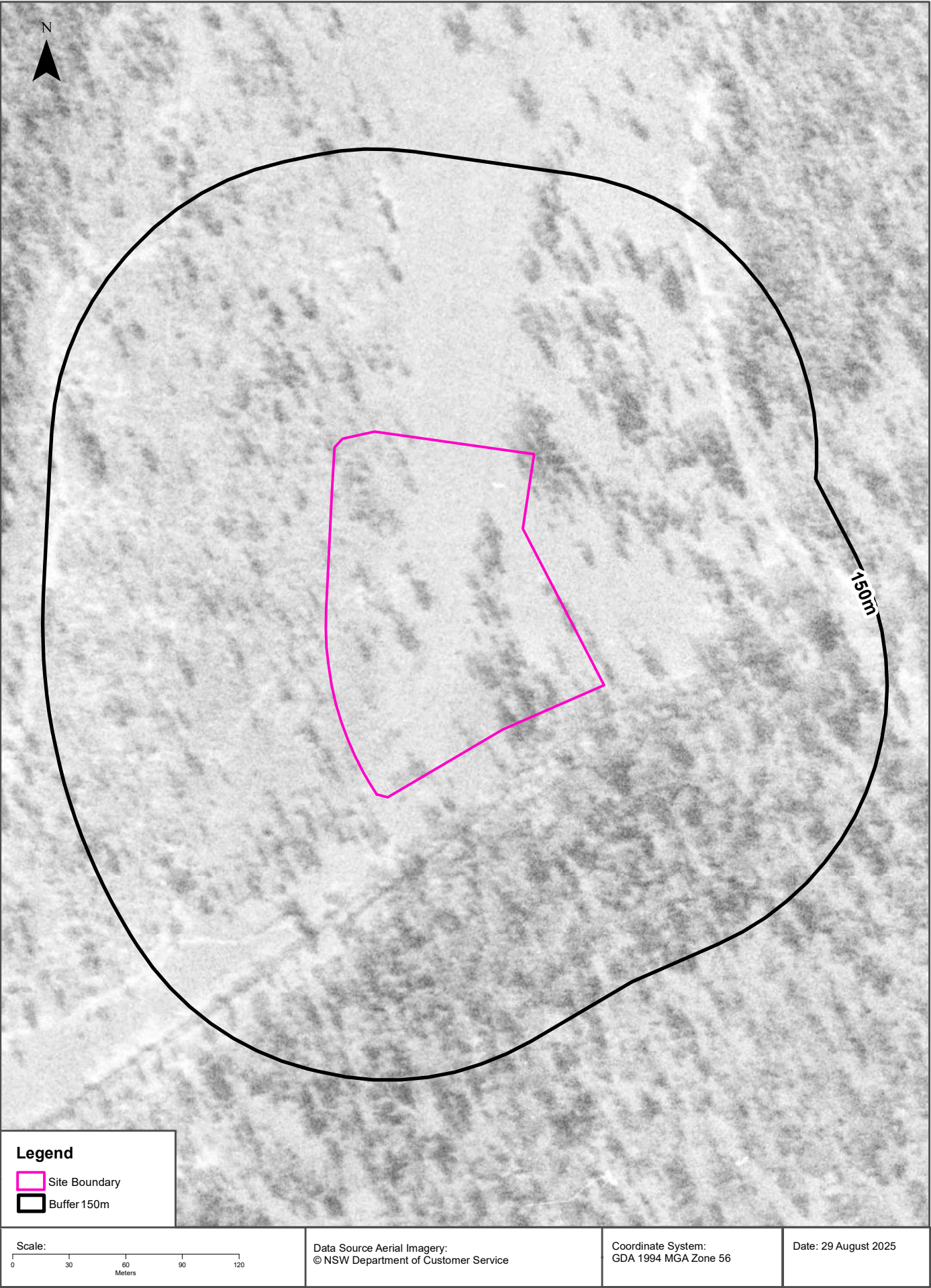
Scale: 0 30 60 90 120 Meters	Data Source Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 29 August 2025
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Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 29 August 2025
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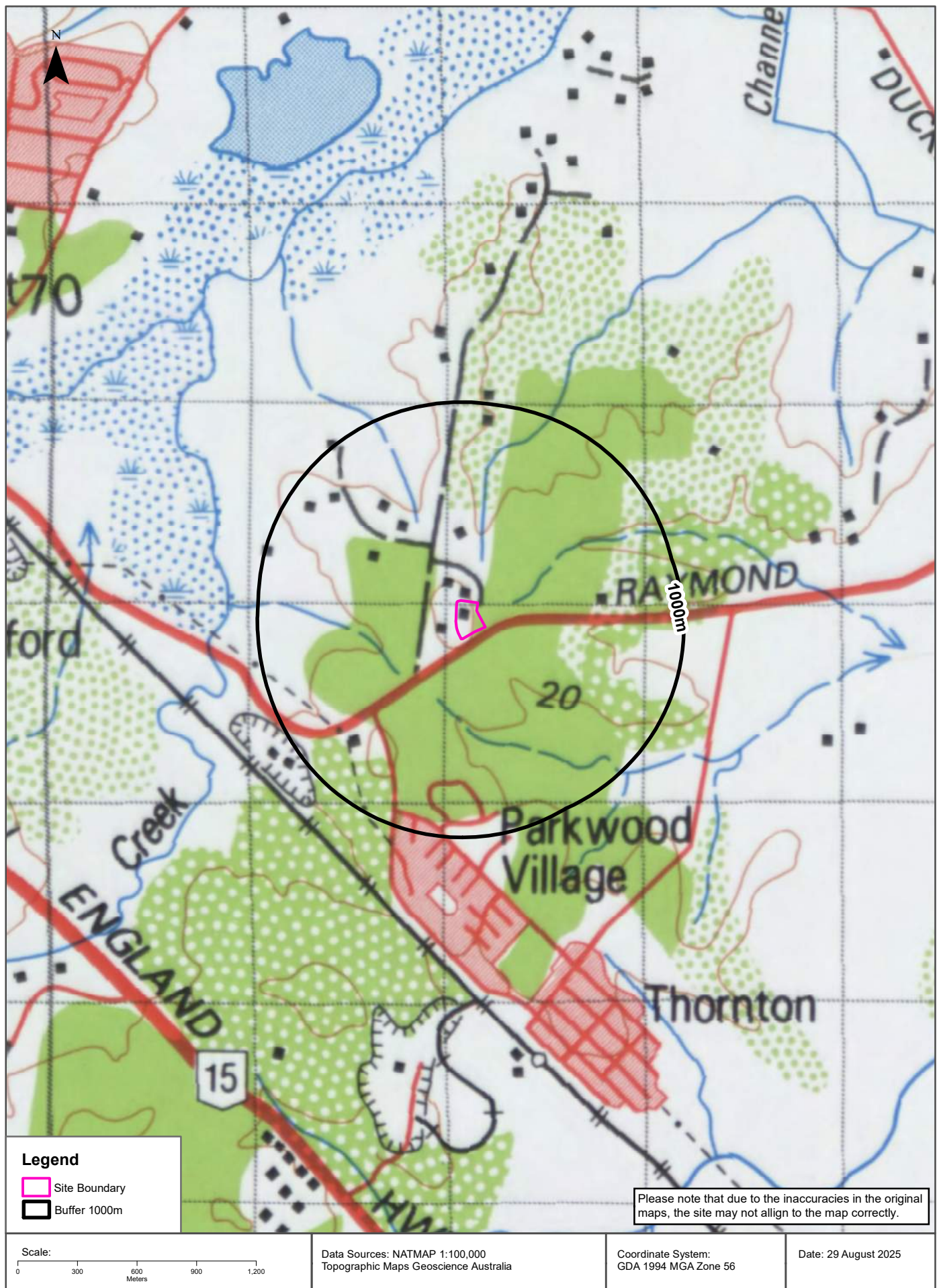
Aerial Imagery 1954

2 Settlers Boulevard, Chisholm, NSW 2322



Historical Map 1981

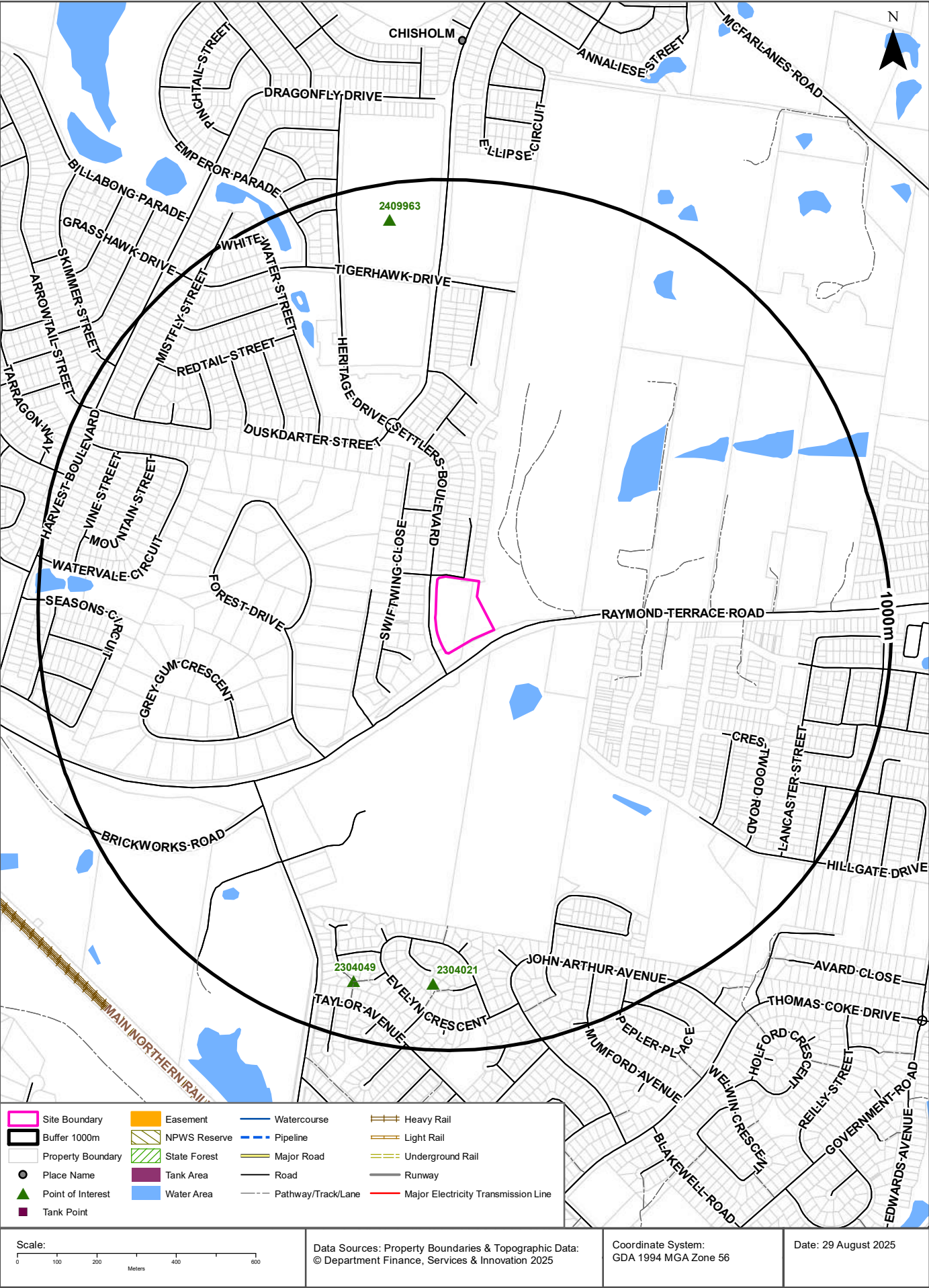
2 Settlers Boulevard, Chisholm, NSW 2322





Topographic Features

2 Settlers Boulevard, Chisholm, NSW 2322



Topographic Features

2 Settlers Boulevard, Chisholm, NSW 2322

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
2304021	Park	Park	831m	South
2304049	Park	Park	859m	South
2409963	Primary School	ST ALOYSIUS CATHOLIC PRIMARY SCHOOL	909m	North

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

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Tanks (Areas)

What are the Tank Areas located within the dataset buffer?

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

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

Tanks (Points)

What are the Tank Points located within the dataset buffer?

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

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

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

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Major Easements

What Major Easements exist within the dataset buffer?

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

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
N/A	No records in buffer				

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

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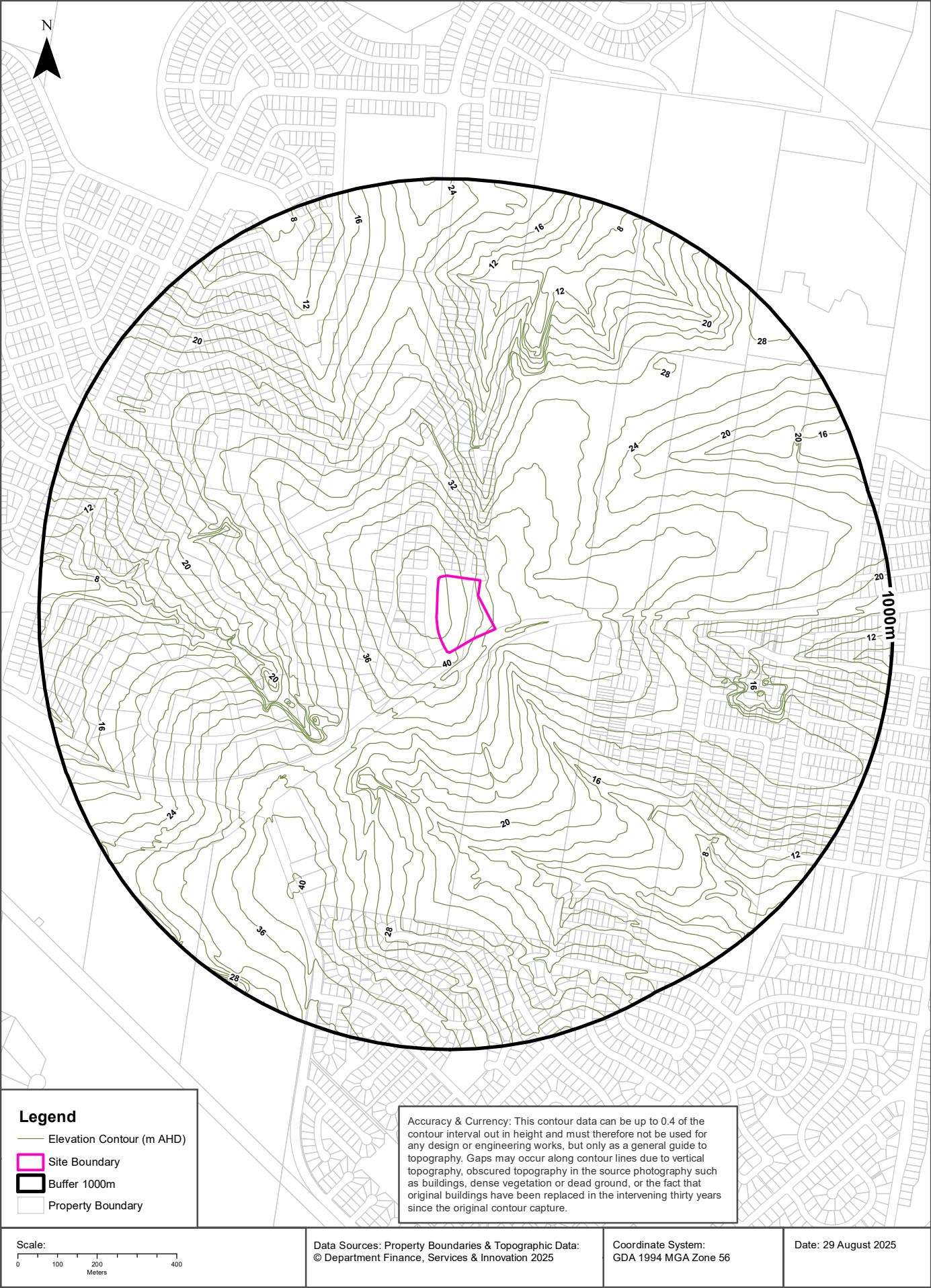
State Forest

What State Forest exist within the dataset buffer?

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

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

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Hydrogeology & Groundwater

2 Settlers Boulevard, Chisholm, NSW 2322

Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Fractured or fissured, extensive aquifers of low to moderate productivity	0m	On-site
Porous, extensive highly productive aquifers	35m	North West

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

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Temporary Water Restriction (Botany Sands Groundwater Source) Order 2024

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 2024 Data Source : NSW Department of Primary Industries

Hydrogeology & Groundwater

2 Settlers Boulevard, Chisholm, NSW 2322

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
N/A												

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

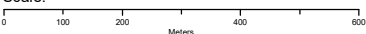
Driller's Logs

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

NGIS Bore ID	Drillers Log	Distance	Direction
No related drill log data			

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



Legend		Linear Geological Structures and Boundaries	
 Site Boundary	 Trendline	 Marker Bed	 Miscellaneous Boundary
 Report Buffer	 Fold Axis	 Faulted Boundary	 Water/Coastline Boundary
 Property Boundary	 Geological Boundary	 Shear Zone or Schist Zone Boundary	 State/Territory Border
Scale: 		Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2025	
		Coordinate System: GDA 1994 MGA Zone 56	
		Date: 29 August 2025	

Geology

2 Settlers Boulevard, Chisholm, NSW 2322

Geological Units

Geological units within the dataset buffer:

Code	Unit Name	Description	Stratigraphy	Age Range	Dominant Lithology	Dist	Dir
Pmtm	Mulbring Siltstone	Medium- to dark-grey siltstone, minor claystone, sporadic thin cherty beds (resistant), rare thin sandstone and limestone beds, sporadic marine fossils.	/Maitland Group//Mulbring Siltstone//	Guadalupian (base) to Guadalupian (top)	Siltstone	0m	On-site
Pto	Tomago Coal Measures	Very fine- to medium-grained grey lithic sandstone, (sporadically interbedded with) laminated to carbonaceous shale and mudstone, siltstone, coal with sporadic interbeds of carbonaceous shale, claystone, sideritic bands, rare pebble paraconglomerate	Singleton Supergroup/Tomago Coal Measures////	Lopingian (base) to Lopingian (top)	Sandstone	0m	On-site
Q_av	Alluvial valley deposits	Silt, clay, (fluvially deposited) lithic to quartz-lithic sand, gravel.	/Alluvium//Alluvial valley deposits//	Quaternary (base) to Now (top)	Clastic sediment	616m	South East

Linear Geological Structures

Fault and shear or schist zone boundaries within the dataset buffer:

Map ID	Boundary Type	Feature Description	Fault Dip Angle	Fault Dip Direction	Dist	Dir
252220	Faulted boundary	Fault, position accurate			270m	West

Trendlines within the dataset buffer:

Map ID	Feature Description	Observation Method	Structure Name	Dist	Dir
NA	No records in buffer				

Fold axes within the dataset buffer:

Map ID	Feature Description	Observation Method	Structure Name	Dist	Dir
161	Syncline, position accurate	Undefined	Thornton Syncline	630m	West
162	Syncline, position accurate	Undefined	Thornton Syncline	631m	West
244	Syncline, position accurate	Undefined	Thornton Syncline	664m	North West

Marker beds within the dataset buffer:

Map ID	Feature Description	Rock Unit Description	Dist	Dir
NA	No records in buffer			

Geological Data Source: Statewide Seamless Geology v2.4, NSW Department of Primary Industries and Regional Development
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Naturally Occurring Asbestos Potential

2 Settlers Boulevard, Chisholm, NSW 2322

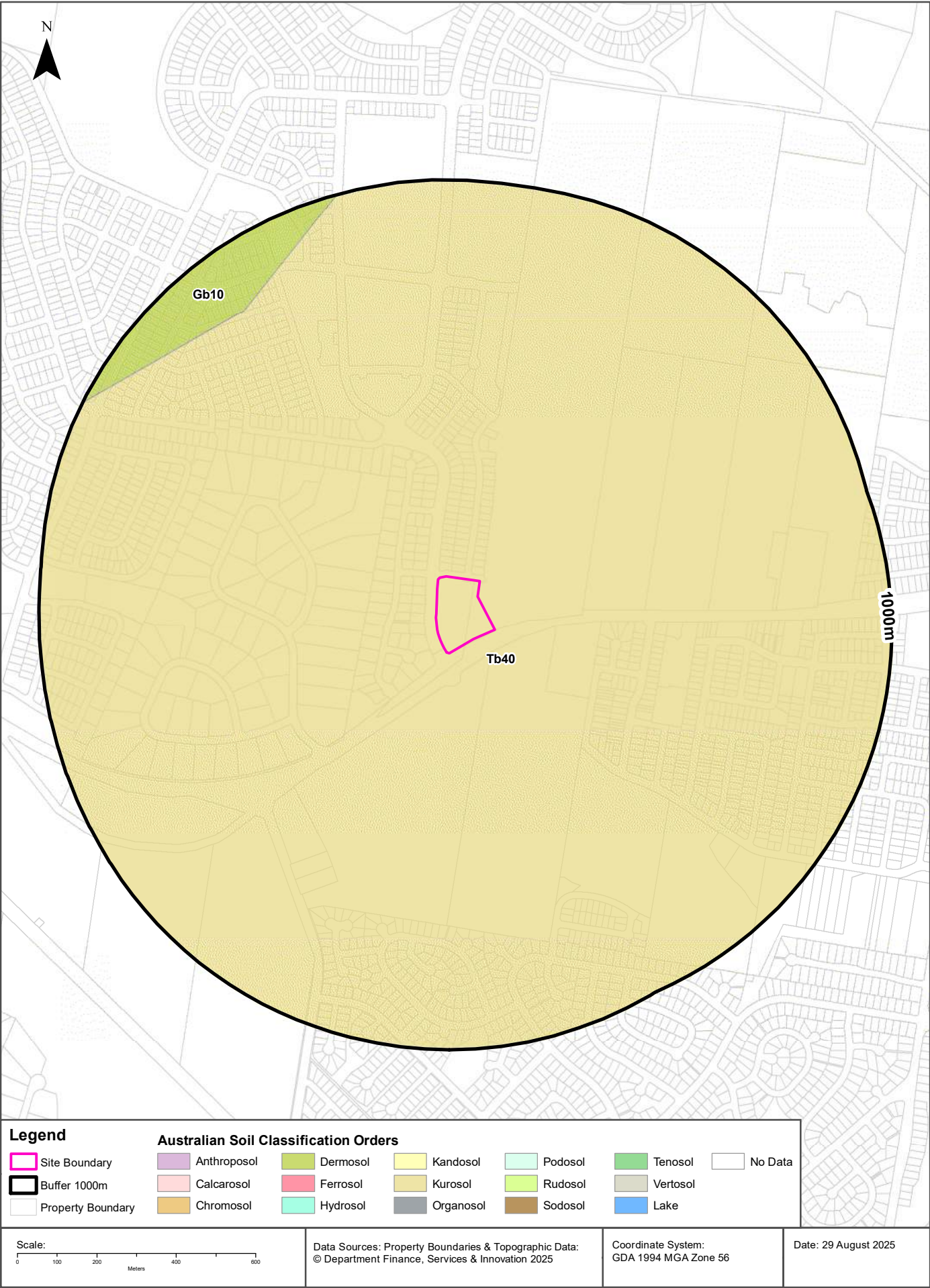
Naturally Occurring Asbestos Potential

Naturally Occurring Asbestos Potential within the dataset buffer:

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

Naturally Occurring Asbestos Potential Data Source: Statewide Seamless Geology v2.4, NSW Department of Primary Industries and Regional Development

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Soils

2 Settlers Boulevard, Chisholm, NSW 2322

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
Tb40	Kurosol	Undulating to hilly areas with some steep slopes and cliffs, rock outcrops, and narrow terraced valleys: chief soils are hard acidic yellow mottled soils (Dy3.41) with some shallow soils such as (Um4.1) and (Uc4.1) on the steeper slopes. Associated are: (Gn2.2) soils and (Dd1) soils, both of which occur on slopes; undescribed soils in the valleys; and some (Dy5) and (Uc1 .2) soils along the coast. As mapped, small areas of units Gb10 and Cb28 are included.	0m	On-site
Gb10	Dermosol	River terraces, levees, flood-plains, coastal swamps, and tidal flats: this unit contains the same land forms and soils as unit Gb9, but in addition has (i) swamps and levees of the lower river flood-plain of (Uf6.6), (Ug5), and other undescribed soils; (ii) estuarine flats of peaty or organic soils over acid clays; and (iii) tidal mud flats. The soils of these areas are not well known but probably have similarities with the soils of units J3, Mc4, NY1, and NN1. The smaller areas mapped as unit Gb10 consist mainly of areas of (i) and/or (iii) above.	835m	North West

Atlas of Australian Soils Data Source: CSIRO

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Soil Landscapes of Central and Eastern NSW

2 Settlers Boulevard, Chisholm, NSW 2322

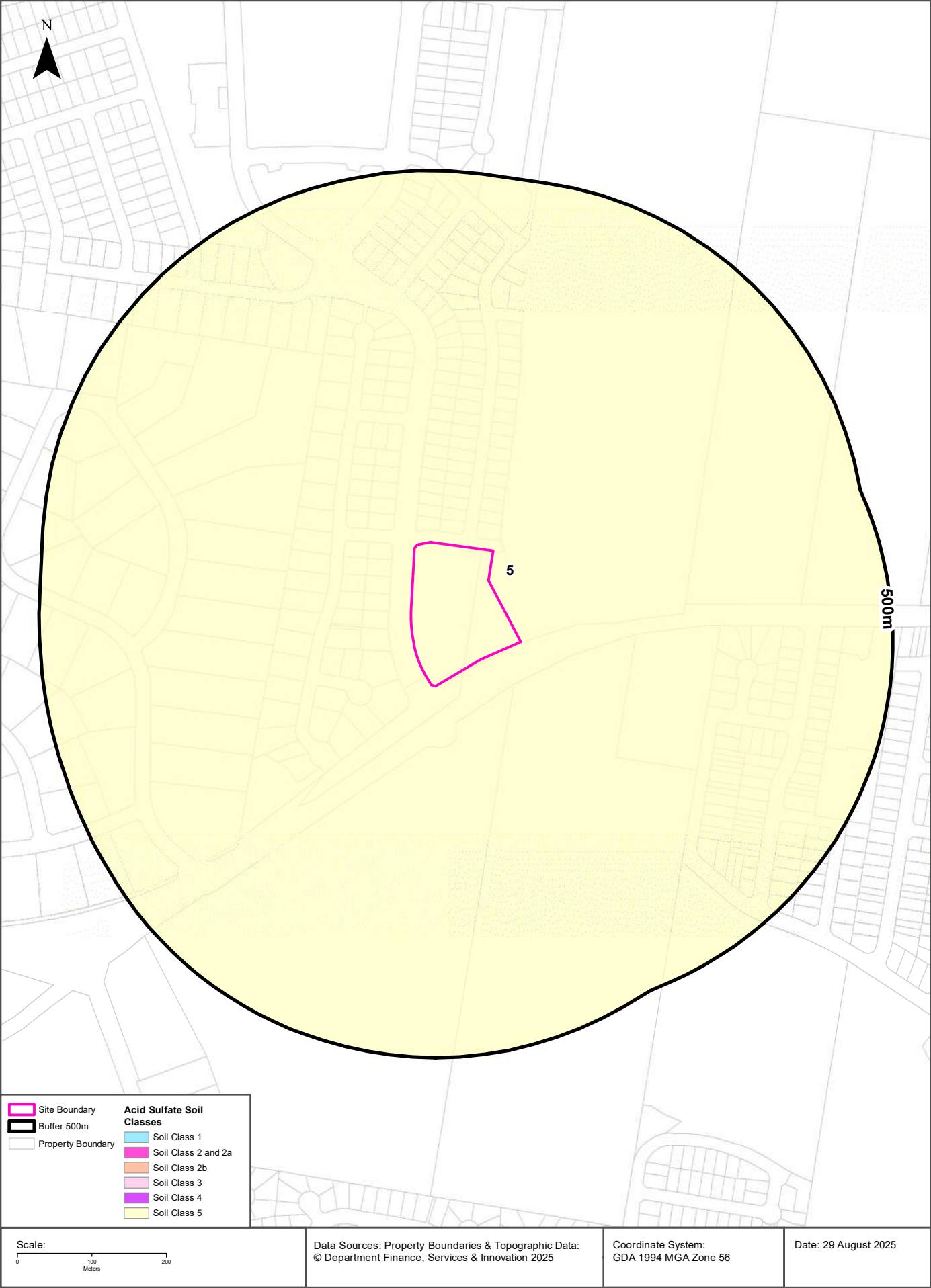


Soil Landscapes of Central and Eastern NSW

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

Soil Code	Name	Distance	Direction
9232be	Beresfield	0m	On-site
9232cc	Cockle Creek	848m	West
9232mf	Millers Forest	905m	South East

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

2 Settlers Boulevard, Chisholm, NSW 2322

Environmental Planning Instrument - Acid Sulfate Soils

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

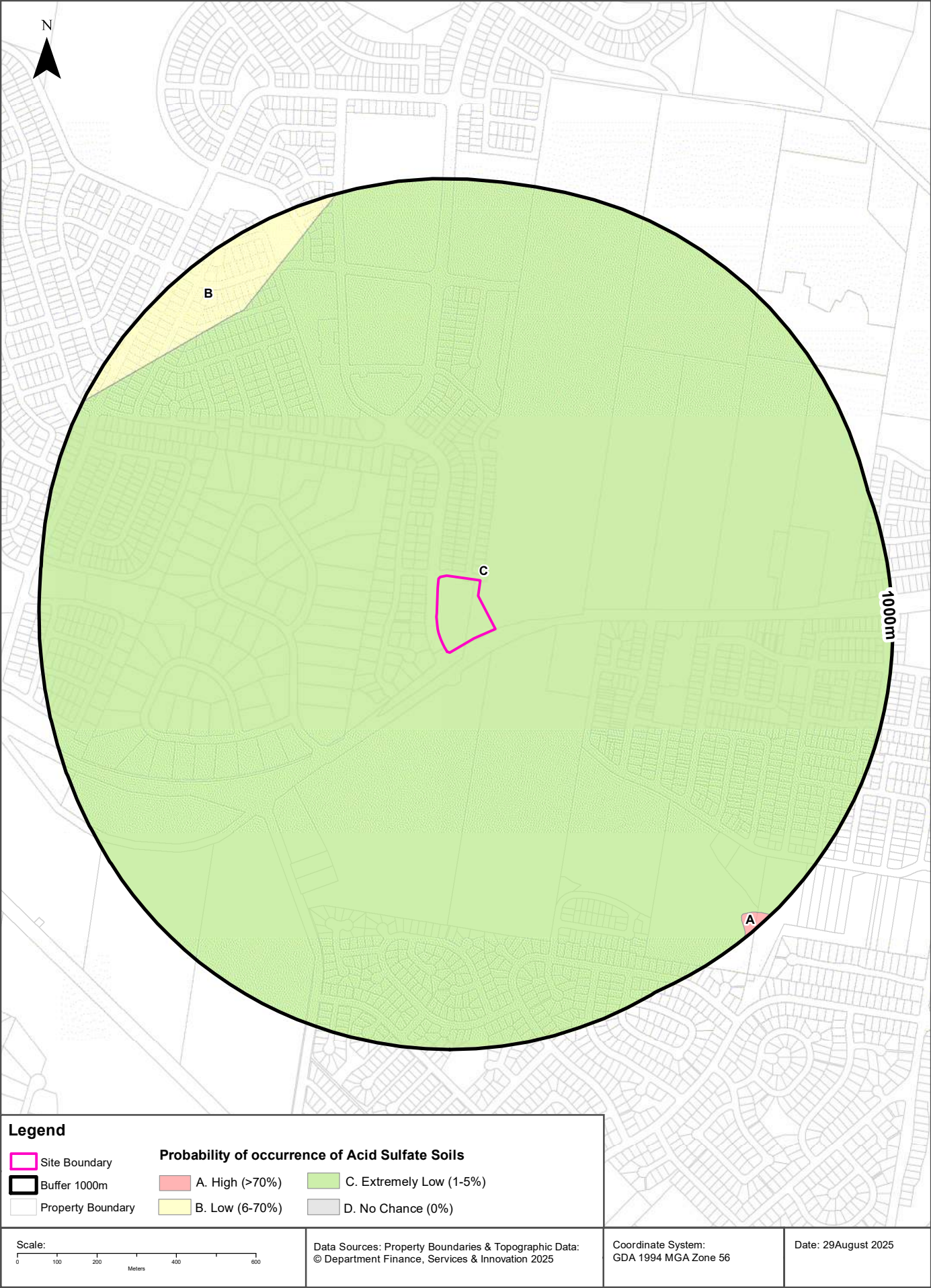
Soil Class	Description	EPI Name
5	Works within 500 metres of adjacent Class 1, 2, 3, or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk	Maitland Local Environmental Plan 2011

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

Soil Class	Description	EPI Name	Distance	Direction
None				

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Acid Sulfate Soils

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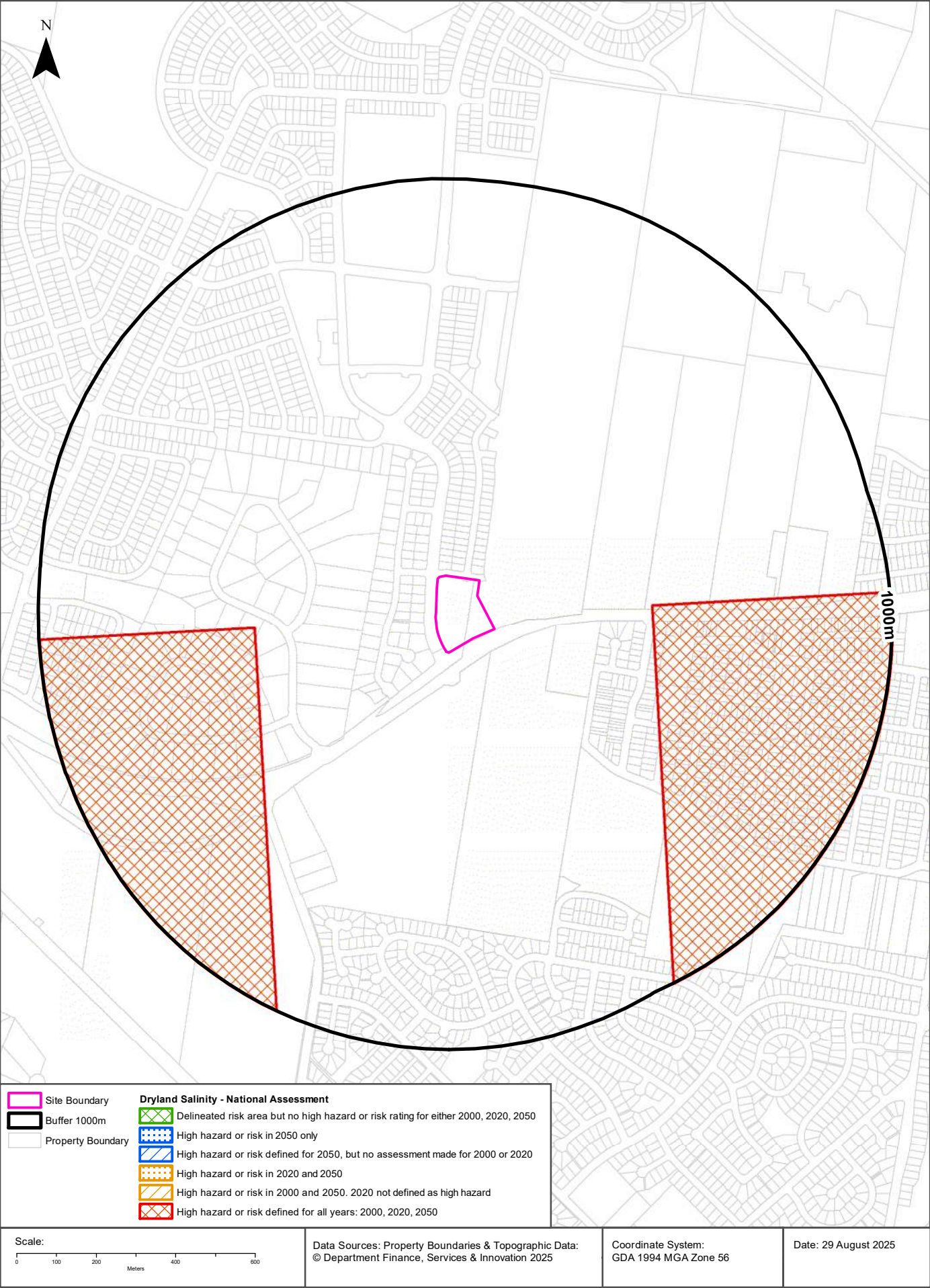
Atlas of Australian Acid Sulfate Soils

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

Class	Description	Distance	Direction
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site
B	Low Probability of occurrence. 6-70% chance of occurrence.	836m	North West
A	High Probability of occurrence. >70% chance of occurrence.	950m	South East

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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Dryland Salinity

2 Settlers Boulevard, Chisholm, NSW 2322

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

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

Yes

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
High hazard or risk	High hazard or risk	High hazard or risk	399m	South East

Dryland Salinity Data Source : National Land and Water Resources Audit

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

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

Mining

2 Settlers Boulevard, Chisholm, NSW 2322

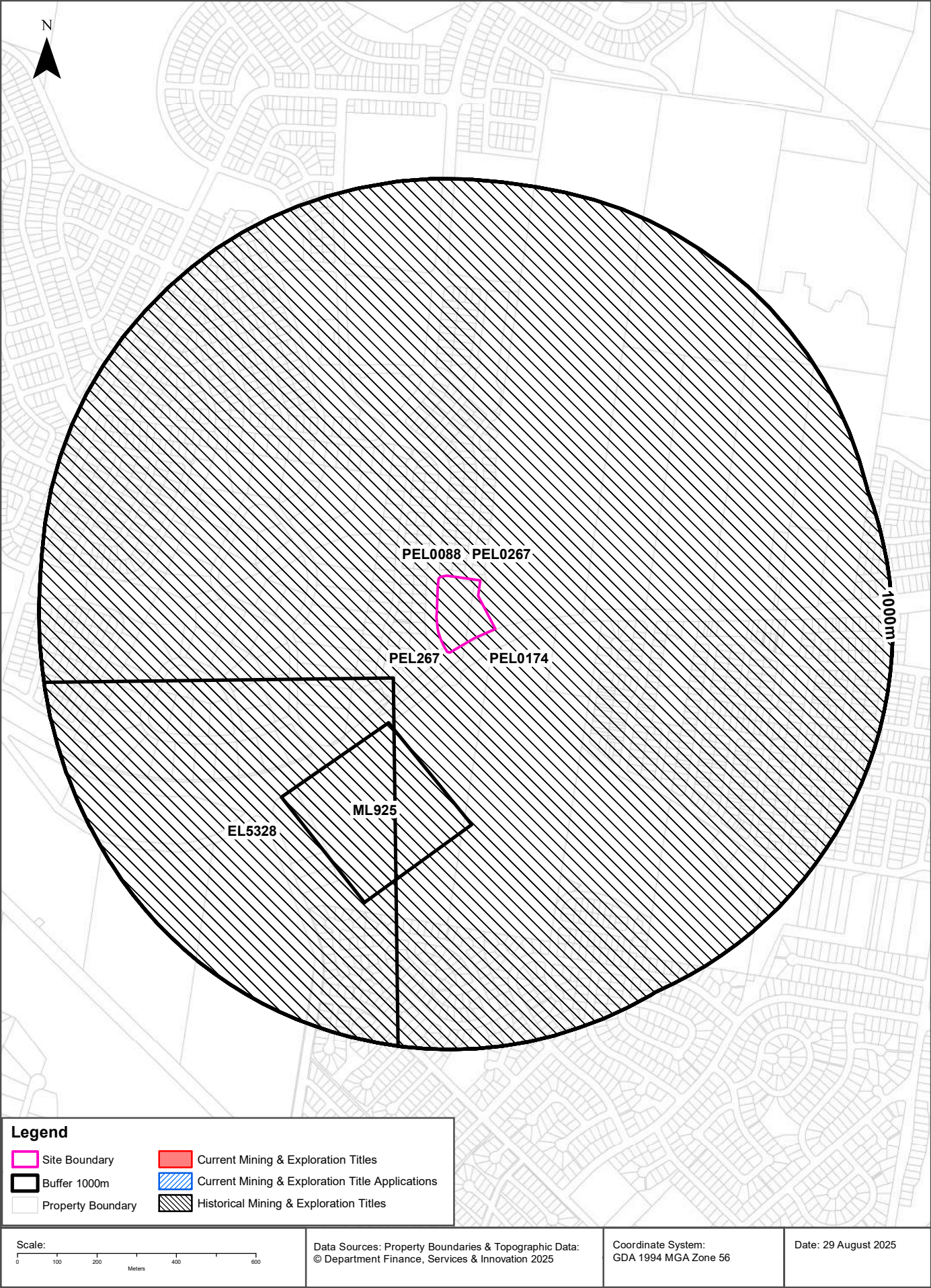
Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

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

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

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Mining

2 Settlers Boulevard, Chisholm, NSW 2322

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: Statewide Seamless Geology v2.4, NSW Department of Primary Industries and Regional Development

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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: Statewide Seamless Geology v2.4, NSW Department of Primary Industries and Regional Development

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Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
PEL267	AGL UPSTREAM INVESTMENTS PTY LIMITED	19930413	19991205	MINERALS		0m	On-site
PEL0088	PLANET EXPLORATION COMPANY PTY LTD			PETROLEUM	Petroleum	0m	On-site
PEL0174	NSW OIL AND GAS COMPANY NL			PETROLEUM	Petroleum	0m	On-site
PEL0267	SYDNEY OIL CO (NSW) PTY LTD, MANVANE PTY LTD AUSTRALIA NL, BASE RESOURCES LTD, SEAHAWK OIL AUSTRALIA NL, READING & BATES	19850801	20150607	PETROLEUM	Petroleum	0m	On-site
EL5328	MONIER PGH HOLDINGS LIMITED	19970805	19990804	MINERALS	Brick clay	150m	South West
ML925	CSR BUILDING PRODUCTS LIMITED	19810318	20020317	MINERALS		231m	South West

Historical Mining & Exploration Titles Data Source: Statewide Seamless Geology v2.4, NSW Department of Primary Industries and Regional Development

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State Environmental Planning Policy

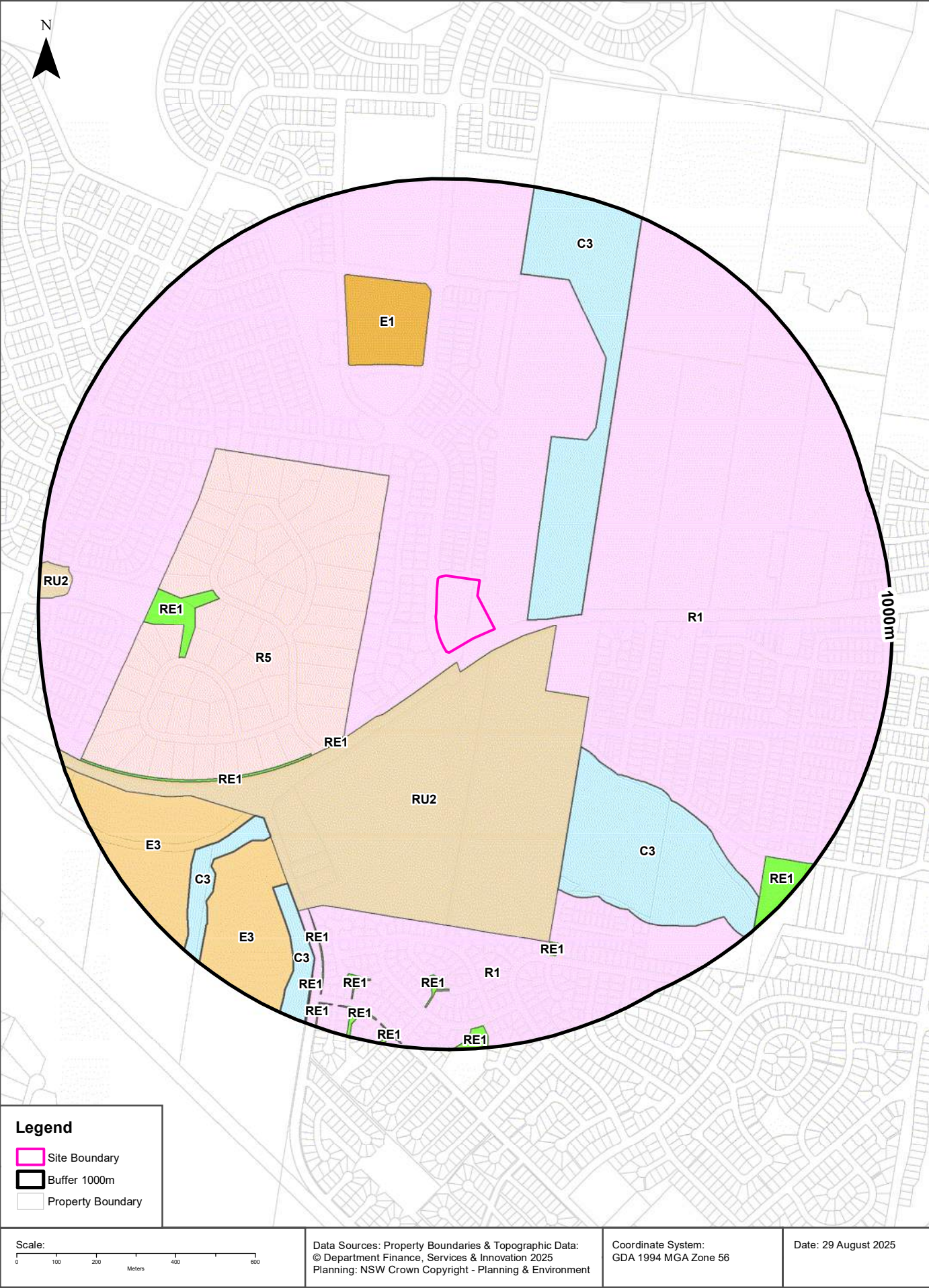
2 Settlers Boulevard, Chisholm, NSW 2322

State Significant Precincts

What SEPP State Significant Precincts exist within the dataset buffer?

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

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

2 Settlers Boulevard, Chisholm, NSW 2322

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
R1	General Residential		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	0m	On-site
RU2	Rural Landscape		Maitland Local Environmental Plan 2011	15/12/2023	15/12/2023	04/07/2025	Map Amendment No 5	30m	South
C3	Environmental Management		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	84m	North East
R5	Large Lot Residential		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	163m	West
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	335m	South West
C3	Environmental Management		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	366m	South East
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	427m	South West
E1	Local Centre		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	532m	North
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	547m	West
C3	Environmental Management		Maitland Local Environmental Plan 2011	15/12/2023	15/12/2023	04/07/2025	Map Amendment No 5	622m	South West
E3	Productivity Support		Maitland Local Environmental Plan 2011	15/12/2023	15/12/2023	04/07/2025	Map Amendment No 5	634m	South West
E3	Productivity Support		Maitland Local Environmental Plan 2011	15/12/2023	15/12/2023	04/07/2025	Map Amendment No 5	642m	South West
R1	General Residential		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	658m	South
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	734m	South
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	771m	South
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	812m	South
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	845m	South
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	867m	South
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	889m	South East
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	926m	South
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	04/07/2025	Map Amendment No 4	943m	South

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Heritage

2 Settlers Boulevard, Chisholm, NSW 2322

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
N/A	No records in buffer							

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

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

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

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

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

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

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
N/A	No records in buffer							

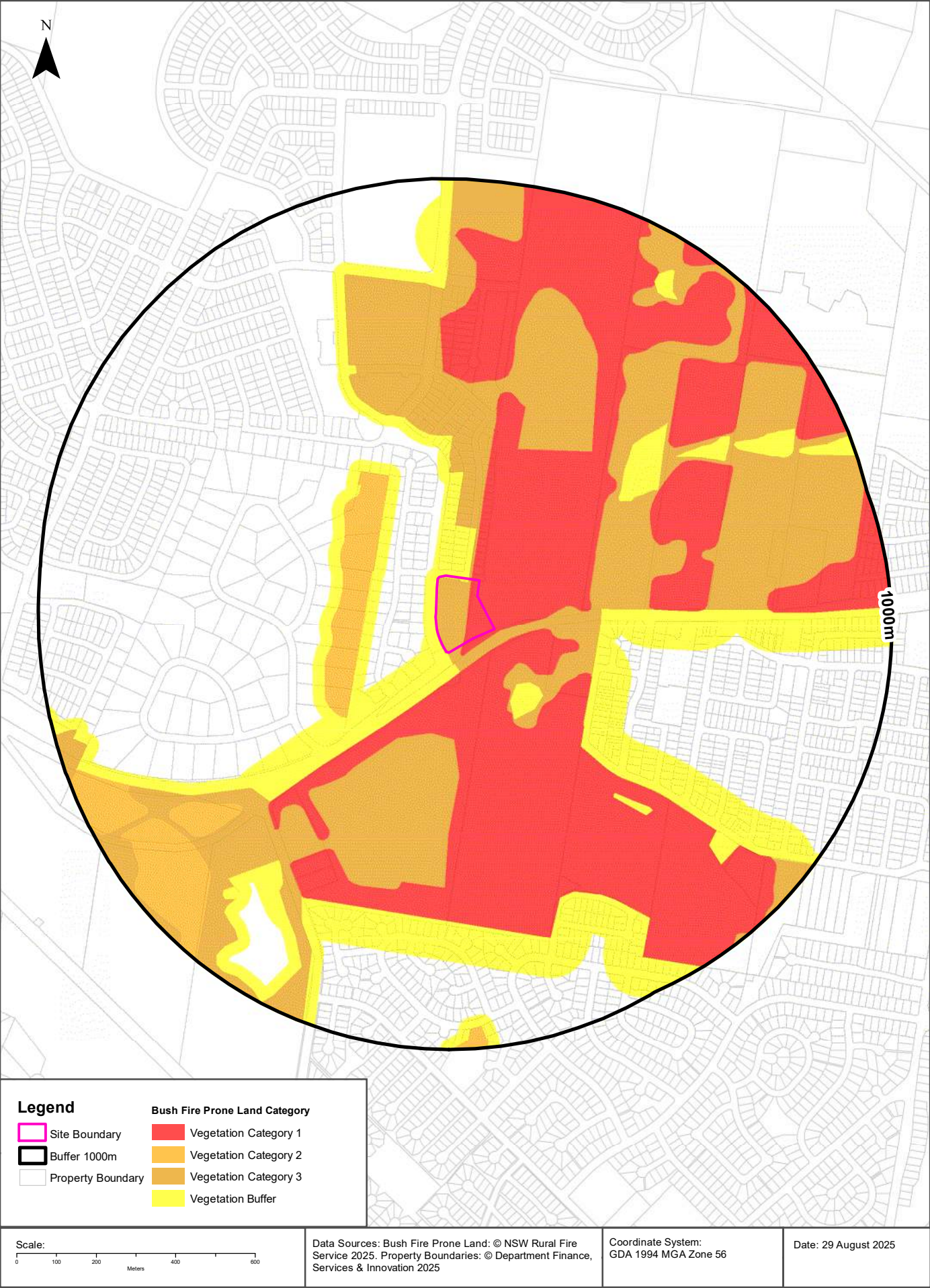
Heritage Data Source: NSW Crown Copyright - Office of Environment & Heritage
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Environmental Planning Instrument - Heritage

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

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

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Natural Hazards

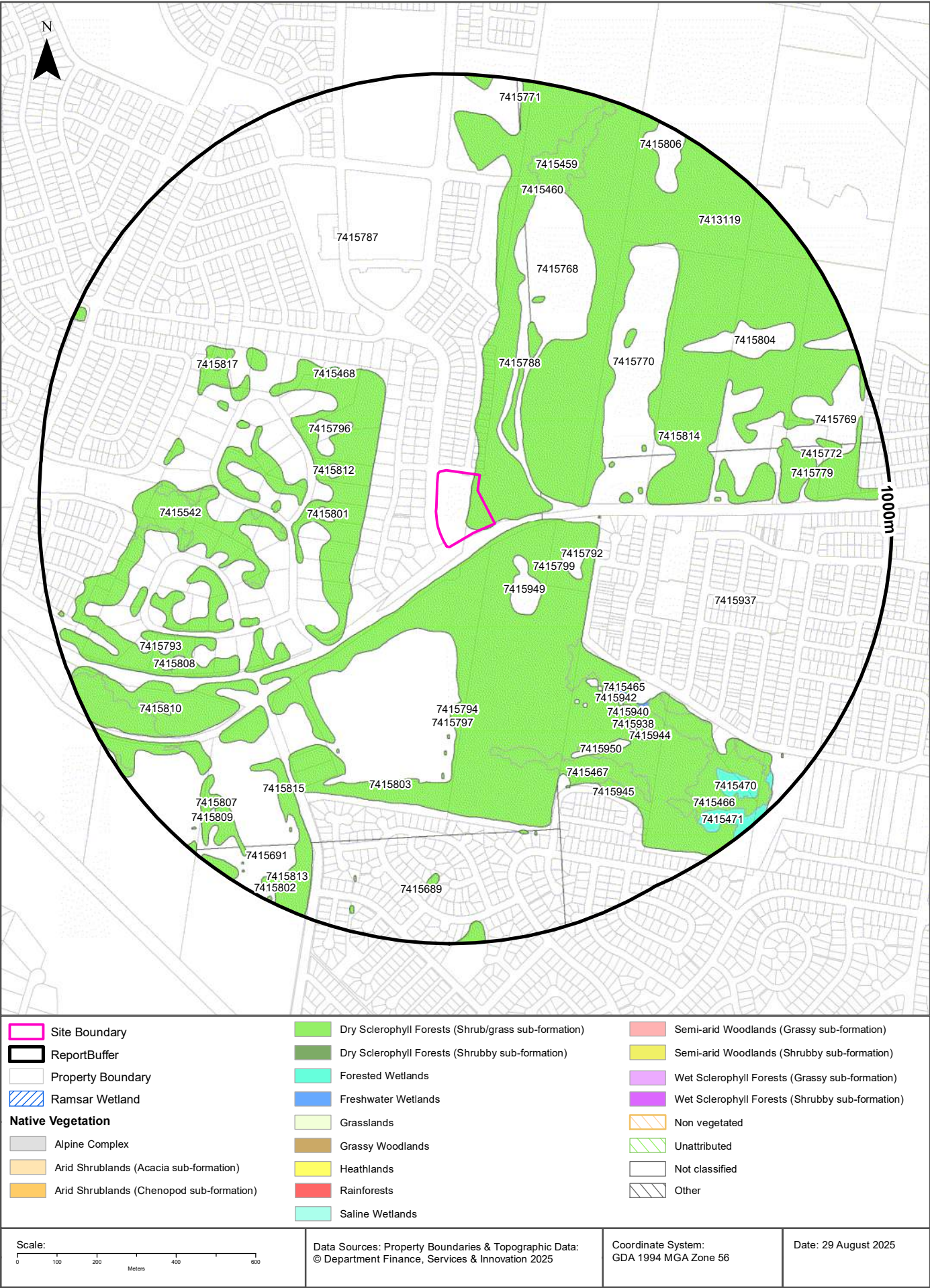
2 Settlers Boulevard, Chisholm, NSW 2322

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 Category 1	0m	On-site
Vegetation Category 3	0m	On-site
Vegetation Buffer	0m	On-site
Vegetation Category 2	163m	West

NSW Bush Fire Prone Land - © NSW Rural Fire Service under Creative Commons 4.0 International Licence



Ecological Constraints

2 Settlers Boulevard, Chisholm, NSW 2322

Native Vegetation

What native vegetation exists within the dataset buffer?

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
7413119	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Hunter Coast Foothills Spotted Gum-Ironbark Grassy Forest	Hunter-Macleay Dry Sclerophyll Forests	0m	On-site
7415787	Not classified	(Not classified) Not classified	Not classified	0m	On-site
7415788	Not classified	(Not classified) Not classified	Not classified	92m	North
7415949	Not classified	(Not classified) Not classified	Not classified	97m	South East
7415937	Not classified	(Not classified) Not classified	Not classified	119m	South East
7415799	Not classified	(Not classified) Not classified	Not classified	176m	South East
7415792	Not classified	(Not classified) Not classified	Not classified	188m	South East
7415796	Not classified	(Not classified) Not classified	Not classified	246m	North West
7415812	Not classified	(Not classified) Not classified	Not classified	246m	West
7415801	Not classified	(Not classified) Not classified	Not classified	258m	West
7415768	Not classified	(Not classified) Not classified	Not classified	309m	North
7415770	Not classified	(Not classified) Not classified	Not classified	310m	North East
7415805	Not classified	(Not classified) Not classified	Not classified	348m	North West
7415468	Freshwater Wetlands	(Freshwater Wetlands) Southern Lower Floodplain Freshwater Wetland	Coastal Freshwater Lagoons	354m	North West
7415466	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Lower North Foothills Ironbark-Box-Gum Grassy Forest	Hunter-Macleay Dry Sclerophyll Forests	359m	South East
7415542	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Lower North Foothills Ironbark-Box-Gum Grassy Forest	Hunter-Macleay Dry Sclerophyll Forests	379m	West
7415794	Not classified	(Not classified) Not classified	Not classified	402m	South
7415797	Not classified	(Not classified) Not classified	Not classified	433m	South
7415947	Not classified	(Not classified) Not classified	Not classified	457m	South East
7415948	Not classified	(Not classified) Not classified	Not classified	486m	South East
7415951	Not classified	(Not classified) Not classified	Not classified	489m	South East
7415814	Not classified	(Not classified) Not classified	Not classified	500m	East
7415939	Not classified	(Not classified) Not classified	Not classified	500m	South East
7415946	Not classified	(Not classified) Not classified	Not classified	506m	South East
7415465	Freshwater Wetlands	(Freshwater Wetlands) Southern Lower Floodplain Freshwater Wetland	Coastal Freshwater Lagoons	510m	South East
7415467	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Lower North Foothills Ironbark-Box-Gum Grassy Forest	Hunter-Macleay Dry Sclerophyll Forests	516m	South East
7415942	Not classified	(Not classified) Not classified	Not classified	524m	South East
7415943	Not classified	(Not classified) Not classified	Not classified	546m	South East

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
7415940	Not classified	(Not classified) Not classified	Not classified	560m	South East
7415769	Not classified	(Not classified) Not classified	Not classified	566m	East
7415804	Not classified	(Not classified) Not classified	Not classified	600m	North East
7415938	Not classified	(Not classified) Not classified	Not classified	602m	South East
7415950	Not classified	(Not classified) Not classified	Not classified	605m	South East
7415817	Not classified	(Not classified) Not classified	Not classified	607m	North West
7415803	Not classified	(Not classified) Not classified	Not classified	608m	South
7415944	Not classified	(Not classified) Not classified	Not classified	639m	South East
7415819	Not classified	(Not classified) Not classified	Not classified	646m	North West
7415941	Not classified	(Not classified) Not classified	Not classified	650m	South East
7415808	Not classified	(Not classified) Not classified	Not classified	713m	South West
7415689	Not classified	(Not classified) Not classified	Not classified	725m	South
7415815	Not classified	(Not classified) Not classified	Not classified	726m	South West
7415945	Not classified	(Not classified) Not classified	Not classified	732m	South East
7415460	Freshwater Wetlands	(Freshwater Wetlands) Southern Lower Floodplain Freshwater Wetland	Coastal Freshwater Lagoons	735m	North
7415459	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Lower North Foothills Ironbark-Box-Gum Grassy Forest	Hunter-Macleay Dry Sclerophyll Forests	737m	North
7415793	Not classified	(Not classified) Not classified	Not classified	737m	South West
7415772	Not classified	(Not classified) Not classified	Not classified	772m	East
7415779	Not classified	(Not classified) Not classified	Not classified	799m	East
7415810	Not classified	(Not classified) Not classified	Not classified	811m	South West
7415470	Forested Wetlands	(Forested Wetlands) Coastal Creekflat Layered Grass-Sedge Swamp Forest	Coastal Floodplain Wetlands	831m	South East
7415691	Not classified	(Not classified) Not classified	Not classified	841m	South West
7415806	Not classified	(Not classified) Not classified	Not classified	852m	North East
7415807	Not classified	(Not classified) Not classified	Not classified	862m	South West
7415771	Not classified	(Not classified) Not classified	Not classified	872m	North
7415809	Not classified	(Not classified) Not classified	Not classified	881m	South West
7415471	Forested Wetlands	(Forested Wetlands) Coastal Creekflat Layered Grass-Sedge Swamp Forest	Coastal Floodplain Wetlands	896m	South East
7415813	Not classified	(Not classified) Not classified	Not classified	919m	South West
7415802	Not classified	(Not classified) Not classified	Not classified	951m	South West

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

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Ramsar Wetlands

What Ramsar Wetland areas exist within the dataset buffer?

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

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

Ecological Constraints

2 Settlers Boulevard, Chisholm, NSW 2322

Collaborative Australian Protected Areas Database - Terrestrial

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

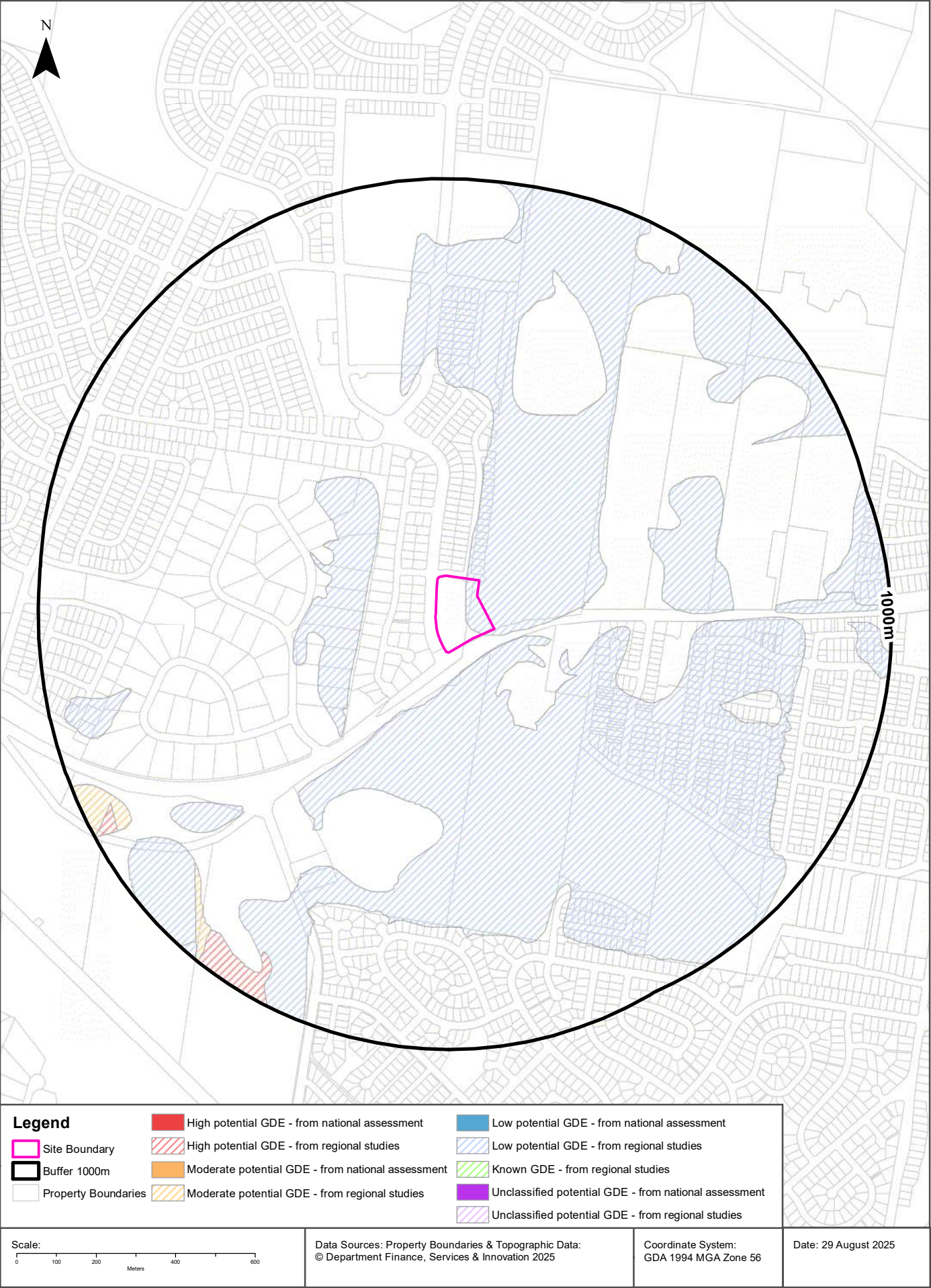
Map ID	Area Name	Area Details	Management Category	Authority	Jurisdiction	Dist	Dir
N/A	No records in buffer						

Collaborative Australian Protected Areas Database - Marine

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

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

Source: Collaborative Australian Protected Areas Database (CAPAD) 2022
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Ecological Constraints

2 Settlers Boulevard, Chisholm, NSW 2322

Groundwater Dependent Ecosystems Atlas

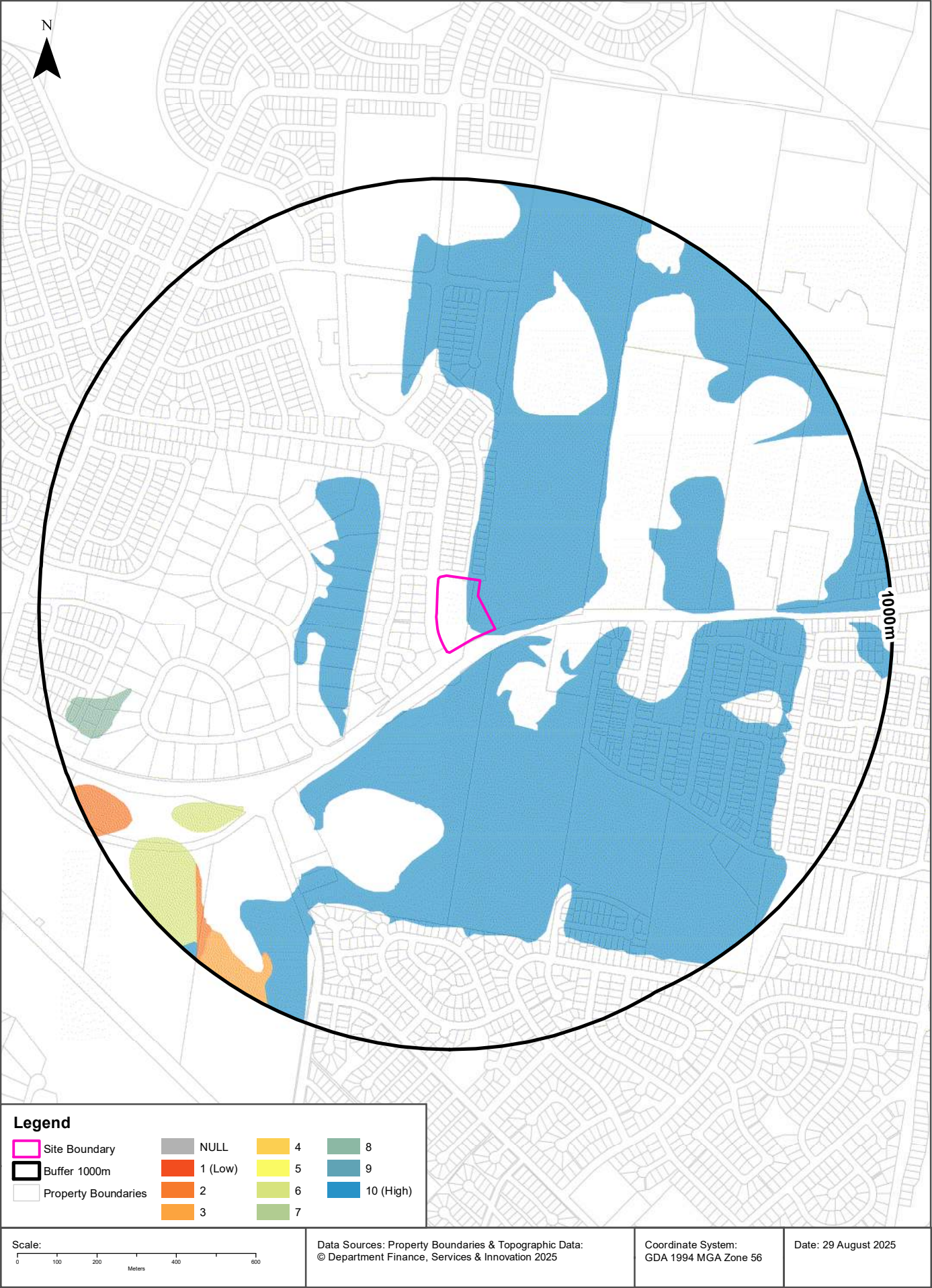
Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	Low potential GDE - from regional studies	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		0m	On-site
Terrestrial	Moderate potential GDE - from regional studies	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		824m	South West
Terrestrial	High potential GDE - from regional studies	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		883m	South West

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology

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Ecological Constraints - Inflow Dependent Ecosystems Likelihood

2 Settlers Boulevard, Chisholm, NSW 2322



Ecological Constraints

2 Settlers Boulevard, Chisholm, NSW 2322

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	10	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		0m	On-site
Terrestrial	6	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		644m	South West
Terrestrial	8	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		785m	West
Terrestrial	2	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		824m	South West
Terrestrial	3	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		883m	South West

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology

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Ecological Constraints

2 Settlers Boulevard, Chisholm, NSW 2322

NSW BioNet Species Sightings

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

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

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Crinia tinnula	Wallum Froglet	Not Sensitive	Vulnerable	Not Listed	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Not Sensitive	Endangered	Vulnerable	
Animalia	Amphibia	Uperoleia mahonyi	Mahony's Toadlet	Not Sensitive	Endangered	Endangered	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Amauornis moluccana	Pale-vented Bush-hen	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Anseranas semipalmata	Maggie Goose	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Category 2	Critically Endangered	Critically Endangered	
Animalia	Aves	Antigone rubicunda	Brolga	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardenna carneipes	Flesh-footed Shearwater	Not Sensitive	Vulnerable	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Ardenna pacifica	Wedge-tailed Shearwater	Not Sensitive	Not Listed	Not Listed	JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Arenaria interpres	Ruddy Turnstone	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Not Sensitive	Endangered	Endangered	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris canutus	Red Knot	Not Sensitive	Vulnerable	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ferruginea	Curlew Sandpiper	Not Sensitive	Critically Endangered	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris melanotos	Pectoral Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Calidris ruficollis	Red-necked Stint	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Category 3	Endangered	Endangered	
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black-Cockatoo (inland subspecies)	Category 2	Vulnerable	Not Listed	
Animalia	Aves	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo	Category 2	Vulnerable	Vulnerable	
Animalia	Aves	Charadrius veredus	Oriental Plover	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Chlidonias leucopterus	White-winged Black Tern	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Circus assimilis	Spotted Harrier	Not Sensitive	Vulnerable	Not Listed	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Cuculus optatus	Oriental Cuckoo	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Dromaius novaehollandiae	Emu	Not Sensitive	Endangered Population	Not Listed	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Not Sensitive	Endangered	Not Listed	
Animalia	Aves	Epthianura albifrons	White-fronted Chat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Falco subniger	Black Falcon	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Fregata minor	Great Frigatebird	Not Sensitive	Not Listed	Not Listed	CAMBA;JAMBA
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;JAMBA
Animalia	Aves	Gelochelidon nilotica	Gull-billed Tern	Not Sensitive	Not Listed	Not Listed	CAMBA
Animalia	Aves	Glareola maldivarum	Oriental Pratincole	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Hamirostra melanosternon	Black-breasted Buzzard	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Hydroprogne caspia	Caspian Tern	Not Sensitive	Not Listed	Not Listed	JAMBA
Animalia	Aves	Irediparra gallinacea	Comb-crested Jacana	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Not Sensitive	Endangered	Critically Endangered	
Animalia	Aves	Limosa lapponica	Bar-tailed Godwit	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Not Sensitive	Endangered	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Menura alberti	Albert's Lyrebird	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Motacilla flava	Yellow Wagtail	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Neochmia ruficauda	Star Finch	Not Sensitive	Extinct	Endangered	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Numenius madagascariensis	Eastern Curlew	Not Sensitive	Critically Endangered	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius minutus	Little Curlew	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Onychoprion fuscatus	Sooty Tern	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Oxyura australis	Blue-billed Duck	Not Sensitive	Vulnerable	Not Listed	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Pachycephala inornata	Gilbert's Whistler	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Pandion cristatus	Eastern Osprey	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Parvipsitta pusilla	Little Lorikeet	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Petroica phoenicea	Flame Robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Philomachus pugnax	Ruff	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Pluvialis fulva	Pacific Golden Plover	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Sensitive	Vulnerable	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Pterodroma leucoptera leucoptera	Gould's Petrel	Not Sensitive	Vulnerable	Endangered	
Animalia	Aves	Ptilinopus magnificus	Wompoo Fruit-Dove	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Ptilinopus regina	Rose-crowned Fruit-Dove	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Pyrrholaemus sagittatus	Speckled Warbler	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Rostratula australis	Australian Painted Snipe	Not Sensitive	Endangered	Endangered	
Animalia	Aves	Sterna hirundo	Common Tern	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Stictonetta naevosa	Freckled Duck	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Thalasseus bergii	Crested Tern	Not Sensitive	Not Listed	Not Listed	JAMBA
Animalia	Aves	Tringa glareola	Wood Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa nebularia	Common Greenshank	Not Sensitive	Endangered	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa stagnatilis	Marsh Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto longimembris	Eastern Grass Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Category 3	Vulnerable	Not Listed	
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Not Sensitive	Vulnerable	Endangered	
Animalia	Mammalia	Dasyurus viverrinus	Eastern Quoll	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Isodon obesulus obesulus	Southern Brown Bandicoot (eastern)	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Nyctophilus bifax	Eastern Long-eared Bat	Not Sensitive	Vulnerable	Not Listed	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	Petauroides volans	Southern Greater Glider	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Phascogale tapoatafa	Brush-tailed Phascogale	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Phascogale cinereus	Koala	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Pseudomys novaehollandiae	New Holland Mouse	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheath-tail-bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Vespadelus troungtoni	Eastern Cave Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Antaresia childreni	Children's Python	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Aspidites ramsayi	Woma	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Not Sensitive	Endangered	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Reptilia	Tiliqua occipitalis	Western Blue-tongued Lizard	Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Callistemon linearifolius	Netted Bottle Brush	Category 3	Vulnerable	Not Listed	
Plantae	Flora	Commersonia prostrata	Dwarf Kerrawang	Not Sensitive	Endangered	Endangered	
Plantae	Flora	Cymbidium canaliculatum	Tiger Orchid	Category 2	Endangered Population	Not Listed	
Plantae	Flora	Cynanchum elegans	White-flowered Wax Plant	Not Sensitive	Endangered	Endangered	
Plantae	Flora	Dillwynia tenuifolia		Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Diuris arenaria	Sand Doubletail	Category 2	Endangered	Not Listed	
Plantae	Flora	Eucalyptus camaldulensis	River Red Gum	Not Sensitive	Endangered Population	Not Listed	
Plantae	Flora	Eucalyptus glaucina	Slaty Red Gum	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus parramattensis subsp. decadens		Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Grevillea parviflora subsp. parviflora	Small-flower Grevillea	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Isotoma fluviatilis subsp. fluviatilis		Category 3	Not Listed	Extinct	
Plantae	Flora	Maundia triglochinoides		Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Persicaria elatior	Tall Knotweed	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Pterostylis chaetophora		Category 2	Vulnerable	Not Listed	
Plantae	Flora	Rhodamnia rubescens	Scrub Turpentine	Not Sensitive	Critically Endangered	Critically Endangered	
Plantae	Flora	Rhodomyrtus psidioides	Native Guava	Not Sensitive	Critically Endangered	Critically Endangered	
Plantae	Flora	Rutidosia heterogama	Heath Wrinklewort	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Not Sensitive	Vulnerable	Vulnerable	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Tetralochea juncea	Black-eyed Susan	Not Sensitive	Vulnerable	Vulnerable	

Source: NSW BioNet Species Sightings

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Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading “LC” or “LocConf”. These codes lookup to the following location confidences:

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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Appendix B

Photolog

 27 October 2025 at 2:29:30 pm AEDT 175° S Maitland	Plate 1 Description: The Site facing south. Date: 27.10.2025
 27 October 2025 at 2:29:49 pm AEDT 358° N Maitland	Plate 2 Description: The Site facing north. Date: 27.10.2025

	Plate 3 Description: The Site facing east. Date: 27.10.2025
	Plate 4 Description: The Site facing west. Date: 27.10.2025

**Plate 5****Description:**

TP01.

Date:

1.09.25

**Plate 6****Description:**

TP02.

Date:

1.09.25



Plate 7

Description:

TP03.

Date:

1.09.25



Plate 8

Description:

TP04.

Date:

1.09.25



Plate 9

Description:

TP05.

Date:

1.09.25



Plate 10

Description:

TP06.

Date:

1.09.25



Plate 11

Description:

TP07.

Date:

1.09.25



Plate 12

Description:

TP08.

Date:

1.09.25



Plate 13

Description:

TP09.

Date:

1.09.25

**Plate 14****Description:**

TP10.

Date:

1.09.25



Plate 15

Description:

TP11.

Date:

1.09.25



Plate 16

Description:

TP12.

Date:

1.09.25

Appendix C

HISTORICAL TITLES



ABN: 36 092 724 25

Summary of Owners Report

Address: - 2 Settlers Boulevard, Chisholm, NSW 2322

Description: - Lot 9120 D.P. 1295941

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
14.06.1887 (1887 to 1934)	John Joseph O'Brien (Farmer) (And his deceased estate)	Book 366 No. 70
12.04.1934 (1934 to 1953)	James Thomas O'Brien (Farmer)	Book 1687 No. 646 & Book 1687 No. 647
19.06.1953 (1953 to 1961)	Francis Herbert Hill (Cattle Dealer) (And his Bankrupt Estate)	Book 2255 No. 803
06.12.1961 (1961 to 1970)	Percy Clifford Bird (Hide and Skin Dealer)	Book 2603 No. 987
09.10.1970 (1970 to 2004)	Steggles Pty. Limited Now Steggles Poultry Pty Limited	Book 2991 No. 497 Now 1/1020387
26.07.2004 (2004 to 2006)	Blue Roack Developments Pty Limited Thornton Developments Pty Limited	1/1020387
21.12.2006 (2006 to 2007)	TRD (Thornton North) Pty Limited	1/1020387
17.01.2007 (2007 to 2017)	Maitland Nominee Holdings Pty Ltd	1/1020387 Then Intervening Titles Not Investigated Now 4/1220220
29.08.2017 (2017 to Date)	# Avid Residential Estates Pty Ltd	4/1220220 Then Intervening Titles Not Investigated Now 9120/1295941

Denotes current registered proprietor(s)

Leases: - NIL

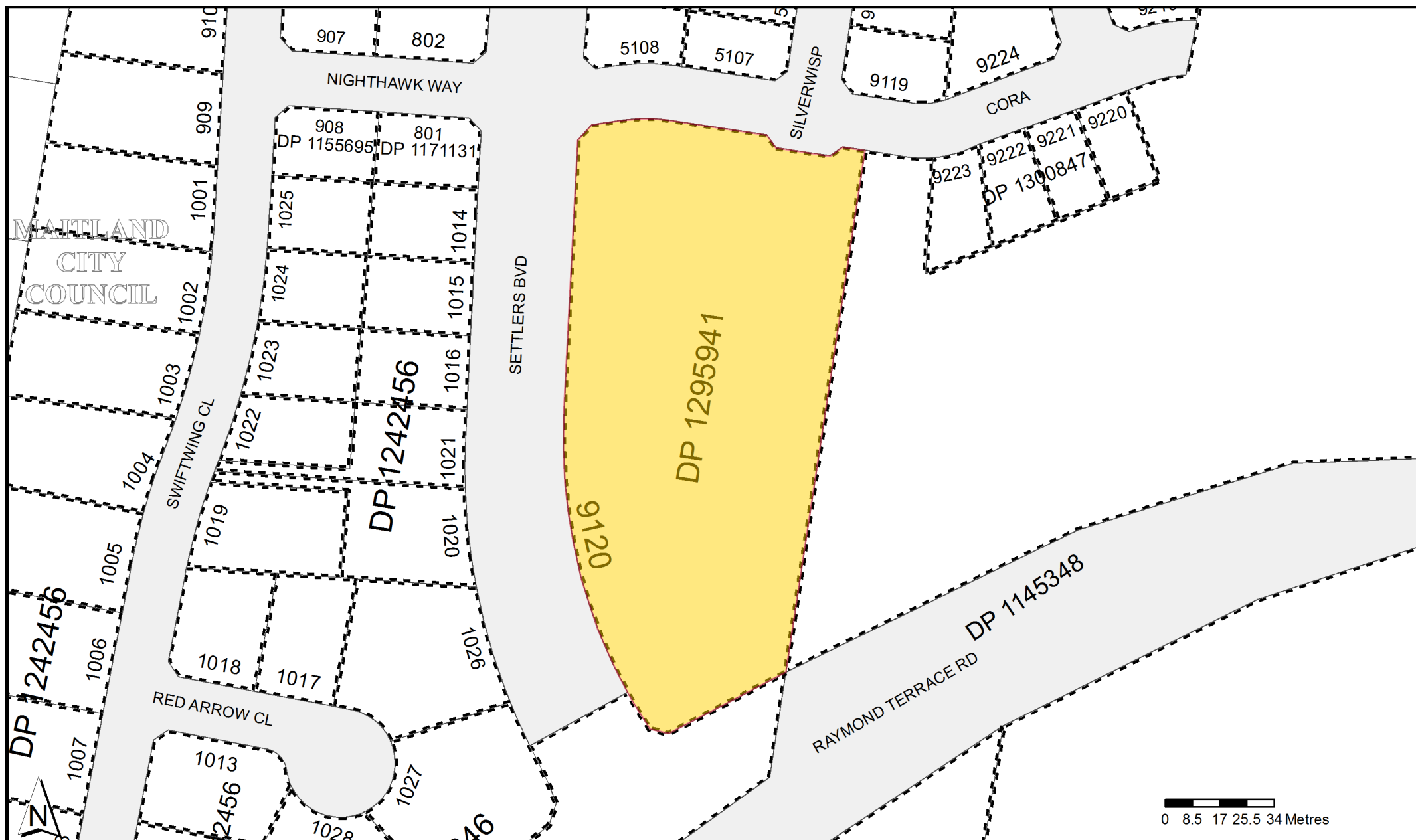
Easements: -

- 17.08.2010 (D.P. 1150600): Easement for electricity and other purposes 3.3 metre(s) wide affecting the part(s) shown so burdened in the title diagram.
- 07.06.2019 (D.P. 1246095): Easement for pipeline 6 metre(s) wide and variable affecting the part(s) shown so burdened in the title diagram.

Yours Sincerely,
Taylor Wilson
8th September 2025

Email: SpecialisedServices@infotrack.com.au

3 Point Check: **MG**



MARK	MGA CO-ORDINATES		CLASS	PU	METHOD	STATE
	EASTING	NORTHING				
SSM 58479	372 623.871	6 374 103.791	B	0.02	SCIMS	FOUND
SSM 165216	372 738	6 375 475	U	-	SCIMS	FOUND
SSM 168540	372 304.113	6 374 313.370	D	-	SCIMS	FOUND
SSM 171226	372 199.480	6 374 345.754	C	-	SCIMS	FOUND
SSM 171229	372 183.148	6 374 188.630	C	-	SCIMS	FOUND
SSM 171230	372 225.652	6 373 972.792	C	-	SCIMS	FOUND
SSM 171233	372 213.711	6 374 498.692	C	-	SCIMS	FOUND
SSM 177406	371 952.817	6 374 957.530	C	-	SCIMS	FOUND
SSM 184338	372 192.197	6 374 691.058	B	0.02	SCIMS	FOUND
SSM 184339	372 195.373	6 374 918.082	C	-	SCIMS	FOUND
SSM 193597	372 281.920	6 374 655.211	C	-	TRAVERSE	FOUND
SSM 193679	372 457	6 375 244	U	-	SCIMS	FOUND
SSM 193680	372 485	6 375 458	U	-	SCIMS	FOUND
SSM 193729	372 273.820	6 374 195.323	D	-	TRAVERSE	FOUND
SSM 193730	372 314.404	6 374 404.230	D	-	TRAVERSE	FOUND
SSM 193731	372 301.722	6 374 501.156	D	-	TRAVERSE	PLACED
SSM 193732	372 341.242	6 374 601.695	D	-	TRAVERSE	PLACED

DATE OF SCIMS COORDINATES: 16 AUGUST 2024

MGA ZONE: 56

MGA DATUM: GDA2020

COMBINED SCALE FACTOR: 0.999793

The diagram illustrates a land subdivision with several roads and easements. Key roads include Raymond Terrace, Greenling Drive, Settlers Drive, and Territoria Place. The subdivision is bounded by a railway line to the south and a road to the east. Various survey points (SSM, RMGIP, VORFP) and easements (A, E, F, X, Y, C, J, K) are marked. The diagram also shows a proposed easement for a pipeline (X) and a proposed easement for electricity transmission (Y). The scale is 1:600.

Legend:

- (A) EASEMENT TO DRAIN WATER 1.5 WIDE
- (E) EASEMENT FOR DRAINAGE OF WATER 6 WIDE AND VARIABLE WIDTH
- (F) BENEFITED BY (B) EASEMENT TO DRAIN WATER 2 WIDE
- (X) PROPOSED EASEMENT FOR PIPELINE VARIABLE WIDTH (DP 1276454)
- (Y) PROPOSED EASEMENT FOR ELECTRICITY TRANSMISSION LINE AND ACCESS THERETO 5 WIDE (DP 1054639)
- (C) EASEMENT FOR PIPELINE 6 WIDE AND VARIABLE (DP1246095)
- (K) EASEMENT FOR ELECTRICITY AND OTHER PURPOSES 3.3 WIDE (DP1150600)

Table of MGA Coordinates:

MARK	EASTING	NORTHING	CLASS	PU	METHOD	STATE
SSM 58479	372 623.871	6 374 103.791	B	0.02	SCIMS	FOUND
SSM 165216	372 738	6 375 475	U	-	SCIMS	FOUND
SSM 168540	372 304.113	6 374 313.370	D	-	SCIMS	FOUND
SSM 171226	372 199.480	6 374 345.754	C	-	SCIMS	FOUND
SSM 171229	372 183.148	6 374 188.630	C	-	SCIMS	FOUND
SSM 171230	372 225.652	6 373 972.792	C	-	SCIMS	FOUND
SSM 171233	372 213.711	6 374 498.692	C	-	SCIMS	FOUND
SSM 177406	371 952.817	6 374 957.530	C	-	SCIMS	FOUND
SSM 184338	372 192.197	6 374 691.058	B	0.02	SCIMS	FOUND
SSM 184339	372 195.373	6 374 918.082	C	-	SCIMS	FOUND
SSM 193597	372 281.920	6 374 655.211	C	-	TRAVERSE	FOUND
SSM 193679	372 457	6 375 244	U	-	SCIMS	FOUND
SSM 193680	372 485	6 375 458	U	-	SCIMS	FOUND
SSM 193729	372 273.820	6 374 195.323	D	-	TRAVERSE	FOUND
SSM 193730	372 314.404	6 374 404.230	D	-	TRAVERSE	FOUND
SSM 193731	372 301.722	6 374 501.156	D	-	TRAVERSE	PLACED
SSM 193732	372 341.242	6 374 601.695	D	-	TRAVERSE	PLACED

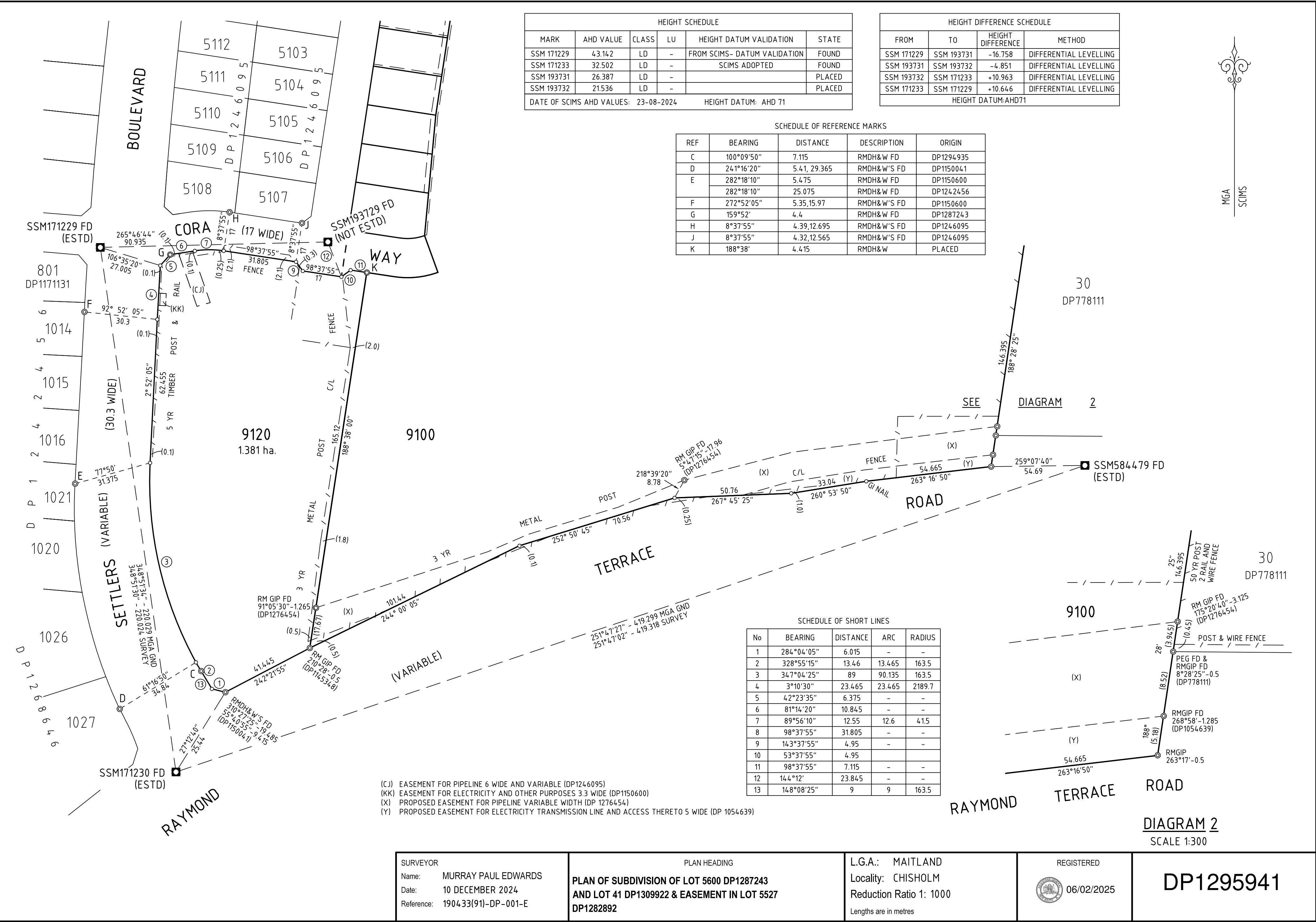
DATE OF SCIMS COORDINATES: 16 AUGUST 2024

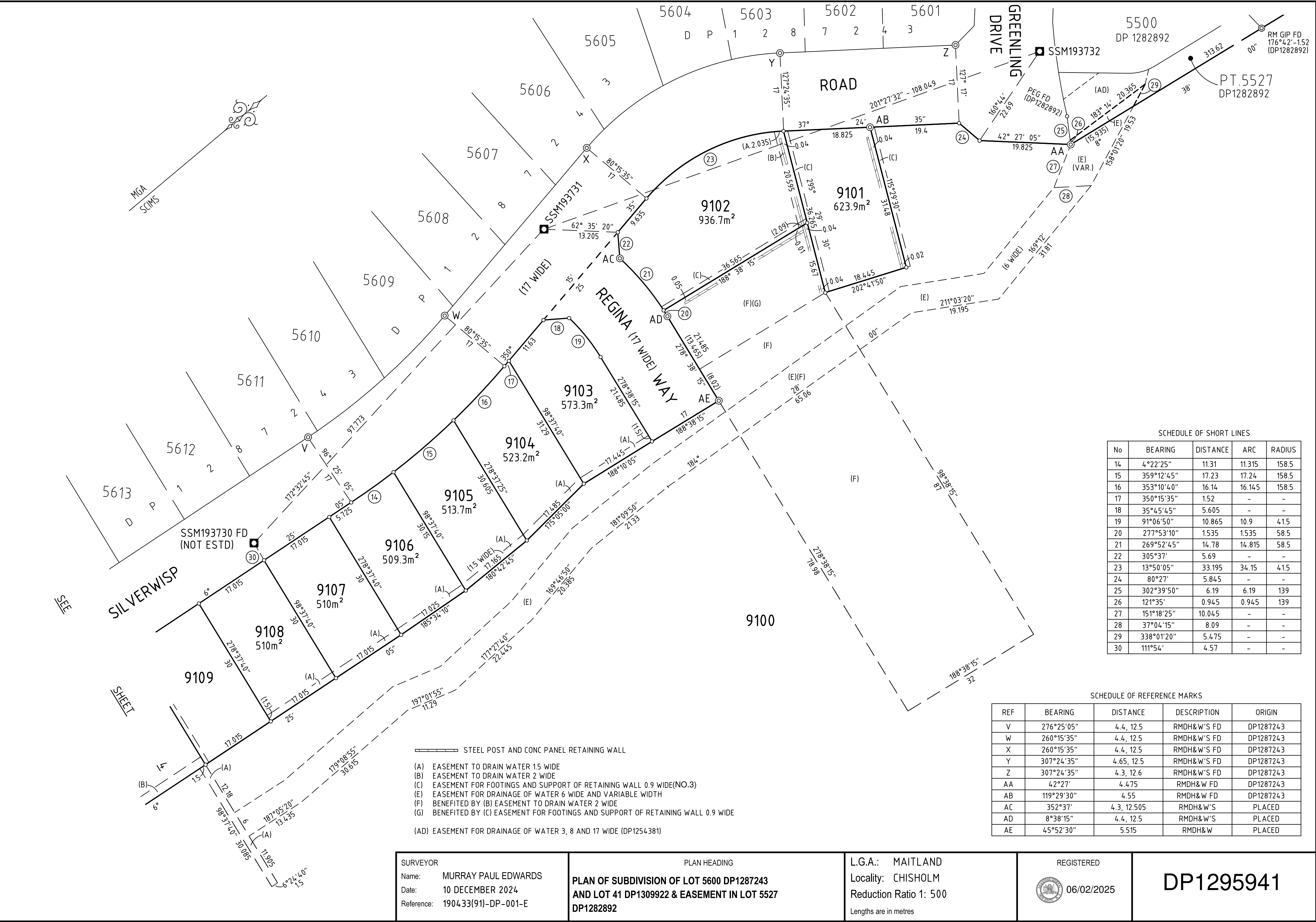
MGA ZONE: 56

MGA DATUM: GDA2020

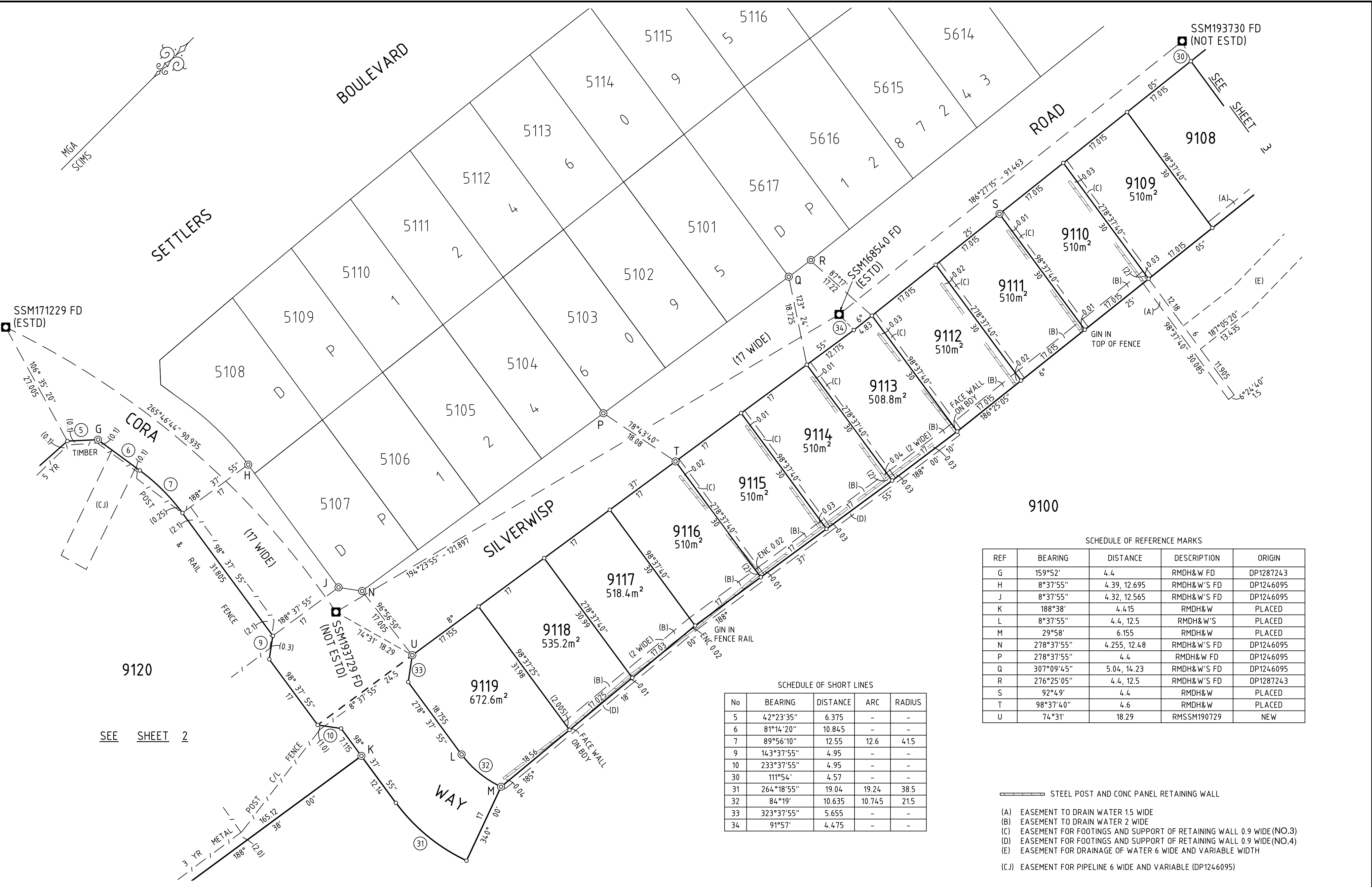
COMBINED SCALE FACTOR: 0.999793

Req:R886910 /Doc:1295941 P /Rev:06-Feb-2025 /NSW LRS /Prt:08-Sep-2025 08:54 /Seq:1 of 7
© Office of the Registrar-General /Src:InfoTrack /Ref:2 Settlers Boulevard Chisholm





Req:R886910 /Doc:DP 1295941 P /Rev:06-Feb-2025 /NSW LRS /Prt:08-Sep-2025 08:54 /Seq:3 of 7
© Office of the Registrar-General /Src:InfoTrack /Ref:2 Settlers Boulevard, Chisholm



SURVEYOR Name: MURRAY PAUL EDWARDS Date: 10 DECEMBER 2024 Reference: 190433(91)-DP-001-E	PLAN HEADING PLAN OF SUBDIVISION OF LOT 5600 DP1287243 AND LOT 41 DP1309922 & EASEMENT IN LOT 5527 DP1282892	L.G.A.: MAITLAND Locality: CHISHOLM Reduction Ratio 1: 500 Lengths are in metres	REGISTERED  06/02/2025	DP1295941
--	--	--	---	----------------------

PLAN FORM 6 (2020)		DEPOSITED PLAN ADMINISTRATION SHEET		SHEET 1 OF 3 SHEET(S)	
Registered:  06/02/2025		Office Use Only		Office Use Only	
Title System: TORRENS		DP1295941			
PLAN OF SUBDIVISION OF LOT 5600 DP1287243 AND LOT 41 DP1309922 & EASEMENT IN LOT 5527 DP1282892		LGA: MAITLAND Locality: CHISHOLM Parish: ALNWICK County: NORTHUMBERLAND			
Survey Certificate I, MURRAY PAUL EDWARDS of ADW JOHNSON PTY LIMITED 7/335 HILLSBOROUGH ROAD, WARNERS BAY, NSW 2282 a surveyor registered under the <i>Surveying and Spatial Information Act 2002</i>, certify that: *(a) The land shown in the plan was surveyed in accordance with the <i>Surveying and Spatial Information Regulation 2017</i>, is accurate and the survey was completed on 10 DECEMBER 2024, or *(b) The part of the land shown in the plan (*being/*excluding ** was surveyed in accordance with the <i>Surveying and Spatial Information Regulation 2017</i>, the part surveyed is accurate and the survey was completed on 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 <i>Surveying and Spatial Information Regulation 2017</i>. Datum Line: 'A' - 'B' Type: *Urban/*Rural The terrain is *Level Undulating / *Steep Mountainous. Signature:  Dated: 12-12-2024. Surveyor Identification No: SU 000084 Surveyor registered under the <i>Surveying and Spatial Information Act 2002</i> *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, BEN SCHAFER..... *Authorised Person/*General Manager/*Accredited Certifier, certify that the provisions of s.6.15 of the <i>Environmental Planning and Assessment Act 1979</i> have been satisfied in relation to the proposed subdivision, new road or reserve set out herein. Signature:  Registration number: Consent Authority: MAITLAND CITY COUNCIL Date of endorsement: 3 February 2025 Subdivision Certificate number: SC/2025/1 File number: DA/2021/1662 *Strike through if inapplicable. AUTHORISED OFFICER Electronic signature of me, Ben Schaffer affixed by me or at my direction on 3 February 2025			
Plans used in the preparation of survey / compilation:		Statements of intention to dedicate public roads, create public reserves and drainage reserves, acquire/resume land.			
DP 1145348 DP 1150041 DP 1150600 DP 1246095 DP 1242456 DP 1282892 DP 1287243 DP 1294935 DP 1309922		IT IS INTENDED TO DEDICATE REGINA WAY AND THE EXTENSION OF CORA WAY TO THE PUBLIC AS PUBLIC ROAD.			
		If space insufficient continue on PLAN FORM 6A			
Surveyor's Reference: 190433(91)-DP-001-E		Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A			

PLAN FORM 6A (2019)

DEPOSITED PLAN ADMINISTRATION SHEET

SHEET 2 OF 3 SHEET(S)

Registered:



06/02/2025

Office Use Only

PLAN OF SUBDIVISION OF LOT 5600 DP1287243
AND LOT 41 DP1309922 & EASEMENT IN LOT 5527
DP1282892

DP1295941

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

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- 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.

Subdivision Certificate Number: . . . SC/2025/1

Date of Endorsement: . . . 3 February 2025

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

(A) CREATE:-

- EASEMENT TO DRAIN WATER 1.5 WIDE (A)
- EASEMENT TO DRAIN WATER 2 WIDE (B)
- EASEMENT FOR FOOTINGS AND SUPPORT OF RETAINING WALL 0.9 WIDE (C)
- EASEMENT FOR FOOTINGS AND SUPPORT OF RETAINING WALL 0.9 WIDE (D)
- EASEMENT FOR DRAINAGE OF WATER 6 WIDE AND VARIABLE WIDTH (E)
- RESTRICTION ON THE USE OF LAND

(B) RELEASE:-

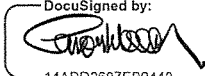
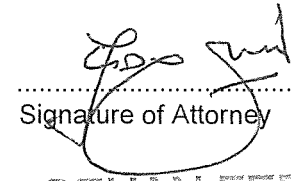
- RIGHT OF ACCESS 17 WIDE (DP 1246095)
- EASEMENT FOR SERVICES 17 WIDE (DP 1246095)

CLAUSE 60(C) OF THE SURVEYING AND SPATIAL INFORMATION REGULATION 2017				
LOT	STREET No.	STREET NAME	STREET TYPE	LOCALITY
9100	487	RAYMOND TERRACE	ROAD	CHISHOLM
9101	38	SILVERWISP	ROAD	CHISHOLM
9102	1	REGINA	WAY	CHISHOLM
9103	34	SILVERWISP	ROAD	CHISHOLM
9104	32	SILVERWISP	ROAD	CHISHOLM
9105	30	SILVERWISP	ROAD	CHISHOLM
9106	28	SILVERWISP	ROAD	CHISHOLM
9107	26	SILVERWISP	ROAD	CHISHOLM
9108	24	SILVERWISP	ROAD	CHISHOLM
9109	22	SILVERWISP	ROAD	CHISHOLM
9110	20	SILVERWISP	ROAD	CHISHOLM
9111	18	SILVERWISP	ROAD	CHISHOLM
9112	16	SILVERWISP	ROAD	CHISHOLM
9113	14	SILVERWISP	ROAD	CHISHOLM
9114	12	SILVERWISP	ROAD	CHISHOLM
9115	10	SILVERWISP	ROAD	CHISHOLM
9116	8	SILVERWISP	ROAD	CHISHOLM
9117	6	SILVERWISP	ROAD	CHISHOLM
9118	4	SILVERWISP	ROAD	CHISHOLM
9119	2	SILVERWISP	ROAD	CHISHOLM
9120	2	SETTLERS	BOULEVARD	CHISHOLM

If space insufficient use additional annexure sheet

Surveyor's Reference: 190433(91)-DP-001-E

Docusign Envelope ID: F651DCD0-78C1-44B8-AC77-80450A96772E

PLAN FORM 6A (2019)		DEPOSITED PLAN ADMINISTRATION SHEET		SHEET 3 OF 3 SHEET(S)	
Registered:  06/02/2025		Office Use Only		Office Use Only	
PLAN OF SUBDIVISION OF LOT 5600 DP1287243 AND LOT 41 DP1309922 & EASEMENT IN LOT 5527 DP1282892		DP1295941			
Subdivision Certificate Number: . . . SC/2025/1		This sheet is for the provision of the following information as required: • A schedule of lots and addresses - See 60(c) <i>SSI Regulation 2017</i> • Statements of intention to create and release affecting interests in accordance with section 88B <i>Conveyancing Act 1919</i> • Signatures and seals- see 195D <i>Conveyancing Act 1919</i> • Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.			
Date of Endorsement: . . . 3 February 2025					
Executed by AVID RESIDENTIAL ESTATES PTY LTD ACN 054 228 929 in accordance with Section 127 of the Corporations Act 2001 in the presence of: DocuSigned by:  14ADD3607EBB440..... Director CAMERON HOLT 3/2/2025 Signed by:  92628D5BA4F9425..... Company Secretary RICHARD AMOS 3/2/2025					
Executed by ANZ FIDUCIARY SERVICES PTY LTD ACN 100 709 493 by its attorney pursuant to Power of Attorney registered Book 4711 No. 227 and the Attorney declares that the Attorney has not received any notice of revocation of such Power of Attorney.  Signature of Witness Jonathan Castellias Name of Witness LEVEL 3A, 833 COLLINS STREET DOCKLANDS VIC 3008..... Address of Witness  Signature of Attorney GEHAN FERNANDO Name of Attorney LEVEL 3A, 833 COLLINS STREET DOCKLANDS VIC 3008..... Address of Attorney					
If space insufficient use additional annexure sheet					
Surveyor's Reference: 190433(91)-DP-001-E					



SEARCH DATE

8/9/2025 8:55AM

FOLIO: 1/1020387

First Title(s): OLD SYSTEM

Prior Title(s): BK 2991 NO 497

Recorded	Number	Type of Instrument	C.T. Issue
-----	-----	-----	-----
27/11/2000	DP1020387	DEPOSITED PLAN	FOLIO CREATED EDITION 1
27/11/2000	CA83604	CONVERSION ACTION	
30/4/2002	8465492	TRANSFER OF MORTGAGE	EDITION 2
13/6/2003	DP1053679	DEPOSITED PLAN	EDITION 3
3/12/2003	AA217605	TRANSFER OF MORTGAGE	
26/7/2004	AA801726	DISCHARGE OF MORTGAGE	
26/7/2004	AA801728	TRANSFER	
26/7/2004	AA801729	MORTGAGE	EDITION 4
5/10/2005	AB814538	DISCHARGE OF MORTGAGE	
5/10/2005	AB814540	MORTGAGE	EDITION 5
7/6/2006	AC358143	CAVEAT	
13/12/2006	AC809629	CAVEAT	
21/12/2006	AC828324	DISCHARGE OF MORTGAGE	
21/12/2006	AC828325	TRANSFER	
21/12/2006	AC828326	MORTGAGE	
21/12/2006	AC828327	REQUEST	EDITION 6
3/1/2007	AC840584	WITHDRAWAL OF CAVEAT	
3/1/2007	AC840585	MORTGAGE	EDITION 7
17/1/2007	AC865575	TRANSFER	EDITION 8
27/3/2007	AD17280	CAVEAT	
26/4/2007	AD25076	APPLICATION FOR PREPARATION OF LAPSING NOTICE	
26/4/2007	AD71783	WITHDRAWAL OF CAVEAT	
30/4/2007	DP1108020	DEPOSITED PLAN	EDITION 9
17/12/2007	AD643187	APPLICATION FOR REPLACEMENT	EDITION 10

END OF PAGE 1 - CONTINUED OVER

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

8/9/2025 8:55AM

FOLIO: 1/1020387

PAGE 2

Recorded -----	Number -----	Type of Instrument ----- CERTIFICATE OF TITLE	C.T. Issue -----
27/12/2007	AD664112	DISCHARGE OF MORTGAGE	EDITION 11
27/5/2008	DP1126415	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

2 Settlers Boulevard, Chisholm...

PRINTED ON 8/9/2025

Form: 01T
Licence: 01-08-067
Licensee: Midware Systems
HEARD McEWAN LAWYERS

TRANSFER
New South Wales
Real Property Act 1900

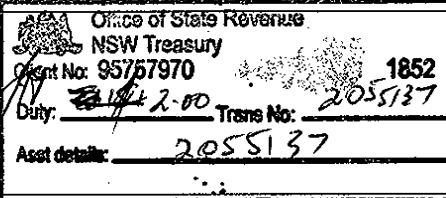
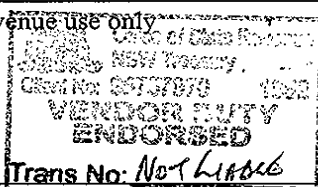


AA801728D

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY

Office of State Revenue use only



(A) TORRENS TITLE

If appropriate, specify the part transferred

Folio Identifier 43/1009594, 1/1020387, 1/1020389 and 1/1020710

(B) LODGED BY

Delivery
Box

Name, Address or DX and Telephone

**HOLMAN WEBB
DX 233 SYDNEY
L.T.O. BOX 406T**

CODE

**T
TW**
(Sheriff)

Reference (optional):

VIVI 104/39

(C) TRANSFEROR

STEGGLES POULTRY PTY LIMITED (ACN 000 011 156)

OVER

SEE ANNEXURE 'A'

(D) CONSIDERATION

The transferor acknowledges receipt of the consideration of \$ 12,000,000.00

and as regards

(E) ESTATE

the land specified above transfers to the transferee an estate in fee simple.

**(F) SHARE
TRANSFERRED**

(G)

Encumbrances (if applicable):

(H) TRANSFEREE

**BLUE ROCK DEVELOPMENTS PTY LIMITED (ACN 101 204 925) as to a 65/100 share and
THORNTON DEVELOPMENTS PTY LIMITED (ACN 102 623 405) as to a 35/100 share**

(I)

TENANCY: Tenants in Common

(J) DATE

8 / 7 / 2004

Certified correct for the purposes of the Real Property Act 1900
and executed on behalf of the corporation named below by the
authorised person(s) whose signature(s) appear(s) below
pursuant to the authority specified.

Corporation: STEGGLES POULTRY PTY LIMITED (ACN 000
011 156)

Authority: Section 127 of the Corporations Act 2001

Signature of authorised person:

Name of authorised person:

PETER JOHN BARTER
DIRECTOR

Office held:

Signature of authorised person:

Name of authorised person:

ALAN FRANCIS HOHNEN
SECRETARY

Office held:

Certified correct for the purposes of the Real Property Act
1900 by the person whose signature appears below.

Signature:

Signatory's name: MALCOLM JOHN HEARD

Signatory's capacity: Solicitor for the transferee

Sm 13
E 13

[illegible][illegible]



Form: 01T
Licence: 03-10-204
Licensee: Gadens Lawyers

(5)

TRANSFER

New South Wales
Real Property Act 1900

AC828325B

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY

Office of State Revenue use only

NEW SOUTH WALES DUTY
08-12-2006 0003929083-001
SECTION 18(2)
DUTY \$ *****2.00

(A) TORRENS TITLE

If appropriate, specify the part transferred. ✓

12/603613, 43/1009594, 1/1020387, 1/1020710 and 1/1020389

(B) LODGED BY

Delivery Box

Name, Address or PO Address

**HOLMAN WEBB
DX 233 SYDNEY
L.T.O. BOX 406T**

123279L

CODES

T

TW

(Sheriff)

Reference (optional): SXH/2647126 SUN 254/1081

(C) TRANSFEROR

Blue Rock Developments Pty Limited ACN 101 204 924 and Thornton Developments Pty Limited
ACN 102 623 405

(D) CONSIDERATION

Pursuant to Contract for Sale of Land dated 5/12/06

The transferor acknowledges pursuant to a Deed of Retirement & Appointment

(E) ESTATE

of Manager and as regards the land specified above transfers to the transferee an estate in fee simple. X

(F) SHARE TRANSFERRED

(G)

Encumbrances (if applicable): 1. 2. 3.

(H) TRANSFEREE

TRD (Thornton North) Pty Limited ACN 119 932 482

(I)

TENANCY:

DATE

13 / 12 / 06
dd mm yy

- (J) Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Corporation: Blue Rock Developments Pty Limited ACN 101 204 924

Authority: Section 127 Corporations Act

Signature of authorised person:

John Carson

Name of authorised person: John Carson

Office held: Director

Signature of authorised person:

Larry King

Name of authorised person: Larry King

Office held: Director

Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Corporation: Thornton Developments Pty Limited ACN 102 623 405

Authority: Section 127 Corporations Act

Signature of authorised person:



Name of authorised person: Alex Popov

Office held: Director

Signature of authorised person:



Name of authorised person: Peter Taranto

Office held: Director

I certify that the transferee, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this transfer in my presence.

Signature of witness:

Name of witness:

Address of witness:

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferee:



If signed on the transferee's behalf by a solicitor, licensed conveyancer or barrister, insert the signatory's full name and capacity below:

STEVE HEALY
SOLICITOR
GADENS LAWYERS



Our reference
Direct line
Email
Partner responsible

Mayank Gupta 2648123
9931 4778
mgupta@nsw.gadens.com.au
Paul Armstrong

Gadens Lawyers
Sydney Pty Limited
ABN 69 100 963 308

Skygarden Building
77 Castlereagh Street
Sydney NSW 2000
Australia

DX 364 Sydney

tel +61 2 9931 4999
fax +61 2 9931 4888

www.gadens.com.au

13 December 2006

By Hand Delivery

The Registrar - General
The Department of Lands
1 Prince Albert Road
SYDNEY NSW 2000

Dear Registrar

Registered proprietor	Blue Rock Developments Pty Limited and Thornton Developments Pty Limited
Property	439-477 Raymond Terrace Road and 321-329 McFarlanes Road, Thornton, NSW
Folio identifier	12/603613, 43/1009594, 1/1020387, 1/1020389, 1/1020710
Caveator	Maitland Development Co Pty Ltd
Caveat Number	

We act for Maitland Development Co Pty Ltd, the caveator over the above property.

The caveator consents to the registration of the following documents.

1. Transfer from Blue Rock Developments Pty Limited and Thornton Developments Pty Limited to TRD (Thornton North) Pty Limited.
2. Discharge of Mortgage AB814540.
3. Withdrawal of Caveat AC358143.
5. ~~4.~~ Register of Mortgage by Challenger Challenger Life No. 2 Limited.
4. ~~5.~~ Register of Mortgage by Suncorp-Metway Limited.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Mayank Gupta'.

Mayank Gupta
for GADENS LAWYERS

3/3

Form: 01T
Licence: 03-10-204
Licensee: Gadens Lawyers

(5)

TRANSFEE
New South Wales
Real Property Act 1900



AC865575R

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authenticates the information provided on this form for the establishment and maintenance of the Real Property Register. The Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY

Office of State Revenue use only

NEW SOUTH WALES DUTY

15-12-2006

0003945838-001

SECTION 54(3)

DUTY

\$ *****10.00

(A) TORRENS TITLE

If appropriate, specify the part transferred.

12/603613, 43/1009594, 1/1020387, 1/1020710 and 1/1020389

(B) LODGED BY

Delivery Box

Name, Address and Telephone

**HOLMAN WEBB
DX 233 SYDNEY
L.T.O. BOX 406T**

CODES

T

TW

(Sheriff)

Reference (optional): SXH/264726 SUN 254/1081

(C) TRANSFEROR

TRD (Thornton North) Pty Limited ABN 39 091 336 793

(D) CONSIDERATION

The transferor acknowledges pursuant to a Deed of Retirement & Appointment

(E) ESTATE

of Manager and as regards the land specified above transfers to the transferee an estate in fee simple.

(F) SHARE TRANSFERRED

(G)

Encumbrances (if applicable): 1. AC 828326 2. AC 840585 3.

(H) TRANSFEREE

Maitland Nominee Holdings Pty Limited ACN 122 853 144

(I)

TENANCY:

DATE

14 / 12 / 06
dd mm yy

(J) I certify that the transferor, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this transfer in my presence.

~~Signature of witness:~~

~~Name of witness:~~

~~Address of witness:~~

*Executed by the transferor
pursuant to Section 127 of
the Corporations Act in
the presence of:-*

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

Maurice Canill
Sole Director & Secretary
OREGON MAURICE CANILL
Certified correct for the purposes of the Real Property Act 1900 by the transferee.

Signature:

Signatory's name: *STEPHEN HEALY*

Signatory's capacity: solicitor for transferee

Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Corporation:



SEARCH DATE

8/9/2025 9:01AM

FOLIO: 4/1220220

First Title(s): OLD SYSTEM

Prior Title(s): 812/1171131

Recorded	Number	Type of Instrument	C.T. Issue
16/8/2016	DP1220220	DEPOSITED PLAN	FOLIO CREATED EDITION 1
17/3/2017	AM230466	REQUEST	EDITION 2
30/3/2017	AM271594	DISCHARGE OF MORTGAGE	EDITION 3
29/8/2017	AM682852	TRANSFER	EDITION 4
24/10/2017	AM818200	MORTGAGE	EDITION 5
8/3/2019	AP99871	RELEASE OR EXTINGUISHMENT OF POSITIVE COVENANT	EDITION 6
7/6/2019	DP1246095	DEPOSITED PLAN	FOLIO CANCELLED RESIDUE REMAINS

*** END OF SEARCH ***

Form: 01T
Release: 6-1

TRANSFER

New South Wales
Real Property Act 1900



AM682852K

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar to collect, use and disclose information for the establishment and maintenance of the Real Property Act. The Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY

Office of State Revenue use only

Class No.	1411509	3798
Duty	\$10	Trans No 9154890001
Asst details: <i>Stamp Duty Paid</i>		

(A) TORRENS TITLE

4/1222785, 5/1222785, 4/1220220, 5/1220220, 2531/1224018, 2532/1224018, 2029/1213486, 2425/1224017, 2426/1224017, 1/1020710, 43/1009594, 720/1210544

(B) LODGED BY

Document Collection Box 256L	Name, Address or DX, Telephone, and Customer Account Number if any LLPN 123167 X CITY AGENTS DX 1293 SYDNEY 22 9232 2077	CODES T TW
Reference: AVR 107		

(C) TRANSFEROR

Maitland Nominee Holdings Pty Ltd ACN 122 853 114

(D) CONSIDERATION

The transferor acknowledges receipt of the consideration of \$ 25,180,000.00 and as regards

(E) ESTATE

the abovementioned land transfers to the transferee an estate in fee simple

(F) SHARE TRANSFERRED

(G) ENCUMBRANCES (if applicable):

(H) TRANSFEREE

Avid Residential Estates Pty Ltd ACN 054 228 929

(I) TENANCY:

DATE **28 NOV 2017**

(J) Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the company named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Company: Maitland Nominee Holdings Pty Ltd ACN 122 853 114
Authority: section 127 of the Corporations Act 2001

Signature of authorised person:

Name of authorised person: **Christopher Pak**
Office held: **DIRECTOR**

Signature of authorised person:

Name of authorised person: **Andrew Brown**
Office held: **Secretary**

Certified correct for the purposes of the Real Property Act 1900 on behalf of the transferee by the person whose signature appears below.

Signature:

Signatory's name: **Nicole Bannerman**
Signatory's capacity: **solicitor**

(K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. **1371164** Full name: **Nicole Bannerman** Signature:



SEARCH DATE

8/9/2025 8:54AM

FOLIO: 9120/1295941

First Title(s): OLD SYSTEM

Prior Title(s): 5600/1287243

Recorded	Number	Type of Instrument	C.T. Issue
6/2/2025	DP1295941	DEPOSITED PLAN	FOLIO CREATED EDITION 1
7/2/2025	AU809880	DEPARTMENTAL DEALING	EDITION 2
5/8/2025	DP1300847	DEPOSITED PLAN	EDITION 3

*** END OF SEARCH ***



FOLIO: 9120/1295941

SEARCH DATE	TIME	EDITION NO	DATE
8/9/2025	8:51 AM	3	5/8/2025

LAND

LOT 9120 IN DEPOSITED PLAN 1295941

AT CHISHOLM

LOCAL GOVERNMENT AREA MAITLAND

PARISH OF ALNWICK COUNTY OF NORTHUMBERLAND

TITLE DIAGRAM DP1295941

FIRST SCHEDULE

AVID RESIDENTIAL ESTATES PTY LTD

SECOND SCHEDULE (5 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 AM818200 MORTGAGE TO ANZ FIDUCIARY SERVICES PTY LIMITED
- 3 DP1150600 EASEMENT FOR ELECTRICITY AND OTHER PURPOSES 3.3
METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED
IN THE TITLE DIAGRAM
- 4 DP1246095 EASEMENT FOR PIPELINE 6 METRE(S) WIDE AND VARIABLE
AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE
DIAGRAM
- 5 DP1300847 EASEMENT FOR FOOTING AND SUPPORT OF RETAINING WALL
0.9 METRE(S) WIDE REFERRED TO AND NUMBERED (3) IN THE
S.88B INSTRUMENT APPURTENANT TO THE LAND ABOVE
DESCRIBED

NOTATIONS

UNREGISTERED DEALINGS: PP DP1247458.

*** END OF SEARCH ***

Appendix D

Soil Logs

Remarks:

Engineering Log - Test Pit

Client		AVID Residential Estate Pty Ltd C/- ADW Johnson Pty Ltd				Project No.		EP4322				
Project		Waterford				Logged By		MC				
Location		Settlers Boulevard, Chisholm NSW				Checked By		OP				
Started Excavation		1.9.25		Northing		6374103.00		Slope		90°		
Completed Excavation		1.9.25		Easting		372298.00		Bearing		---		
								Equipment		5T Excavator		
								Ground Level				
EXCAVATION		MATERIAL DESCRIPTION						TESTING, SAMPLING & OTHER INFORMATION				
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification	Description of Soil (soil type: plasticity/grainsize, colour and other components)		Moisture Condition	Consistency	Tests DCP Results (blows/100mm)	Samples	Additional Comments (material origin, pocket penetrometer values, investigation observations)
E	Not Encountered				SM	TOPSOIL: Silty SAND: fine to medium grained, brown, with coal chitter		M	L	1	B	TOPSOIL
					CI-CH	FILL: Gravelly CLAY: medium to high plasticity, dark grey, fine to coarse grained, sub-angular to angular gravel, with fine to coarse grained sand	~PL	F to St	2	FILL		
									3			
									3			
									4			
GP	Extremely weathered Sandstone recovered as Sandy GRAVEL, fine to coarse grained, sub-angular to angular, grey, orange/brown, fine to coarse grained sand, with cobbles up to 200mm		D to M			EXTREMELY WEATHERED ROCK DCP:-HB						
Test Pit TP02 Terminated at 0.60 m										Refusal on sandstone		
Remarks:												

EP LUB 05.GLB Log CW NON-CORED BOREHOLE LOG EP4322 AVID-ADWJ WATERFORD.GPJ <<DrawingFile>> 22/10/2025 15:38 10.03.00.09 Developed by Datgel

Engineering Log - Test Pit

Client		AVID Residential Estate Pty Ltd C/- ADW Johnson Pty Ltd				Project No.		EP4322			
Project		Waterford				Logged By		MC			
Location		Settlers Boulevard, Chisholm NSW				Checked By		OP			
Started Excavation		1.9.25		Northing		6374084.00		Slope		90°	
Completed Excavation		1.9.25		Easting		372306.00		Bearing		---	
						Equipment		5T Excavator			
						Ground Level					
EXCAVATION		MATERIAL DESCRIPTION						TESTING, SAMPLING & OTHER INFORMATION			
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification	Description of Soil (soil type: plasticity/grainsize, colour and other components)	Moisture Condition	Consistency	Tests DCP Results (blows/100mm)	Samples	Additional Comments (material origin, pocket penetrometer values, investigation observations)
E	Not Encountered				SM	TOPSOIL: Silty SAND: fine to medium grained, brown	M	L	1		TOPSOIL
					CI-CH	FILL: Silty CLAY: medium to high plasticity, grey, dark grey	~PL	St to F	3	B	FILL
									3		
									3		
					2	B	EXTREMELY WEATHERED ROCK DCP:-HB				
GP	Extremely weathered Sandstone recovered as Sandy GRAVEL, fine to coarse grained, sub-angular to angular, grey, orange/brown, fine to coarse grained sand, with cobbles up to 150mm	D to M									
						Test Pit TP03 Terminated at 0.60 m					Refusal on sandstone
Remarks:											

EP LUB 05.GLB Log CW NON-CORED BOREHOLE LOG EP4322 AVID-ADWJ WATERFORD.GPJ <<DrawingFile>> 22/10/2025 15:38 10.03.00.09 Developed by Datgel

Engineering Log - Test Pit

Client		AVID Residential Estate Pty Ltd C/- ADW Johnson Pty Ltd				Project No.		EP4322			
Project		Waterford				Logged By		MC			
Location		Settlers Boulevard, Chisholm NSW				Checked By		OP			
Started Excavation		1.9.25		Northing		6374063.00		Slope		90°	
Completed Excavation		1.9.25		Easting		372317.00		Bearing		---	
						Equipment		5T Excavator			
						Ground Level					
EXCAVATION		MATERIAL DESCRIPTION						TESTING, SAMPLING & OTHER INFORMATION			
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification	Description of Soil (soil type: plasticity/grainsize, colour and other components)	Moisture Condition	Consistency	Tests DCP Results (blows/100mm)	Samples	Additional Comments (material origin, pocket penetrometer values, investigation observations)
E	Not Encountered				SM	TOPSOIL: Silty SAND: fine to medium grained, brown	M	L	1		TOPSOIL
					CL-CI	FILL: Silty CLAY: low to medium plasticity, grey	~PL	F to St	2	U50	FILL
									2		
									3		
					3	B	EXTREMELY WEATHERED ROCK DCP:-HB				
10											
						Test Pit TP04 Terminated at 0.70 m				Refusal on sandstone	
Remarks:											

EP LUB 05.GLB Log CW NON-CORED BOREHOLE LOG EP4322 AVID-ADWJ WATERFORD.GPJ <<DrawingFile>> 22/10/2025 15:38 10.03.00.09 Developed by Datgel

Remarks:

Engineering Log - Test Pit

Client		AVID Residential Estate Pty Ltd C/- ADW Johnson Pty Ltd				Project No.		EP4322			
Project		Waterford				Logged By		MC			
Location		Settlers Boulevard, Chisholm NSW				Checked By		OP			
Started Excavation		1.9.25		Northing		6374089.00		Slope		90°	
Completed Excavation		1.9.25		Easting		372274.00		Bearing		---	
								Equipment		5T Excavator	
								Ground Level			
EXCAVATION		MATERIAL DESCRIPTION						TESTING, SAMPLING & OTHER INFORMATION			
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification	Description of Soil (soil type: plasticity/grainsize, colour and other components)	Moisture Condition	Consistency	Tests DCP Results (blows/100mm)	Samples	Additional Comments (material origin, pocket penetrometer values, investigation observations)
E	Not Encountered		1		SM	TOPSOIL: Silty SAND: fine to medium grained, dark brown	M	L	1		TOPSOIL
							1				
					CI-CH	FILL: Gravelly CLAY: medium to high plasticity, dark grey, fine to coarse grained, sub-angular to angular gravel, with fine to coarse grained sand	~PL	F and St	1	B	FILL
									2		
									2		
									2		
									1		
									1		
									1		
									2		
									3		
									3		
							2				
							3				
									GP	Extremely weathered Sandstone recovered as Sandy GRAVEL, fine to coarse grained, sub-angular to angular, grey, orange/brown, fine to coarse grained sand, with cobbles up to 200mm	D to M
					Test Pit TP06 Terminated at 1.50 m			12		DCP:-HB Refusal on sandstone	
Remarks:											

Remarks:

Engineering Log - Test Pit

Client		AVID Residential Estate Pty Ltd C/- ADW Johnson Pty Ltd				Project No.		EP4322																	
Project		Waterford				Logged By		MC																	
Location		Settlers Boulevard, Chisholm NSW				Checked By		OP																	
Started Excavation		1.9.25		Northing		6374027.00		Slope		90°		Equipment		5T Excavator											
Completed Excavation		1.9.25		Easting		372232.00		Bearing		---		Ground Level													
EXCAVATION		MATERIAL DESCRIPTION								TESTING, SAMPLING & OTHER INFORMATION															
Method		Water		RL (m)		Depth (m)		Graphic Log		Classification		Description of Soil (soil type: plasticity/grainsize, colour and other components)				Moisture Condition		Consistency		Tests DCP Results (blows/100mm)		Samples		Additional Comments (material origin, pocket penetrometer values, investigation observations)	
E		Not Encountered						SM		TOPSOIL: Silty SAND: fine to medium grained, brown				L		1				TOPSOIL					
																2									
										Extremely weathered Sandstone recovered as Sandy GRAVEL, fine to coarse grained, sub-angular to angular, grey, orange/brown, fine to coarse grained sand, with boulders up to 400mm				D to M		10		B		EXTREMELY WEATHERED ROCK					
																12						DCP:-HB			
										Test Pit TP08 Terminated at 0.60 m										Refusal on sandstone					
Remarks:																									

EP LIB 05.GLB Log CW NON-CORED BOREHOLE LOG EP4322 AVID-ADWJ WATERFORD.GPJ <<DrawingFile>> 22/10/2025 15:38 10.03.00.09 Developed by Datgel

Remarks:

Engineering Log - Test Pit

Client		AVID Residential Estate Pty Ltd C/- ADW Johnson Pty Ltd				Project No.		EP4322			
Project		Waterford				Logged By		MC			
Location		Settlers Boulevard, Chisholm NSW				Checked By		OP			
Started Excavation		1.9.25		Northing		6374119.00		Slope		90°	
Completed Excavation		1.9.25		Easting		372251.00		Bearing		---	
						Equipment		5T Excavator			
						Ground Level					
EXCAVATION		MATERIAL DESCRIPTION						TESTING, SAMPLING & OTHER INFORMATION			
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification	Description of Soil (soil type: plasticity/grainsize, colour and other components)	Moisture Condition	Consistency	Tests DCP Results (blows/100mm)	Samples	Additional Comments (material origin, pocket penetrometer values, investigation observations)
E	Not Encountered				SM	TOPSOIL: Silty SAND: fine to medium grained, brown	M	L	1		TOPSOIL
							2				
					CI-CH	FILL: Gravelly CLAY: medium to high plasticity, dark grey, fine to coarse grained, sub-angular to angular gravel, with minor brick fragments	~PL	St	3	B U50	FILL
									3		
									4		
									3		
									3		
									3		
									4		
									3		
							3	B	EXTREMELY WEATHERED ROCK DCP:-HB		
					GP	Extremely weathered Sandstone recovered as Sandy GRAVEL, fine to coarse grained, sub-angular to angular, grey, orange/brown, fine to coarse grained sand, with cobbles up to 200mm	D to M			13	
Test Pit TP10 Terminated at 1.20 m											
Remarks:											

Engineering Log - Test Pit

Client		AVID Residential Estate Pty Ltd C/- ADW Johnson Pty Ltd				Project No.		EP4322							
Project		Waterford				Logged By		MC							
Location		Settlers Boulevard, Chisholm NSW				Checked By		OP							
Started Excavation		1.9.25		Northing		6374147.00		Slope		90°		Equipment		5T Excavator	
Completed Excavation		1.9.25		Easting		372251.00		Bearing		---		Ground Level			
EXCAVATION		MATERIAL DESCRIPTION										TESTING, SAMPLING & OTHER INFORMATION			
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification	Description of Soil (soil type: plasticity/grainsize, colour and other components)	Moisture Condition	Consistency	Tests DCP Results (blows/100mm)	Samples	Additional Comments (material origin, pocket penetrometer values, investigation observations)				
E	Not Encountered				SM	TOPSOIL: Silty SAND: fine to medium grained, brown	M	L	2		TOPSOIL				
					CI-CH	FILL: Gravelly CLAY: medium to high plasticity, dark grey, fine to coarse grained, sub-angular to angular gravel, with fine to medium grained sand	~PL	F to St	1		FILL				
									2						
									2						
									1						
									2						
									2						
									3						
									4						
					3										
					GP	Extremely weathered Sandstone recovered as Sandy GRAVEL, fine to coarse grained, sub-angular to angular, grey, orange/brown, fine to coarse grained sand, with cobbles up to 200mm	D to M	12	EXTREMELY WEATHERED ROCK DCP:-HB						
									Refusal on sandstone						
Test Pit TP11 Terminated at 1.20 m															
Remarks:															

[illegible]

Appendix E

NATA Accredited Laboratory Results

Approved Date: 13/02/2024

Mandatory Fields				CHAIN OF CUSTODY												Page <u>2</u> of <u>4</u>															
CLIENT CODE:				*PROJECT MANAGER:				SAMPLER:				CoC #: (if applicable)																			
*CLIENT: EP RISK Management				*PM MOBILE:				SAMPLER MOBILE:																							
OFFICE: (Invoiced Office) Newcastle				ALS QUOTE # (Client PL if blank) ES23EPRI5K0002				PURCHASE ORDER NO.:																							
PROJECT NO./PROJECT:				EP4095				SITE:																							
*INVOICE TO: (client default if nil)				Accounts@eprisk.com.au												X CC Invoice to PM		BIOSECURITY													
*EMAIL REPORTS TO: (default to PM if blank)				*ANALYSIS REQUIRED (INL, ALS Quote No. and/or Analysis Suite Codes must be listed to attract suite/quoted price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required). Mark an X in the boxes below analysis to indicate the parameter listed above to be tested on that sample.												Country of Origin: (if not Australia)															
*STORAGE REQUIREMENTS Please check box: ☒ Standard Storage ☐ Extended Storage Standard Storage time from receipt of samples: Waters - 3 weeks Soils - 2 months Specify Disposal Date: Note: Extended storage incurs a fee and requires a signed agreement.				*TURNAROUND Please check box: ☒ 5+ days (no surcharge) ☐ 3 day (+15%) ☐ 2 day (+30%) ☐ 1 day (+50%) (Not all tests can be expedited, contact Client Services for more information)				(INL, ALS Quote No. and/or Analysis Suite Codes must be listed to attract suite/quoted price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required). Mark an X in the boxes below analysis to indicate the parameter listed above to be tested on that sample.												WO Sticker to go here. (ALS use only)											
Comments:				MATRIX: Soil/Solids(S) Water(W) Sediments (SD), Dust (D), Product (P), Biosolids (BS) Excavated Natural Material Order 2014 - Composites - P-18/1 COMP Excavated Natural Material Order 2014 - Discrete - P-18/1 DISCRETE Excavated Natural Material Order 2014 - In-situ Material - P-18/1 In-situ Material S-16 E2000F																											
ALS Use Only		Sample ID		Depth		Date/Time		No. Bottles														Lab QC (additional bottles req.)		Additional Information (Comment on hazards - e.g., asbestos, known high contamination)							
Lab ID																						Dup MS									
10		TP05 - 0.1																				☐ ☐									
11		TP05 - 0.5																				☐ ☐									
12		TP05 - 1.0																				☐ ☐									
		TP05 - 2.0																				☐ ☐									
		TP05 - 3.0																				☐ ☐									
13		TP06 - 0.1																				☐ ☐									
14		TP06 - 0.5																				☐ ☐									
15		TP06 - 1.0																				☐ ☐									
		TP06 - 2.0																				☐ ☐									
		TP06 - 3.0																				☐ ☐									
16		TP07 - 0.1																				☐ ☐									
17		TP07 - 0.5																				☐ ☐									
18		TP07 - 1.0																				☐ ☐									
		TP07 - 2.0																				☐ ☐									
		TP07 - 3.0																				☐ ☐									
19		TP08 - 0.1																				☐ ☐									
20		TP08 - 0.5																				☐ ☐									
		TP08 - 1.0																				☐ ☐									
Receipt Detail (Lab Use ONLY)		Chilling Method: Frozen / Melted		Ice: Frozen / Thawed		Ice Bricks: None		Sample Temp at Receipt		°C		°C		°C		Security Seal Intact (circle) Yes / No / NA(None)		Carrier Details		☐ Courier/Post		☐ Client		Packaging: (Circle) Count		Hard Esq #		Foam Esq #		Box/Bag/Other #	
Relinquished by:				Signature:				Date/Time:				Received by:				Signature:				Date/Time:											
Relinquished by:				Signature:				Date/Time:				Received by:				Signature:				Date/Time:											

Mandatory Fields				CHAIN OF CUSTODY												Page <u>3</u> of <u>4</u>																																																																																																																																																																																																																																																																																																																																																																																																																																				
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OFFICE: Newcastle				ALS QUOTE # (Client PL, if blank) ES23EPRISK0002				PURCHASE ORDER NO.:																																																																																																																																																																																																																																																																																																																																																																																																																																												
PROJECT NO./PROJECT:				EP4095				SITE:								BIOSECURITY Country of Origin: (if not Australia)																																																																																																																																																																																																																																																																																																																																																																																																																																				
*INVOICE TO: (client default if nil)				Accounts@eprisk.com.au								X CC Invoice to PM																																																																																																																																																																																																																																																																																																																																																																																																																																								
*EMAIL REPORTS TO: (default to PM if blank)				*ANALYSIS REQUIRED (NB, ALS Quote No. and/or Analysis Suite Codes must be listed to attract suite/quoted price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (filtered bottle required). Mark an X in the boxes below analysis to indicate the parameter listed above to be tested on that sample.								WO Sticker to go here. (ALS use only)																																																																																																																																																																																																																																																																																																																																																																																																																																								
*STORAGE REQUIREMENTS Please check box. ☒ Standard Storage ☐ Extended Storage Standard Storage time from receipt of samples: Waters - 3 weeks Soils - 2 months Specify Disposal Date: Note: Extended storage incurs a fee and requires a signed agreement.																																																																																																																																																																																																																																																																																																																																																																																																																																																				
*TURNAROUND Please check box. ☒ 5+ days (no surcharge) ☐ 3 day (+15%) ☐ 2 day (+30%) ☐ 1 day (+50%) (Not all tests can be expedited, contact Client Services for more information)				MATRIX: ☐ Soil/Sediment (SD) ☐ Dust (D) ☐ Product (P) ☐ Biota (B) ☐ Biosolid (BS) ☐ Excavated Natural Material Order 2014 - Composite - P-18/1 COMP. ☐ Excavated Natural Material Order 2014 - Discrete - P-18/1 DISCRETE ☐ Excavated Natural Material Order 2014 - In situ Material - P-18/1 In situ Material. S-16 TRH(A)/BTEXN E200F																																																																																																																																																																																																																																																																																																																																																																																																																																																
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Receipt Detail (Lab Use ONLY)		Chilling Method:	Ice:	Ice Bricks:	Sample Temp at Receipt	°C	°C	°C	Security Seal Intact (circle)	Yes / No / NA(None)	Carrier Details	☐ Courier/Post	☐ Client	Packaging: (Circle)	Hard Esly	Foam Esly	Box/Bag/Other																																																																																																																																																																																																																																																																																																																																																																																																																																			
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LAB OF ORIGIN:
NEWCASTLE

E-MAILED

ENFM (204/17)



CERTIFICATE OF ANALYSIS

Work Order : **ES2527043**
Client : **EP RISK MANAGEMENT**
Contact : MR Mathew Cheshire
Address : 3/19 BOLTON STREET
NEWCASTLE NSW 2300
Telephone : ----
Project : EP4322
Order number : EP4322
C-O-C number : ----
Sampler : MC
Site : Chisholm
Quote number : ES23EPRISK0002 - ES PRIMARY WORK ONLY
No. of samples received : 33
No. of samples analysed : 17

Page : 1 of 26
Laboratory : Environmental Division Sydney
Contact : Jason Dighton
Address : 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone : +61-2-8784 8555
Date Samples Received : 01-Sep-2025 16:10
Date Analysis Commenced : 02-Sep-2025
Issue Date : 05-Sep-2025 16:58



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Descriptive Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
John Williams	Lab Technician	Newcastle - Asbestos, Mayfield West, NSW
Sanjeshni Jyoti	Senior Chemist Volatiles	Sydney Organics, Smithfield, NSW



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

- EP075 (SIM): Where reported, Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- EP080: The trip spike and its control have been analysed for volatile TPH and BTEXN only. The trip spike and control were prepared in the lab using reagent grade sand spiked with petrol. The spike was dispatched from the lab and the control retained. Results have been confirmed by re-extraction and re-analysis.
- EA200N: Asbestos weights and percentages are not covered under the Scope of NATA Accreditation.
Weights of Asbestos are based on extracted bulk asbestos, fibre bundles, and/or ACM and do not include respirable fibres (if present)
The Asbestos (Fines and Fibrous) weight is calculated from the extracted Fibrous Asbestos and Asbestos Fines as an equivalent weight of 100% Asbestos
Percentages for Asbestos content in ACM are based on the 2013 NEPM default values.
All calculations of percentage Asbestos under this method are approximate and should be used as a guide only.
- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- EA200 Legend
- EA200 'Ch' Chrysotile (white asbestos)
- EA200: 'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.
- EA200N: ALS laboratory procedures and methods used for the identification and quantitation of asbestos are consistent with AS4964-2004 and the requirements of the 2013 NEPM for Assessment of Site Contamination



- EA200: For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909:2008(E) Sect 6.3.2-2
- EA200: 'Yes' - Asbestos detected by polarised light microscopy including dispersion staining.
- EA200: 'No*' - No asbestos found, at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to be below 0.1g/kg.
- EA200: 'No' - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0.1	TP02_0.1	TP03_0.1	TP04_0.1	TP05_0.1
Sampling date / time				01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	
Compound	CAS Number	LOR	Unit	ES2527043-001	ES2527043-004	ES2527043-006	ES2527043-008	ES2527043-010	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	27.8	20.8	24.5	16.3	25.7	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	No	
Asbestos Type	1332-21-4	-	--	-	-	-	-	-	
Asbestos (Trace)	1332-21-4	-	-	No	No	No	No	No	
Sample weight (dry)	----	0.01	g	294	297	273	230	365	
Synthetic Mineral Fibre	----	-	--	No	No	No	No	No	
Organic Fibre	----	-	--	No	No	No	No	No	
APPROVED IDENTIFIER:	----	-	--	J. WILLIAMS	J. WILLIAMS	J. WILLIAMS	J. WILLIAMS	J. WILLIAMS	
EA200N: Asbestos Quantification (non-NATA)									
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	<0.001	<0.001	<0.001	<0.001	<0.001	
ø Weight Used for % Calculation	----	0.0001	kg	0.294	0.297	0.273	0.230	0.365	
ø Fibrous Asbestos >7mm	----	0.0004	g	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	8	18	14	15	6	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	5	7	13	7	5	
Copper	7440-50-8	5	mg/kg	12	<5	9	<5	7	
Lead	7439-92-1	5	mg/kg	14	16	16	16	16	
Nickel	7440-02-0	2	mg/kg	5	2	3	3	2	
Zinc	7440-66-6	5	mg/kg	56	23	20	18	40	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EP068A: Organochlorine Pesticides (OC)									



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				TP01_0.1	TP02_0.1	TP03_0.1	TP04_0.1	TP05_0.1
Sampling date / time				01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00
Compound	CAS Number	LOR	Unit	ES2527043-001	ES2527043-004	ES2527043-006	ES2527043-008	ES2527043-010
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

EP068B: Organophosphorus Pesticides (OP)



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0.1	TP02_0.1	TP03_0.1	TP04_0.1	TP05_0.1
Sampling date / time					01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00
Compound	CAS Number	LOR	Unit		ES2527043-001	ES2527043-004	ES2527043-006	ES2527043-008	ES2527043-010
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				TP01_0.1	TP02_0.1	TP03_0.1	TP04_0.1	TP05_0.1
Sampling date / time				01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00
Compound	CAS Number	LOR	Unit	ES2527043-001	ES2527043-004	ES2527043-006	ES2527043-008	ES2527043-010
				Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	-----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	-----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	-----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	-----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	-----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	-----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	-----	100	mg/kg	110	<100	<100	<100	<100
C29 - C36 Fraction	-----	100	mg/kg	<100	<100	100	<100	130
^ C10 - C36 Fraction (sum)	-----	50	mg/kg	110	<50	100	<50	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	-----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	-----	100	mg/kg	150	<100	140	120	120
>C34 - C40 Fraction	-----	100	mg/kg	<100	<100	<100	<100	130
^ >C10 - C40 Fraction (sum)	-----	50	mg/kg	150	<50	140	120	250



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0.1	TP02_0.1	TP03_0.1	TP04_0.1	TP05_0.1
Sampling date / time					01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00
Compound	CAS Number	LOR	Unit		ES2527043-001	ES2527043-004	ES2527043-006	ES2527043-008	ES2527043-010
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		73.1	87.0	87.7	89.3	104
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		76.4	75.8	81.6	72.5	80.2
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		88.6	102	98.8	102	106
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		92.3	91.9	91.4	93.1	92.9
2-Chlorophenol-D4	93951-73-6	0.5	%		104	103	101	103	102
2,4,6-Tribromophenol	118-79-6	0.5	%		86.5	81.0	85.2	86.9	81.5
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		94.2	116	112	116	115
Anthracene-d10	1719-06-8	0.5	%		94.8	96.8	94.0	97.6	94.8
4-Terphenyl-d14	1718-51-0	0.5	%		98.2	99.9	96.4	98.6	97.4
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%		79.5	78.6	77.1	83.5	77.7
Toluene-D8	2037-26-5	0.2	%		83.1	80.5	81.9	86.3	80.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0.1	TP02_0.1	TP03_0.1	TP04_0.1	TP05_0.1
Sampling date / time					01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00
Compound	CAS Number	LOR	Unit		ES2527043-001	ES2527043-004	ES2527043-006	ES2527043-008	ES2527043-010
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		83.1	79.8	77.8	83.4	78.2

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP06_0.1	TP07_0.1	TP08_0.1	TP09_0.1	TP10_0.1
Sampling date / time				01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	
Compound	CAS Number	LOR	Unit	ES2527043-013	ES2527043-016	ES2527043-019	ES2527043-021	ES2527043-023	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	21.2	23.8	18.9	18.3	29.5	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	No	
Asbestos Type	1332-21-4	-	--	-	-	-	-	-	
Asbestos (Trace)	1332-21-4	-	-	No	No	No	No	No	
Sample weight (dry)	----	0.01	g	354	321	411	269	262	
Synthetic Mineral Fibre	----	-	--	No	No	No	No	No	
Organic Fibre	----	-	--	No	No	No	No	No	
APPROVED IDENTIFIER:	----	-	--	J. WILLIAMS	J. WILLIAMS	J. WILLIAMS	J. WILLIAMS	J. WILLIAMS	
EA200N: Asbestos Quantification (non-NATA)									
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	<0.001	<0.001	<0.001	<0.001	<0.001	
ø Weight Used for % Calculation	----	0.0001	kg	0.354	0.321	0.411	0.269	0.262	
ø Fibrous Asbestos >7mm	----	0.0004	g	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	10	10	17	12	8	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	6	5	7	5	6	
Copper	7440-50-8	5	mg/kg	8	<5	10	<5	15	
Lead	7439-92-1	5	mg/kg	18	16	20	13	16	
Nickel	7440-02-0	2	mg/kg	2	<2	2	<2	3	
Zinc	7440-66-6	5	mg/kg	78	46	65	31	127	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EP068A: Organochlorine Pesticides (OC)									



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				TP06_0.1	TP07_0.1	TP08_0.1	TP09_0.1	TP10_0.1
Sampling date / time				01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00
Compound	CAS Number	LOR	Unit	ES2527043-013	ES2527043-016	ES2527043-019	ES2527043-021	ES2527043-023
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

EP068B: Organophosphorus Pesticides (OP)



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP06_0.1	TP07_0.1	TP08_0.1	TP09_0.1	TP10_0.1
Sampling date / time					01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00
Compound	CAS Number	LOR	Unit		ES2527043-013	ES2527043-016	ES2527043-019	ES2527043-021	ES2527043-023
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				TP06_0.1	TP07_0.1	TP08_0.1	TP09_0.1	TP10_0.1
Sampling date / time				01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00
Compound	CAS Number	LOR	Unit	ES2527043-013	ES2527043-016	ES2527043-019	ES2527043-021	ES2527043-023
				Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	-----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	-----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	-----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	-----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	-----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	-----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	-----	100	mg/kg	<100	<100	<100	<100	<100
C29 - C36 Fraction	-----	100	mg/kg	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	-----	50	mg/kg	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10
>C10 - C16 Fraction	-----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	-----	100	mg/kg	<100	<100	<100	<100	<100
>C34 - C40 Fraction	-----	100	mg/kg	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	-----	50	mg/kg	<50	<50	<50	<50	<50



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP06_0.1	TP07_0.1	TP08_0.1	TP09_0.1	TP10_0.1
Sampling date / time					01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00
Compound	CAS Number	LOR	Unit		ES2527043-013	ES2527043-016	ES2527043-019	ES2527043-021	ES2527043-023
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		69.6	65.3	63.2	60.2	71.4
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		74.4	74.1	88.8	68.4	74.4
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		94.0	95.6	91.7	99.0	103
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		92.2	94.2	93.7	93.5	99.9
2-Chlorophenol-D4	93951-73-6	0.5	%		101	103	102	104	110
2,4,6-Tribromophenol	118-79-6	0.5	%		79.1	74.8	67.0	72.2	79.2
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		115	117	116	118	94.4
Anthracene-d10	1719-06-8	0.5	%		96.5	98.7	97.6	98.4	103
4-Terphenyl-d14	1718-51-0	0.5	%		97.8	100	99.0	100	106
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%		78.7	79.6	82.2	79.1	80.4
Toluene-D8	2037-26-5	0.2	%		83.0	87.0	88.4	85.4	82.9



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP06_0.1	TP07_0.1	TP08_0.1	TP09_0.1	TP10_0.1
Sampling date / time					01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00
Compound	CAS Number	LOR	Unit	ES2527043-013	ES2527043-016	ES2527043-019	ES2527043-021	ES2527043-023	
				Result	Result	Result	Result	Result	
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%	79.8	84.0	85.6	82.9	79.2	

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.1	TP12_0.1	QA01	Trip Blank 01	Trip Spike 01
Sampling date / time				01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	28-Aug-2025 00:00	28-Aug-2025 00:00	
Compound	CAS Number	LOR	Unit	ES2527043-025	ES2527043-027	ES2527043-029	ES2527043-031	ES2527043-032	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	17.9	18.4	23.7	----	----	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	----	----	----	
Asbestos Type	1332-21-4	-	--	-	-	----	----	----	
Asbestos (Trace)	1332-21-4	-	-	No	No	----	----	----	
Sample weight (dry)	----	0.01	g	264	284	----	----	----	
Synthetic Mineral Fibre	----	-	--	No	No	----	----	----	
Organic Fibre	----	-	--	No	No	----	----	----	
APPROVED IDENTIFIER:	----	-	--	J. WILLIAMS	J. WILLIAMS	----	----	----	
EA200N: Asbestos Quantification (non-NATA)									
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	<0.0004	<0.0004	----	----	----	
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	<0.001	<0.001	----	----	----	
ø Weight Used for % Calculation	----	0.0001	kg	0.264	0.284	----	----	----	
ø Fibrous Asbestos >7mm	----	0.0004	g	<0.0004	<0.0004	----	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	11	6	<5	----	----	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	----	
Chromium	7440-47-3	2	mg/kg	24	7	9	----	----	
Copper	7440-50-8	5	mg/kg	12	<5	<5	----	----	
Lead	7439-92-1	5	mg/kg	19	12	14	----	----	
Nickel	7440-02-0	2	mg/kg	6	4	<2	----	----	
Zinc	7440-66-6	5	mg/kg	75	28	23	----	----	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	----	----	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	----	----	
EP068A: Organochlorine Pesticides (OC)									



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				TP11_01	TP12_01	QA01	Trip Blank 01	Trip Spike 01
Sampling date / time				01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	28-Aug-2025 00:00	28-Aug-2025 00:00
Compound	CAS Number	LOR	Unit	ES2527043-025	ES2527043-027	ES2527043-029	ES2527043-031	ES2527043-032
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	----	----

EP068B: Organophosphorus Pesticides (OP)



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				TP11_0.1	TP12_0.1	QA01	Trip Blank 01	Trip Spike 01
Sampling date / time				01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	28-Aug-2025 00:00	28-Aug-2025 00:00
Compound	CAS Number	LOR	Unit	ES2527043-025	ES2527043-027	ES2527043-029	ES2527043-031	ES2527043-032
				Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued								
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	<0.05	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	0.8	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	1.8	<0.5	<0.5	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				TP11_0.1	TP12_0.1	QA01	Trip Blank 01	Trip Spike 01
Sampling date / time				01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	28-Aug-2025 00:00	28-Aug-2025 00:00
Compound	CAS Number	LOR	Unit	ES2527043-025	ES2527043-027	ES2527043-029	ES2527043-031	ES2527043-032
				Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Pyrene	129-00-0	0.5	mg/kg	1.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	4.1	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	150	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	110	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	260	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	----
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	200	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	300	<50	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.1	TP12_0.1	QA01	Trip Blank 01	Trip Spike 01
Sampling date / time					01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	28-Aug-2025 00:00	28-Aug-2025 00:00
Compound	CAS Number	LOR	Unit		ES2527043-025	ES2527043-027	ES2527043-029	ES2527043-031	ES2527043-032
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	3.6
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	4.6
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	4.9
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	2.0
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	15.1
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	6.9
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		71.0	64.1	80.1	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		83.1	77.2	79.6	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		108	114	95.4	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		93.9	93.0	90.3	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		101	103	93.8	----	----
2,4,6-Tribromophenol	118-79-6	0.5	%		68.1	85.0	74.6	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		117	116	114	----	----
Anthracene-d10	1719-06-8	0.5	%		96.6	93.9	97.2	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		98.1	97.8	100	----	----
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%		87.0	80.8	82.3	92.5	87.3
Toluene-D8	2037-26-5	0.2	%		89.2	84.5	87.1	93.9	92.2



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.1	TP12_0.1	QA01	Trip Blank 01	Trip Spike 01
Sampling date / time					01-Sep-2025 00:00	01-Sep-2025 00:00	01-Sep-2025 00:00	28-Aug-2025 00:00	28-Aug-2025 00:00
Compound	CAS Number	LOR	Unit		ES2527043-025	ES2527043-027	ES2527043-029	ES2527043-031	ES2527043-032
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		91.2	81.9	83.0	89.3	85.9



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				Trip Control Spike	----	----	----	----
Sampling date / time				28-Aug-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2527043-033	-----	-----	-----	-----
				Result	----	----	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	----	----	----	----
Toluene	108-88-3	0.5	mg/kg	3.4	----	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	4.4	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	4.9	----	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	2.0	----	----	----	----
^ Sum of BTEX	----	0.2	mg/kg	14.7	----	----	----	----
^ Total Xylenes	----	0.5	mg/kg	6.9	----	----	----	----
Naphthalene	91-20-3	1	mg/kg	<1	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.2	%	84.6	----	----	----	----
Toluene-D8	2037-26-5	0.2	%	89.3	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%	83.0	----	----	----	----



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				RW01	----	----	----	----
Sampling date / time				01-Sep-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2527043-030	-----	-----	-----	-----
				Result	----	----	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L	<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L	<0.001	----	----	----	----
Lead	7439-92-1	0.001	mg/L	<0.001	----	----	----	----
Nickel	7440-02-0	0.001	mg/L	<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L	<0.005	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	1.0	µg/L	<1.0	----	----	----	----
Acenaphthylene	208-96-8	1.0	µg/L	<1.0	----	----	----	----
Acenaphthene	83-32-9	1.0	µg/L	<1.0	----	----	----	----
Fluorene	86-73-7	1.0	µg/L	<1.0	----	----	----	----
Phenanthrene	85-01-8	1.0	µg/L	<1.0	----	----	----	----
Anthracene	120-12-7	1.0	µg/L	<1.0	----	----	----	----
Fluoranthene	206-44-0	1.0	µg/L	<1.0	----	----	----	----
Pyrene	129-00-0	1.0	µg/L	<1.0	----	----	----	----
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	----	----	----	----
Chrysene	218-01-9	1.0	µg/L	<1.0	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L	<1.0	----	----	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	----	----	----	----
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	----	----	----	----
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	----	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	-----	0.5	µg/L	<0.5	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	RW01	----	----	----	----
Sampling date / time					01-Sep-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2527043-030	-----	-----	-----	-----
					Result	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (zero)	-----	0.5	µg/L		<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	-----	20	µg/L		<20	----	----	----	----
C10 - C14 Fraction	-----	50	µg/L		<50	----	----	----	----
C15 - C28 Fraction	-----	100	µg/L		<100	----	----	----	----
C29 - C36 Fraction	-----	50	µg/L		<50	----	----	----	----
^ C10 - C36 Fraction (sum)	-----	50	µg/L		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	----	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L		<20	----	----	----	----
>C10 - C16 Fraction	-----	100	µg/L		<100	----	----	----	----
>C16 - C34 Fraction	-----	100	µg/L		<100	----	----	----	----
>C34 - C40 Fraction	-----	100	µg/L		<100	----	----	----	----
^ >C10 - C40 Fraction (sum)	-----	100	µg/L		<100	----	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	-----	100	µg/L		<100	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	----	----	----
Toluene	108-88-3	2	µg/L		<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ Total Xylenes	-----	2	µg/L		<2	----	----	----	----
^ Sum of BTEX	-----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		25.9	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	RW01	----	----	----	----
Sampling date / time					01-Sep-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2527043-030	-----	-----	-----	-----
					Result	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates - Continued									
2-Chlorophenol-D4	93951-73-6	1.0	%		49.4	----	----	----	----
2,4,6-Tribromophenol	118-79-6	1.0	%		39.7	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		66.6	----	----	----	----
Anthracene-d10	1719-06-8	1.0	%		65.4	----	----	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		72.8	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	2	%		109	----	----	----	----
Toluene-D8	2037-26-5	2	%		108	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		106	----	----	----	----

Analytical Results

Descriptive Results

Sub-Matrix: **SOIL**

Method: Compound	Sample ID - Sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in Soils		
EA200: Description	TP01_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP02_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP03_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP04_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP05_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP06_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP07_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP08_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP09_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP10_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP11_0.1 - 01-Sep-2025 00:00	A soil sample.
EA200: Description	TP12_0.1 - 01-Sep-2025 00:00	A soil sample.



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2,4,6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	63	125
Toluene-D8	2037-26-5	67	124
4-Bromofluorobenzene	460-00-4	66	131

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	44
2-Chlorophenol-D4	93951-73-6	14	94
2,4,6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	32	112
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	72	143
Toluene-D8	2037-26-5	75	131
4-Bromofluorobenzene	460-00-4	73	137

Inter-Laboratory Testing

Analysis conducted by ALS Newcastle, NATA accreditation no. 825, site no. 1656 (Chemistry / Biology).

(SOIL) EA200N: Asbestos Quantification (non-NATA)

(SOIL) EA200: AS 4964 - 2004 Identification of Asbestos in Soils



QUALITY CONTROL REPORT

Work Order : **ES2527043**

Page : 1 of 15

Client : **EP RISK MANAGEMENT**
Contact : MR Mathew Cheshire
Address : 3/19 BOLTON STREET
NEWCASTLE NSW 2300

Laboratory : Environmental Division Sydney
Contact : Jason Dighton
Address : 277-289 Woodpark Road Smithfield NSW Australia 2164

Telephone : ----
Project : EP4322
Order number : EP4322
C-O-C number : ----
Sampler : MC
Site : Chisholm
Quote number : ES23EPRISK0002 - ES PRIMARY WORK ONLY
No. of samples received : 33
No. of samples analysed : 17

Telephone : +61-2-8784 8555
Date Samples Received : 01-Sep-2025
Date Analysis Commenced : 02-Sep-2025
Issue Date : 05-Sep-2025



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
John Williams	Lab Technician	Newcastle - Asbestos, Mayfield West, NSW
Sanjeshni Jyoti	Senior Chemist Volatiles	Sydney Organics, Smithfield, NSW



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot

CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

RPD = Relative Percentage Difference

= Indicates failed QC

* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6830626)									
ES2527039-005	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	12	14	10.8	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	16	17	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	6	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	11	10	16.7	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	12	14	18.5	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	50	46	7.2	No Limit
ES2526811-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	12	10	20.7	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	8	7	19.2	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	51	38	29.6	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	29	25	15.8	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	226	210	7.3	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6830629)									
ES2527043-023	TP10_0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	6	6	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	3	3	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	8	9	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	15	9	43.2	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	16	17	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6830629) - continued									
ES2527043-023	TP10_0.1	EG005T: Zinc	7440-66-6	5	mg/kg	127	148	15.6	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6830637)									
ES2527039-005	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	19.1	15.7	19.8	0% - 50%
ES2527043-006	TP03_0.1	EA055: Moisture Content	----	0.1 (1.0)*	%	24.5	24.0	2.1	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 6830628)									
ES2527043-016	TP07_0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2527039-005	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 6830511)									
ES2527043-001	TP01_0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2527043-025	TP11_0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 6830510)									
ES2527043-001	TP01_0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES2527043-025	TP11_0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 6830510) - continued									
ES2527043-025	TP11_0.1	EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 6830510)									
ES2527043-001	TP01_0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES2527043-025	TP11_0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 6830510) - continued									
ES2527043-025	TP11_0.1	EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6830509)									
ES2527043-001	TP01_0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			205-82-3						
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6830509) - continued									
ES2527043-025	TP11_0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	0.8	0.5	43.7	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	1.8	1.2	44.5	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	1.5	1.0	42.4	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			205-82-3						
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	4.1	2.7	41.2	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6830508)									
ES2527043-001	TP01_0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	110	130	13.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2527043-025	TP11_0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6830535)									
ES2527043-001	TP01_0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2527043-025	TP11_0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6830508)									
ES2527043-001	TP01_0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	150	180	15.5	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2527043-025	TP11_0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6830535)									
ES2527043-001	TP01_0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2527043-025	TP11_0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 6830535)									
ES2527043-001	TP01_0.1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES2527043-025	TP11_0.1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020T: Total Metals by ICP-MS (QC Lot: 6832258)									
ES2526920-001	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	0.005	0.004	0.0	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.010	0.010	0.0	No Limit
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.001	0.001	0.0	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.005	0.005	0.0	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.041	0.041	0.0	No Limit
EN2514732-013	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 6832262)									
EN2514581-001	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EN2514713-005	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit

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 Work Order : ES2527043
 Client : EP RISK MANAGEMENT
 Project : EP4322



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6831058)									
ES2526743-006	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
ES2527126-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6831058)									
ES2526743-006	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
ES2527126-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
EP080: BTEXN (QC Lot: 6831058)									
ES2526743-006	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
ES2527126-001	Anonymous	EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit
		EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit



Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6830626)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	94.6	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	75.3	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	111	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	101	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	96.6	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	96.2	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	86.5	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6830629)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	93.1	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	84.6	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	112	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	104	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	95.2	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	96.6	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	89.2	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6830628)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	95.4	70.0	125
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 6830511)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	91.6	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 6830510)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	88.6	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	94.1	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	88.2	67.0	119
EP068: gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	97.7	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	78.7	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	84.2	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	84.3	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	78.8	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	97.3	66.0	116



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP068A: Organochlorine Pesticides (OC) (QCLot: 6830510) - continued								
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	87.3	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	85.8	66.0	116
EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	100	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	95.0	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	94.7	69.0	115
EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	90.1	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	93.7	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	81.1	62.0	124
EP068: 4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	88.4	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	85.5	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	80.2	54.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 6830510)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	98.5	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	78.0	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	78.0	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	77.7	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	106	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	97.1	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	78.4	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	100	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	94.1	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	91.5	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	82.0	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	89.1	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	94.2	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	77.9	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	74.9	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	99.3	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	84.8	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	84.1	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	60.0	41.0	123
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6830509)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	102	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	106	72.0	124



Sub-Matrix: SOIL				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6830509) - continued								
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	87.3	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	89.6	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	83.1	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	84.3	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	95.5	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	101	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	101	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	98.1	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	81.4	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	95.6	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	96.1	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	80.3	61.0	121
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	81.6	62.0	118
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	81.2	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6830508)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	286 mg/kg	95.9	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	1724 mg/kg	94.7	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	1208 mg/kg	95.4	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6830535)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	85.4	72.2	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6830508)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	464 mg/kg	99.7	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	2448 mg/kg	95.3	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	538 mg/kg	89.2	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6830535)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	85.5	72.4	133
EP080: BTEXN (QCLot: 6830535)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	95.6	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	95.2	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	99.3	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	102	78.2	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	101	81.3	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	111	78.8	122

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result		LCS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 6832258)								
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	89.7	82.0	114
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	94.4	84.0	112
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	97.5	86.0	116
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	86.5	83.0	118
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	89.5	85.0	115
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	88.0	84.0	116
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	89.5	79.0	117
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6832262)								
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	96.9	77.0	111
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6830494)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	78.0	50.0	94.0
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	73.7	63.6	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	82.2	62.2	113
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	87.1	63.9	115
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	92.2	62.6	116
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	90.5	64.3	116
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	93.1	63.6	118
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	92.9	63.1	118
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	78.3	64.1	117
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	81.2	62.5	116
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	1	µg/L	<1.0	5 µg/L	72.1	61.7	119
	205-82-3							
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	82.6	63.0	115
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	93.0	63.3	117
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	69.6	59.9	118
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	73.8	61.2	117
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	76.4	59.1	118
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6830495)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	54.4	53.7	97.0
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	65.4	63.3	107
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	59.3	58.3	120
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6831058)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	94.5	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6830495)								



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6830495) - continued								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	61.3	53.9	95.5
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	63.4	57.8	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	57.0	50.5	115
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6831058)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	89.9	75.0	127
EP080: BTEXN (QCLot: 6831058)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	98.0	68.3	119
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	95.6	73.5	120
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	94.4	73.8	122
EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	10 µg/L	92.4	73.0	122
	106-42-3							
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	96.2	76.4	123
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	102	75.5	124

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6830626)							
ES2526811-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	96.6	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	91.7	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	95.1	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	92.6	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	91.3	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	91.9	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	81.8	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6830629)							
ES2527043-023	TP10_0.1	EG005T: Arsenic	7440-38-2	50 mg/kg	94.1	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	94.6	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	96.9	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	95.1	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	95.5	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	94.9	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	86.3	66.0	133



Sub-Matrix: **SOIL**

Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6830628)							
ES2527039-005	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	95.7	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 6830511)							
ES2527043-001	TP01_0.1	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	98.9	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 6830510)							
ES2527043-001	TP01_0.1	EP068: gamma-BHC - (Lindane)	58-89-9	0.5 mg/kg	107	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	94.3	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	74.2	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	93.5	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	88.7	70.0	130
		EP068: 4,4`-DDT	50-29-3	2 mg/kg	98.2	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 6830510)							
ES2527043-001	TP01_0.1	EP068: Diazinon	333-41-5	0.5 mg/kg	107	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	115	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	82.4	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	80.9	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	105	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6830509)							
ES2527043-001	TP01_0.1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	96.9	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	95.8	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6830508)							
ES2527043-001	TP01_0.1	EP071: C10 - C14 Fraction	----	480 mg/kg	123	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	112	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	117	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6830535)							
ES2527043-001	TP01_0.1	EP080: C6 - C9 Fraction	----	32.5 mg/kg	76.1	60.4	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6830508)							
ES2527043-001	TP01_0.1	EP071: >C10 - C16 Fraction	----	860 mg/kg	114	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	114	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	114	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6830535)							
ES2527043-001	TP01_0.1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	73.4	61.1	142
EP080: BTEXN (QCLot: 6830535)							
ES2527043-001	TP01_0.1	EP080: Benzene	71-43-2	2.5 mg/kg	79.7	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	77.4	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	81.5	67.4	123



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080: BTEXN (QCLot: 6830535) - continued							
ES2527043-001	TP01_0.1	EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	82.5	66.4	121
			106-42-3				
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	81.9	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	77.6	61.1	115
Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 6832258)							
EN2514732-014	Anonymous	EG020A-T: Arsenic	7440-38-2	1 mg/L	95.9	70.0	130
		EG020A-T: Cadmium	7440-43-9	0.25 mg/L	94.1	70.0	130
		EG020A-T: Chromium	7440-47-3	1 mg/L	90.2	70.0	130
		EG020A-T: Copper	7440-50-8	1 mg/L	90.8	70.0	130
		EG020A-T: Lead	7439-92-1	1 mg/L	91.2	70.0	130
		EG020A-T: Nickel	7440-02-0	1 mg/L	91.4	70.0	130
		EG020A-T: Zinc	7440-66-6	1 mg/L	91.4	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6832262)							
EN2514581-002	Anonymous	EG035T: Mercury	7439-97-6	0.01 mg/L	86.6	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6831058)							
ES2526743-006	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	92.2	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6831058)							
ES2526743-006	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	88.9	70.0	130
EP080: BTEXN (QCLot: 6831058)							
ES2526743-006	Anonymous	EP080: Benzene	71-43-2	25 µg/L	98.6	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	104	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	104	70.0	130
		EP080: meta- & para-Xylene	108-38-3	25 µg/L	103	70.0	130
			106-42-3				
		EP080: ortho-Xylene	95-47-6	25 µg/L	107	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	105	70.0	130



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: ES2527043	Page	: 1 of 10
Client	: EP RISK MANAGEMENT	Laboratory	: Environmental Division Sydney
Contact	: MR Mathew Cheshire	Telephone	: +61-2-8784 8555
Project	: EP4322	Date Samples Received	: 01-Sep-2025
Site	: Chisholm	Issue Date	: 05-Sep-2025
Sampler	: MC	No. of samples received	: 33
Order number	: EP4322	No. of samples analysed	: 17

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO** Method Blank value outliers occur.
- **NO** Duplicate outliers occur.
- **NO** Laboratory Control outliers occur.
- **NO** Matrix Spike outliers occur.
- For all regular sample matrices, where applicable to the methodology, **NO** surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

- **NO** Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers exist - please see following pages for full details.

Matrix: WATER

Analysis Holding Time Compliance

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: SOIL

Evaluation: ✖ = Holding time breach : ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
TP01_0.1, TP02_0.1, TP03_0.1, TP04_0.1, TP05_0.1, TP06_0.1, TP07_0.1, TP08_0.1, TP09_0.1, TP10_0.1, TP11_0.1, TP12_0.1, QA01	01-Sep-2025	----	----	----	02-Sep-2025	15-Sep-2025	✓
EA200: AS 4964 - 2004 Identification of Asbestos in Soils							
Snap Lock Bag - Friable Asbestos/PSD Bag (EA200)							
TP01_0.1, TP02_0.1, TP03_0.1, TP04_0.1, TP05_0.1, TP06_0.1, TP07_0.1, TP08_0.1, TP09_0.1, TP10_0.1, TP11_0.1, TP12_0.1	01-Sep-2025	----	----	----	03-Sep-2025	28-Feb-2026	✓

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA200N: Asbestos Quantification (non-NATA)							
Snap Lock Bag - Friable Asbestos/PSD Bag (EA200N)							
TP01_0.1, TP03_0.1, TP05_0.1, TP07_0.1, TP09_0.1, TP11_0.1, TP02_0.1, TP04_0.1, TP06_0.1, TP08_0.1, TP10_0.1, TP12_0.1	01-Sep-2025	----	----	----	03-Sep-2025	28-Feb-2026	✓
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
TP01_0.1, TP03_0.1, TP05_0.1, TP07_0.1, TP09_0.1, TP11_0.1, QA01, TP02_0.1, TP04_0.1, TP06_0.1, TP08_0.1, TP10_0.1, TP12_0.1	01-Sep-2025	02-Sep-2025	28-Feb-2026	✓	04-Sep-2025	28-Feb-2026	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
TP01_0.1, TP03_0.1, TP05_0.1, TP07_0.1, TP09_0.1, TP11_0.1, QA01, TP02_0.1, TP04_0.1, TP06_0.1, TP08_0.1, TP10_0.1, TP12_0.1	01-Sep-2025	02-Sep-2025	29-Sep-2025	✓	04-Sep-2025	29-Sep-2025	✓
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066)							
TP01_0.1, TP03_0.1, TP05_0.1, TP07_0.1, TP02_0.1, TP04_0.1, TP06_0.1	01-Sep-2025	03-Sep-2025	15-Sep-2025	✓	04-Sep-2025	13-Oct-2025	✓
Soil Glass Jar - Unpreserved (EP066)							
TP08_0.1, TP10_0.1, TP12_0.1, TP09_0.1, TP11_0.1, QA01	01-Sep-2025	03-Sep-2025	15-Sep-2025	✓	05-Sep-2025	13-Oct-2025	✓



Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068A: Organochlorine Pesticides (OC)								
Soil Glass Jar - Unpreserved (EP068)	TP01_0.1, TP02_0.1, TP03_0.1	01-Sep-2025	03-Sep-2025	15-Sep-2025	✔	04-Sep-2025	13-Oct-2025	✔
Soil Glass Jar - Unpreserved (EP068)	TP04_0.1, TP05_0.1, TP06_0.1, TP07_0.1, TP08_0.1, TP09_0.1, TP10_0.1, TP11_0.1, TP12_0.1, QA01	01-Sep-2025	03-Sep-2025	15-Sep-2025	✔	05-Sep-2025	13-Oct-2025	✔
EP068B: Organophosphorus Pesticides (OP)								
Soil Glass Jar - Unpreserved (EP068)	TP01_0.1, TP02_0.1, TP03_0.1	01-Sep-2025	03-Sep-2025	15-Sep-2025	✔	04-Sep-2025	13-Oct-2025	✔
Soil Glass Jar - Unpreserved (EP068)	TP04_0.1, TP05_0.1, TP06_0.1, TP07_0.1, TP08_0.1, TP09_0.1, TP10_0.1, TP11_0.1, TP12_0.1, QA01	01-Sep-2025	03-Sep-2025	15-Sep-2025	✔	05-Sep-2025	13-Oct-2025	✔
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM))	TP01_0.1, TP02_0.1, TP03_0.1, TP04_0.1, TP05_0.1, TP06_0.1, TP07_0.1, TP08_0.1, TP09_0.1, TP10_0.1, TP11_0.1	01-Sep-2025	03-Sep-2025	15-Sep-2025	✔	04-Sep-2025	13-Oct-2025	✔
Soil Glass Jar - Unpreserved (EP075(SIM))	TP12_0.1, QA01	01-Sep-2025	03-Sep-2025	15-Sep-2025	✔	05-Sep-2025	13-Oct-2025	✔



Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080) TP01_0.1, TP03_0.1, TP05_0.1, TP08_0.1, TP10_0.1, TP12_0.1, TP02_0.1, TP04_0.1, TP06_0.1, TP09_0.1, TP11_0.1, QA01	01-Sep-2025	02-Sep-2025	15-Sep-2025	✔	04-Sep-2025	15-Sep-2025	✔	
Soil Glass Jar - Unpreserved (EP080) TP07_0.1	01-Sep-2025	02-Sep-2025	15-Sep-2025	✔	05-Sep-2025	15-Sep-2025	✔	
Soil Glass Jar - Unpreserved (EP071) TP01_0.1, TP03_0.1, TP05_0.1, TP07_0.1, TP09_0.1, TP11_0.1, QA01, TP02_0.1, TP04_0.1, TP06_0.1, TP08_0.1, TP10_0.1, TP12_0.1	01-Sep-2025	03-Sep-2025	15-Sep-2025	✔	04-Sep-2025	13-Oct-2025	✔	
Soil Glass Jar - Unpreserved (EP080) Trip Blank 01	28-Aug-2025	02-Sep-2025	11-Sep-2025	✔	04-Sep-2025	11-Sep-2025	✔	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP080) TP01_0.1, TP03_0.1, TP05_0.1, TP08_0.1, TP10_0.1, TP12_0.1, TP02_0.1, TP04_0.1, TP06_0.1, TP09_0.1, TP11_0.1, QA01	01-Sep-2025	02-Sep-2025	15-Sep-2025	✔	04-Sep-2025	15-Sep-2025	✔	
Soil Glass Jar - Unpreserved (EP080) TP07_0.1	01-Sep-2025	02-Sep-2025	15-Sep-2025	✔	05-Sep-2025	15-Sep-2025	✔	
Soil Glass Jar - Unpreserved (EP071) TP01_0.1, TP03_0.1, TP05_0.1, TP07_0.1, TP09_0.1, TP11_0.1, QA01, TP02_0.1, TP04_0.1, TP06_0.1, TP08_0.1, TP10_0.1, TP12_0.1	01-Sep-2025	03-Sep-2025	15-Sep-2025	✔	04-Sep-2025	13-Oct-2025	✔	
Soil Glass Jar - Unpreserved (EP080) Trip Blank 01	28-Aug-2025	02-Sep-2025	11-Sep-2025	✔	04-Sep-2025	11-Sep-2025	✔	



Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080: BTEXN								
Soil Glass Jar - Unpreserved (EP080) TP01_0.1, TP03_0.1, TP05_0.1, TP08_0.1, TP10_0.1, TP12_0.1, TP02_0.1, TP04_0.1, TP06_0.1, TP09_0.1, TP11_0.1, QA01	01-Sep-2025	02-Sep-2025	15-Sep-2025	✔	04-Sep-2025	15-Sep-2025	✔	
Soil Glass Jar - Unpreserved (EP080) TP07_0.1	01-Sep-2025	02-Sep-2025	15-Sep-2025	✔	05-Sep-2025	15-Sep-2025	✔	
Soil Glass Jar - Unpreserved (EP080) Trip Blank 01, Trip Control Spike Trip Spike 01,	28-Aug-2025	02-Sep-2025	11-Sep-2025	✔	04-Sep-2025	11-Sep-2025	✔	

Matrix: **WATER**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T) RW01	01-Sep-2025	03-Sep-2025	28-Feb-2026	✓	03-Sep-2025	28-Feb-2026	✓
EG035T: Total Recoverable Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T) RW01	01-Sep-2025	----	----	----	05-Sep-2025	29-Sep-2025	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM)) RW01	01-Sep-2025	02-Sep-2025	08-Sep-2025	✓	03-Sep-2025	12-Oct-2025	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071) RW01	01-Sep-2025	02-Sep-2025	08-Sep-2025	✓	03-Sep-2025	12-Oct-2025	✓
Amber VOC Vial - Sulfuric Acid (EP080) RW01	01-Sep-2025	02-Sep-2025	15-Sep-2025	✓	02-Sep-2025	15-Sep-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071) RW01	01-Sep-2025	02-Sep-2025	08-Sep-2025	✓	03-Sep-2025	12-Oct-2025	✓
Amber VOC Vial - Sulfuric Acid (EP080) RW01	01-Sep-2025	02-Sep-2025	15-Sep-2025	✓	02-Sep-2025	15-Sep-2025	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080) RW01	01-Sep-2025	02-Sep-2025	15-Sep-2025	✓	02-Sep-2025	15-Sep-2025	✓



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: ✖ = Quality Control frequency not within specification ; ✔ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	3	24	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	24	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	24	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	24	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: ✖ = Quality Control frequency not within specification ; ✔ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	



Matrix: **WATER**

Evaluation: ✖ = Quality Control frequency not within specification ; ✔ = Quality Control frequency within specification .

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	3	0.00	10.00	✖	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	10.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	15	13.33	10.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	3	0.00	10.00	✖	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	19	10.53	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	3	33.33	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	15	6.67	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	3	33.33	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	5.26	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	3	33.33	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	15	6.67	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	3	33.33	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	5.26	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	3	0.00	5.00	✖	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	15	6.67	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	3	0.00	5.00	✖	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	5.26	5.00	✔	NEPM 2013 B3 & ALS QC Standard



Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Asbestos Identification in Soils	EA200	SOIL	AS 4964 Method for the qualitative identification of asbestos in bulk samples Analysis by Polarised Light Microscopy including dispersion staining
Asbestos Classification and Quantitation per NEPM 2013	* EA200N	SOIL	Asbestos Classification and Quantitation per NEPM with Confirmation of Identification by AS 4964 - Gravimetric determination of Asbestos Containing Material, Fibrous Asbestos, Asbestos Fines and sample weight and calculation of percentage concentrations per NEPM protocols. Asbestos (Fines and Fibrous FA+AF) is reported as the equivalent weight in the sample received after accounting for sub-sampling (where applicable for the <7mm and/or <2mm fractions).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl ₂) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Polychlorinated Biphenyls (PCB)	EP066	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.



Analytical Methods	Method	Matrix	Method Descriptions
Total Mercury by FIMS	EG035T	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	In house: Referenced to USEPA SW 846 - 8270 Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na ₂ SO ₄ and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.

Mandatory Fields		CHAIN OF CUSTODY				Page <u>1</u> of <u>4</u>	
CLIENT CODE		*PROJECT MANAGER:		SAMPLER: <u>MC</u>			
*CLIENT: EP RISK Management		*PM MOBILE:		CAMP #2 MOBILE: <u>043116533</u>			
OFFICE (optional only): Newcastle		ALS QUOTE # (Client M. if any): ES25EPRIK0002		PURCHASE ORDER NO.: <u>EP4322</u>			
PROJECT NO./PROJECT:		EP4322		SITE: <u>Chisholm</u>			
*INVOICE TO: (client default if not)		<u>Accounts@eprisk.com.au</u>				☒ Invoice to PM	
*EMAIL REPORTS TO: (client default if not)		<u>matthew.cheshire@eprisk.com.au</u>				BIOSECURITY Country of Origin:	
*STORAGE REQUIREMENTS Please check box: ☒ Standard Storage ☐ Extended Storage Specify Disposal Date:		*TURNAROUND Please check box: ☒ 5+ days (+0 surcharge) ☐ 3 days (+1500) ☐ 2 days (+700) ☐ 1 day (+500)		*ANALYSIS REQUIRED (IR, ALS Quote No. and/or Analysis Data Codes must be listed to attract rates/quoted price) Where Results are required, specify Test (underlined below required) or Developed (as if developed in house) Mark an X in the boxes below analysis to indicate the parameter listed above to be tested on that sample.		Environmental Division Sydney Work Order Reference ES2527043  Telephone: +61 2 8748 8554	
Sample ID 1 TPO1 - 0.1 2 TPO1 - 0.5 3 TPO1 - 1.0 TPO1 - 2.0 TPO1 - 3.0 4 TPO2 - 0.1 5 TPO2 - 0.5 TPO2 - 1.0 TPO2 - 2.0 TPO2 - 3.0 6 TPO3 - 0.1 7 TPO3 - 0.5 TPO3 - 1.0 TPO3 - 2.0 TPO3 - 3.0 8 TPO4 - 0.1 9 TPO4 - 0.5 TPO4 - 1.0 TPO4 - 2.0		Depth 0.1 0.5 1.0 2.0 3.0		Date/Time 1/9 1700		No. Bottles 1	
ALS Use Only Lab ID		Matrix Soil (S), Water (W), Sediment (SD), Dust (D), Product (P), Bio (B), Borehole (BS)		Environmental National Order 2014 - Long-term Product Code Environmental National Order 2014 - Long-term Product Code		Environmental National Order 2014 - Long-term Product Code Environmental National Order 2014 - Long-term Product Code	
Recapit Detail Lab Use Only		Sample Temp at Receipt: <u>50</u> °C		Specialty Test (list below)		Other Notes	
Requested by: <u>MC</u> Refinanced by: <u>SA</u>		Signature: <u>M. Chen</u> Signature: <u>SA</u>		Date/Time: <u>1/9 1700</u>		Received by: <u>SA</u> Signature: <u>Brennan</u> Date/Time: <u>1/9 1610</u> <u>3/14/25</u> <u>11.25</u>	

#1264159

8.8°C
CH

Anonymous User: 3/20/2016

Mandatory Fields				CHAIN OF CUSTODY				Page 3 of 4			
CLIENT CODE:		PROJECT MANAGER:		SAMPLER:							
*CLIENT: EP RISK Management		*PM MOBILE:		SAMPLER MOBILE:				C/C # (if not used)			
OFFICE: Newcastle		ALSO NOTE # (Enter P# if blank)		PURCHASE ORDER NO.:				BIOSECURITY Country of Origin: (If not Australia)			
PROJECT NO / PROJECT:		EP4095		SITE:							
*INVOICE TO: Accounts @ episk.com.au				X CC Invoice to PM		*ANALYSIS REQUIRED (N.B. ALS Quote No. and/or Analysis Date Code must be filled to attract suite/quoted price) Where Metals are required, newly Treated (unfired both require) or Disposed (Fired (flame bottle required). Mark an X in the boxes below analysis to indicate the parameter listed above to be tested on that sample.					
*EMAIL REPORTS TO: suit@episk.com.au											
*STORAGE REQUIREMENTS *Please check box. ☒ Standard Storage ☐ Extended Storage Specify Disposal Date: _____ Note: Extended storage incurs a fee and requires a signed agreement.		*TURNAROUND Please select one. ☒ 1+ days (No exchange) ☐ 3 day (+15%) ☐ 2 day (+30%) ☐ 1 day (+50%) (Metal tests can be expedited, contact client service for more information.)		EXAMINED MATERIAL ANALYSIS CODE 2014 - CONCRETE - P-101 COMP EXAMINED MATERIAL ANALYSIS CODE 2014 - DISPOSED IN 10% DUCTILE EXAMINED MATERIAL ANALYSIS CODE 2014 - HEAVY METALS - F-101 LEX AND METALS TRH(A)/BTEXN E200F				WO Sticker to go here. (ALS use only)			
ALL THE DATA Lab ID: _____		Sample ID Depth Date/Time No. Bottles MATRIX: Soils/Sediment/Water/Sludge/Solidwaste/GDP, Cement/PV Product/IP, Bone/BM, Bitumens (BS)		Examinated Material Analysis Code 2014 - CONCRETE - P-101 COMP Examinated Material Analysis Code 2014 - DISPOSED IN 10% DUCTILE Examinated Material Analysis Code 2014 - HEAVY METALS - F-101 LEX AND METALS						Lab QC (additional samples) Dup MS Additional Information (Comment on hazards - e.g., asbestos, known high contamination)	
21 TP08 - 2.0											
22 TP08 - 3.0											
TP09 - 0.1										E-MA	
22 TP09 - 0.5											
TP09 - 1.0										E-MA	
TP09 - 2.0											
TP09 - 3.0										E-MA	
23 TP10 - 0.1											
24 TP10 - 0.5										E-MA	
TP10 - 1.0											
TP10 - 2.0										E-MA	
TP10 - 3.0											
25 TP11 - 0.1										E-MA	
26 TP11 - 0.5											
TP11 - 1.0										E-MA	
TP11 - 2.0											
TP11 - 3.0										E-MA	
27 TP12 - 0.1											
28 TP12 - 0.5										E-MA	

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EP Risk Management (NSW)
80 Mount Street,
North Sydney
NSW 2060



NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Mathew Cheshire**

Report **1264159-S**
Project name **CHISHOLM**
Project ID **EP4322**
Received Date **Sep 03, 2025**

Client Sample ID			QA02
Sample Matrix			Soil
Eurofins Sample No.			S25-Se0013803
Date Sampled			Sep 01, 2025
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	50	mg/kg	< 50
Naphthalene ^{N02}	0.5	mg/kg	< 0.5
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	66
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5

Client Sample ID			QA02
Sample Matrix			Soil
Eurofins Sample No.			S25-Se0013803
Date Sampled			Sep 01, 2025
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	56
p-Terphenyl-d14 (surr.)	1	%	69
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05
α-HCH	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
β-HCH	0.05	mg/kg	< 0.05
δ-HCH	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
γ-HCH (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.5	mg/kg	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1
Dibutylchloroendate (surr.)	1	%	75
Tetrachloro-m-xylene (surr.)	1	%	68
Organophosphorus Pesticides			
Azinphos-methyl	0.2	mg/kg	< 0.2
Bolstar	0.2	mg/kg	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2
Coumaphos	2	mg/kg	< 2
Demeton-S	0.2	mg/kg	< 0.2
Demeton-O	0.2	mg/kg	< 0.2
Diazinon	0.2	mg/kg	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2
Dimethoate	0.2	mg/kg	< 0.2

Client Sample ID			QA02
Sample Matrix			Soil
Eurofins Sample No.			S25-Se0013803
Date Sampled			Sep 01, 2025
Test/Reference	LOR	Unit	
Organophosphorus Pesticides			
Disulfoton	0.2	mg/kg	< 0.2
EPN	0.2	mg/kg	< 0.2
Ethion	0.2	mg/kg	< 0.2
Ethoprop	0.2	mg/kg	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2
Fenthion	0.2	mg/kg	< 0.2
Malathion	0.2	mg/kg	< 0.2
Merphos	0.2	mg/kg	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2
Mevinphos	0.2	mg/kg	< 0.2
Monocrotophos	2	mg/kg	< 2
Naled	0.2	mg/kg	< 0.2
Omethoate	2	mg/kg	< 2
Phorate	0.2	mg/kg	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2
Ronnel	0.2	mg/kg	< 0.2
Terbufos	0.2	mg/kg	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2
Tokuthion	0.2	mg/kg	< 0.2
Trichloronate	0.2	mg/kg	< 0.2
Triphenylphosphate (surr.)	1	%	73
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB*	0.1	mg/kg	< 0.1
Dibutylchloredate (surr.)	1	%	75
Tetrachloro-m-xylene (surr.)	1	%	68
Heavy Metals			
Arsenic	2	mg/kg	5.4
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	8.1
Copper	5	mg/kg	< 5
Lead	5	mg/kg	14
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	< 5
Zinc	5	mg/kg	34
Sample Properties			
% Moisture	1	%	22

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Sep 04, 2025	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Sep 04, 2025	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Sep 04, 2025	14 Days
BTEX - Method: LTM-ORG-2010 BTEX and Volatile TRH	Sydney	Sep 04, 2025	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Sep 04, 2025	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water	Sydney	Sep 04, 2025	14 Days
Organophosphorus Pesticides - Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS	Sydney	Sep 04, 2025	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water	Sydney	Sep 04, 2025	28 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Sep 04, 2025	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Sydney	Sep 04, 2025	14 Days



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

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: EP Risk Management (Newcastle)

Address: 80 Mount Street,
North Sydney
NSW 2060

Project Name: CHISHOLM

Project ID: EP4322

Order No.:

Report #: 1264159

Phone: 02 99225021

Fax:

Received: Sep 3, 2025 11:25 PM

Due: Sep 11, 2025

Priority: 5 Day

Contact Name: Mathew Cheshire

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						Moisture Set	Suite B10B:TRH/BTEXN/PAH/OC/POPP/PCB/M8
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	QA02	Sep 01, 2025		Soil	S25-Se0013803	X	X
Test Counts						1	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4,4'-DDD	mg/kg	< 0.05			0.05	Pass	
4,4'-DDE	mg/kg	< 0.05			0.05	Pass	
4,4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	105			70-130	Pass	
TRH C10-C14	%	118			70-130	Pass	
TRH C6-C10	%	99			70-130	Pass	
TRH >C10-C16	%	116			70-130	Pass	
Naphthalene	%	100			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	95			70-130	Pass	
Toluene	%	113			70-130	Pass	
Ethylbenzene	%	125			70-130	Pass	
m&p-Xylenes	%	120			70-130	Pass	
o-Xylene	%	130			70-130	Pass	
Xylenes - Total*	%	124			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	105			70-130	Pass	
Acenaphthylene	%	106			70-130	Pass	
Anthracene	%	98			70-130	Pass	
Benz(a)anthracene	%	105			70-130	Pass	
Benzo(a)pyrene	%	109			70-130	Pass	
Benzo(b&j)fluoranthene	%	106			70-130	Pass	
Benzo(g,h,i)perylene	%	114			70-130	Pass	
Benzo(k)fluoranthene	%	128			70-130	Pass	
Chrysene	%	122			70-130	Pass	
Dibenz(a,h)anthracene	%	112			70-130	Pass	
Fluoranthene	%	105			70-130	Pass	
Fluorene	%	106			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	109			70-130	Pass	
Naphthalene	%	108			70-130	Pass	
Phenanthrene	%	98			70-130	Pass	
Pyrene	%	107			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	90			70-130	Pass	
4,4'-DDD	%	99			70-130	Pass	
4,4'-DDE	%	93			70-130	Pass	
4,4'-DDT	%	85			70-130	Pass	
a-HCH	%	86			70-130	Pass	
Aldrin	%	79			70-130	Pass	
b-HCH	%	84			70-130	Pass	
d-HCH	%	88			70-130	Pass	
Dieldrin	%	94			70-130	Pass	

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan I				%	93			70-130	Pass	
Endosulfan II				%	107			70-130	Pass	
Endosulfan sulphate				%	82			70-130	Pass	
Endrin				%	102			70-130	Pass	
Endrin aldehyde				%	77			70-130	Pass	
Endrin ketone				%	89			70-130	Pass	
g-HCH (Lindane)				%	90			70-130	Pass	
Heptachlor				%	87			70-130	Pass	
Heptachlor epoxide				%	87			70-130	Pass	
Hexachlorobenzene				%	87			70-130	Pass	
Methoxychlor				%	87			70-130	Pass	
LCS - % Recovery										
Organophosphorus Pesticides										
Dimethoate				%	94			70-130	Pass	
Ethion				%	121			70-130	Pass	
Fenitrothion				%	100			70-130	Pass	
Methyl parathion				%	121			70-130	Pass	
LCS - % Recovery										
Polychlorinated Biphenyls										
Aroclor-1016				%	82			70-130	Pass	
Aroclor-1260				%	103			70-130	Pass	
LCS - % Recovery										
Heavy Metals										
Arsenic				%	96			80-120	Pass	
Cadmium				%	95			80-120	Pass	
Chromium				%	95			80-120	Pass	
Copper				%	95			80-120	Pass	
Lead				%	96			80-120	Pass	
Mercury				%	96			80-120	Pass	
Nickel				%	95			80-120	Pass	
Zinc				%	97			80-120	Pass	
Test	Lab Sample ID	QA Source		Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
Total Recoverable Hydrocarbons					Result 1					
TRH C6-C9	S25-Se0013409	NCP	%	89				70-130	Pass	
TRH C10-C14	N25-Se0012343	NCP	%	111				70-130	Pass	
TRH C6-C10	S25-Se0013409	NCP	%	87				70-130	Pass	
TRH >C10-C16	N25-Se0012343	NCP	%	111				70-130	Pass	
Naphthalene	S25-Se0013409	NCP	%	80				70-130	Pass	
Spike - % Recovery										
BTEX					Result 1					
Benzene	S25-Se0013409	NCP	%	85				70-130	Pass	
Toluene	S25-Se0013409	NCP	%	97				70-130	Pass	
Ethylbenzene	S25-Se0013409	NCP	%	84				70-130	Pass	
m&p-Xylenes	S25-Se0013409	NCP	%	83				70-130	Pass	
o-Xylene	S25-Se0013409	NCP	%	91				70-130	Pass	
Xylenes - Total*	S25-Se0013409	NCP	%	85				70-130	Pass	
Spike - % Recovery										
Polycyclic Aromatic Hydrocarbons					Result 1					
Acenaphthene	S25-Se0014611	NCP	%	108				70-130	Pass	
Acenaphthylene	S25-Se0014611	NCP	%	121				70-130	Pass	
Anthracene	S25-Se0014611	NCP	%	103				70-130	Pass	
Benz(a)anthracene	S25-Se0014611	NCP	%	114				70-130	Pass	
Benzo(a)pyrene	S25-Se0014611	NCP	%	117				70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(b&j)fluoranthene	S25-Se0014611	NCP	%	114			70-130	Pass	
Benzo(g,h,i)perylene	S25-Se0007346	NCP	%	113			70-130	Pass	
Benzo(k)fluoranthene	S25-Se0007346	NCP	%	96			70-130	Pass	
Chrysene	S25-Se0014611	NCP	%	127			70-130	Pass	
Dibenz(a,h)anthracene	S25-Se0014611	NCP	%	126			70-130	Pass	
Fluoranthene	S25-Se0014611	NCP	%	116			70-130	Pass	
Fluorene	S25-Se0014611	NCP	%	108			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S25-Se0014611	NCP	%	121			70-130	Pass	
Naphthalene	S25-Se0014611	NCP	%	110			70-130	Pass	
Phenanthrene	S25-Se0014611	NCP	%	104			70-130	Pass	
Pyrene	S25-Se0014611	NCP	%	118			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S25-Se0013803	CP	%	116			70-130	Pass	
4,4'-DDD	S25-Se0013803	CP	%	123			70-130	Pass	
4,4'-DDE	S25-Se0013803	CP	%	117			70-130	Pass	
4,4'-DDT	S25-Se0013803	CP	%	119			70-130	Pass	
a-HCH	S25-Se0013803	CP	%	116			70-130	Pass	
Aldrin	S25-Se0013803	CP	%	107			70-130	Pass	
b-HCH	S25-Se0013803	CP	%	105			70-130	Pass	
d-HCH	S25-Se0013803	CP	%	113			70-130	Pass	
Dieldrin	S25-Se0013803	CP	%	108			70-130	Pass	
Endosulfan I	S25-Se0013803	CP	%	113			70-130	Pass	
Endosulfan II	S25-Se0014611	NCP	%	85			70-130	Pass	
Endosulfan sulphate	S25-Se0013803	CP	%	104			70-130	Pass	
Endrin	S25-Se0013803	CP	%	118			70-130	Pass	
Endrin aldehyde	S25-Se0013803	CP	%	90			70-130	Pass	
Endrin ketone	S25-Se0013803	CP	%	100			70-130	Pass	
g-HCH (Lindane)	S25-Se0013803	CP	%	112			70-130	Pass	
Heptachlor	S25-Se0013803	CP	%	113			70-130	Pass	
Heptachlor epoxide	S25-Se0013803	CP	%	112			70-130	Pass	
Hexachlorobenzene	S25-Se0013803	CP	%	123			70-130	Pass	
Methoxychlor	S25-Se0013803	CP	%	121			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Dimethoate	S25-Se0013803	CP	%	107			70-130	Pass	
Ethion	S25-Se0014611	NCP	%	96			70-130	Pass	
Fenitrothion	S25-Se0013803	CP	%	123			70-130	Pass	
Methyl parathion	S25-Se0014611	NCP	%	78			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S25-Se0013803	CP	%	106			70-130	Pass	
Aroclor-1260	S25-Se0014611	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S25-Se0017884	NCP	%	97			75-125	Pass	
Cadmium	S25-Se0017884	NCP	%	79			75-125	Pass	Q08
Chromium	S25-Se0017884	NCP	%	96			75-125	Pass	
Mercury	S25-Se0017884	NCP	%	102			75-125	Pass	
Nickel	S25-Se0017884	NCP	%	93			75-125	Pass	
Zinc	S25-Se0017884	NCP	%	225.000000			75-125	Fail	Q08

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S25-Se0008813	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S25-Se0011601	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S25-Se0011601	NCP	mg/kg	59	84	36	30%	Fail	Q15
TRH C29-C36	S25-Se0011601	NCP	mg/kg	63	99	44	30%	Fail	Q15
TRH C6-C10	S25-Se0008813	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S25-Se0011601	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S25-Se0008813	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH >C16-C34	S25-Se0011601	NCP	mg/kg	< 100	110	29	30%	Pass	
TRH >C34-C40	S25-Se0011601	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S25-Se0008813	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S25-Se0008813	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S25-Se0008813	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S25-Se0008813	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S25-Se0008813	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S25-Se0008813	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S25-Se0013091	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4,4'-DDD	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDE	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDT	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
g-HCH (Lindane)	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S25-Se0013091	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	S25-Se0013091	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organophosphorus Pesticides				Result 1	Result 2	RPD		
Azinphos-methyl	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Bolstar	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorfenvinphos	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorpyrifos	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorpyrifos-methyl	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Coumaphos	S25-Se0013091	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Demeton-S	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Demeton-O	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Diazinon	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Dichlorvos	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Dimethoate	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Disulfoton	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
EPN	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethion	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethoprop	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethyl parathion	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fenitrothion	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fensulfthion	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fenthion	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Malathion	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Merphos	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methyl parathion	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Mevinphos	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Monocrotophos	S25-Se0013091	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Naled	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Omethoate	S25-Se0013091	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Phorate	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Pirimiphos-methyl	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Pyrazophos	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ronnel	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Terbufos	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Tetrachlorvinphos	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Tokuthion	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Trichloronate	S25-Se0013091	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	S25-Se0013091	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	S25-Se0013091	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	S25-Se0013091	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	S25-Se0013091	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	S25-Se0013091	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	S25-Se0013091	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	S25-Se0013091	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	S25-Se0013091	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S25-Se0013815	NCP	mg/kg	2.0	2.1	2.0	30%	Pass
Cadmium	S25-Se0013815	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S25-Se0013815	NCP	mg/kg	17	14	15	30%	Pass
Copper	S25-Se0013815	NCP	mg/kg	43	33	27	30%	Pass
Lead	S25-Se0013815	NCP	mg/kg	7.7	5.6	31	30%	Fail
Mercury	S25-Se0013815	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S25-Se0013815	NCP	mg/kg	53	59	10	30%	Pass
Zinc	S25-Se0013815	NCP	mg/kg	67	64	5.0	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	S25-Se0013815	NCP	%	6.9	8.0	15	30%	Pass

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Nileshni Goundar	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Organic
Ryan Phillips	Senior Analyst-Sample Properties



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

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

ABN: 50 005 085 521

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079
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ABN: 91 05 0159 898

Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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NZBN: 9429046024954

Auckland 35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: EP Risk Management (Newcastle)
Address: 80 Mount Street,
North Sydney
NSW 2060

Project Name: CHISHOLM
Project ID: EP4322

Order No.:
Report #: 1264159
Phone: 02 99225021
Fax:

Received: Sep 3, 2025 11:25 PM
Due: Sep 11, 2025
Priority: 5 Day
Contact Name: Mathew Cheshire

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						Moisture Set	Suite B10B:TRH/BTEXN/PAH/OC/POPP/PCB/M8
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	QA02	Sep 01, 2025		Soil	S25-Se0013803	X	X
Test Counts						1	1

