D.2 Preliminary Site Investigation (PSI)

Prepared for Panorama BESS SubCo Pty

Preliminary Site Investigation

Panorama BESS

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Acronyms and Abbreviations

AHD	Australian Height Datum
ASC	Australian Soil Classification
ASL	Above sea level
AWS	Automatic weather station
BESS	Battery Energy Storage System
BTEXN	Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene
CoPC	Chemicals of potential concern
CSM	Conceptual site model
DCP	Development Control Plan
DP	Deposited Plan
DPHI	Department of Planning, Housing and Infrastructure
DQI	Data quality indicators
DQO	Data quality objectives
EIS	Environmental Impact Statement
EPA	Environmental Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
GDE	Groundwater dependent ecosystem
GSG	Greater Soil Group
ha	hectares
km	kilometres
LEP	Local Environment Plan
LGA	Local government area
LOR	Limit of reporting
m	metres
mbgl	Metres below ground level
NATA	National Association of Testing Authorities

NEPM	National Environment Protection Measure
NGH	NGH Pty Ltd
NSW	New South Wales
OCP	Organochlorine Pesticides
OPP	Organophosphate Pesticides
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated biphenyls
POEO Act 1997	*Protection of the Environment Operations Act 1997*
PQL	Practical quantification limits
PSI	Preliminary Site Investigation
QA	Quality Assurance
QC	Quality Control
RPD	Relative percentage difference
SEPP	State Environmental Planning Policy
SVTM	State Vegetation Type Mapping
TRHs	Total Recoverable Hydrocarbons
UCL	Upper confidence limit

Executive summary

Introduction

NGH Pty Ltd was engaged by Panorama BESS SubCo Pty Ltd (the Applicant) to undertake a Preliminary Site Investigation for Lot 2 DP 864272, also known as 800 Mid Western Highway, Evans Plains, New South Wales 2795.

The site has historically been used for cropping, and a substation is located immediately to the northeast. Both land uses are identified as potentially contaminating activities under Table 1 of the Managing Land Contamination Planning Guidelines (EPA, 1998). Therefore, a PSI is required to satisfy the provisions of the *State Environmental Planning Policy (Resilience and Hazards) 2021.*

Objectives and scope of work

The Preliminary Site Investigation aimed to assess potential soil contamination at the site in line with relevant legislation and guidelines, including the National Environment Protection (Assessment of Site Contamination) Measure and *Contaminated Land Management Act (1997)*. It also evaluated contamination risks to human health, the adequacy of available information, and the site's suitability for the proposed land use.

The scope of works included a review of historical databases, land title searches and aerial photography, development of a preliminary conceptual site model, a site walkover and limited sampling program and the preparation of this report.

Discussion

The results of the Preliminary Site Investigation indicate that the site is situated on chromosols. Elevation across the broader site ranges between approximately 680 to 780 metres above Australian Height Datum, generally sloping east to west and down towards the Mid Western Highway.

One third order, three second order and six first order unnamed waterways intersect the site. These waterways feed into Evans Plains Creek, a sixth order waterway, approximately 1 kilometre to the west of the site.

A search of the Contaminated Land Record returned no records within the site. The Contaminated Land Record of Notices did not return any notices within the site, nor is the land known to contain a former gasworks development. The site is currently used for the purposes of grazing (improved pastures); however, the site has historically been utilised for cropping activities. A Transgrid substation occurs immediately to the northeast of the site.

Contaminants of potential concern associated with cropping activities include heavy metals, Organochlorine Pesticides and Organophosphate Pesticides, while Contaminants of Potential Concern associated with substations include heavy metals, Benzene, Toluene, Ethylbenzene, Xylene, Naphthalene, Total Recoverable Hydrocarbons, Polychlorinated Biphenyls, Polycyclic Aromatic Hydrocarbons and phenols. No records of Naturally Occurring Asbestos, nor is the site mapped as containing saline soils. The site is mapped as having an ‘extremely low (1-5%)’ of containing Acid Sulfate Soils.

Analytical results for the soil sampling program were below the Limit of Reporting for all analytes, except for some metals/metalloids and nutrients. All results were below the adopted Tier 1 Soil Screening Levels.

Limitations regarding this Preliminary Site Investigation have been discussed in 14.

Conclusion

The soil investigation and analytical testing undertaken concludes that all chemical analysis results were below the adopted site assessment criteria. This analysis indicates that disturbance of site soils during construction activities are not likely to present a risk to human health under a commercial / industrial land use.

Recommendations

An Unexpected Finds Procedure should be developed and implemented, should contaminated material be identified onsite during the construction program.

1. Introduction

1.1. Background

NGH Pty Ltd (NGH) was engaged by Panorama BESS SubCo Pty (the Applicant) to prepare a Preliminary Site Investigation (PSI), to support the development of a Battery Energy Storage System (BESS, the Project). The BESS would require excavation and land forming works. These activities may allow contaminants to be mobilised and present a risk to human health or the environment.

The Project is located on part of Lot 2 Deposited Plan (DP) 864272 (the site), also known as 800 Mid Western Highway, Evans Plains, New South Wales (NSW), 2795, refer to Figure 1-1. A transmission connection to the adjacent Transgrid substation, located on Lot 521 DP 603541 is also required to facilitate the injection of energy into the electricity grid.

The site has been historically utilised for agricultural activities, specifically cropping. In addition to this, a substation occurs immediately northeast of the site. Agricultural activities and substations are listed as potentially contaminating land use activities within Table 1 of the Managing Land Contamination Planning Guidelines (EPA, 1998). Therefore, a PSI is required to satisfy the provisions of the *State Environmental Planning Policy (Resilience and Hazards) 2021.*

1.2. Objectives and scope

The objectives of the PSI were to:

- Provide a report specific to the site, in general accordance with the *National Environment Protection (Assessment of Site Contamination) Measure,* as amended in 2013 (ASC NEPM) (NEPC, 1999)
- Identify and assess the nature and extent of existing or potential soil contamination at the site in general accordance with the *Contaminated Land Management Act 1997* (CLM Act) and relevant guidelines (refer to Section 1.3) made or endorsed by the NSW Environment Protection Authority (EPA)
- Assess whether, based on the preliminary soil analysis results, identified soil contamination poses unacceptable risks to human health
- Evaluate the adequacy and completeness of all information available for use in the assessment of risk and for making decisions on management requirements, including an assessment of uncertainty
- Determine whether the site is suitable for its current approved or the proposed land use and, if warranted, provide recommendations for further action.

The scope of work included:

- A review of the site history and environmental settings
- A site inspection
- Field investigations including:
  - A site walkover
  - A soil sampling program, including:
    - Six (6) test pits and two (2) boreholes to a maximum depth of 0.5 metres below ground level (mbgl)
- Collection of soil samples at 0.5 metre (m) intervals, and:
  - After a change in soil profile
  - If fill is encountered
  - If staining / odours are observed

- Sample analysis (refer to Section 8.3)
- Reporting including:
  - Completion of a Quality Assurance/Quality Control (QA/QC) program
  - Reviewing analytical data and comparing against the site assessment criteria
  - Providing a conclusion and recommendations for further work if required.

1.3. Applicable guidelines and standards

This PSI has been prepared in general accordance with the following reference documents:

- National Environment Protection (Assessment of Site Contamination) Measure, 1999 [ASC NEPM] (as amended May 2013) (NEPM, 2013)
- Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater of the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC, 2013a)
- Schedule B2 - Guideline on Data Collection, Sample Design and Reporting of the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC, 2013b)
- Contaminated Land Guidelines. Sampling Design Part 1 - Application (NSW EPA, 2022)
- Contaminated Land Guidelines. Sampling Design part 2 - Interpretation (NSW EPA, 2022)
- AS4482.1-2005 Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds. (Australian Standards, 2005) (currently withdrawn but referenced in the ASC NEPM)
- Managing Land Contamination Planning Guidelines (EPA, 1998).

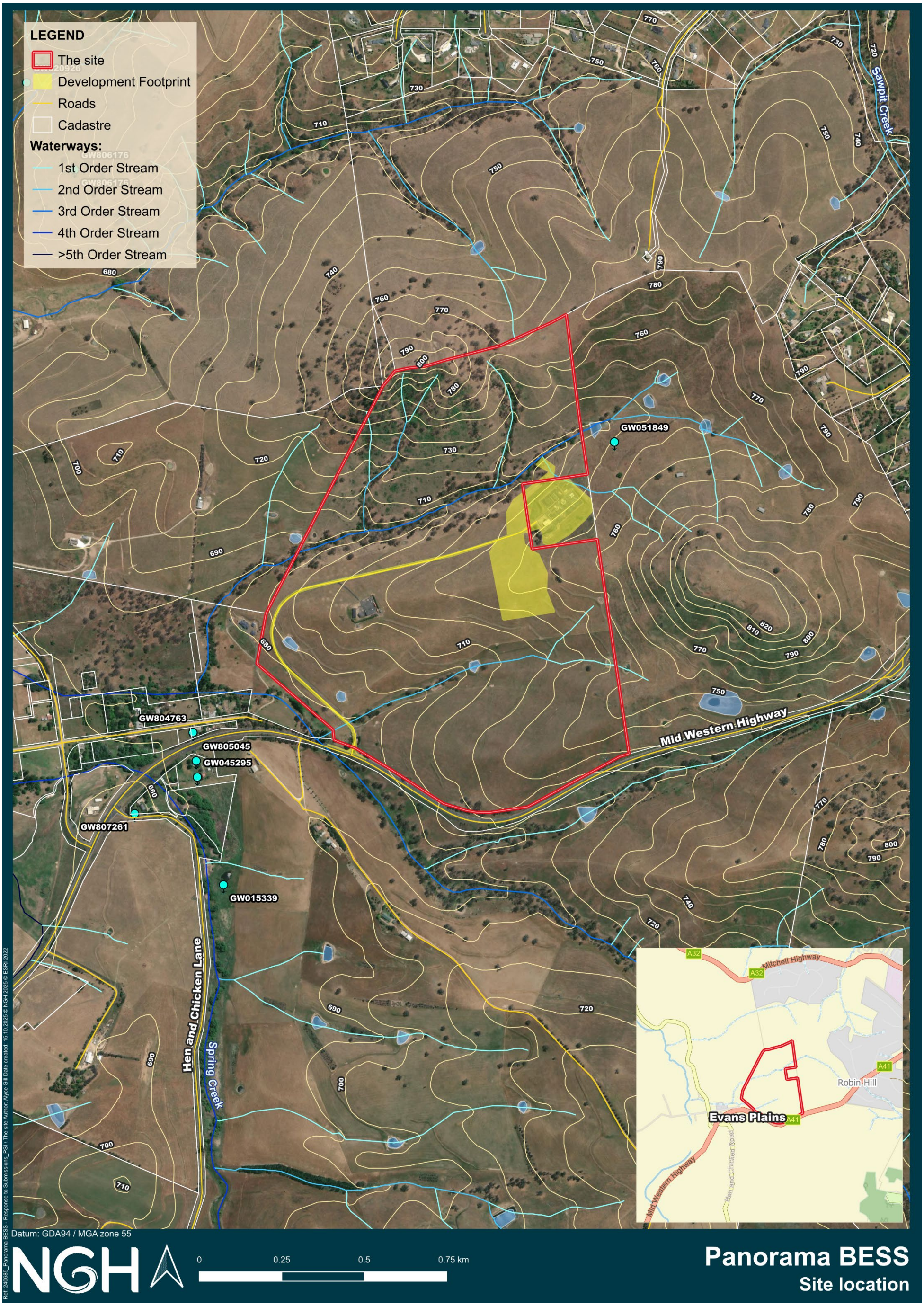

Figure 1-1 Site location

2. Site information

2.1. Site identification

Relevant details for the site are provided in Table 2-1.

Table 2-1 Site identification details

Aspect	Description
Lot / DP	Lot 2 DP 864272
Street address	800 Mid Western Highway, Evans Plains, NSW, 2795
Site area (hectares (ha))	109 ha
Project footprint (ha)	Approximately 5 ha
Local government area	Bathurst Local Government Area (LGA)
Planning scheme	Bathurst Local Environmental Plan (LEP) 2014
Site zoning	RU1 Primary Production

2.2. Contaminated land registers

Lotsearch (Appendix A) conducted a search of the following contaminated land databases on 26 February 2025:

- NSW Contaminated Land List
- Contaminated land – Records of Notice
- Former Gasworks
- EPA notices.

The searches identified no record of contamination within Lot 2 DP 864272.

2.3. Site history

2.3.1. Land zoning and use

The site is located within the Bathurst LGA. Lot 2 DP 864272 is zoned RU1 Primary Production under the Bathurst LEP 2014. Surrounding land is zoned Primary Production (RU1), Large Lot Residential (R5) and Infrastructure (SP2), refer to Figure 2-1. The Project site is currently used for the purposes of grazing (improved pastures).

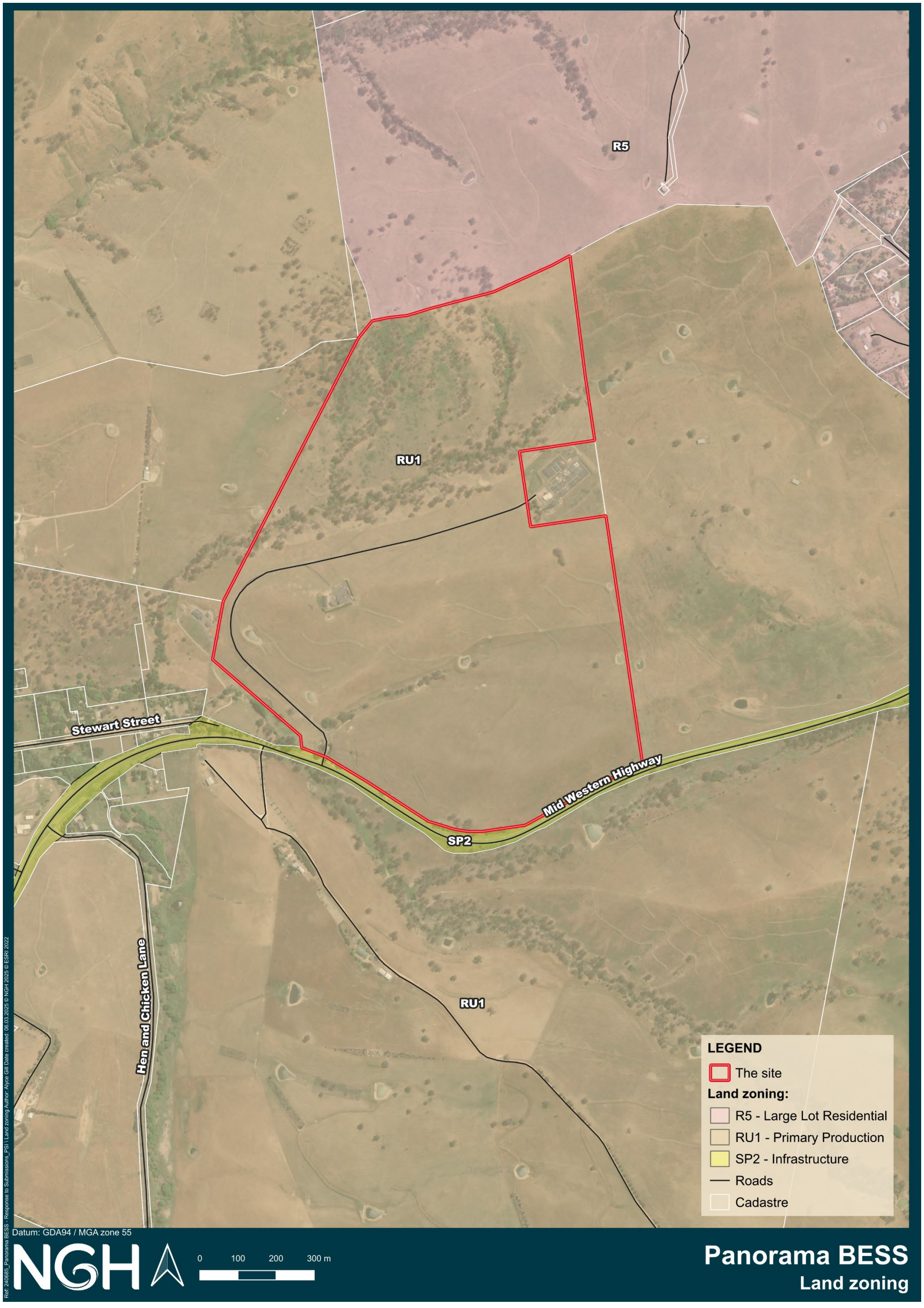

Figure 2-1 Land zoning

2.3.2. Aerial imagery review

Aerial images are compared to identify changes to the site over time with particular interest in the addition or removal of built infrastructure and use of the land. Changes in built infrastructure and land uses on a rural property of importance to note include but not limited to cropping, other agricultural activities such as livestock dips, infrastructure addition and removal, compounds and waste disposal on-site.

Aerial imagery for the site commences in 1954. The aerial imagery is reviewed in sequence to note changes, which are detailed in Table 2-2. The aerial imagery is provided in the Lotsearch Report, which is provided as Appendix A.

Table 2-2 Aerial photography review

Year	Source	Site	Land surrounding the site
1954	Geoscience Australia[1]	Most of the site has been cleared. Remnant vegetation remains in patches along the northern site boundary and along drainage lines in the northern portion of the site. In the southern portion of the site, majority of vegetation has been cleared except for along drainage lines and along what appears to be a fence line.	The Mid Western Highway is evident immediately south of the site. Unformalised roads have been constructed to the east of the site. A dwelling occurs approximately 160 metres (m) to the west of the site. A structure is evident approximately 250 m to the southwest.
1964	NSW Department of Customer Service	No notable changes from the 1954 aerial image.	Two dwellings have been constructed to the southwest. Cropping activities are evident to the northwest and southeast. A dam has been constructed to the southeast.
1972	NSW Department of Customer Service	Removal of trees has been undertaken within the southern portion of the site along drainage lines and the fence line.	No notable from the 1964 aerial image to surrounding land.

[1] All images were provided within the Lotsearch Report (Appendix A)

Year	Source	Site	Land surrounding the site
1984	NSW Department of Customer Service	A road has been constructed through the site. A structure and cleared hardstand area with road access is evident within the middle of the southern half of the site. Cropping activities are evident throughout the southern half of the site. Contouring has been constructed in the southern half of the site.	A Transgrid substation has been constructed immediately to the east. Cropping activities, two farm dams and a structure are evident to the northeast. A dam has been constructed approximately 300 m northwest. Two sheds have been constructed, one approximately 300 m to the west and one 300 m east.
1989	Geoscience Australia	The cleared area and structure within the middles of the southern half of the site has been removed and the access track looks overgrown.	An additional dwelling has been constructed approximately 300 m to the southwest.
1998	NSW Department of Customer Service	No notable changes from 1989 aerial image.	A structure (potential silo) has been constructed to the northeast.
2002	Google Inc	No notable changes from 1998 aerial image.	No notable changes.
2014	Google Inc	A structure (likely shed) and laydown area has been constructed at the north-western portion of the southern half of the site. Structures appear in the far south-eastern portion of the site.	No notable changes.
2024	Google Inc	Two dwellings have been constructed next to the structure (shed) along the northern portion of the southern half of the site (south of the vegetated waterway).	A dwelling has been constructed immediately to the west.

Year	Source	Site	Land surrounding the site
		A sealed hardstand and unsealed track have been constructed north from the structures in the far south-eastern portion of the site.	

2.3.3. Database searches

NGH engaged Lotsearch to prepare an Enviro Pro database search report. The dataset listing for this Lotsearch is included on page two of the report, refer to Appendix A. The search was undertaken on 26 February 2024 and identified the following items within a 1000 – 2000 m buffer of Lots 2 DP 864272.

Of note is that the only record returned for the site is in relation to former licenced activities under the *Protection of the Environment Operations Act 1997* (POEO ACT) and includes three former licences for other activities / non scheduled activity – application of herbicides – waterways throughout NSW.

Contaminated Land

- List of NSW contaminated sites notified to the EPA returned no records within the buffer
- The Contaminated Land Record of Notices search returned no records within the buffer
- The Former Gasworks returned no records within the buffer
- The EPA Notices search returned no records within the buffer.

Waste Management and Liquid Fuel Facilities

- National Waste Management Site Database search returned no records within the buffer
- National Liquid Fuel Facilities search returned no records within the buffer.

Per- and Polyfluoroalkyl Substances (PFAS) Investigation and Management Programs

- The EPA PFAS Investigation Program search returned no records within the buffer
- The Defence PFAS Investigation Program search returned no records within the buffer
- The Defence PFAS Management Program search returned no records within the buffer
- The Airservices Australia National PFAS Management Program search returned no records within the buffer
- The Defence Controlled Areas search returned no records within the buffer
- The Defence 3 Year Regional Contamination Investigation Program search returned no records within the buffer
- The National Unexploded Ordnance (UXO) search returned no results within the buffer.

EPA Activities

- The EPA Other Sites with Contamination Issues search returned no records within the buffer.
- Licensed activities under the *Protection of the Environment Operations Act 1997* (POEO Act 1997) returned no records within the buffer
- Delicensed activities still regulated by the EPA returned no records within the buffer
- Former licensed activities under the POEO Act 1997 now revoked or surrendered returned with three records within the buffer that are listed as *other activities / non scheduled activity – application of herbicides*, all located within the site and include:
  - Luhrmann Environment Management Pty Ltd
  - Robert Orchard
  - Sydney Weed and Pest Management Pty Ltd.

Historic Business Directories

- Business Directory Records 1950-1991 Premise or Road Intersection Matches returned no records within the buffer

- Business Directory Records 1950-1991 Road or Area Matches returned no records within the buffer
- Dry Cleaners, motor garages & service stations premise or road intersection matches, returned no records within the buffer
- Dry cleaners, motor garages and service station road or area matches returned no records within the buffer.

2.3.4. Planning instruments

A search of the NSW Planning Portal was undertaken on 12 February 2025. A Property Report was obtained for Lot 2 DP 864272.

Environmental Planning Instruments

The Bathurst LEP (2014) applies to the site.

State Environmental Planning Policies (SEPPs)

A list of relevant SEPPs can be found in Appendix B.

Proposed Environmental Planning Instruments

There are no draft local environmental plans applying to the site.

Development Control Plans

Bathurst Regional Development Control Plan (DCP) 2014.

Bushfire Prone Land

The site is not identified as bushfire prone land.

2.4. Site environmental settings

2.4.1. Climate

Understanding the climate in the context of the site can help to characterise the persistence, mobility and in some cases toxicity of potential contaminants.

Bathurst, NSW, exhibits a temperate climate characterised by distinct seasonal variations. The region experiences warm summers and cool winters, with rainfall distributed throughout the year.

Climate and weather statistics for the Bathurst Agricultural Automatic Weather Station (AWS) (station number 063005) are provided in Table 2-3.

Table 2-3 Climate and weather statistics for the Bathurst Agricultural AWS (station number 063005) (1908 – 2025)

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual average
Temperature													
Mean maximum temperature (°C)	28.1	27.2	24.7	20.2	15.7	12.3	11.3	13.0	16.4	20.0	23.5	26.4	19.9
Mean minimum temperature (°C)	13.5	13.2	10.8	6.7	3.3	1.5	0.6	1.3	3.3	6.2	9.0	11.5	6.7
Rainfall													
Mean rainfall (mm)	68.0	57.8	53.6	42.1	41.4	44.3	47.8	49.9	46.6	58.8	63.5	65.1	639.1
Decile 5 (median) rainfall (mm)	57.9	47.8	41.9	37.2	35.1	36.8	41.3	45.2	43.6	53.9	56.0	58.1	
Mean number of days of rain ≥ 1 mm	7.6	7.2	7.6	6.7	9.6	11.4	11.2	9.5	8.8	8.9	8.8	6.9	104.2
9AM Conditions													
Mean 9am temperature (°C)	20.4	19.5	17.0	12.9	8.3	5.6	4.5	6.2	9.8	13.9	16.8	19.4	12.9
Mean 9am relative humidity (%)	61	67	69	74	81	84	83	78	71	65	61	59	71

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual average
Mean 9am wind speed (km/h)	6.6	5.8	6.3	5.3	4.5	4.6	4.8	6.8	7.8	8.2	7.8	6.9	6.3
3PM Conditions													
Mean 3pm temperature (°C)	26.8	25.8	23.5	19.3	15.0	11.5	10.5	12.2	15.3	18.6	21.8	25.4	18.8
Mean 3pm relative humidity (%)	42	46	46	49	57	63	61	54	52	48	46	39	50
Mean 3pm wind speed (km/h)	11.3	10.1	9.7	8.9	7.8	7.6	9.0	10.7	11.2	11.3	11.5	12.1	10.1

Note: Red represents the highest value in the range, blue represents the lowest value in the range.

2.4.2. Topography

The topography of the site is used to identify the way in which potential contaminants will move across the landscape within the site and from upgradient surrounding sites. It can provide the probable direction of groundwater flow.

Elevation across the site ranges between approximately 680 to 780 metres above Australian Height Datum (AHD), generally sloping downwards to the west, refer to Figure 2-2. The land gently slopes downhill to the southeast.

2.4.3. Surface water and hydrology

One third order, three second order and six first order unnamed waterways intersect the site, refer to Figure 2-2. These waterways feed into Evans Plains Creek, a sixth order waterway, approximately 1 kilometre (km) to the west of the site.

Five farm dams occur within the site. One dam is located on the second order waterway in the southern half of the site flowing in an east-west direction. Two of the dams occur close to the western boundary, and two occur close to the eastern boundary, of the southern half of the site and act as water storages for surface water runoff from upgradient, which are fed by the land contouring. An additional ten farm dams occur within proximity to the site with six to the east, one to the south, two to the west and one to the north.

Most waterways originate from high areas in the landscape within the site. The headwaters of the third order waterway originate on the land adjacent to the north-eastern boundary of the site. The land upgradient is rural and used currently and historically for agricultural purposes such as cropping and grazing as identified in the aerial imagery.

An existing substation is located immediately south-east of the third order waterway. Topography of the site indicates that surface water will shed in a west to north-west direction across the site.

2.4.4. Vegetation

The majority of the Project development area has been historically cleared for grazing and cropping activities. Vegetation occurring within the site largely consists of exotic groundcover species.

State Vegetation Type Mapping (SVTM) indicates that the following Plant Community Types (PCTs) occur within the site (refer to Figure 2-3):

- PCT 3366 – Central Tableland Clay Apple Box Grassy Forest
- PCT 3376 – Southern Tableland Grassy Box Woodland
- PCT 3387 – Central West Creekflat Grassy Woodland
- PCT 3534 – Central West Stony Hills Stringybark-Box Forest
- PCT 4063 – Central and Southern Tableland River Oak Forest.

Aquatic habitat may be present at periods when the ephemeral waterways experience periods of flow.

2.4.5. Hydrogeology

Registered groundwater bores

There are no groundwater bores within the site. There are six groundwater bores within a 1 km radius of the site, refer to Figure 2-2 and Table 2-4. The closest groundwater bore to the site is located approximately

100°m east of the site, upgradient with a well ID GW015339. The depth of the well is 65.5 mgbl indicating that groundwater is far below the surface in this part of the landscape.

Table 2-4 Groundwater bores occurring within 1 km of the site

State Bore ID	Bore depth (m)	Drilled depth (m)	Status	Drilled date	Latitude	Longitude
GW804763	23	23	Use	2012-04-26	-33.4366662	149.5096077
GW015339	17.1	17.1	Use	1957-04-01	-33.4408136	149.5107227
GW807261	26.2	26.2	Use	1994-09-16	-33.4389243	149.5077714
GW051849	65.5	65.5	Unknown	1980-06-01	-33.4284384	149.5231197
GW045295	91.4	91.4	Unknown	1974-02-01	-33.437883	149.5097866
GW805045	36	36	Use	2012-12-10	-33.437439	149.5097375

Groundwater use

There are no records or evidence of groundwater use within the site.

Groundwater dependent ecosystems

The site is mapped as containing fractured, extensive aquifers of low to moderate productivity, refer to Appendix A. No aquatic or terrestrial groundwater dependent ecosystems (GDEs) occur within the site indicating a poor connection between terrestrial vegetation and groundwater aquifers.

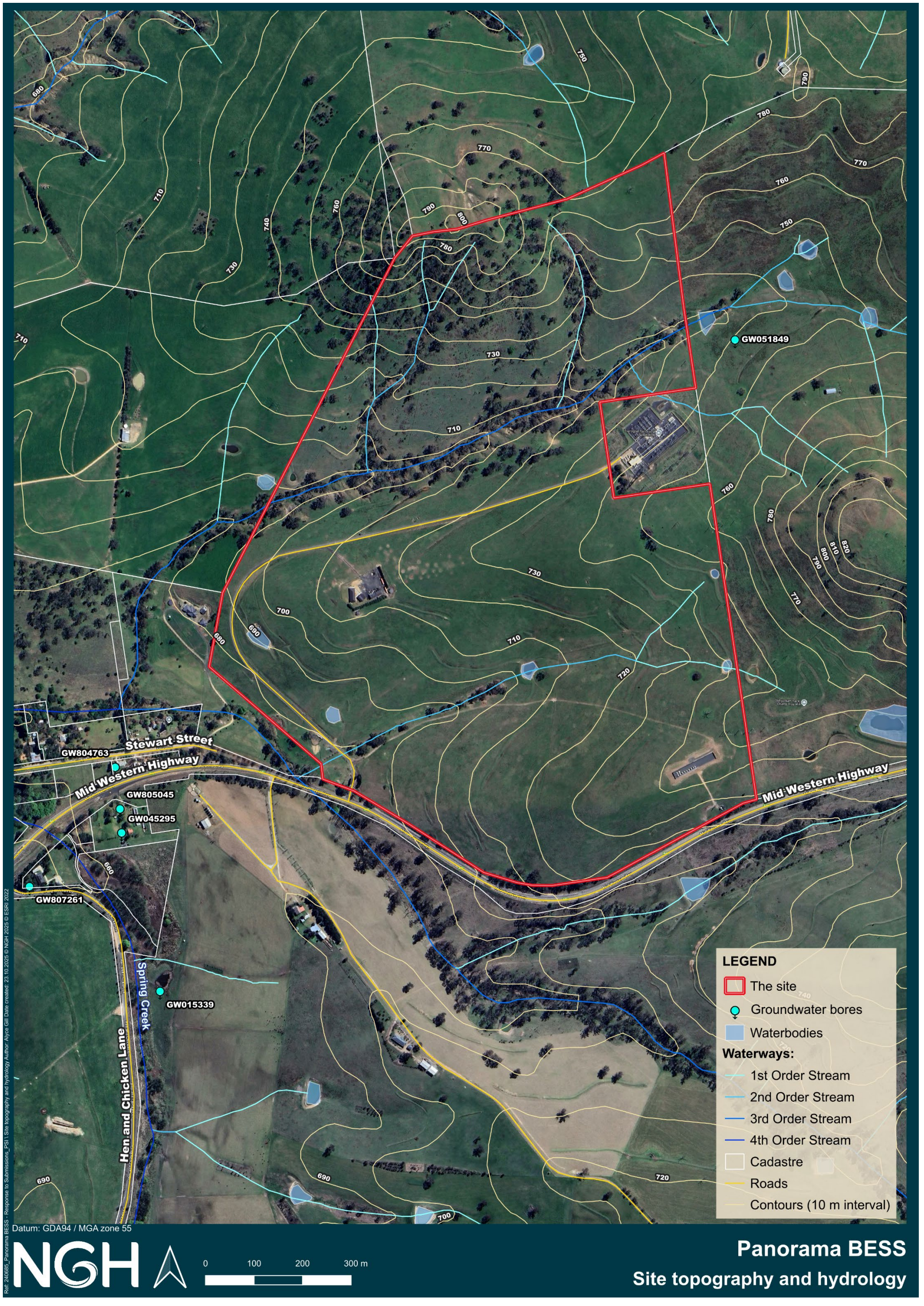

Figure 2-2 Site topography and hydrology

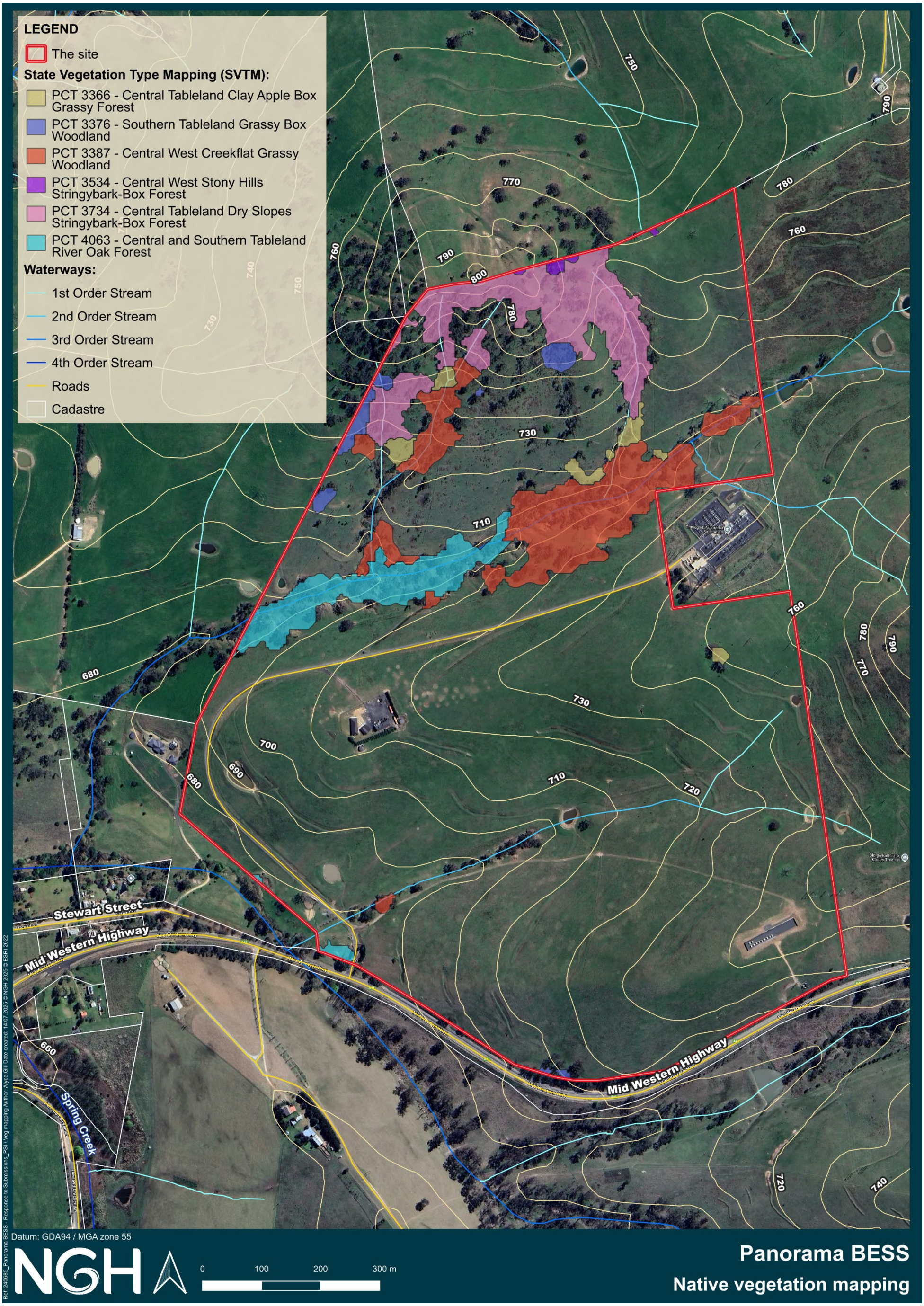

Figure 2-3 Native vegetation mapping within the site

2.4.6. Geology

The underlying geology of the site consists of Bathurst Granite, refer to Figure 2-4. This geological unit contains coarse-grained, porphyritic biotite granite. The dominant lithology of these residual deposits is granite. The nature of the underlying geology is used to inform several aspects including potential for naturally occurring asbestos and likely metals present and in what quantities in the soil.

Characteristics of the mapped underlying geology of the site indicate there is no naturally occurring asbestos identified within the dataset buffer used by Lotsearch, refer to Appendix A.

2.4.7. Soils

Soil characteristics are important in understanding rates of movement of potential contaminants through the soil profile and how they may interact with parameters such as pH (Potential Hydrogen).

Results of the Land and Soil Capability Assessment (SLR, 2024b) indicate that the site contains Eutrophic Brown Dermosols and Anthroposols. Soils within the site were classed as non-dispersive or slightly dispersive and do not require amelioration (SLR, 2024b).

The likelihood of acid sulfate soils occurring within the Study Area is very low due to its position away from the coast and potential acid sulfate landform type (SLR, 2024b). There are no records of dryland salinity or naturally occurring asbestos (NOA) occurring within the site, refer to Appendix A.

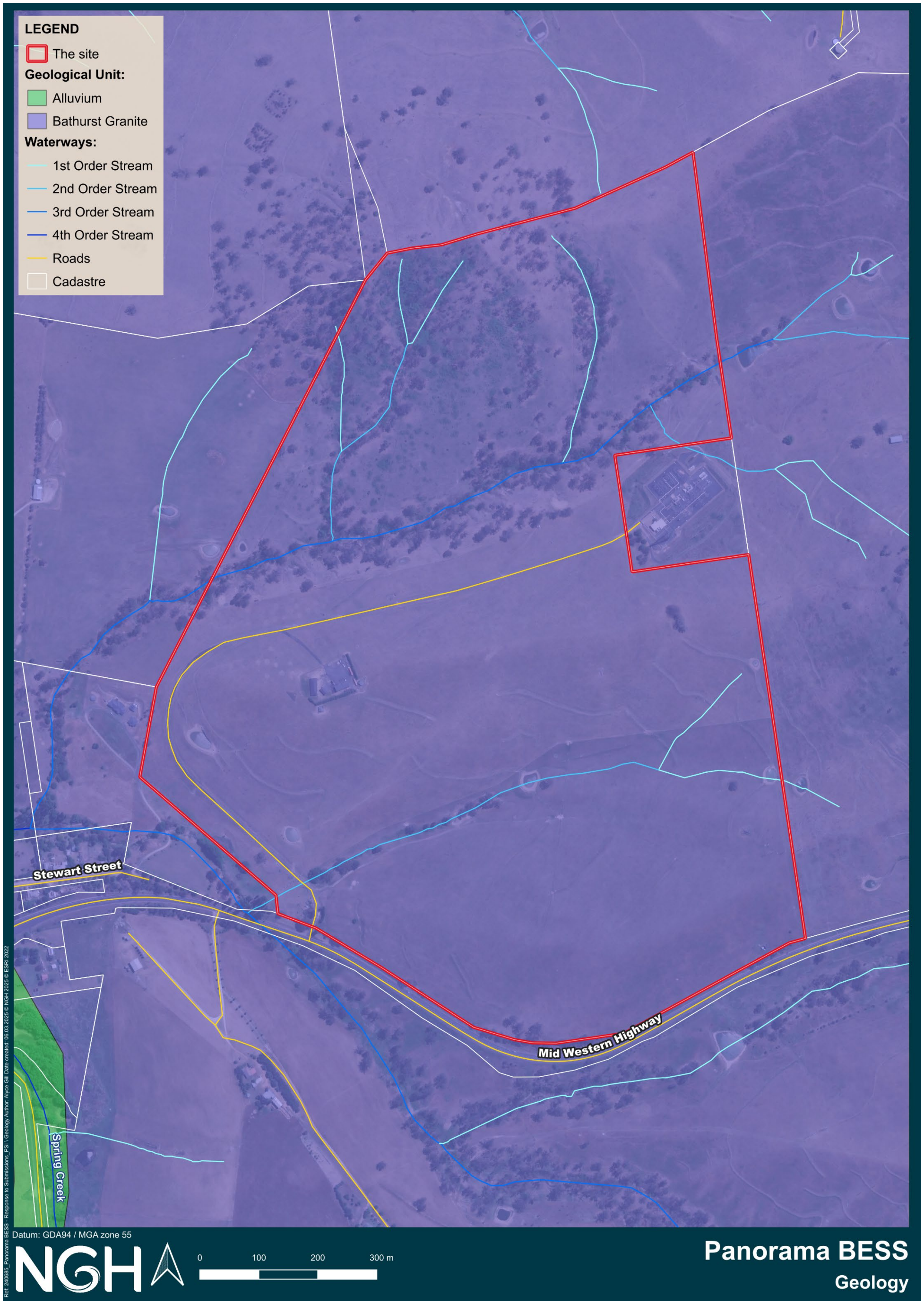

Figure 2-4 Geology occurring within the site

3. Preliminary conceptual site model

A preliminary conceptual site model (CSM) has been prepared to develop an understanding of the potential Areas of Environmental Concern (AEC) and potential contaminating pathways, refer to Table 3-1.

Table 3-1 Preliminary CSM

Potential Source of Contamination	Potential Chemicals of Concern	Transport Mechanisms	Potential Exposure Pathways	Potential Receptors
AEC1 Agricultural practices (cropping)	• Heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury) • Organochlorine Pesticides (OCPs) • Organophosphate Pesticides (OPPs)	• Disturbance – airborne release • Surface water runoff • Leachability into surficial, sub soils and underlying groundwater and transport via groundwater flows	• Inhalation of dust • Ingestion • Dermal contact	**Human receptors:** Construction workers and intrusive maintenance workers
			• Inhalation of dust • Dermal contact	**Off-site human receptors:** Adjacent land users
			• Inhalation of dust • Ingestion • Dermal contact	**Environmentally sensitive receptors:** One third order, three second order and six first order unnamed waterways intersect the site. These waterways feed into Evans Plains Creek, a sixth order waterway, approximately 1 kilometre (km) to the west of the site. Five farm dams occur within the site.
AEC2 Electrical substation	• Heavy metals • OCPs • OPPs	• Disturbance – airborne release • Surface water runoff	• Inhalation of dust • Ingestion • Dermal contact	**Human receptors:**

Potential Source of Contamination	Potential Chemicals of Concern	Transport Mechanisms	Potential Exposure Pathways	Potential Receptors
	• Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene (BTEXN) • Total Recoverable Hydrocarbons (TRHs) • Polychlorinated biphenyls (PCBs) • Polycyclic Aromatic Hydrocarbons (PAHs) • Phenols	• Leachability into surficial, sub soils and underlying groundwater and transport via groundwater flows		Construction workers and intrusive maintenance workers
			• Inhalation of dust • Dermal contact	**Off-site human receptors:** Adjacent land users
			• Inhalation of dust • Ingestion • Dermal contact	**Environmentally sensitive receptors:** One third order, three second order and six first order unnamed waterways intersect the site. These waterways feed into Evans Plains Creek, a sixth order waterway, approximately 1 kilometre (km) to the west of the site. Five farm dams occur within the site.

4. Potential Areas of Environmental Concern

The site history review, site inspection and review of anecdotal information identified the following potential Areas of Environmental Concern (AECs) and Chemicals of Potential Concern (CoPC):

AEC1 – Agricultural practices (cropping)

Agricultural practices are associated with heavy metals, OCPs and OPPs. Organochlorine compounds are known for their high toxicity, slow degradation and bioaccumulation. OCP/OPPs can leach through the soil profile and into groundwater, contaminating terrestrial and aquatic systems.

AEC2 – Electrical substation

The Transgrid substation was constructed between 1972 and 1984. Electrical substations constructed around this time are associated with a range of chemicals including but not limited to heavy metals, BTEXN, TRHs, PCBs, PAHs and phenols.

5. Sampling strategy and plan

5.1. Sampling strategy and justification

Justification for the adopted sampling strategy has been provided in Table 5-1.

Table 5-1 Justification for the sampling strategy

AEC	Investigation methodology	Justification
AEC1 - Agricultural practices	Test pits	Results of the PSI indicate that agricultural activities have occurred onsite. Agricultural activities are associated with heavy metals, OCPs, and OPPs. A soil sampling program is required to determine the presence and extent of soil contamination within the site.
AEC2 – Electrical substation	Test pits	A Transgrid substation occurs within the southwestern portion of the site. Electrical substations are associated with a range of chemicals including but not limited to heavy metals, BTEXN, TRHs, PCBs, PAHs and phenols. A soil sampling program is required to determine the presence and extent of soil contamination within the site.

This Preliminary Site Investigation (PSI) was designed to characterise surface and subsurface soils within the development footprint using a judgemental sampling approach, as illustrated in Figure 5-1.

In July 2025, NGH engaged a local bobcat operator to undertake intrusive investigations under the direction of an NGH Environmental Consultant. A handheld auger was used for the subsequent intrusive investigation conducted in October 2025.

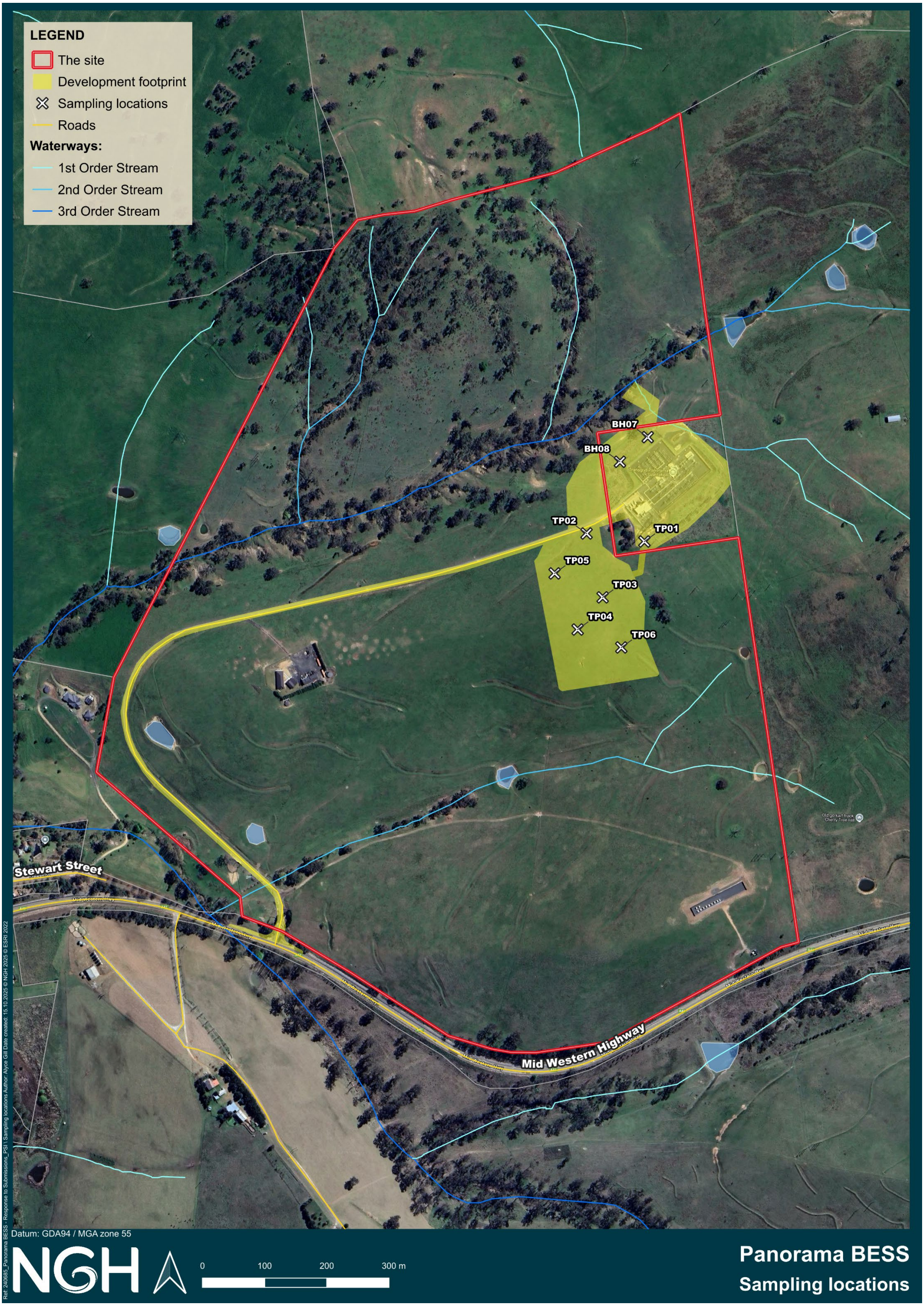

Figure 5-1 Sampling locations

6. Applicable Tier 1 soil screening levels

6.1. Introduction

As per Schedule B1 of the ASC NEPM (NEPM, 2013):

"*Investigation and screening levels can be used to evaluate potential risks to human health and ecosystems from site contamination.*

Investigation levels and screening levels are applicable to the first stage of site assessment. The selection and use of investigation and screening levels should be considered in the context of the iterative development of a conceptual site model to ensure appropriate evaluation of human health and ecosystem risks.

Site assessment should include consideration of all relevant human exposure pathways, ecological risks and risk to groundwater resources."

The ASC NEPM also states that:

"*Investigation and screening levels are not clean-up or response levels nor are they desirable soil quality criteria. Investigation and screening levels are intended for assessing existing contamination and to trigger consideration of an appropriate site-specific risk-based approach or appropriate risk management options when they are exceeded.*"

The selection of applicable screening levels needs to consider the protection of human health and the environment under current and proposed land use scenarios.

As the proposed land use is for commercial / industrial purposes, the site has been assessed against land use 'D' under the ASC NEPM.

6.2. Protection of human health

Health-based Investigation Levels (HIL), Health Screening Levels (HSL) and other criteria derived from the NEPM Schedule B1 (NEPM 2013) will be adopted to assess site contamination. The Tier 1 Soil Screening Levels (SSLs) for this site include:

- HIL/HSL D - Commercial/industrial such as shops, offices, factories and industrial sites.

Assessment criteria are discussed in Table 6-1 and Table 6-2.

Table 6-1 Assessment criteria rationale

Media	Criteria	Rationale	Reference
Soil	NEPM HIL/HSL D	Soil health-based investigation levels and other soil criteria derived from the NEPM Schedule B1 (NEPM 2013) will be adopted to assess site soil contamination.	NEPM Schedule B1 Table 1A(1) and Table 1A(3)

Table 6-2 Site assessment criteria for protection of human health

Analyte	Units	HIL/HSL 'D'
Metals		
Arsenic	mg/kg	3,000
Cadmium	mg/kg	900
Chromium	mg/kg	3,600
Copper	mg/kg	240,000
Lead	mg/kg	1,500
Mercury	mg/kg	730
Nickel	mg/kg	6,000
Zinc	mg/kg	400,000
BTEXN		
Benzene	mg/kg	4 (0.0 m – 1.0 m) 6 (1.0 m – 2.0 m) 9 (2.0 m – 4.0 m)
Toluene	mg/kg	NL
Ethylbenzene	mg/kg	NL
Total Xylenes	mg/kg	NL
Naphthalene	mg/kg	NL
TRHs		
C6 - C10 Fraction	mg/kg	-
C6 - C10 Fraction minus BTEX (F1)	mg/kg	800
>C10 - C16 Fraction	mg/kg	-
>C10 - C16 Fraction minus Naphthalene (F2)	mg/kg	1,000
>C16 - C34 Fraction	mg/kg	5,000
>C34 - C40 Fraction	mg/kg	10,000
PAHs		
Total PAHs	mg/kg	4,000
PCBs		

Analyte	Units	HIL/HSL 'D'
PCB (sum of total)	mg/kg	7
OCPs		
DDT+DDE+DDE	mg/kg	3,600
Aldrin and dieldrin	mg/kg	45
Chlordane	mg/kg	530
Endosulfan	mg/kg	2,000
Endrin	mg/kg	100
Heptachlor	mg/kg	50
HCB	mg/kg	80
Methoxychlor	mg/kg	2,500
Mirex	mg/kg	100
Toxphene	mg/kg	160
Other pesticides		
Atrazine	mg/kg	2,500
Phenols		
Phenol	mg/kg	240,000
2-Chlorophenol	mg/kg	-
2,4-Dichlorophenol	mg/kg	-
2,4,6 - Trichlorophenol	mg/kg	-
Pentachlorophenol	mg/kg	660

7. Data quality objectives and QA/QC

7.1. Data quality objectives

The ASC NEPM (NEPM, 2013) specifies that the nature and quality of the data produced in an investigation will be determined by the data quality objectives (DQOs). As referenced by the ASC NEPM, the DQO process is described in detail in the United States Environmental Protection Agency (US EPA) *Guidance on Systematic Planning Using the Data Quality Objectives Process (EPA QA/G-4: EPA/240/B-06/001),* February 2006 (US EPA, 2006).

The Data Quality Objectives (DQOs) processes are used to define the type, quantity and quality of data needed to support decisions relating to the Project objectives. It provides a systematic approach for defining the criteria a data collection design should satisfy, including when, where and how to collect samples or measurements; determination of tolerable decision error rates; and the number of samples or measurements that should be collected.

In determining the type, quantity and quality of data needed to support decisions relating to the environmental condition of the site, NGH has undertaken the seven-step process to develop the DQOs in accordance with the National Environment Protection Measure (ASC NEPM, Schedule B2) Guideline on Site Characterisation (2013). This document specifies that the nature and quality of the data produced in an investigation will be determined by the Data Quality Objectives (DQOs).

The DQO process used for the investigation can be found in Steps 1 to 7 below.

Step 1

The purpose of step 1 is to summarise the contamination problem that requires new environmental data, identify the resources available to resolve the problem, and develop a CSM.

Step 1 – State the problem	
Objective:	Determine the presence, concentration, extent, and potential risks to human health and the environment from potential AECs, refer to Section 4 of this PSI.
Contamination Issue:	This PSI is required to determine the presence and / or extent of contamination onsite, prior to the potential development of the site. Contaminants of concern include those listed in Table 6-2.
Project Driver:	Development of the site.
Project team and technical support:	• Client Name / Project Manager: Christopher Smith • NGH Project Controller: Rabeea Azeem • NGH Environmental Consultants: Willy Van Vaerenbergh, Nicola Smith, Alyce Gill and Martin Wyburn.
Community Concerns:	The scope of works planned for this investigation is unlikely to draw attention from the local community.

Step 2

The purpose of step 2 is to identify the decisions that need to be made about the contamination problem and the new environmental data required to make them.

Step 2 – Identify the decisions	
Contamination sources	• What are the historical operations and infrastructure that may have caused soil contamination?
Chemicals of Concern:	• What are the major CoPC?
Media and Receptors:	• Does a contaminant pose a human health risk to the receptors of concern? • Is there any evidence of or potential for migration of contaminants from the site which may impact offsite receptors?
Guidelines:	• Does the concentration of contaminants exceed assessment criteria?
End Use:	• Does the contamination affect the suitability of site for the proposed use?

Step 3

The purpose of step 3 is to identify the information needed to support any decision and whether new environmental measurements will be needed.

Step 3 – Identify inputs to the decision	
Environmental data:	• Sample analysis data. • Field observations
The media that is to be collected:	Soil
Assessment Criteria:	See Section 6.2 of this report
Laboratory Analytical Methods:	Laboratory analytical methods will be undertaken in accordance with the NEPM Schedule B3 *Guideline on Laboratory Analysis of Potentially Contaminated Soils* and the National Association of Testing Authorities (NATA) certification requirements.

Step 4

The purpose of step 4 is to specify the spatial and temporal aspects of the environmental media that the data must represent to support decision(s).

Step 4 – Define the study boundaries	
Geographical Limit:	The spatial boundary of the investigation is indicated in Figure 5-1. The vertical boundary is limited to the maximum depth of the sampling program (i.e. 0.5 m).

Step 4 – Define the study boundaries	
Temporal limit	The temporal limit for the investigation is confined to the time frame over which the investigation was conducted (sampling occurred on 9 July 2025 and 3 October 2025).
Investigation Limit:	The on-site investigation will target onsite AECs based on historic land uses. Potential onsite sources of contamination within the site are associated with the Deniliquin substation and agricultural activities.
Constraints:	Existing infrastructure (Transgrid substation).

Step 5

The purpose of step 5 is to define the parameter of interest, specifying the action level, and integrating information from Steps 1–4 into a single statement that gives a logical basis for choosing from alternative actions.

Step 5 – Develop a decision rule	
Assessment Criteria:	Refer to Section 6.2 of this report.

Decision Rule (tests of hypothesis):	Has the analytical data collected as part of the assessment met the Data Quality Indicators (DQIs) (see below)?
	• If **yes,** then the data can be used to answer the decision rule below and the decision statements developed in Step 2. If **no,** then an assessment of the need to collect additional data will be required:
	  ○ If the arithmetic mean or 95% Upper Confidence Limit of the mean is greater than the assessment criteria, the land will not be suitable for that land use unless remediation is undertaken.
	  ○ If any result is more than 250% of the assessment criteria, it will be considered a hotspot and will require further consideration.

Statistical parameters	Definition and use of a statistical parameter to assess the level of contamination only applies to those parameters/analytes where at least one concentration was above the LOR and/or exceeded the adopted trigger/guideline levels. No statistical analysis was undertaken for analytes with all concentrations below the LOR. The 95% upper confidence limit (UCL) of the arithmetic mean of soil concentrations is a key statistical parameter to assess land use suitability and management requirements. The data evaluation included: • The 95% UCL arithmetic mean to be ≤ criterion • No individual sample concentration to exceed 250% of the criterion • The sample standard deviation to be < 50% criterion. Additional considerations included aesthetic requirements, presence/absence of odours/staining, etc. Decision rule: the maximum and/or 95% UCL contaminant concentrations should not be above the Tier 1 SSLs to the extent that the remnant contamination cannot be managed.

Step 6

The purpose of step 6 is to specify the decision-maker's acceptable limits on decision errors, which are used to establish performance goals for limiting uncertainties in the data. This process uses systematic planning and statistical hypothesis testing to differentiate between two or more clearly defined alternatives.

Step 6 – Specify limits on decision errors	
Documentation and data completeness:	• Site conditions properly described • Sampling locations properly described and located • Completion of field records, chain of custody documentation, laboratory test certificates from NATA-registered laboratories • Samples are collected from all areas of potential environmental concern • Samples are tested for all potential contaminants of concern • Sampling events encounter samples most likely to be contaminated on more than one occasion.
Data Comparability:	• Use of appropriate techniques for the sampling, storage, and transportation of samples • Use of laboratories with NATA certification for the analyses conducted and undertaken using NEPM procedures • Use of secondary laboratories with NATA certification for the analyses conducted.
Data representativeness:	• Collection of representative samples from each sampling location • Collection of representative samples across the lateral and vertical extent • Use of appropriate techniques for the sampling, storage, and transportation of samples.
Precision for sampling and analysis:	• Achieve laboratory QC criteria • Blanks returned with no contamination • All matrix and surrogates returned acceptable results • All laboratory duplicates within acceptable ranges • All split duplicates within acceptable ranges • All control results within acceptable ranges • All practical quantification limits (PQLs) within acceptable ranges.
Accuracy for sampling and analysis:	• Use of properly trained and qualified field personnel • Use of blind field duplicate samples to be collected at a minimum rate of 1 in 20 • Relative Percentage Differences (RPDs) to be less than 30% for inorganic and 50% for organic analyses • Acceptable quality of rinsate samples • Acceptable quality of trip blank samples • Acceptable quality of trip spike samples • Acceptable quality of split duplicates.
Sampling Design:	The investigation methodology and sample design are summarised in Section 5.

Step 6 – Specify limits on decision errors	
Investigation null hypothesis	The site is not impacted by contaminated soil.

Step 7

The purpose of step 7 is to identify the most resource-effective sampling and analysis design for generating the data that are required to satisfy the DQOs.

Step 7 – Optimise the design for obtaining data	
Review of DQO outputs:	With consideration to NSW EPA, review of existing data and the evaluation of operational decision rules, a resource-effective sampling and analysis plan has been prepared with details provided in the following Sections.

7.2. Data quality indicators and QA/QC assessment

Project DQIs are provided in Table 7-1.

Table 7-1 Project DQIs

DQI	Frequency	Acceptance Criteria
Completeness		
All critical locations sampled and analysed in accordance with the sampling strategy	-	All critical locations sampled
Appropriate methods and limits of reporting (LORs)	All samples	Samples were analysed using NATA approved methods
All samples collected (from grid and at depth)	All samples	Samples collected in accordance with the sampling strategy
Standard operating practices appropriate and complied with	All samples	Work complies with NGH standard operating practices
Appropriate documentation for testing and COCs, all completed	All samples	This work was documented in accordance with NGH standard operating practices
Sampling holding times complied with	All samples	The samples were submitted for extraction within holding times specified by NATA laboratory
Suitability qualified and experienced sampler	All samples	Person deemed competent by NGH collecting and logging samples
Data considered 95% valid	-	Data complies with DQIs
Comparability		

DQI	Frequency	Acceptance Criteria
Suitability qualified and experienced sampler	All samples	Person deemed competent by NGH collecting and logging samples
Consistent analytical methods, laboratories, and units of measure	All samples	All analysis undertaken by NATA accredited laboratory
Climatic conditions recorded and influences (quantify or physical) on samples (if required)	All samples	Climatic conditions documented on field sheets
Representativeness		
Appropriate media sampled according to the sampling strategy	All samples	Sample analysis to be in accordance with NATA approved methods
Appropriate sample transport and handling	All samples	Samples arrive at the laboratory in an acceptable condition
Samples extracted and analysed within the correct holding times	All samples	Samples extracted and analysed in accordance with the nominated NATA accredited laboratory recommended holding times.
Precision		
Standard operating practices complied with	All samples	All samples
Intra-laboratory field duplicates	5% frequency or greater of the primary samples	<50% RPD for organic <30% RPD for inorganic Or <5 x LOR
Inter-laboratory field duplicates (triplicates)	5% frequency or greater of the primary samples	<50% RPD for organic <30% RPD for inorganic Or <5 x LOR
Laboratory duplicates	1 per batch of 20 samples	>10 x LOR
Accuracy (bias)		
Matrix spikes, Laboratory control samples and Surrogate recoveries	1 per batch of 20 samples	70-130% for inorganics/metals 60-140% for organics
Trip blank	1 per day	< LOR
Rinsate	1 per day where reusable equipment is used	< LOR

7.3. Field QA/QC assessment

7.3.1. Field QA/QC program

A field QA/QC program was undertaken, and includes the following:

Sampling Team: All field work was conducted by appropriately trained environmental consultants.

Field Notes: For each sample location, logging was taken and includes (where relevant) the data, time, location (with coordinates if possible), sampler name, duplicate samples, site observation and meteorological conditions, photos, diagrams, and maps. Soil logs are provided in Appendix C.

Chain of Custody: All samples were logged and transferred under appropriately completed Chain of Custody forms, refer to Appendix D.

Sample Labelling: The sample labels include sample identification numbers, date of collection, sampler initials and project number. Each sample was labelled with a unique sample identification number to facilitate tracking and cross referencing of sample information. QA/QC samples are also to be numbered with a unique sample number, consistent with the numbering system required for the project.

Preservation: All samples were collected in appropriate containers (supplied by the laboratory) and transported on ice bricks in eskies.

Decontamination: Sampling was undertaken using a mini excavator. Loose soil was brushed off in between sampling locations.

Rinsate: A rinsate sample was not required for this sampling program (see comments on decontamination above).

Intra-Laboratory Duplicate: An intra-laboratory duplicate is a QC sample used to determine the precision associated with all or part of the sample collection. Field duplicates are two independent samples that are collected from the same point at the same time and used to assess the homogeneity and reproducibility of the sampling technique. The precision or reproducibility is measured from the differences observed in the analysis of duplicate samples. The precision or reproducibility is measured from the differences observed in the analysis of duplicate samples.

Where samples are analysed in duplicate, the quality of the results is assessed by calculating the relative percent difference (RPD) between the reported and repeated results.

The RPD is calculated as follows: RPD = 200 * (|X1 - X2 |) / (X1 + X2)

Where X1 and X2 are the results obtained for the samples and its duplicate, and |X1 - X2| is the absolute difference between the duplicate samples.

A relative level of difference up to 50% is considered acceptable. Where the results are below the detection limits a calculation was not possible.

Inter-Laboratory Duplicate: An inter laboratory duplicate is a sample taken from the same point and the same time as the other samples and analysed by a separate and independent laboratory. This provides some degree of confidence that the analyses conducted by the main laboratory has been undertaken according to acceptable reproducible standards. Where samples are analysed in duplicate, the quality of the results is assessed by calculating the relative percent difference (RPD) between the primary, and duplicate laboratory results.

The RPD is calculated as follows: RPD = 200 * |X1 - X2 | / X1 + X2

Where X1 and X2 are the results obtained for the samples and its duplicate, and |X1 - X2| is the absolute difference between the duplicate samples.

A relative level of difference up to 50% is considered acceptable. Where the results are below the detection limits a calculation was not possible.

Trip Spike: A laboratory prepare clean glass jar is filled clean soil and then 'spiked' with a pre-determined quantity of volatile compounds. The purpose of the trip blank is to test the loss of volatile compounds during the sampling program. The trip spike is taken out into the field and returned (unopened) for analysis. Noting the small scope of the sampling program, a trip spike was not considered necessary. The results of the inter-laboratory and intra-laboratory duplicate were considered sufficient to inform the QA/QC program.

Trip Blank: A laboratory prepared clean glass jar is filled with clean soil (sand) supplied by the analysing laboratory and is stored within the sample 'esky' and transported to the laboratory with the other samples. The purpose of the trip blank is to detect any sample contamination due to transport activities. Trip blanks are analysed at a rate of one per day. Noting the small scope of the sampling program, a trip blank was not considered necessary. The results of the inter-laboratory and intra-laboratory duplicate were considered sufficient to inform the QA/QC program.

7.3.2. Field QA/QC assessment

The results of the laboratory analysis for field QA/QC samples are shown in the chemical analysis summary tables provided in Appendix D and summarised as follows:

- Two (2) intra-laboratory duplicate samples were collected as part of this investigation. This sample was analysed by ALS Environmental (Sydney). The calculated RPD values for the duplicate sample were compared against the acceptable range of 30% for inorganic analytes and 40% for organic analytes. The RPDs were below or at the acceptable ranges for all analytes, refer to Appendix F
- Two (2) inter-laboratory samples were collected as part of the investigation. The calculated RPD values for the duplicate sample were compared against the acceptable range of 30% for inorganic analytes and 40% for organic analytes. The RPDs were below or at the acceptable ranges for all analytes, except for DUP02 (Lead – 82.35%), refer to Appendix F. The results were considered sufficient to inform the QA/QC program
- A trip blank / trip spike was required for the second sampling event (3 October 2025). The calculated RPD values for the duplicate sample were compared against the acceptable range of 30% for inorganic analytes and 40% for organic analytes. The RPDs were below or at the acceptable ranges for all analytes, except for Total Xylenes (136.84%), refer to Appendix F. Noting the small scope of the second sampling program, the results were considered sufficient to inform the QA/QC program
- A rinsate sample was collected for the second sampling event (3 October 2025). The results of the rinsate sample were below the LOR for all analytes.

7.4. Laboratory QA/QC program

NATA accredited laboratories undertake specific registered tests. A data validation process assesses the effectiveness and reliability of the analytical process undertaken for the use of the data. This includes but not limited to the following:

Holding Times: Holding times are the maximum time in days from the collection of the sample to its extraction and/or analysis. All extraction and analyses are completed within the standard guidelines.

Reagent Blanks: The reagent (chemical) blank sample is a laboratory prepared sample containing the reagents used to prepare the sample for final analysis. The purpose of this procedure is to identify contamination in the reagent materials and assess potential bias in the sample analysis due to contaminated reagents. The QC criterion is no detectable contamination in the reagents.

Control Standard: Prepared from a source independent of the calibration standards. At least one control standard is included in each run to confirm calibration validity.

Internal Standard: Added to all samples requiring analysis for organics (where relevant). After the extraction process; the compounds serve to give a standard of retention time and response, which is invariant from run to run with the instruments.

Laboratory Duplicates: Laboratory duplicates are field samples that are split in the laboratory and subsequently analysed several times in the same batch. These sub-samples are selected by the laboratory to assess accuracy / precision of the analytical method. ALS Environmental undertake QA/QC procedures such as calibration standards, laboratory control samples, surrogates, reference materials, sample duplicates and matrix spikes. Intra-laboratory duplicates are performed at a frequency of 1 per 20.

Matrix Spike: A portion of the sample is spiked with a known concentration of a targeted analyte. The spiking occurs during the sample preparation and prior to the extraction / digestion procedure. They are used to document the precision and bias of a method in a given sample matrix. Where there is not enough sample available to prepare a spiked sample, another known soil/sand or water may be used. (It is usual for a duplicate spiked sample to be prepared at least every 20 samples).

Laboratory Control Sample: A laboratory control sample (LCS) is a standard reference material used in preparing primary samples. The concentration should be equivalent to a mid-range standard to confirm the primary calibration. LCS are performed at a frequency of 1 per 20 samples or at least one per analytical run.

Surrogate Spike: Surrogates are additions to each sample, blank, matrix spike and LCS in a batch of compounds that are like the analyte of interest. They are used to determine the extraction efficiency. However, are not expected to be found in real samples.

Laboratory Reporting: For laboratories with appropriate QA, the reagent blank, duplicates, matrix spikes and surrogate spikes are reported along with the results. The targeted recovery range for the laboratory spikes, controls and surrogates shall be 70% to 130% of the known addition.

The laboratory QA/QC indicators should all comply with the required standards or have no significant variations that would affect the quality of the data.

7.4.1. Laboratory QA/QC assessment

The primary laboratory used for chemical analysis of the validation samples was ALS Environmental (Sydney). A summary of the laboratory report comments indicated that:

- No method blank value outliers were identified
- No duplicate outliers were identified
- Laboratory control outliers were identified (Phenols, PAHs, pesticides, PCBs and TRHs (semi volatile fraction))
- Matrix spike outliers were identified (Phenols, PAHs, pesticides, PCBs and TRHs (semi volatile fraction))
- No surrogate outliers were identified
- No analysis holding time outliers were identified
- No quality control sample frequency outliers were identified.

The laboratory QA/QC data as supplied for each analysis confirm acceptable precision and accuracy of the analytical result for ALS Environmental.

A comprehensive review of the Project DQIs has been provided in Table 7-2.

7.5. Review of DQIs

Table 7-2 Post fieldwork review of DQIs

DQI	Frequency	Acceptance Criteria	Post field work review comments
Completeness			
All critical locations sampled and analysed in accordance with the sampling strategy	-	All critical locations sampled	Yes
Appropriate methods and PQL's	All samples	Samples were analysed using NATA approved methods	Yes
All samples collected (from grid and at depth)	All samples	Samples collected in accordance with sampling strategy	Yes
Standard operating practices appropriate and complied with	All samples	Work complies with NGH standard operating practices	Yes
Appropriate documentation for testing and COC's, all completed	All samples	This work was documented in accordance with NGH standard operating practices	Yes
Sampling holding times complied with	All samples	The samples were submitted for extraction within holding times specified by NATA laboratory	Yes
Suitability qualified and experienced sampler	All samples	Person deemed competent by NGH collecting and logging samples	Yes
Data considered 95% valid	-	Data complies with DQIs.	Yes
Comparability			

DQI	Frequency	Acceptance Criteria	Post field work review comments
Suitability qualified and experienced sampler	All samples	Person deemed competent by NGH collecting and logging samples	Yes
Consistent analytical methods, laboratories and units of measure	All samples	All analysis undertaken by NATA accredited laboratory	Yes
Climatic conditions recorded and influences (quantify or physical) on samples (if required)	All samples	Climatic conditions documented on field sheets	Yes
Representativeness			
Appropriate media sampled according to the sampling strategy	All samples	Sample analysis to be in accordance with NATA approved methods	Yes
Appropriate sample transport and handling	All samples	Samples arrive at laboratory in acceptable condition	Yes
Samples extracted and analysed within the correct holding times	All samples	In accordance with the nominated NATA accredited laboratory recommended holding times.	Yes
Precision			
Standard operating practices complied with	All samples	All samples	Yes
Intra-laboratory field duplicates	5% frequency or greater of the primary samples	<50% RPD for organic <30% RPD for inorganic Or <5 x LOR	Results for the intra-laboratory field duplicate were compliant with the acceptance criteria, refer to Appendix F.

DQI	Frequency	Acceptance Criteria	Post field work review comments
Inter-laboratory field duplicates (triplicates)	5% frequency or greater of the primary samples	<50% RPD for organic <30% RPD for inorganic Or <5 x LOR	Two (2) inter-laboratory samples were collected as part of the investigation. The calculated RPD values for the duplicate sample were compared against the acceptable range of 30% for inorganic analytes and 40% for organic analytes. The RPDs were below or at the acceptable ranges for all analytes, except for DUP02 (Lead – 82.35%), refer to Appendix F. The results were considered sufficient to inform the QA/QC program.
Laboratory duplicates	1 per batch of 20 samples	>10 x LOR	Yes
Accuracy (bias)			
Matrix spikes, Laboratory control samples and Surrogate recoveries	1 per batch of 20 samples	70-130% for inorganics/metals 60-140% for organics	Laboratory control samples, matrix spikes and surrogate recoveries were within the acceptable ranges, except for Total Xylenes (136.84%), refer to Appendix F. Noting the small scope of the second sampling program, the results were considered sufficient to inform the QA/QC program.
Rinsate	1 per day where reusable equipment is used	<LOR	A rinsate sample was collected for the second sampling event (3 October 2025). The results of the rinsate sample were below the LOR for all analytes.

7.6. Data completeness evaluation

Completeness is a quality assurance/quality control term and is defined as the measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under normal conditions.

The goals for this project shall be 95% completeness. Completeness is assessed or calculated with respect to the following equation:

C = 100 x (V/N)

where: C = percent completeness

V = number of measurements judged valid

N = total number of measurements.

- **Sample Collection**: Sixteen (16) primary soil samples and four (4) QA/QC samples were collected. All samples were delivered to the laboratory (with the exception of the inter-laboratory sample, which broke in transit) using appropriate Chain of Custody procedures
- **Sample Analysis**: All primary and QA/QC samples were successfully analysed (with the exception of the inter-laboratory sample, which broke in transit) and results received from EnviroLab (Sydney).
- **Duplicate/Triplicate/Primary Sample Assessment**: Two (2) duplicate and two (2) triplicate samples were collected. The intra-laboratory sample was delivered to the laboratory using appropriate Chain of Custody procedures. The inter-laboratory sample broke during transit and was unable to be analysed. Results for the intra-laboratory field duplicate were compliant with the acceptance criteria, refer to Appendix F.

With respect to the above comments, all the valid data expected to be obtained, was able to be used to assess the 'completeness of data'.

In summary, data completeness was 100% and it was concluded that data generated for the report is of an acceptable quality to achieve the objectives of the report.

8. Site investigation

8.1. Site walkover

An NGH Environmental Consultant completed a site walkover on 9 July 2025. Two sampling events were undertaken:

- First sampling event: Conducted on 9 July 2025 using test pits at locations TP01 to TP06
- Second sampling event: Conducted on 3 October 2025 using a hand-held auger at locations BH07 and BH08.The site walkover included a targeted inspection of the development footprint, as well as general observations of the adjacent surroundings.

No attempt was made to access adjoining properties.

Observations made during the site walkover included the following:

- The site slopes generally slopes downgradient to the west
- The site was observed to be well vegetated
- An unformalised gravel access road services the site and adjoining substation
- Coarse woody debris were observed
- Stormwater infrastructure (e.g. culverts) and rock armouring was observed within and within proximity to the substation
- Transmission line infrastructure was observed adjacent to the substation
- No evidence of potential surface soil contamination (e.g. staining or odours) was observed.

Refer to Appendix G for site photos.

8.2. Soil sampling program

First sampling event

A NGH Environmental Consultant and a local bobcat operator attended the site on 9 July 2025.

Soil sampling involved the excavation and sampling of six (6) test pits to a maximum depth of 0.5 mbgl, refer to Figure 5-1.

No evidence of potential surface soil contamination (e.g. staining or odours) was observed during the site walkover. Therefore, testpit locations were selected on a judgemental basis, to target the substation, and cropped areas.

NGH engaged a local bobcat operator to undertake the intrusive investigation (under the direction of a NGH Environmental Consultant). Surface samples were taken immediately below any vegetation or detritus layers. Subsurface soil samples were taken at 0.5 mbgl. Additional samples were collected if:

- There was a change in soil profile
- Fill was encountered
- Staining / odours were observed.

Second sampling event

An NGH Environmental Consultant attended the site on 3 October 2025 to undertake soil sampling. Two (2) boreholes were drilled using a hand auger to a maximum depth of 0.5 mbgl, refer to Figure 5-1.

No visual or olfactory indicators of potential surface soil contamination (e.g. staining or odours) were observed during the site walkover. As a result, borehole locations were selected on a judgemental basis, targeting areas within the development footprint that are downgradient of the substation.

Additional samples were collected if:

- There was a change in soil profile
- Fill was encountered
- Staining / odours were observed.

8.3. Laboratory analysis program

Soil samples were sent to ALS Environmental (Sydney) for the following analyses, refer to Table 8-1.

Table 8-1 Laboratory analysis program

Test pit ID	Heavy metals	OCPs/OPPS	BTEXN	TRHs	PAHs	PCBs	Phenols
TP01 – surface (0.0 – 0.1 m)	X	X	X	X	X	X	X
TP01 – subsurface (0.5 m)	X	X	X	X	X	X	X
TP02 – surface (0.0 – 0.1 m)	X	X	X	X	X	X	X
TP02 – subsurface (0.5 m)	X	X	X	X	X	X	X
TP03 – surface (0.0 – 0.1 m)	X	X					
TP03 – subsurface (0.5 m)	X	X					
TP04 – surface (0.0 – 0.1 m)	X	X					
TP04 – subsurface (0.5 m)	X	X					
TP05 – surface (0.0 – 0.1 m)	X	X					
TP05 – subsurface (0.5 m)	X	X					
TP06 – surface (0.0 – 0.1 m)	X	X					
TP06 – subsurface (0.5 m)	X	X					
BH07 – surface (0.0 – 0.1 m)	X	X	X	X	X	X	X
BH07 – subsurface (0.5 m)	X	X	X	X	X	X	X
BH08 – surface (0.0 – 0.1 m)	X	X	X	X	X	X	X
BH08 – subsurface (0.5 m)	X	X	X	X	X	X	X

Test pit ID	Heavy metals	OCPs/OPPS	BTEXN	TRHs	PAHs	PCBs	Phenols
DUP01 (9 July 2025)	X						
DUP02 (9 July 2025)	X						
DUP01 (3 October 2025)	X	X	X	X	X	X	X
DUP02 (3 October 2025)	X	X	X	X	X	X	X

9. Soil investigation results

9.1. Field observations

First sampling event (9 July 2025)

The following observations were recorded during the intrusive investigation:

- Six (6) test pits were advanced to 0.5 mbgl using an excavator
- Testpit lithologies were generally observed to consist of a dark brown / reddish brown sandy clay (0.0 – 1.0 m) over sandy clay (0.5 m)
- Ground coverings, including soil and grass, were observed
- Coarse fragments (e.g. blue metal) we observed at all locations
- Uncontrolled fill was observed at TP01
- No anthropogenic materials, such as waste, nails or rubble, were observed
- No asbestos containing material (ACM) was observed onsite
- Mottling was observed at all locations (apart from TP06)
- Groundwater was not encountered during the investigation.

Second Sampling event (3 October 2025)

- Two (2) boreholes were advanced to 0.5 mbgl using a mechanical auger
- Borehole lithologies were generally observed to consist of brown clayey sand or dark brown sandy clay (0.0 – 0.1m) over brown sandy clay or brown clayey sand (0.5 m)
- Ground coverings, including soil and grass, were observed
- No anthropogenic materials, such as waste, nails or rubble, were observed
- Coarse fragments were observed at BH08
- No asbestos containing material (ACM) was observed onsite
- Mottling was observed at all borehole locations
- Groundwater was not encountered during the investigation.

Refer to Appendix C for soil logs and Appendix G for photos taken during the soil sampling programs.

9.2. Soil analysis results

Laboratory documentation is provided in Appendix D. Detailed analysis results with comparison against Tier 1 SSLs are provided in Appendix E.

9.2.1. Analysis program

A total of sixteen (16) primary soil samples and four (4) QA/QC soil samples were submitted to ALS Environmental (Sydney), a NATA accredited laboratory, for analysis of the CoPCs, refer to Table 8-1.

9.2.2. Comparison against HILs/HSLs (protection of human health)

The soil analysis results can be summarised as follows:

- BTEXN concentrations were below the LOR in all analysed samples
- PAH concentrations were below the LOR in all analysed samples

- PCB concentrations were below the LOR in all analysed samples
- Phenol concentrations were below the LOR in all analysed samples
- OCP concentrations were below the LOR in all analysed samples
- OPP concentrations were below the LOR in all analysed samples
- TRH concentrations were below the LOR in all analysed samples
- Metal concentrations exceeded the LOR but less than the HIL D Tier 1 SSLs, as further discussed below.

Metals in soil samples

As shown in Table 9-1, metal concentrations were above the LOR but less than the HIL D Tier 1 SSLs.

Table 9-1 Summary of metal concentrations (mg/kg) in primary soil samples

Analyte	No. Results	LOR (mg)	No < LOR	No. > LOR	Minimum > LOR (mg/kg)	Maximum > LOR (mg/kg)	HIL D criteria (mg/kg)
Arsenic	16	5	16	0	-	-	3,000
Cadmium	16	1	16	0	-	-	900
Chromium	16	2	0	16	5	26	3,600
Copper	16	5	11	5	5	8	240,000
Lead	16	5	8	8	5	12	1,500
Mercury	16	0.1	16	0	-	-	730
Nickel	16	2	3	13	2	13	6,000
Zinc	16	5	2	14	6	44	400,000

10. Revised conceptual site model

A revised tabulated CSM based on the findings of the PSI has been developed. The revised CSM has been prepared to provide an understanding of the contamination risk to the site and discuss the linkages between the mechanisms for the identified contamination, affected media, receptors and exposure pathways as outlined below.

Table 10-1 Revised CSM

Potential Source of Contamination	Potential Chemicals of Concern	Transport Mechanisms	Potential Exposure Pathways	Potential Receptors	Risk rating	Summary comments
AEC1 Agricultural practices (cropping)	• Heavy metals • OCPs • OPPs	• Disturbance – airborne release • Surface water runoff • Leachability into surficial, sub soils and underlying groundwater and transport via groundwater flows	• Inhalation of dust • Ingestion • Dermal contact	**Human receptors:** Construction workers and intrusive maintenance workers	**LOW RISK**	Minor detections above the laboratory LOR for heavy metals. Results for all other CoPCs (refer to Table 8-1) were below the LOR. No anthropogenic materials were noted. Uncontrolled fill was identified at TP01.
			• Inhalation of dust • Dermal contact	**Off-site human receptors:** Adjacent land users	**LOW RISK**	
			• Inhalation of dust • Ingestion • Dermal contact	**Environmentally sensitive receptors:** One third order, three second order and six first order unnamed waterways intersect the site. These waterways feed into Evans Plains Creek, a sixth order waterway, approximately 1 kilometre (km) to the west of the site.	**LOW RISK**	

Potential Source of Contamination	Potential Chemicals of Concern	Transport Mechanisms	Potential Exposure Pathways	Potential Receptors	Risk rating	Summary comments
				Five farm dams occur within the site.		
AEC2 Electrical substation	• Heavy metals • OCPs • OPPs • BTEXN • TRHs • PCBs • PAHs • Phenols	• Disturbance – airborne release • Surface water runoff • Leachability into surficial, sub soils and underlying groundwater and transport via groundwater flows	• Inhalation of dust • Ingestion Dermal contact	**Human receptors:** Construction workers and intrusive maintenance workers	**LOW RISK**	Minor detections above the laboratory LOR for heavy metals. Results for all other CoPCs (refer to Table 8-1) were below the LOR. No anthropogenic materials were noted. Uncontrolled fill was identified at TP01.
			• Inhalation of dust • Dermal contact	**Off-site human receptors:** Adjacent land users		
			• Inhalation of dust • Ingestion • Dermal contact	**Environmentally sensitive receptors:** One third order, three second order and six first order unnamed waterways intersect the site. These waterways feed into Evans Plains Creek, a sixth order waterway, approximately 1 kilometre (km) to the west of the site. Five farm dams occur within the site.		

11. Discussion

The results of the PSI indicate that the site is situated on Eutrophic Brown Dermosols and Anthroposols. Elevation across the broader site ranges between approximately 680 to 780 metres above AHD, generally sloping east to west and down towards the Mid Western Highway.

One third order, three second order and six first order unnamed waterways intersect the site. These waterways feed into Evans Plains Creek, a sixth order waterway, approximately 1 km to the west of the site.

A search of the Contaminated Land Record returned no records within the site. The Contaminated Land Record of Notices did not return any notices within the site, nor is the land known to contain a former gasworks development. The site is currently used for the purposes of grazing (improved pastures); however, the site has historically been utilised for cropping activities. A Transgrid substation occurs immediately to the northeast of the site.

CoPCs associated with cropping activities include heavy metals, OCPs and OPPs, while COPCs associated with substations include heavy metals, BTEXN, TRHs, PCBs, PAHs and phenols. No records of NOA, nor is the site mapped as containing saline soils. The site is mapped as having an 'extremely low (1-5%)' of containing ASS.

Analytical results for the soil sampling program were below the LOR for all analytes, except for some metals/metalloids and nutrients. All results were below the adopted Tier 1 SSLs.

11.1. Data gaps

Based on the findings of this PSI, the following data gaps have been identified:

- **Contaminants of Potential Concern** - The CoPC were limited to the chemicals associated with agricultural activities and the substation. Should it become known that other CoPC may have been present on the site, further testing may be required
- **Groundwater** – Groundwater sampling was not undertaken due to the likely depth to groundwater (>20m) and low potential for runoff infiltration. Groundwater was not encountered during the investigation
- **Vertical extent of contamination –** this sampling program was conducted to a maximum depth of 0.5 mbgl. Additional testing will be required, should additional works (below 0.5 mbgl) be required.

Additional limitations regarding this PSI have been discussed in Section 14 of this PSI.

12. Conclusion

NGH were engaged by the Applicant to undertake a PSI to support the development of a BESS on part of Lot 2 DP 864272, also known as 800 Mid Western Highway, Evans Plains, NSW, 2795. The purpose of this PSI was to summarise the history of the site, provide up to date site information, a CSM and recommendations for further investigation, if required.

The soil investigation and analytical testing undertaken concludes that all chemical analysis results were below the adopted site assessment criteria. This analysis indicates that disturbance of site soils during construction activities are not likely to present a risk to human health under a commercial / industrial land use.

12.1. Recommendations

An Unexpected Finds Procedure should be developed and implemented, should contaminated material be identified onsite during the construction program.

13. References

EPA. (1998). *Managing Land Contamination: Planning Guidelines SEPP 55 - Remediation of Land.*

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NEPC. (2013b). *Schedule B2 - Guideline on Data Collection, Sample Design and Reporting of the National Environment Protection (Assessment of Site Contamination) Measure .* National Environment Protection Council.

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SLR. (2024). *Environmental Impact Statement - Panorama Battery Energy Storage System.*

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14. Limitations

NGH Pty Ltd (NGH) has prepared this report for Panorama BESS SubCo Pty in accordance with the usual care and thoroughness of the consulting profession. This report is based on current practices and professional standards at the time of the preparation of this report. Opinions and judgements herein, based on our understanding and interpretation of existing regulatory standards, should not be construed as legal opinions. This report may not be relied upon by any other party without the explicit written agreement of NGH. No other warranty, expressed or implied, is made regarding the professional advice included in this report.

The scope of work undertaken, and sources of information used by NGH in this report were limited to that detailed in this report. NGH has made no independent verification of this information beyond the agreed scope of works. NGH assumes no responsibility for any inaccuracies or omissions in the provided information.

This report was prepared between the period of February and July 2025 and is based on the conditions encountered and information reviewed during preparation. NGH disclaims responsibility for any changes that may have occurred after this time. We do not assume any liability for misinterpretation or items not visible, accessible or present at the site during the time of works.

This report should be read in full. No responsibility is accepted for using any part of this report in any other context, for any other purpose, or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

This report may contain information obtained by interview(s), documentation review, inspection, sampling, testing or other means of investigation. Our conclusions are based on professional experience. Future advances regarding the understanding of chemicals and their behaviour, and changes in regulations affecting their management, could impact our conclusions and recommendations regarding their potential presence on this site. Given that the agreed scope of work performed was limited and governed by budgetary constraints, NGH does not guarantee that hazardous substances, other than those identified in this report, do not exist at the site. Certain conditions that could cause contamination of the land may not have been identified such as naturally occurring toxins in groundwater and flora, contamination from domestic products or building materials, or contamination that has occurred after the site investigations/ monitoring by NGH.

There are no investigative or remedial works that are thorough enough to preclude the presence of material, which, presently or in the future, may be considered hazardous at the site. As regulatory evaluation criteria are constantly changing, concentrations of contaminants presently regarded as low may, in the future, fall under different regulatory standards that require further investigations or remediation.

Where conditions encountered at the site are subsequently found to differ significantly from those anticipated in this report, NGH must be notified of any such findings and be provided with an opportunity to review the recommendations of this report.

To the best of our knowledge, information contained in this report is accurate at the date of issue, but subsurface conditions, including groundwater levels, can change in a limited time. Therefore, this document and the information contained herein should only be regarded as valid at the time of the investigation unless otherwise explicitly stated in this report.

Appendix A Lotsearch report

LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 26 Feb 2025 14:27:59

Reference: LS074469 EP

Address: 800 Mid Western Highway, Evans Plains, NSW 2795

Dataset Listing

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

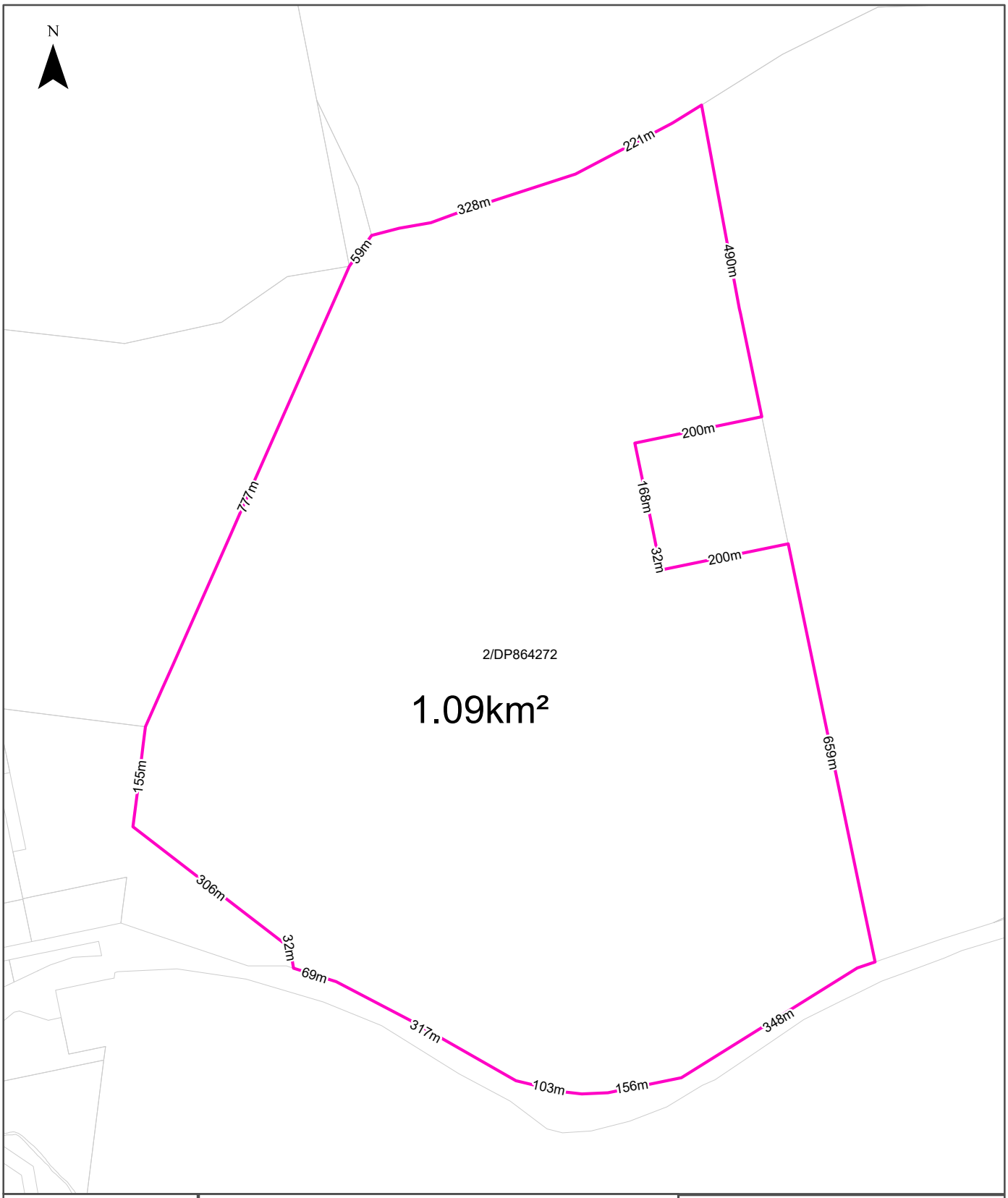
Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Customer Service - Spatial Services	04/02/2025	04/02/2025	Monthly	-	-	-	-
Topographic Data	NSW Department of Customer Service - Spatial Services	21/05/2024	21/05/2024	Annually	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority NSW	03/02/2025	21/01/2025	Monthly	1000m	0	0	0
Contaminated Land Records of Notice	Environment Protection Authority NSW	03/02/2025	03/02/2025	Monthly	1000m	0	0	0
Former Gasworks	Environment Protection Authority NSW	21/02/2025	14/07/2021	Quarterly	1000m	0	0	0
Notices under the POEO Act 1997	Environment Protection Authority NSW	20/02/2025	20/02/2025	Monthly	1000m	0	0	0
National Waste Management Facilities Database	Geoscience Australia	29/04/2024	29/11/2022	Annually	1000m	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	16/10/2024	07/09/2020	Annually	1000m	0	0	0
EPA PFAS Investigation Program	Environment Protection Authority NSW	21/02/2025	05/02/2025	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Australian Department of Defence	04/02/2025	28/10/2024	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Australian Department of Defence	04/02/2025	28/10/2024	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	04/02/2025	04/02/2025	Monthly	2000m	0	0	0
Defence Controlled Areas	Australian Department of Defence	23/01/2025	23/01/2025	Quarterly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Australian Department of Defence	18/02/2025	02/09/2022	Quarterly	2000m	0	0	0
National Unexploded Ordnance (UXO)	Australian Department of Defence	23/01/2025	23/01/2025	Quarterly	2000m	0	0	0
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	03/02/2025	03/02/2025	Monthly	1000m	0	0	0
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority NSW	03/02/2025	03/02/2025	Monthly	1000m	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority NSW	03/02/2025	03/02/2025	Monthly	1000m	3	3	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	-	0	0
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	18/02/2025	18/02/2025	Quarterly	1000m	0	0	5
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	18/02/2025	18/02/2025	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	18/02/2025	18/02/2025	Quarterly	1000m	0	0	2
Major Easements	NSW Department of Customer Service - Spatial Services	21/02/2025	21/02/2025	Quarterly	1000m	2	4	5
State Forest	Forestry Corporation of NSW	18/12/2024	11/11/2024	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Geoscience Australia	17/04/2024	19/08/2019	Annually	1000m	1	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2024	NSW Department of Climate Change, Energy, the Environment and Water	12/02/2025	28/06/2024	Quarterly	1000m	0	0	0
National Groundwater Information System (NGIS) Boreholes	Bureau of Meteorology; Water NSW	28/05/2024	20/06/2023	Annually	2000m	0	1	33
NSW Seamless Geology Single Layer: Rock Units	NSW Department of Primary Industries and Regional Development	17/05/2024	01/05/2024	Annually	1000m	1	1	3
NSW Seamless Geology Single Layer: Geological Boundaries and Faults	NSW Department of Primary Industries and Regional Development	17/05/2024	01/05/2024	Annually	1000m	0	0	0
NSW Seamless Geology Single Layer: Trendlines	NSW Department of Primary Industries and Regional Development	17/05/2024	01/05/2024	Annually	1000m	1	1	1
NSW Seamless Geology Single Layer: Fold Axes	NSW Department of Primary Industries and Regional Development	17/05/2024	01/05/2024	Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Department of Primary Industries and Regional Development	26/04/2024	14/03/2024	Annually	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	15/01/2025	17/02/2011	Annually	1000m	1	2	3
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	2
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Housing and Infrastructure	04/02/2025	13/12/2024	Monthly	500m	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	15/01/2025	21/02/2013	Annually	1000m	1	2	2
Dryland Salinity - National Assessment	Australian Bureau of Agricultural and Resource Economics and Sciences	03/06/2024	24/05/2024	Annually	1000m	0	0	0
Mining Subsidence Districts	NSW Department of Customer Service	21/02/2025	21/02/2025	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Primary Industries and Regional Development	03/02/2025	03/02/2025	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Primary Industries and Regional Development	03/02/2025	03/02/2025	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Primary Industries and Regional Development	03/02/2025	03/02/2025	Monthly	1000m	1	1	2
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Housing and Infrastructure	04/02/2025	08/09/2023	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Housing and Infrastructure	04/02/2025	24/01/2025	Monthly	1000m	1	4	5
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	21/02/2025	17/12/2024	Quarterly	1000m	0	0	0
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Housing and Infrastructure	04/02/2025	06/12/2024	Monthly	1000m	0	0	5
Bush Fire Prone Land	NSW Rural Fire Service	13/02/2025	14/11/2024	Monthly	1000m	0	0	0
NSW Native Vegetation Type Map	NSW Department of Climate Change, Energy, the Environment and Water	27/11/2024	08/11/2024	Quarterly	1000m	23	27	89
Ramsar Wetlands of Australia	Australian Department of Climate Change, Energy, the Environment and Water	16/05/2024	11/04/2024	Annually	1000m	0	0	0
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Terrestrial	Australian Department of Climate Change, Energy, The Environment and Water	04/03/2024	30/06/2022	Annually	1000m	0	0	0

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	04/03/2024	30/06/2022	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	28/05/2024	28/05/2024	Annually	1000m	1	1	2
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	28/05/2024	28/05/2024	Annually	1000m	4	4	10
NSW BioNet Species Sightings	NSW Department of Climate Change, Energy, the Environment and Water	12/02/2025	12/02/2025	Monthly	10000m	-	-	-

Site Diagram

800 Mid Western Highway, Evans Plains, NSW 2795



Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 1.09km²

Total Perimeter: 4.62km

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: 0 25 50 100 150 200 250 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2025

Coordinate System: GDA 1994 MGA Zone 56

Date: 26 February 2025

Contaminated Land

800 Mid Western Highway, Evans Plains, NSW 2795

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

Contaminated Land

800 Mid Western Highway, Evans Plains, NSW 2795

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

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

Contaminated Land Records of Notice Data Source: Environment Protection Authority

Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm

Former Gasworks

Former Gasworks within the dataset buffer:

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

Former Gasworks Data Source: Environment Protection Authority

Contaminated Land

800 Mid Western Highway, Evans Plains, NSW 2795

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
N/A	No records in buffer											

NSW EPA Notice Data Source: Environment Protection Authority

Waste Management & Liquid Fuel Facilities

800 Mid Western Highway, Evans Plains, NSW 2795

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

National Liquid Fuel Facilities

National Liquid Fuel Facilties within the dataset buffer:

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

National Liquid Fuel Facilities Data Source: Geoscience Australia

PFAS Investigation & Management Programs

800 Mid Western Highway, Evans Plains, NSW 2795

EPA PFAS Investigation Program

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

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

EPA PFAS Investigation Program: Environment Protection Authority

Defence PFAS Investigation Program

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

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

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

Defence PFAS Management Program

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

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

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

Airservices Australia National PFAS Management Program

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

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

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites and Unexploded Ordnance

800 Mid Western Highway, Evans Plains, NSW 2795

Defence Controlled Areas (DCA)

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

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

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

Defence 3 Year Regional Contamination Investigation Program (RCIP)

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

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

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

National Unexploded Ordnance (UXO)

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

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

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

EPA Other Sites with Contamination Issues

800 Mid Western Highway, Evans Plains, NSW 2795

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

EPA Activities

800 Mid Western Highway, Evans Plains, NSW 2795

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
N/A	No records in buffer							

POEO Licence Data Source: Environment Protection Authority

Delicensed & Former Licensed EPA Activities

800 Mid Western Highway, Evans Plains, NSW 2795

EPA Activities

800 Mid Western Highway, Evans Plains, NSW 2795

Delicensed Activities still regulated by the EPA

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

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
N/A	No records in buffer							

Delicensed Activities Data Source: Environment Protection Authority

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

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

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	On-site
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	0m	On-site
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	0m	On-site

Former Licensed Activities Data Source: Environment Protection Authority

Historical Business Directories

800 Mid Western Highway, Evans Plains, NSW 2795

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						

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
N/A	No records in buffer					

Historical Business Directories

800 Mid Western Highway, Evans Plains, NSW 2795

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						

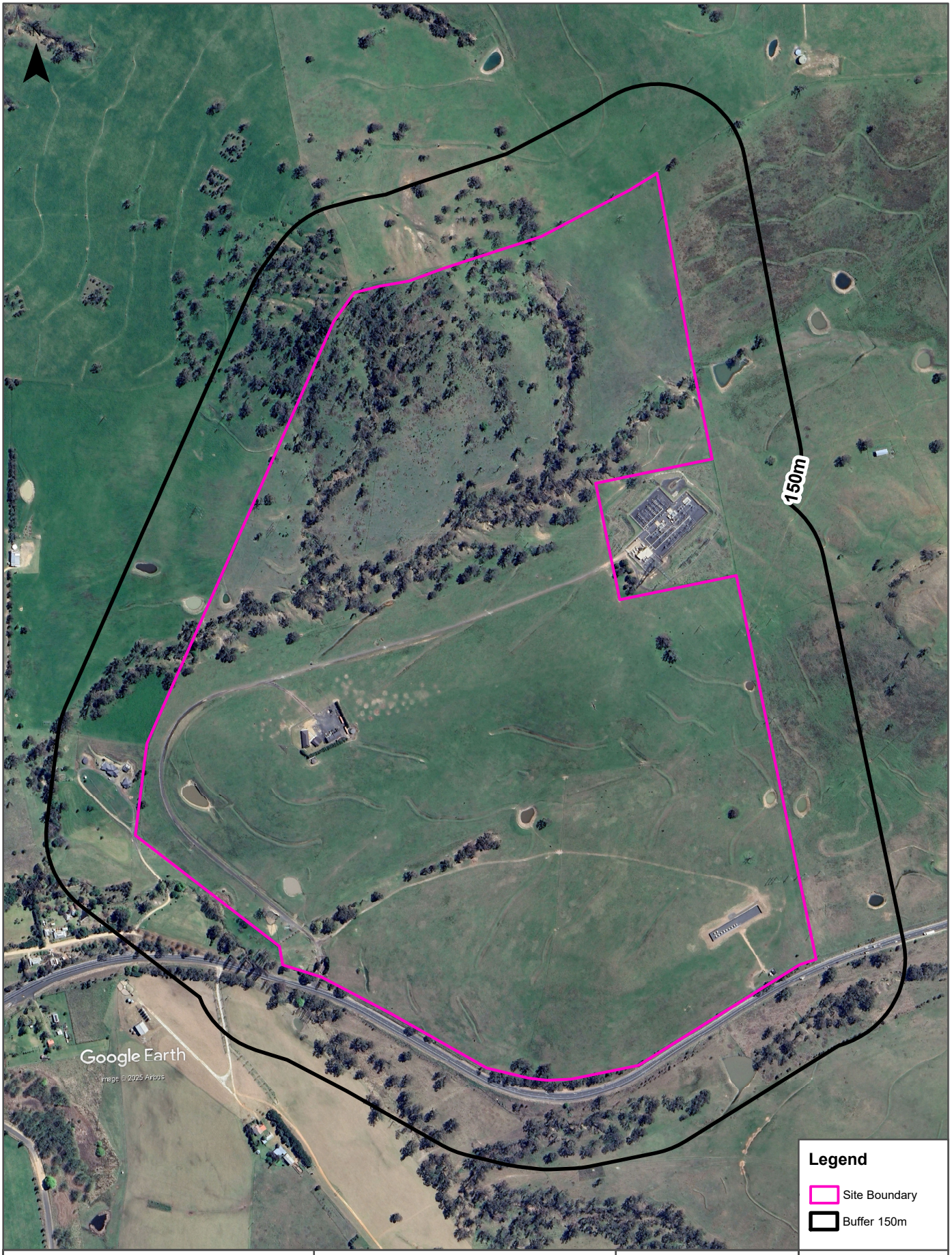
Dry Cleaners, Motor Garages & Service Stations Road or Area Matches

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					

Aerial Imagery 2024

800 Mid Western Highway, Evans Plains, NSW 2795



Scale:
0 100 200 300 400
Meters

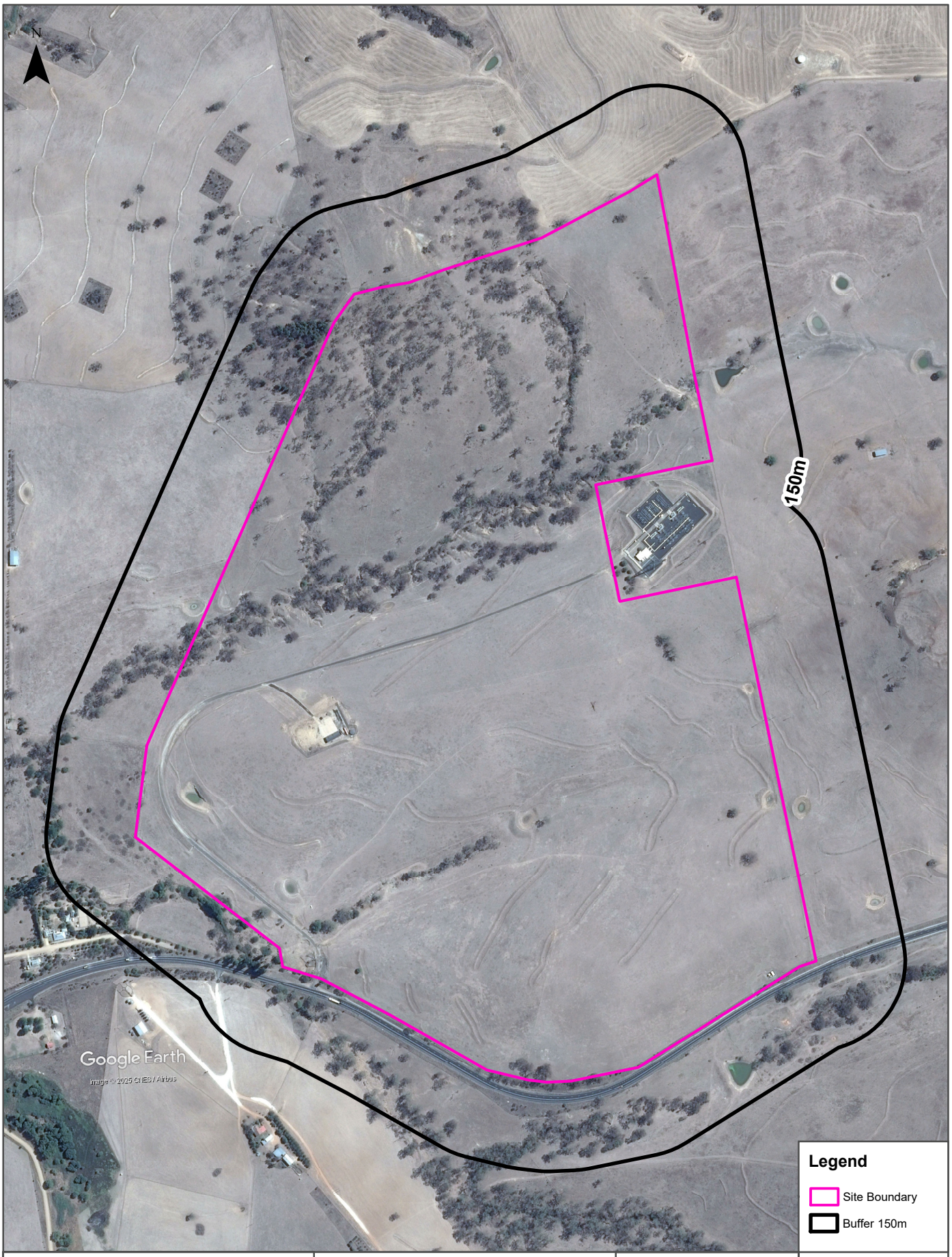
Data Source Aerial Imagery: © 2025 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Coordinate System:
GDA 1994 MGA Zone 56

Date: 26 February 2025

Aerial Imagery 2014

800 Mid Western Highway, Evans Plains, NSW 2795



Scale:
0 100 200 300 400
Meters

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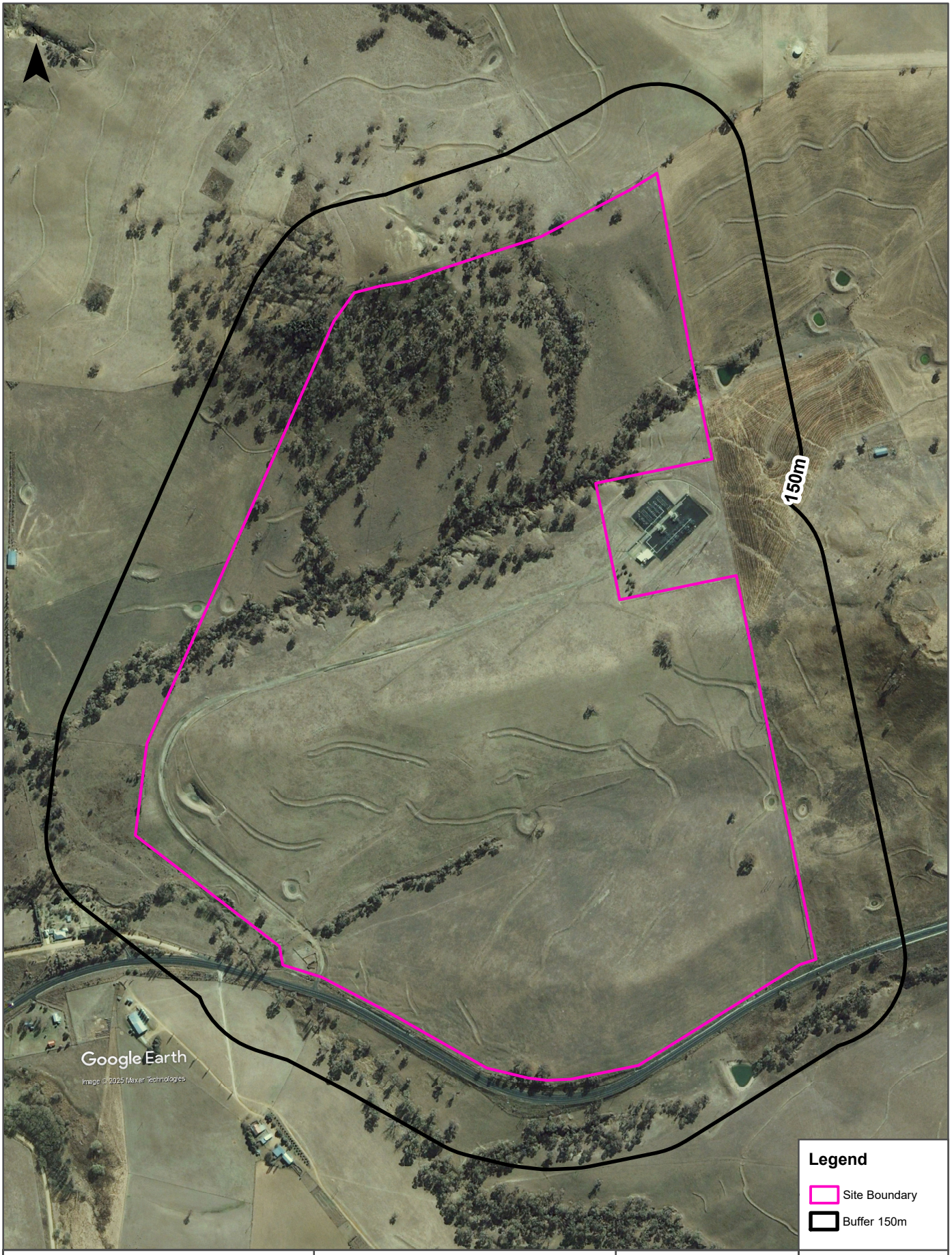
Coordinate System:
GDA 1994 MGA Zone 56

Date: 26 February 2025

Aerial Imagery 2002

800 Mid Western Highway, Evans Plains, NSW 2795



Scale:
0 100 200 300 400
Meters

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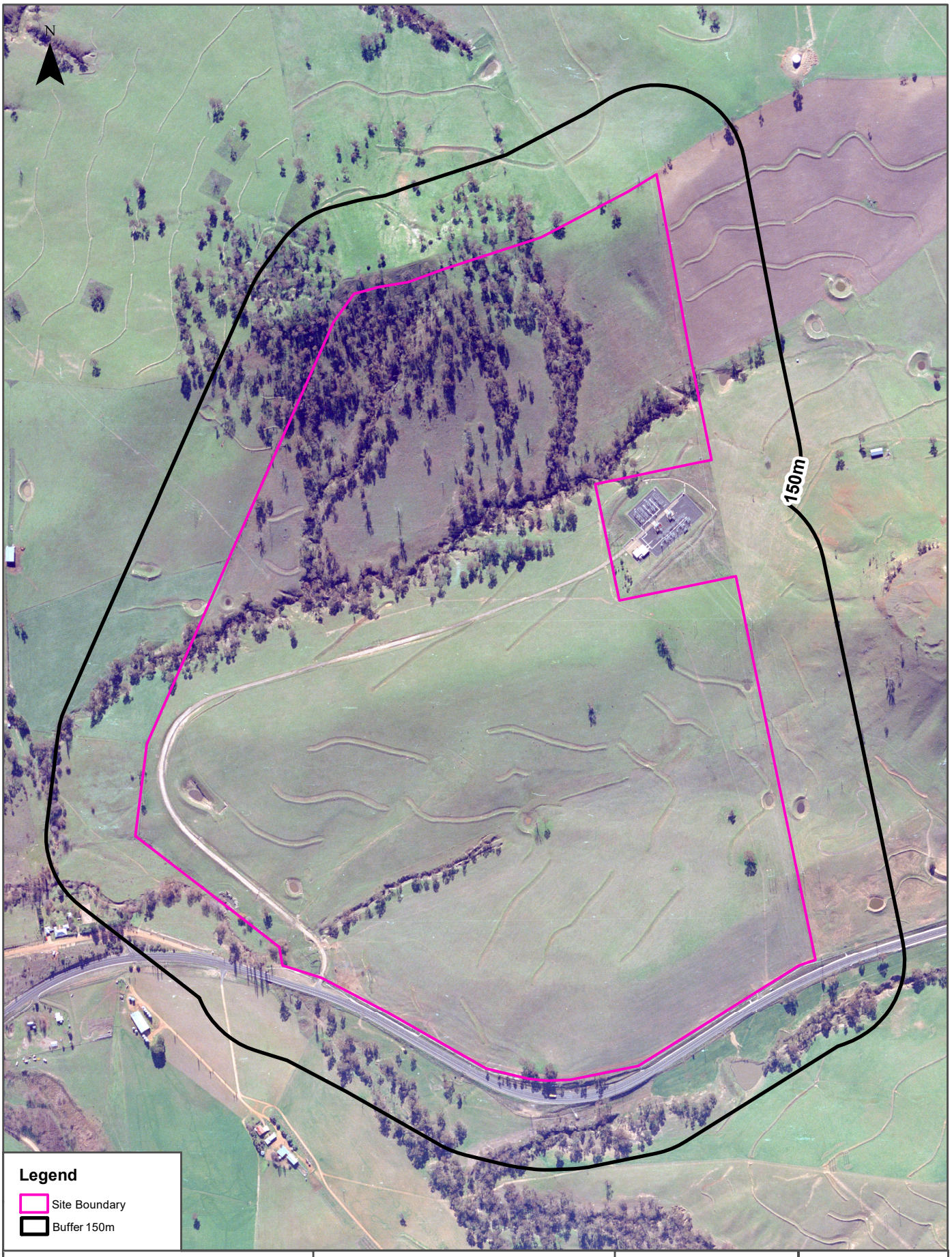
Coordinate System:
GDA 1994 MGA Zone 56

Date: 26 February 2025

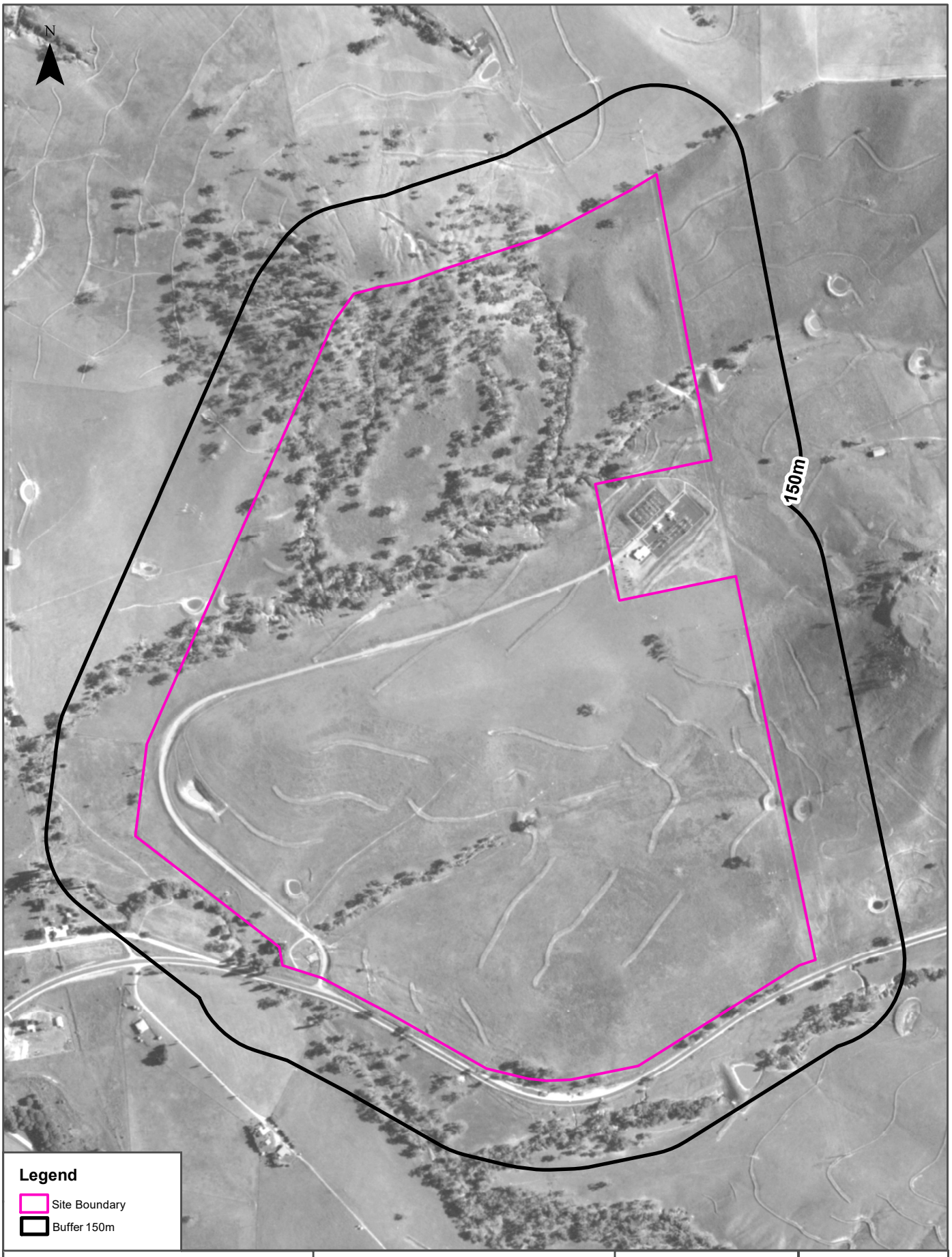
Aerial Imagery 1998

800 Mid Western Highway, Evans Plains, NSW 2795



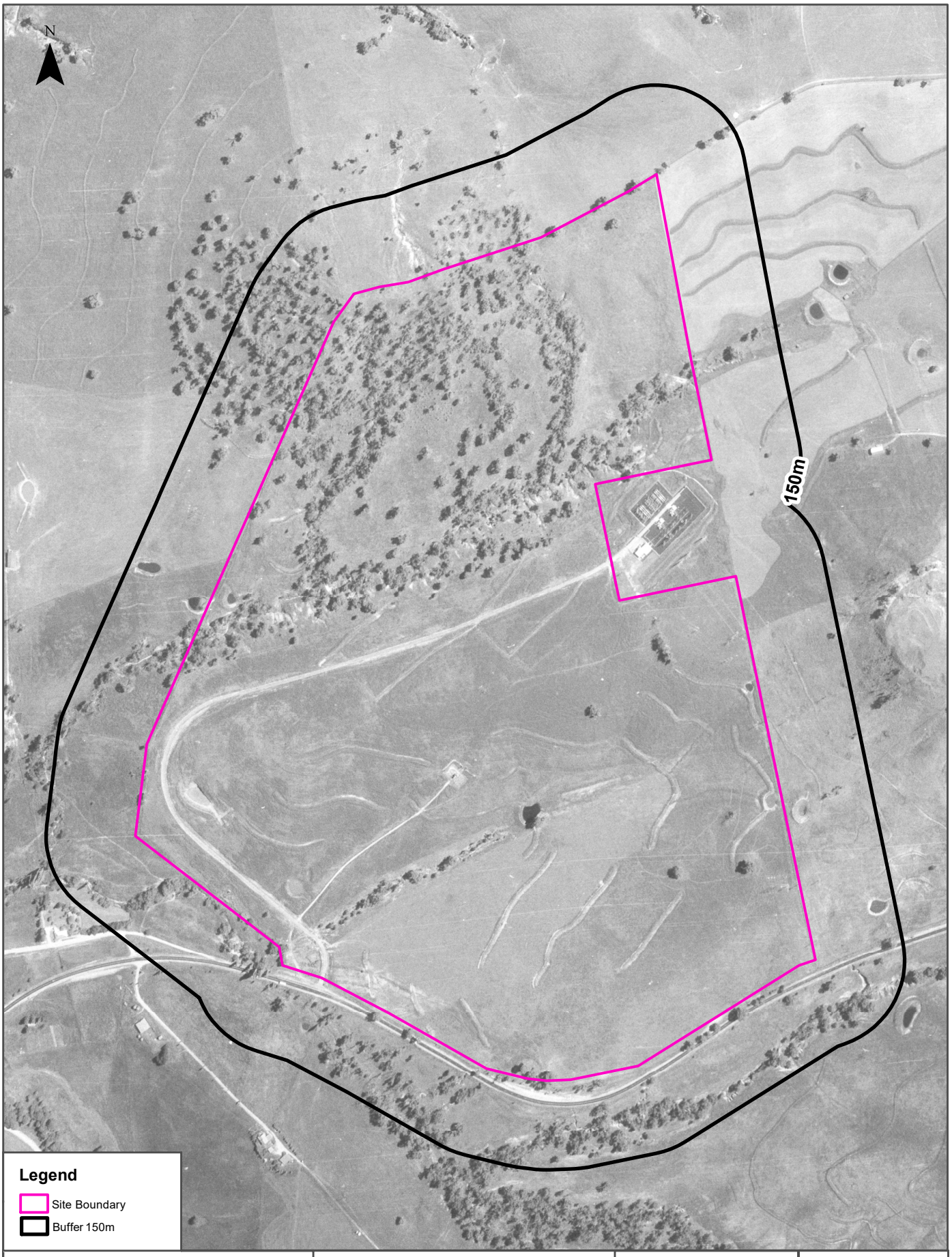
Aerial Imagery 1989

800 Mid Western Highway, Evans Plains, NSW 2795



Aerial Imagery 1984

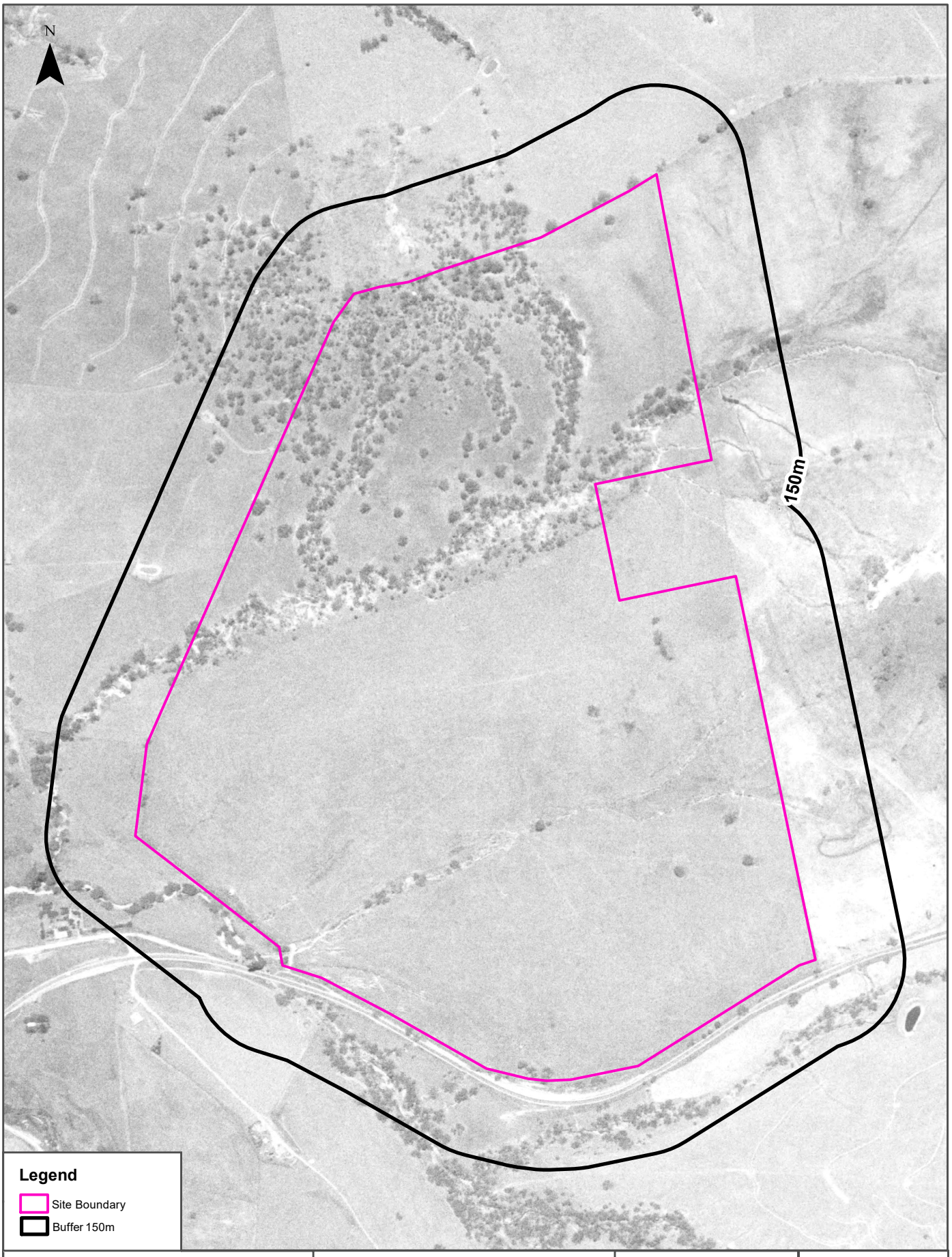
800 Mid Western Highway, Evans Plains, NSW 2795



Data Source Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 27 February 2025

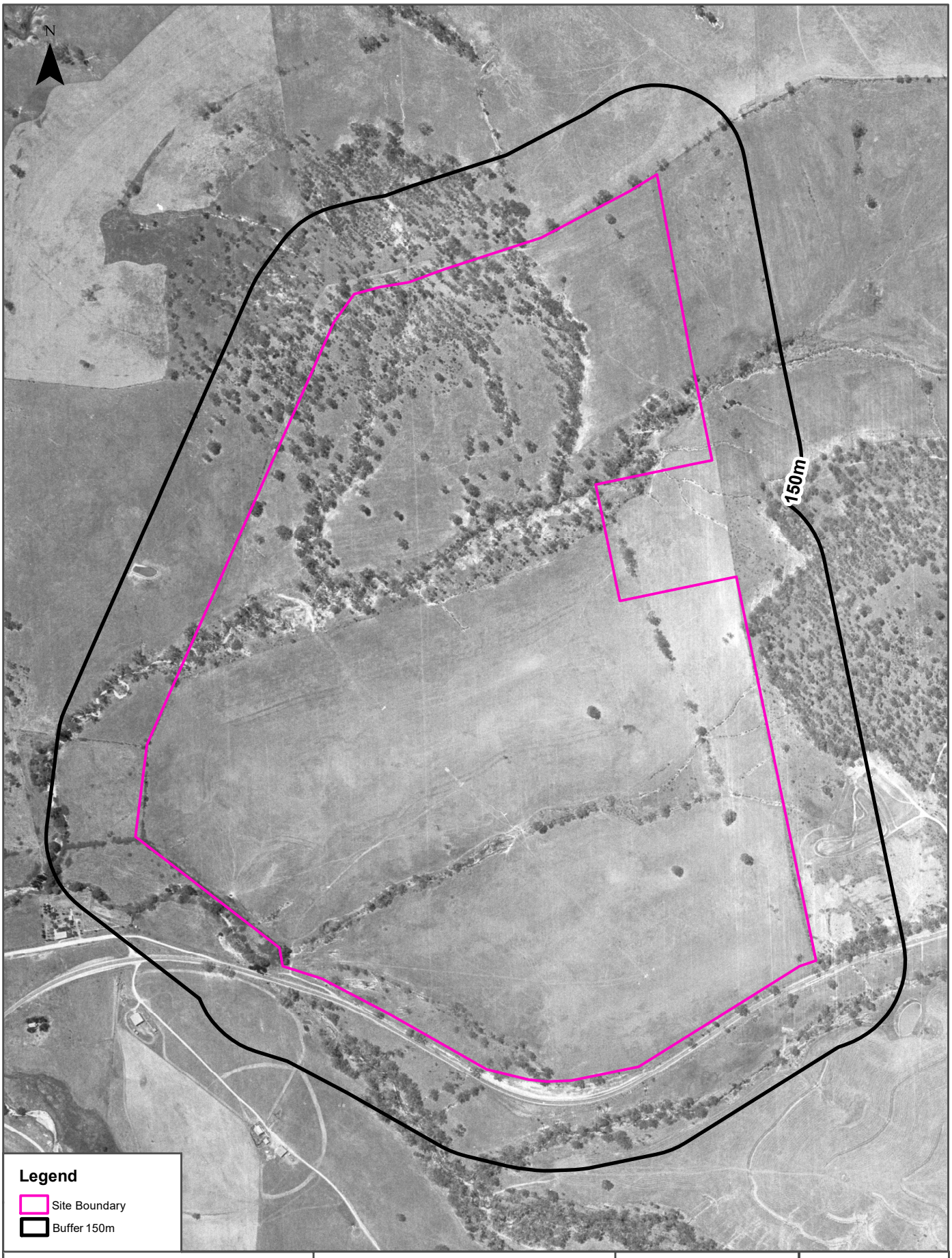
Aerial Imagery 1972

800 Mid Western Highway, Evans Plains, NSW 2795



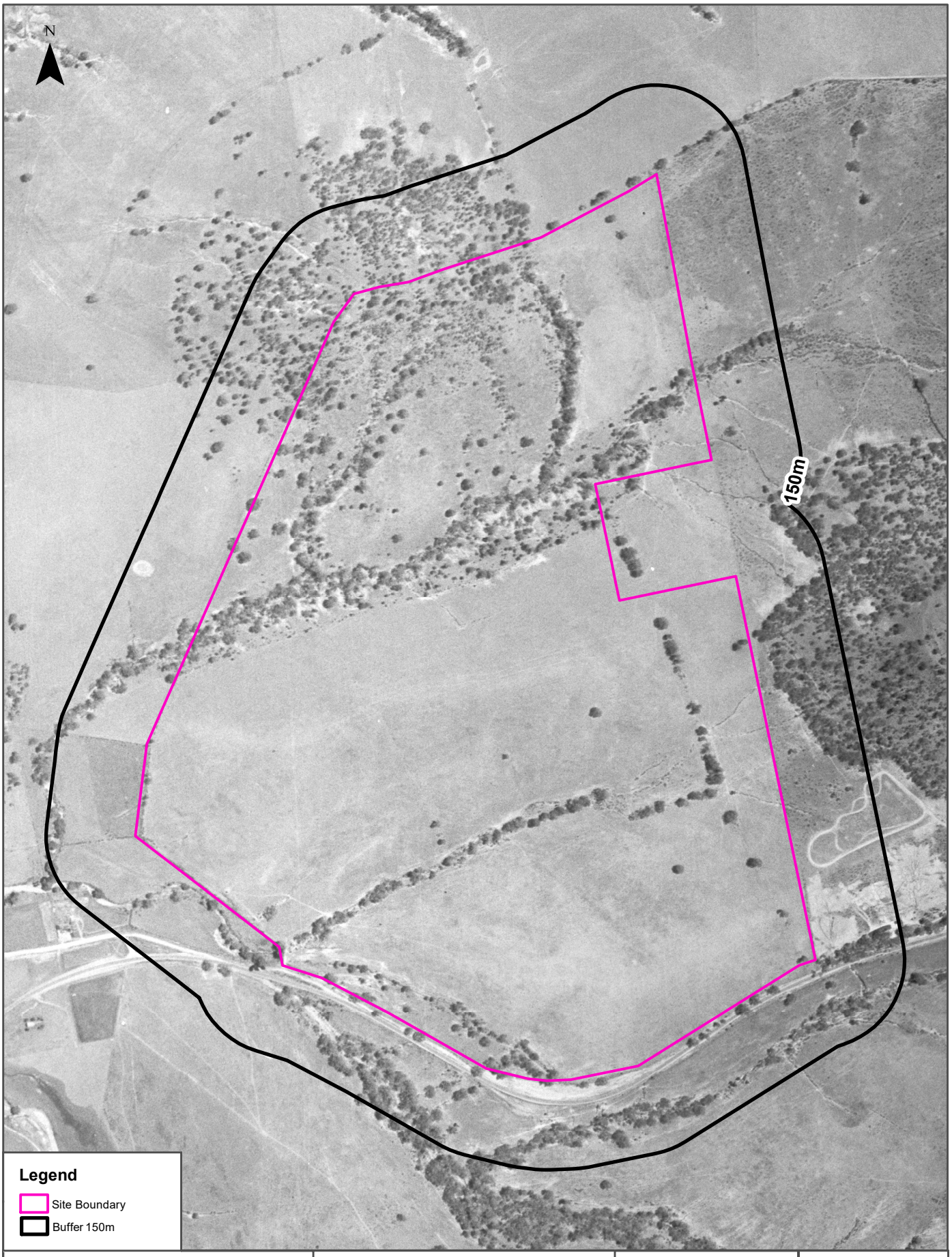
Aerial Imagery 1964

800 Mid Western Highway, Evans Plains, NSW 2795



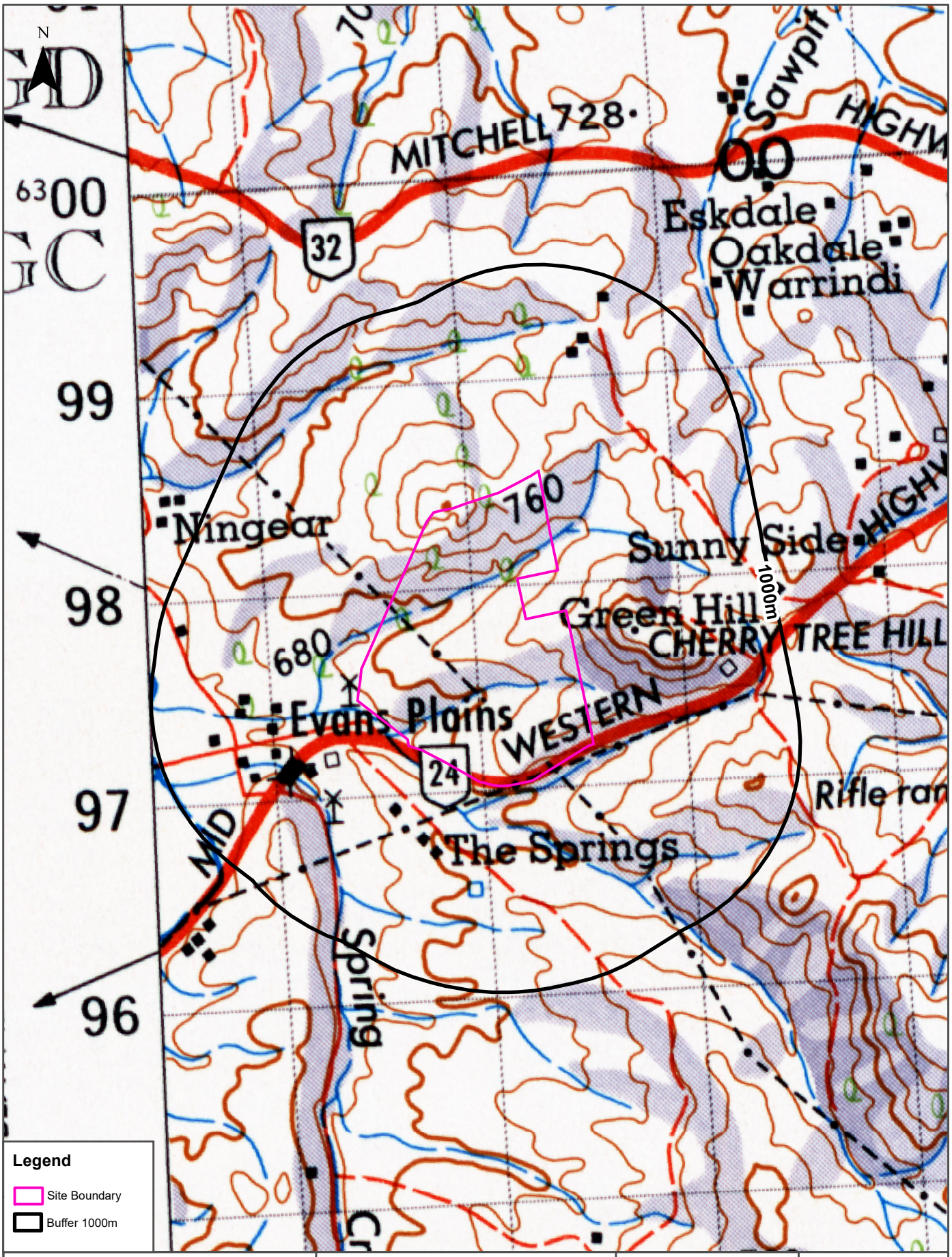
Aerial Imagery 1954

800 Mid Western Highway, Evans Plains, NSW 2795



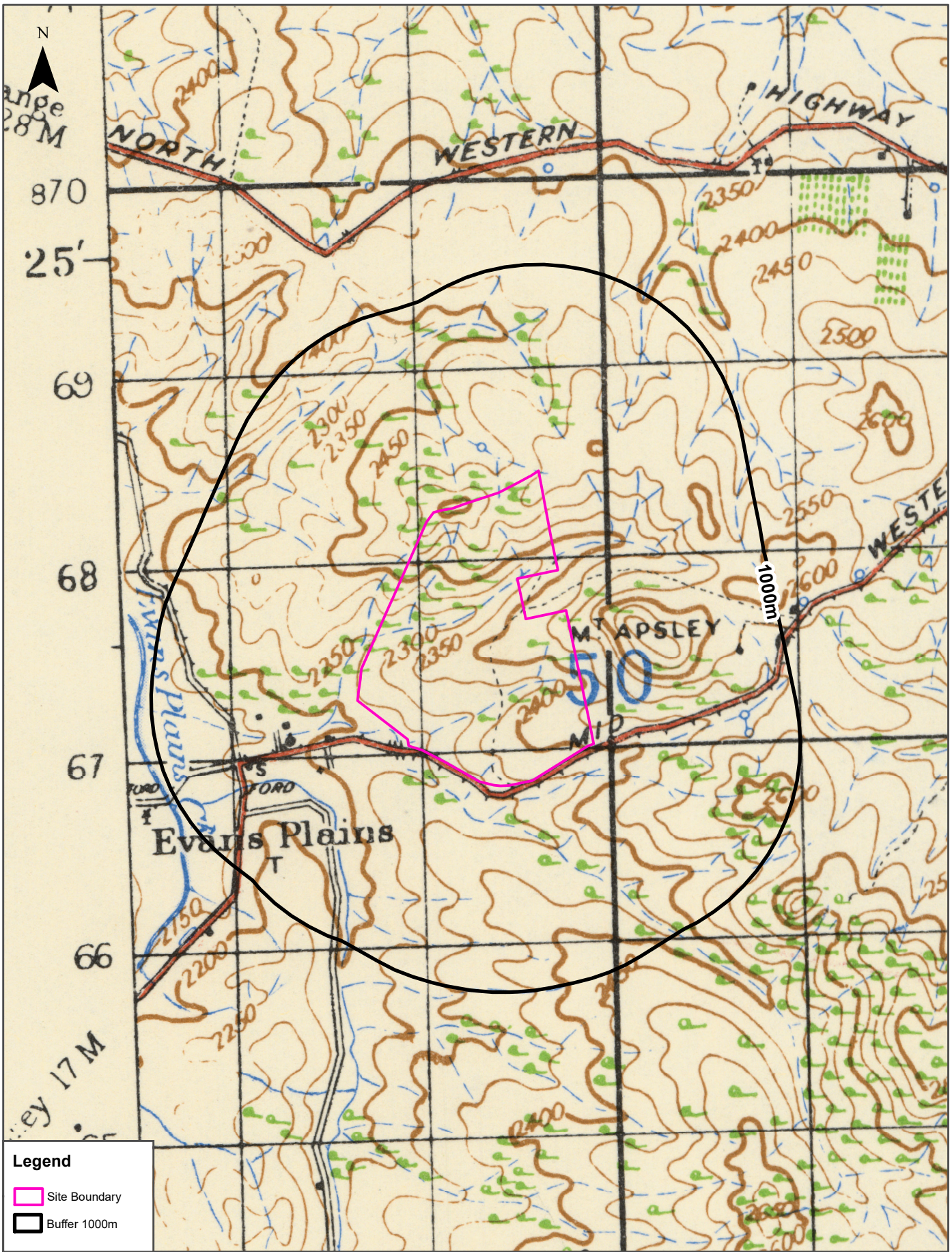
Historical Map 1975

800 Mid Western Highway, Evans Plains, NSW 2795



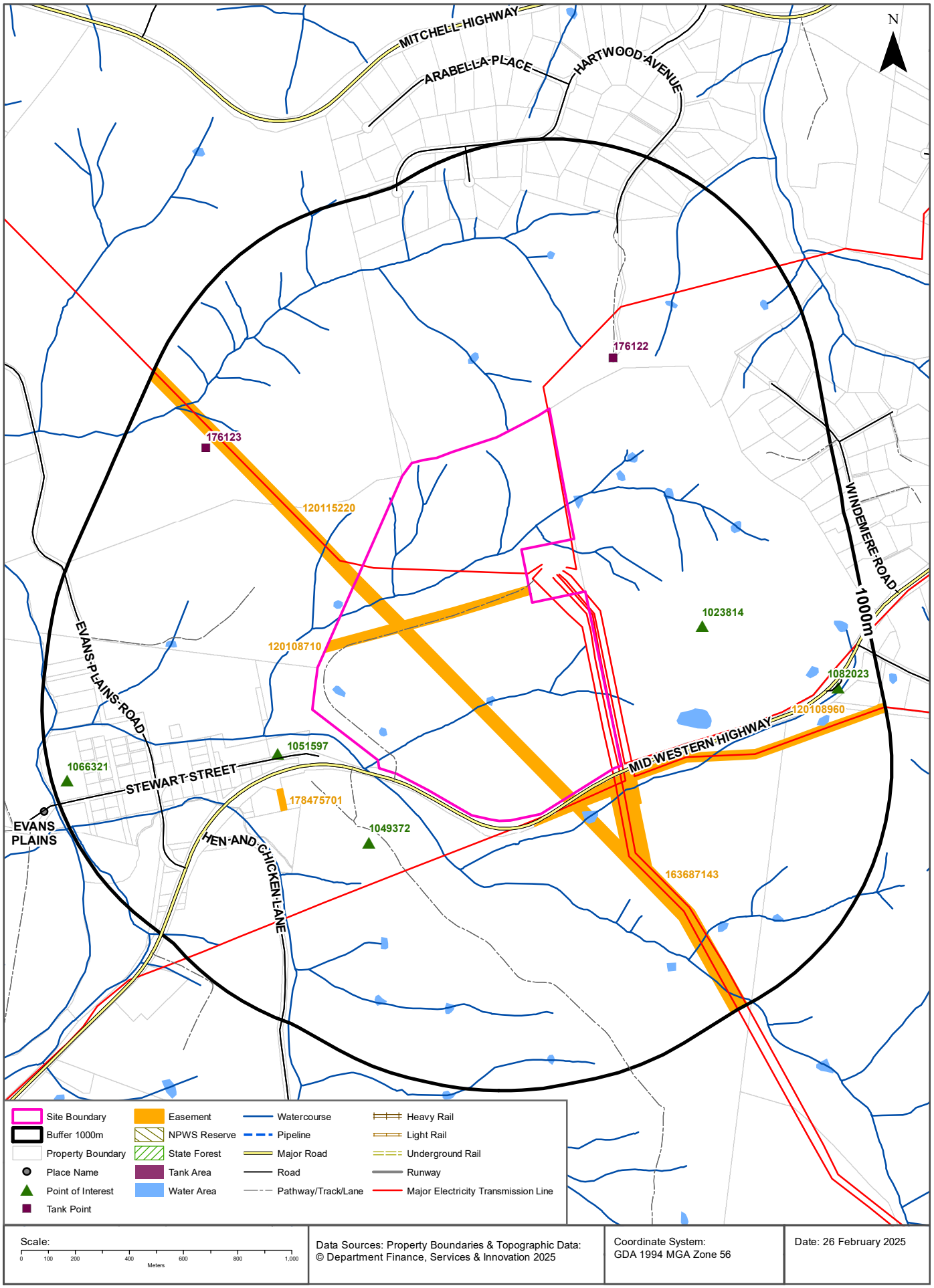
Historical Map c.1936

800 Mid Western Highway, Evans Plains, NSW 2795



Topographic Features

800 Mid Western Highway, Evans Plains, NSW 2795



Topographic Features

800 Mid Western Highway, Evans Plains, NSW 2795

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
1051597	Homestead	GLENROY	208m	South West
1049372	Homestead	THE SPRINGS	272m	South West
1023814	Mountain Like	CHERRY TREE HILL	398m	East
1082023	Roadside Rest Area	REST AREA	844m	East
1066321	Homestead	VIRGINIA	945m	West

Topographic Features

800 Mid Western Highway, Evans Plains, NSW 2795

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
176122	Water	Operational		10/04/2013	302m	North East
176123	Water	Operational		10/04/2013	706m	North West

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
120108710	Primary	Undefined		0m	On-site
120115220	Primary	Undefined		0m	On-site
120108960	Primary	Undefined		24m	South East
163687143	Primary	Electricity	45 wide	30m	South East
178475701	Primary	Right of way	20.115m	301m	South West

Topographic Features

800 Mid Western Highway, Evans Plains, NSW 2795

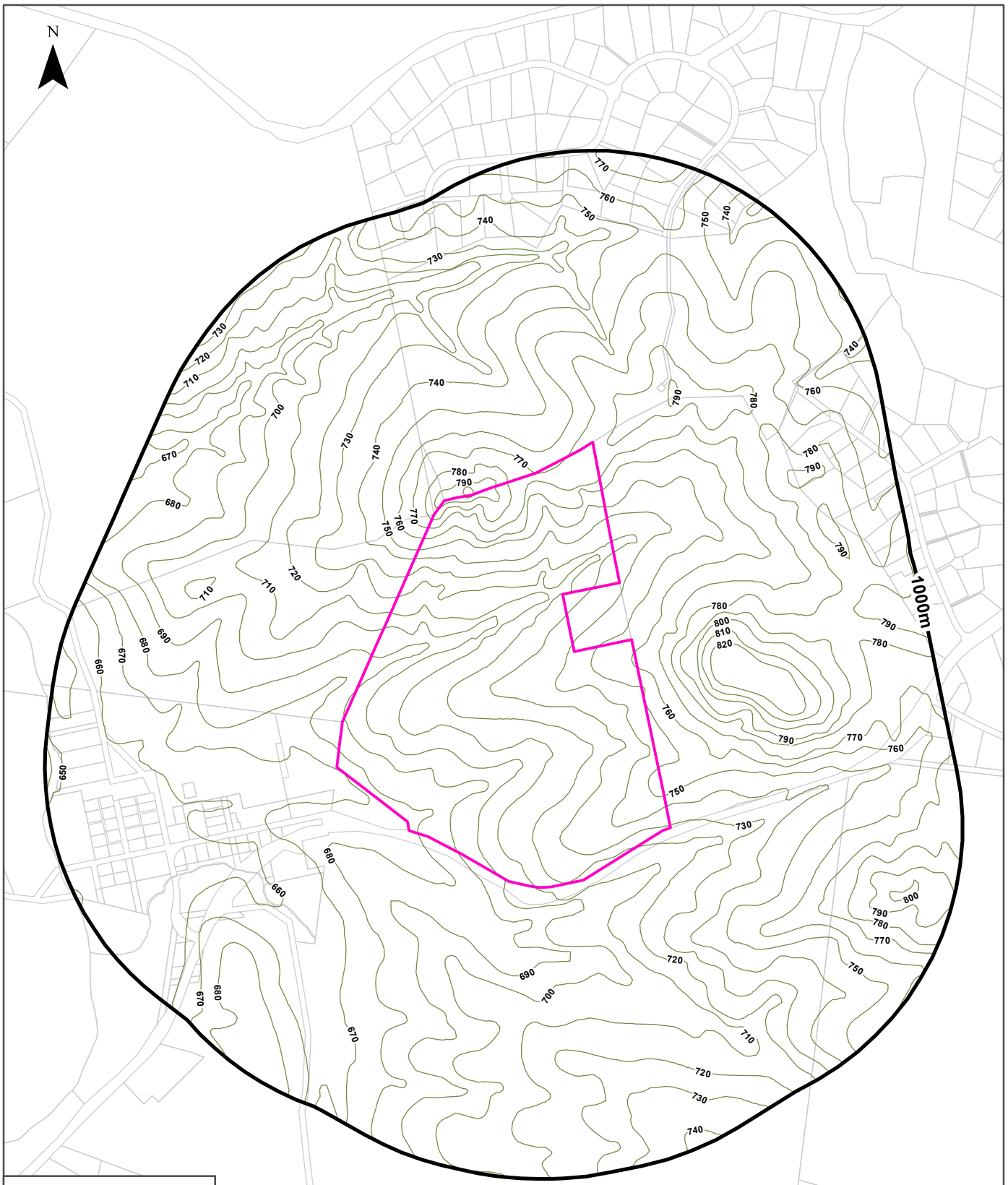
State Forest

What State Forest exist within the dataset buffer?

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

Elevation Contours (m AHD)

800 Mid Western Highway, Evans Plains, NSW 2795



Hydrogeology & Groundwater

800 Mid Western Highway, Evans Plains, NSW 2795

Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Fractured or fissured, extensive aquifers of low to moderate productivity	0m	On-site

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

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2024

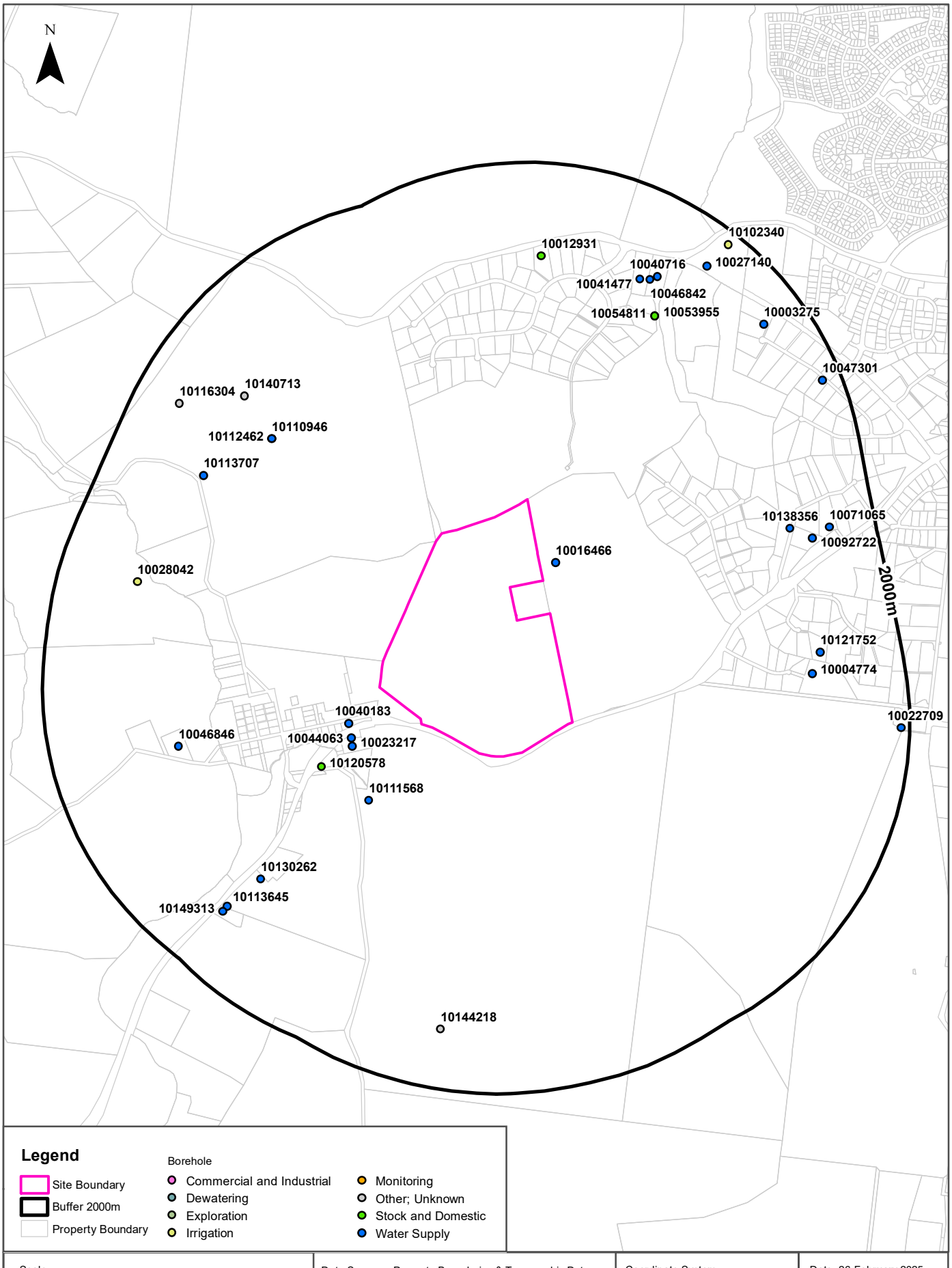
Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

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

Groundwater Boreholes

800 Mid Western Highway, Evans Plains, NSW 2795



Hydrogeology & Groundwater

800 Mid Western Highway, Evans Plains, NSW 2795

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
10016466	GW051849	Water Supply	Unknown	01/06/1980	65.50		AHD				95m	North East
10040183	GW804763	Water Supply	Functioning	26/04/2012	23.00		AHD		0.560	15.00	282m	South West
10044063	GW805045	Water Supply	Functioning	10/12/2012	36.00		AHD		1.483	3.00	340m	South West
10023217	GW045295	Water Supply	Unknown	01/02/1974	91.40		AHD				375m	South West
10111568	GW015339	Water Supply	Functioning	01/04/1957	17.10		AHD	Good			550m	South West
10120578	GW807261	Stock and Domestic	Functioning	16/09/1994	26.20		AHD				584m	South West
10110946	GW806176	Water Supply	Functioning	03/12/2016	49.00		AHD				1146m	North West
10112462	GW806176	Water Supply	Functioning	03/12/2016	49.00		AHD				1146m	North West
10046846	GW804722	Water Supply	Functioning	24/10/2011	30.00		AHD		0.500	7.00	1243m	West
10130262	GW055318	Water Supply	Unknown	01/07/1981	27.40		AHD				1324m	South West
10053955	GW806148	Stock and Domestic	Functioning	12/07/2019	37.00		AHD				1325m	North East
10054811	GW806148	Stock and Domestic	Functioning	12/07/2019	37.00		AHD				1325m	North East
10113707	GW043124	Water Supply	Unknown	01/06/1974	21.30		AHD	Good			1417m	North West
10140713	GW020926	Unknown	Non-functional		25.60		AHD		0.180	20.40	1423m	North West
10012931	GW029717	Stock and Domestic	Unknown	01/12/1968	41.50		AHD				1446m	North
10004774	GW046919	Water Supply	Unknown	01/03/1974	99.10		AHD	Good			1452m	East
10041477	GW804813	Water Supply	Functioning	14/01/1995	37.00		AHD	fresh	0.180	15.00	1467m	North East
10046842	GW804556	Water Supply	Functioning	09/02/1992			AHD				1494m	North East
10138356	GW057529	Water Supply	Unknown	01/05/1983	59.70		AHD	1001-3000 ppm			1497m	East
10121752	GW061542	Water Supply	Unknown	01/01/1985	54.90		AHD				1524m	East
10028042	GW044091	Irrigation	Functioning	01/07/1975	16.70		AHD	Fresh	2.530	3.00	1529m	West
10040716	GW804555	Water Supply	Functioning	09/02/1992			AHD				1531m	North East
10113645	GW058008	Water Supply	Unknown	01/08/1981	25.30		AHD				1581m	South West
10092722	GW052581	Water Supply	Unknown	01/05/1981	47.50		AHD				1616m	East
10149313	GW055369	Water Supply	Unknown	01/08/1981	25.30		AHD				1621m	South West
10144218	GW020922	Unknown	Unknown	01/03/1955	32.00		AHD				1648m	South
10116304	GW028274	Unknown	Unknown				AHD				1726m	North West
10071065	GW058971	Water Supply	Unknown	01/06/1984	55.00		AHD				1727m	East
10003275	GW805592	Water Supply	Functioning	12/11/2014	41.00		AHD		0.082		1745m	North East
10027140	GW031953	Water Supply	Unknown	01/11/1969	24.40		AHD				1747m	North East

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10047301	GW801613	Water Supply	Removed	19/08/2002	108.00		AHD				1889m	North East
10102340	GW042627	Irrigation	Unknown	01/02/1976	115.80		AHD				1925m	North East
10022709	GW049672	Water Supply	Unknown	01/07/1979	74.70		AHD				1951m	East

Hydrogeology & Groundwater

800 Mid Western Highway, Evans Plains, NSW 2795

Driller's Logs

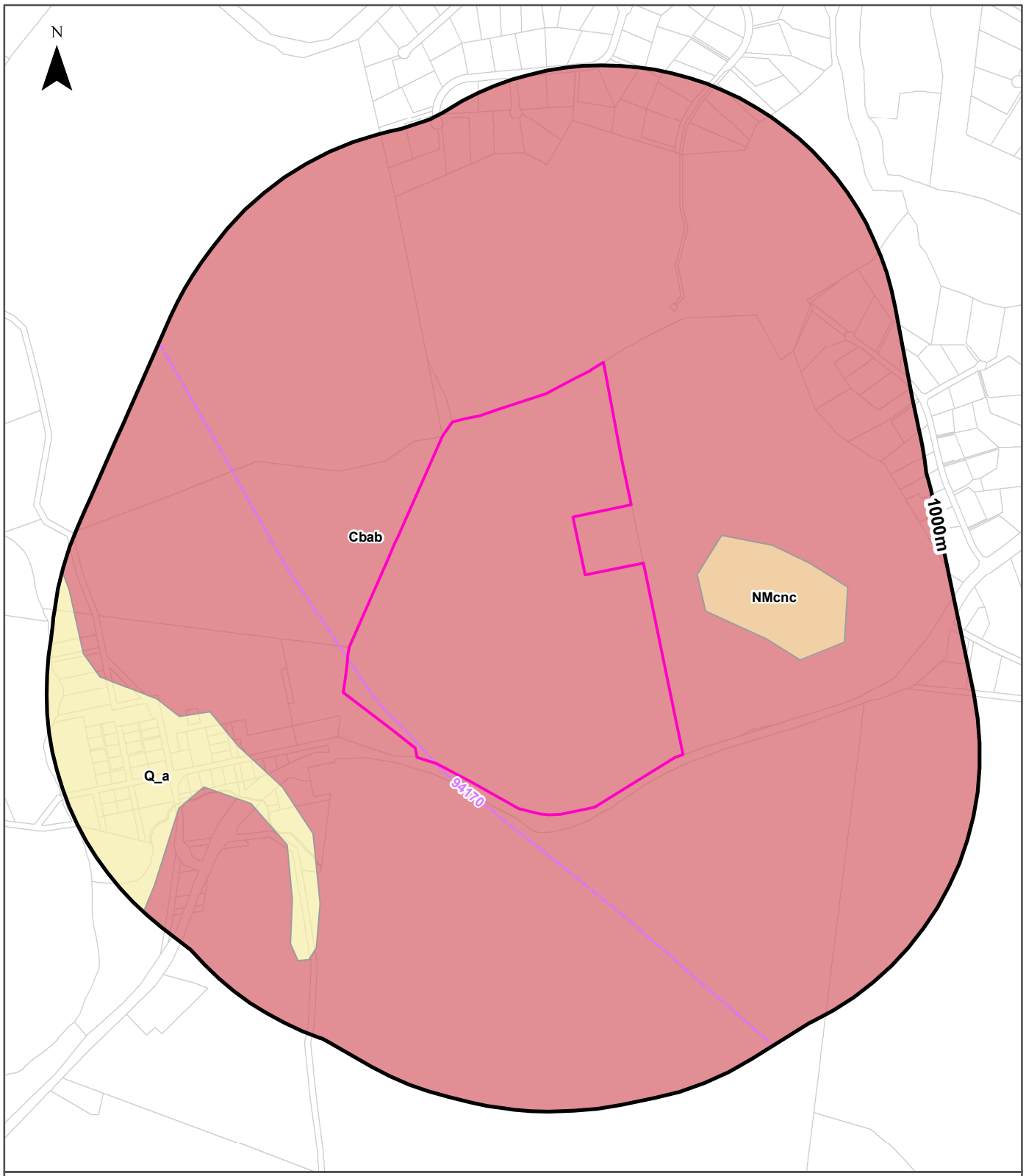
Drill log data relevant to the boreholes within the dataset buffer:

NGIS Bore ID	Drillers Log	Distance	Direction
10016466	0.00m-0.30m Topsoil 0.30m-7.90m Clay Yellow 7.90m-13.70m Clay Black 13.70m-29.80m Granite Decomposed Water Supply 29.80m-64.00m Granite Red 64.00m-65.50m Granite Grey	95m	North East
10040183	0.00m-1.00m Topsoil 1.00m-22.00m Granite, decomposed 22.00m-23.00m Granite, fresh, hard	282m	South West
10044063	0.00m-9.00m Granite, weathered & clay 9.00m-28.00m Granite, highly decomposed & Sand 28.00m-32.00m Granite, pink, medium grained 32.00m-36.00m Granite, black/pink, t/g	340m	South West
10023217	0.00m-3.66m Clay Yellow 3.66m-50.29m Granite Decomposed 50.29m-91.44m Granite	375m	South West
10111568	0.00m-9.45m Clay Grey Sandy 9.45m-17.07m Sand Water Supply	550m	South West
10046846	0.00m-0.50m Topsoil, sandy 0.50m-1.50m Clay, brown 1.50m-11.00m Granite, decomposed, brown 11.00m-14.00m Granite, weathered, brown 14.00m-15.50m Granite, fractured, pink 15.50m-30.00m Granite, black, hard	1243m	West
10130262	0.00m-0.30m Topsoil 0.30m-0.90m Clay 0.90m-23.40m Granite Decomposed Water Supply 23.40m-27.40m Granite Hard	1324m	South West
10113707	0.00m-0.60m Topsoil 0.60m-13.71m Granite Decomposed 13.71m-14.32m Granite Weathered Water Supply 14.32m-21.33m Granite Water Supply	1417m	North West
10140713	0.00m-25.30m Driller 25.30m-25.60m Granite	1423m	North West
10012931	0.00m-0.46m Earth 0.46m-30.48m Decomposed 30.48m-36.58m Granite Decomposed Water Supply 36.58m-41.45m Granite	1446m	North
10004774	0.00m-0.91m Topsoil 0.91m-1.83m Clay 1.83m-9.75m Granite Decomposed 9.75m-31.70m Granite Broken 31.70m-99.06m Granite Water Supply	1452m	East
10041477	0.00m-1.00m Topsoil 1.00m-5.00m Clay 5.00m-22.00m Granite, decomposed 22.00m-37.00m Granite, grey	1467m	North East
10138356	0.00m-0.30m Topsoil 0.30m-4.60m Clay 4.60m-20.10m Granite Decomposed 20.10m-55.10m Granite Hard Water Supply 55.10m-56.40m Granite Decomposed Water Supply 56.40m-79.80m Granite Hard	1497m	East
10121752	0.00m-0.60m Soil 0.60m-2.00m Clay 2.00m-33.10m Granite Decomposed 33.10m-48.20m Granite 48.20m-52.00m Granite Some Red Streaks 52.00m-54.90m Basalt	1524m	East
10028042	0.00m-0.61m Topsoil 0.61m-2.13m Clay Topsoil 2.13m-3.05m Clay Sandy 3.05m-6.71m Granite Decomposed Water Supply 6.71m-16.76m Granite Porphyritic Water Supply	1529m	West

NGIS Bore ID	Drillers Log	Distance	Direction
10113645	0.00m-0.90m Topsoil 0.90m-3.00m Clay 3.00m-25.30m Granite Decomposed Water Supply	1581m	South West
10092722	0.00m-0.60m Topsoil 0.60m-5.40m Clay 5.40m-45.10m Granite Decomposed Water Supply 45.10m-47.50m Granite Hard	1616m	East
10149313	0.00m-0.90m Topsoil 0.90m-3.00m Clay 3.00m-25.30m Granite Decomposed Water Supply	1621m	South West
10144218	0.00m-12.19m Clay Yellow Some Sand Quartz 12.19m-22.86m Granite Decomposed 22.86m-31.09m Granite Water Supply 31.09m-32.00m Granite Hard Water Supply	1648m	South
10071065	0.00m-4.60m Clay 4.60m-44.00m Granite Weathered 44.00m-50.00m Granite Solid Water Supply 44.00m-50.00m Some Soft Bands 50.00m-55.00m Granite Solid	1727m	East
10003275	0.00m-0.50m Clay, Sandy; brown 0.50m-17.00m Granite; decomposed 17.00m-41.00m Granite; grey	1745m	North East
10027140	0.00m-1.52m Earth 1.52m-4.57m Sand 4.57m-13.72m Decomposed 13.72m-19.20m Granite Water Supply 19.20m-21.95m Granite Decomposed 21.95m-24.38m Granite	1747m	North East
10047301	0.00m-0.20m Topsoil 0.20m-3.10m Clay 3.10m-108.00m Granite, pink	1889m	North East
10102340	0.00m-0.61m Topsoil 0.61m-45.72m Granite Decomposed 45.72m-115.82m Granite Solid Water Supply	1925m	North East
10022709	0.00m-0.30m Topsoil 0.30m-10.70m Clay 0.30m-10.70m Sand Bands 10.70m-74.70m Granite Decomposed Water Supply	1951m	East

Geology

800 Mid Western Highway, Evans Plains, NSW 2795



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: 0 100 200 400 600 800 1,000 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2025	Coordinate System: GDA 1994 MGA Zone 56	Date: 26 February 2025

Geology

800 Mid Western Highway, Evans Plains, NSW 2795

Geological Units

Geological units within the dataset buffer:

Code	Unit Name	Description	Stratigraphy	Age Range	Dominant Lithology	Dist	Dir
Cbab	Bathurst Granite	Coarse-grained, porphyritic biotite granite.	Bathurst Supersuite/Bathurst Suite//Bathurst Granite//	Carboniferous (Mississippian) (base) to Carboniferous (top)	Granite	0m	On-site
NMcnc	Canobolas Volcanics	Thin alkaline to transitional basaltic lavas, domes and plugs capped by trachyte, minor volcaniclastic units and interbedded non-volcanogenic sediments	/Canobolas Volcanic Complex//Canobolas Volcanics//	Serravallian (base) to Serravallian (top)	Basalt	169m	East
Q_a	Alluvium	Unconsolidated grey to brown to beige humic (±)micaceous silty clay, quartz-(±)lithic silt, fine- to medium-grained quartz-rich to quartz-lithic sand, polymictic pebble to cobble gravel (as sporadic lenses); sporadic palaeosol horizons.	/Alluvium////	Quaternary (base) to Now (top)	Clastic sediment	373m	South West

Geology

800 Mid Western Highway, Evans Plains, NSW 2795

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
NA	No records in buffer					

Trendlines within the dataset buffer:

Map ID	Feature Description	Observation Method	Structure Name	Dist	Dir
94170	Lineament: structural feature of unknown origin, interpreted from geophysics	Inferred		0m	On-site

Fold axes within the dataset buffer:

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

Marker beds within the dataset buffer:

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

Naturally Occurring Asbestos Potential

800 Mid Western Highway, Evans Plains, NSW 2795

Naturally Occurring Asbestos Potential

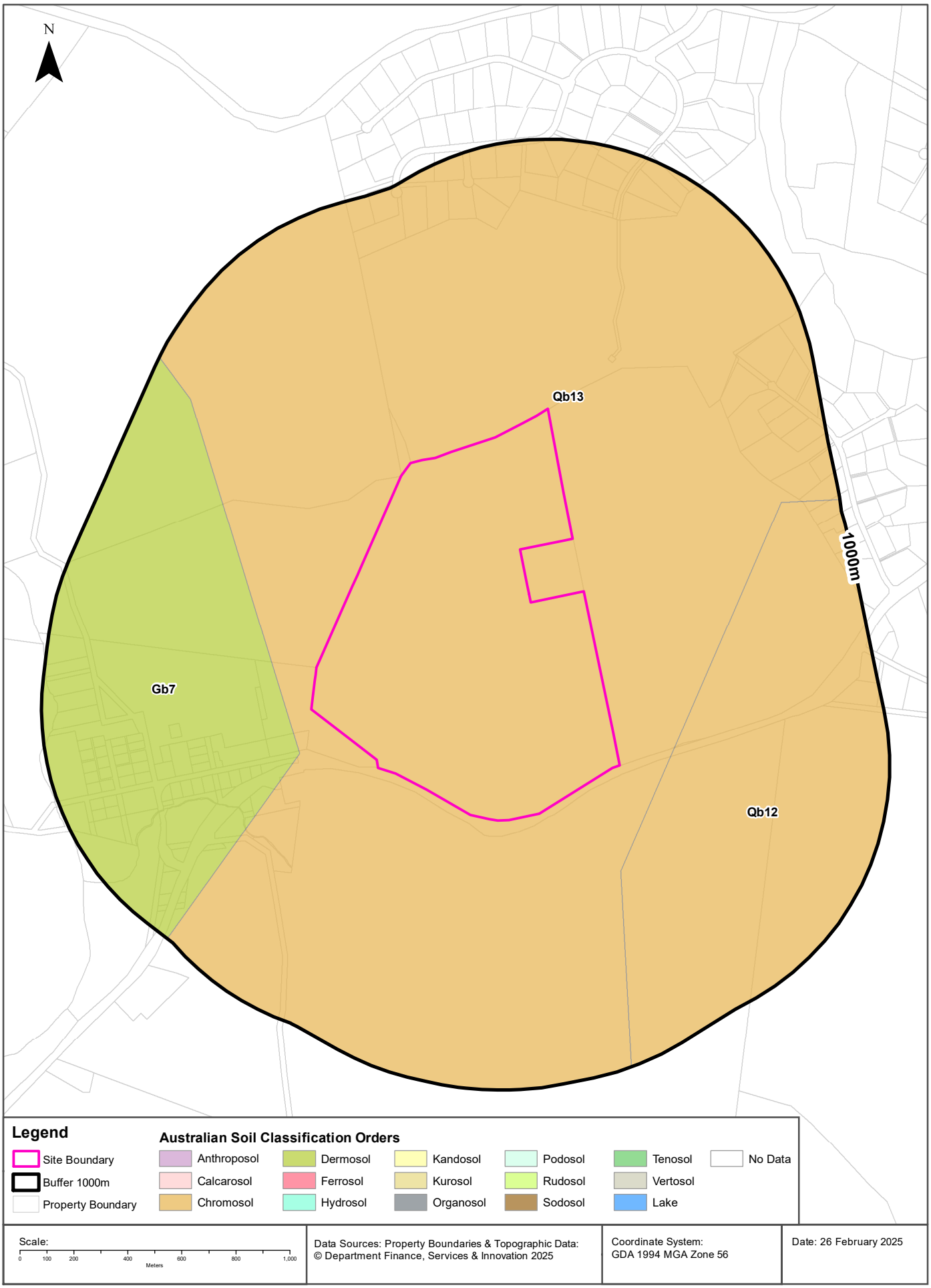
Naturally Occurring Asbestos Potential within the dataset buffer:

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

Atlas of Australian Soils

800 Mid Western Highway, Evans Plains, NSW 2795



Soils

800 Mid Western Highway, Evans Plains, NSW 2795

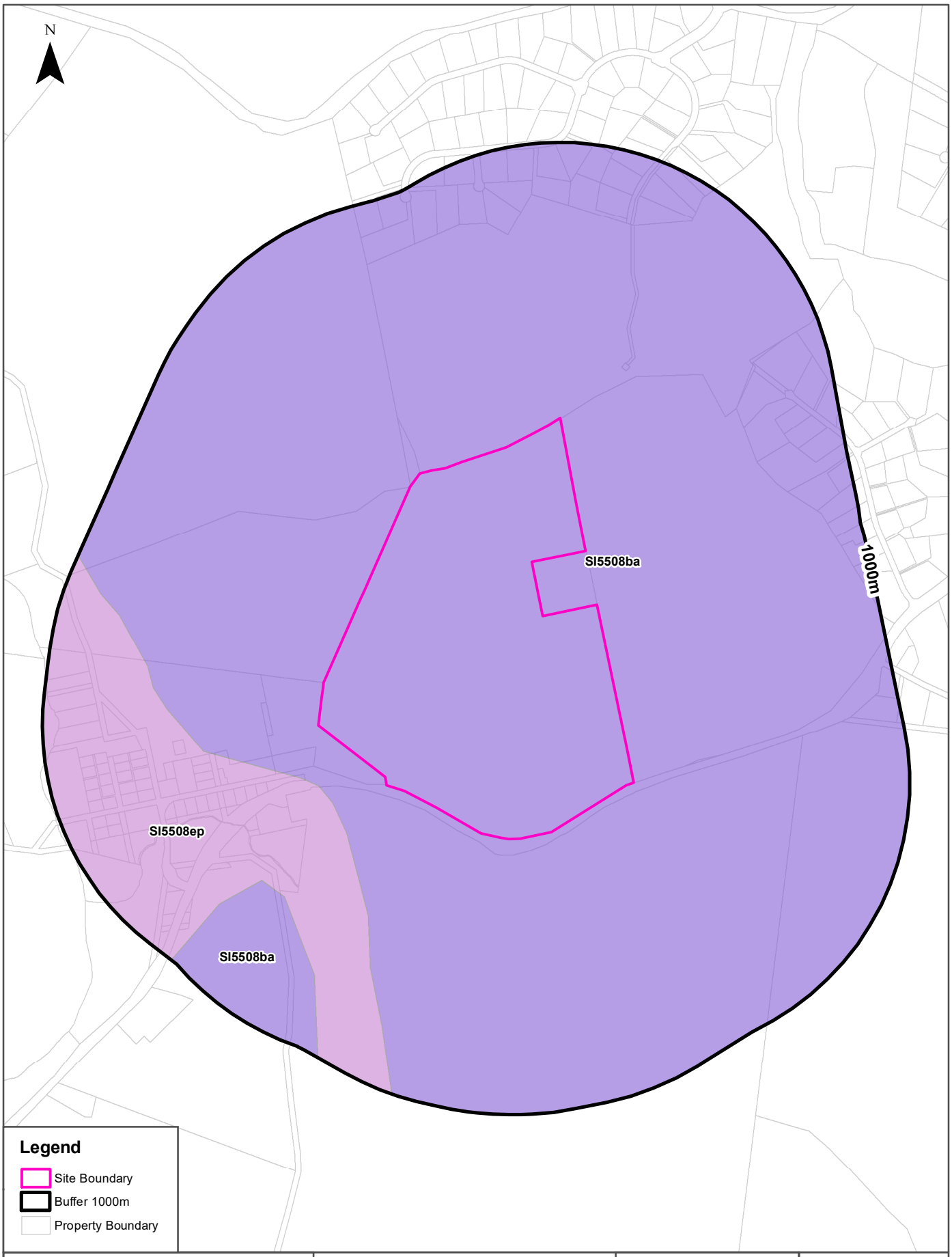
Atlas of Australian Soils

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

Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Qb13	Chromosol	Rolling country: chief soils are hard neutral red soils (Dr2.22 and Dr2.42) in association with hard neutral yellow mottled soils (Dy3.42 and Dy3.22). As mapped, areas of units Gb7 and Qb12 are included. Data are limited.	0m	On-site
Gb7	Dermosol	River terraces and flood-plains: chief soils are dark porous loamy soils (Um6.11) with terrace remnants of (Gn2.15), (Dr2.42), and other soils such as (Dd1.43). Data are limited.	91m	West
Qb12	Chromosol	Rounded hilly to steep hilly with some steep scarps, tors: chief soils are hard neutral and acidic red soils (Dr2.22, Dr2.42, Dr2.21, Dr2.41) with hard neutral and acidic yellow mottled soils (Dy3.41), (Dy3.42), and (Dy3.2). Associated are siliceous sands (Uc1.2) and leached sands (Uc2.2) on or adjacent to the steeper portions of the area. As mapped, areas of unit Qb13 and possibly unit Gb7 are included. Data are limited.	157m	South East

Soil Landscapes of Central and Eastern NSW

800 Mid Western Highway, Evans Plains, NSW 2795



Soils

800 Mid Western Highway, Evans Plains, NSW 2795

Soil Landscapes of Central and Eastern NSW

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

Soil Code	Name	Distance	Direction
SI5508ba	Bathurst	0m	On-site
SI5508ep	Evans Plains	174m	South West

Acid Sulfate Soils

800 Mid Western Highway, Evans Plains, NSW 2795

Environmental Planning Instrument - Acid Sulfate Soils

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

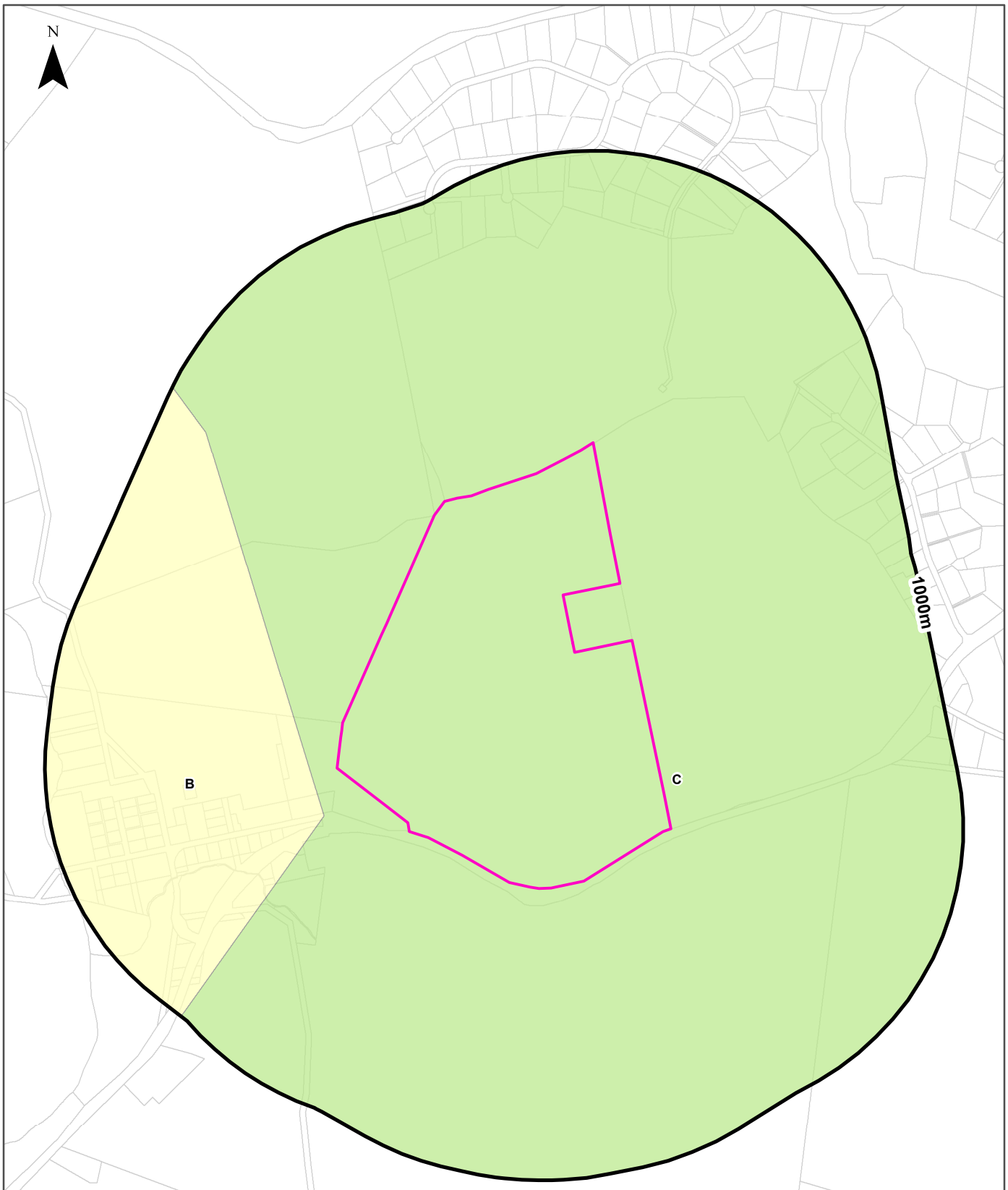
Soil Class	Description	EPI Name
N/A		

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

Soil Class	Description	EPI Name	Distance	Direction
N/A				

Atlas of Australian Acid Sulfate Soils

800 Mid Western Highway, Evans Plains, NSW 2795



Legend

Site Boundary
Buffer 1000m
Property Boundary

Probability of occurrence of Acid Sulfate Soils

A. High (>70%)
B. Low (6-70%)
C. Extremely Low (1-5%)
D. No Chance (0%)

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

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2025

Coordinate System: GDA 1994 MGA Zone 56

Date: 26February 2025

Acid Sulfate Soils

800 Mid Western Highway, Evans Plains, NSW 2795

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.	92m	West

Dryland Salinity

800 Mid Western Highway, Evans Plains, NSW 2795

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

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

No

What Dryland Salinity assessments are given?

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

Dryland Salinity Data Source : National Land and Water Resources Audit
The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.
In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

Mining

800 Mid Western Highway, Evans Plains, NSW 2795

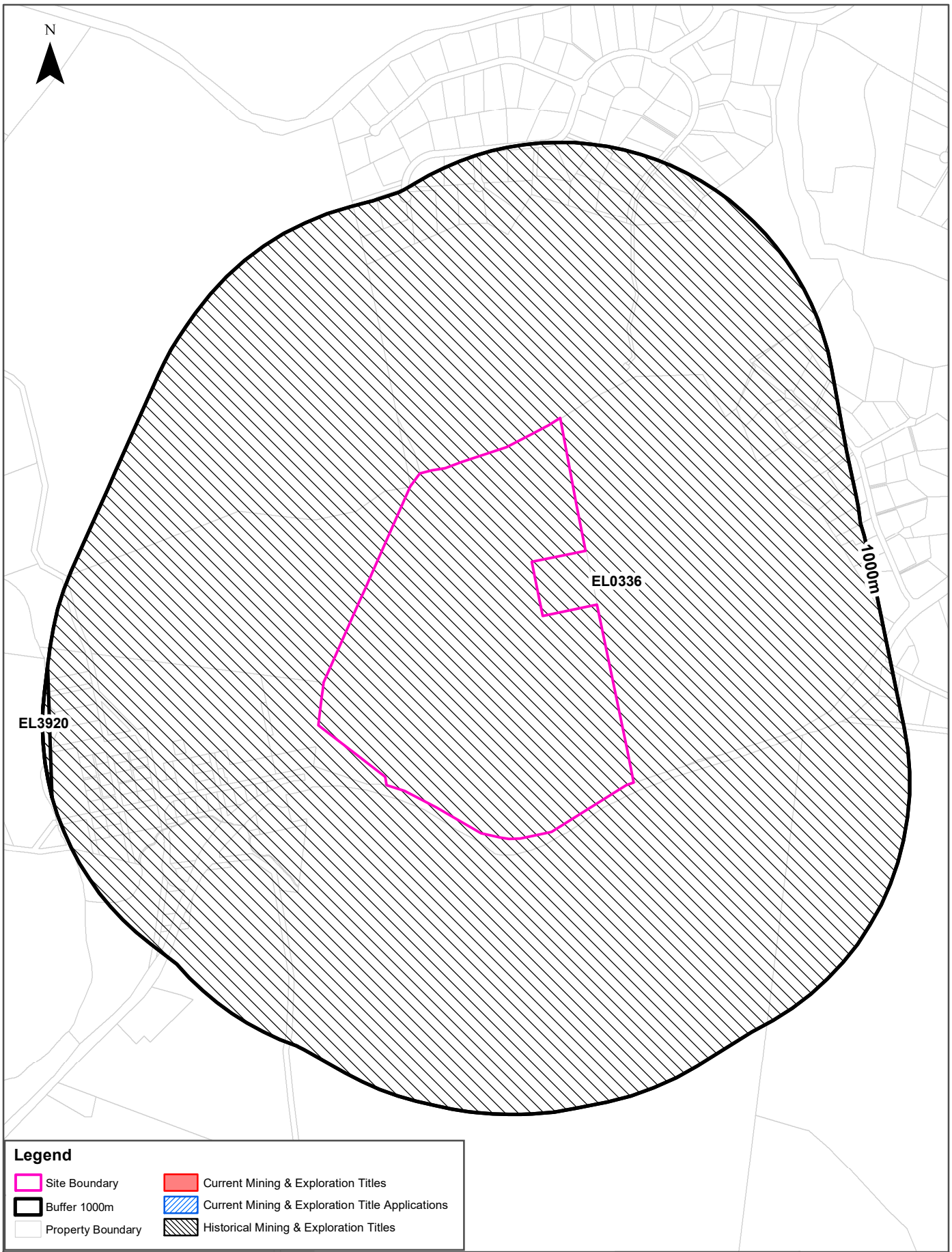
Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

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

Mining & Exploration Titles

800 Mid Western Highway, Evans Plains, NSW 2795



Mining

800 Mid Western Highway, Evans Plains, NSW 2795

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

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

Mining

800 Mid Western Highway, Evans Plains, NSW 2795

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
EL0336	NICKEL MINES LIMITED	19701101	19711101	MINERALS	Cu	0m	On-site
EL3920	NEWCREST MINING LIMITED	19910601	19940301	MINERALS	Au	973m	West

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

State Environmental Planning Policy

800 Mid Western Highway, Evans Plains, NSW 2795

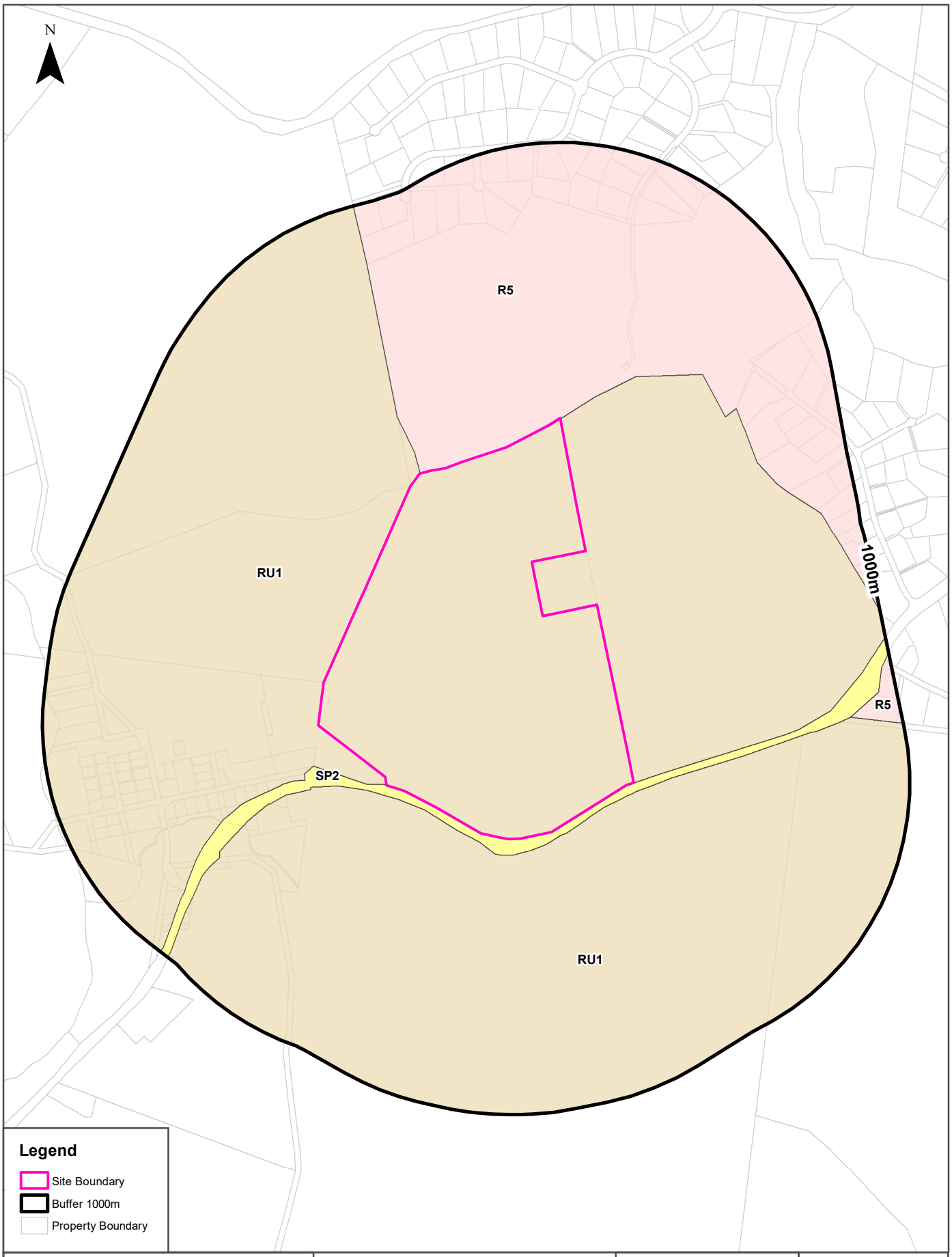
State Significant Precincts

What SEPP State Significant Precincts exist within the dataset buffer?

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

EPI Planning Zones

800 Mid Western Highway, Evans Plains, NSW 2795



Environmental Planning Instrument

800 Mid Western Highway, Evans Plains, NSW 2795

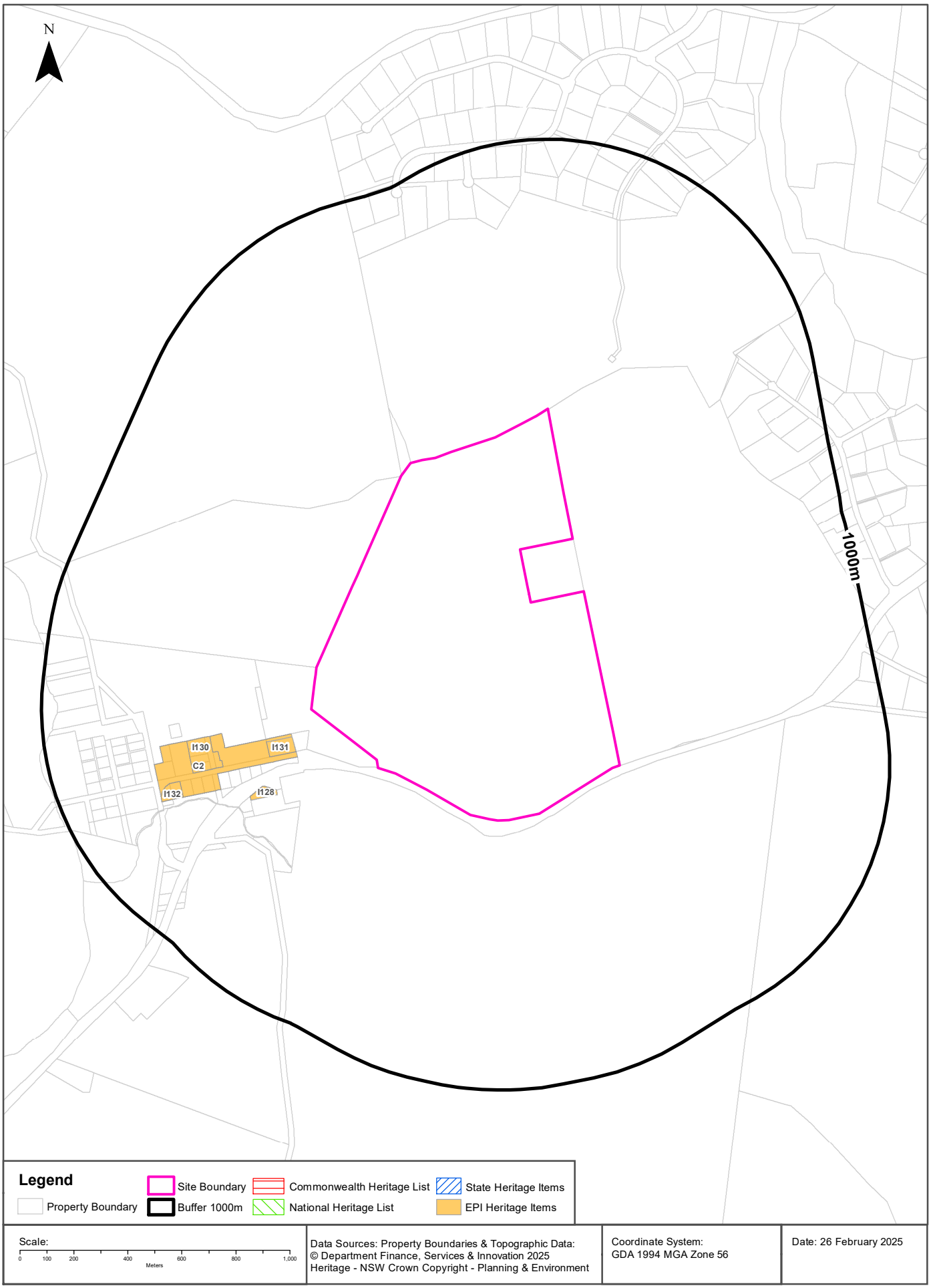
Land Zoning

What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RU1	Primary Production		Bathurst Regional Local Environmental Plan 2014	21/04/2023	26/04/2023	12/05/2023	Map Amendment No 3	0m	On-site
SP2	Infrastructure	Classified Road	Bathurst Regional Local Environmental Plan 2014	21/04/2023	26/04/2023	12/05/2023	Map Amendment No 3	0m	South
R5	Large Lot Residential		Bathurst Regional Local Environmental Plan 2014	21/04/2023	26/04/2023	12/05/2023	Map Amendment No 3	0m	North
RU1	Primary Production		Bathurst Regional Local Environmental Plan 2014	21/04/2023	26/04/2023	12/05/2023	Map Amendment No 3	24m	South
R5	Large Lot Residential		Bathurst Regional Local Environmental Plan 2014	21/04/2023	26/04/2023	12/05/2023	Map Amendment No 3	814m	East

Heritage Items

800 Mid Western Highway, Evans Plains, NSW 2795



Heritage

800 Mid Western Highway, Evans Plains, NSW 2795

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							

National Heritage List

What are the National Heritage List Items located within the dataset buffer?
Note. Please click on Place Id to activate a hyperlink to online website.

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

State Heritage Register - Curtilages

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

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

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
C2	Evans Plains Conservation Area	Conservation Area - General	Local	Bathurst Regional Local Environmental Plan 2014	19/11/2014	19/11/2014	10/02/2023	119m	South West
I131	Glenroy (former convent)	Item - General	Local	Bathurst Regional Local Environmental Plan 2014	19/11/2014	19/11/2014	10/02/2023	126m	South West
I128	Presbyterian Church (former)	Item - General	Local	Bathurst Regional Local Environmental Plan 2014	19/11/2014	19/11/2014	10/02/2023	316m	South West
I130	Brooklyn Homestead (formerly Post Office)	Item - General	Local	Bathurst Regional Local Environmental Plan 2014	19/11/2014	19/11/2014	10/02/2023	380m	South West
I132	House (former shop)	Item - General	Local	Bathurst Regional Local Environmental Plan 2014	19/11/2014	19/11/2014	10/02/2023	556m	South West

Natural Hazards

800 Mid Western Highway, Evans Plains, NSW 2795

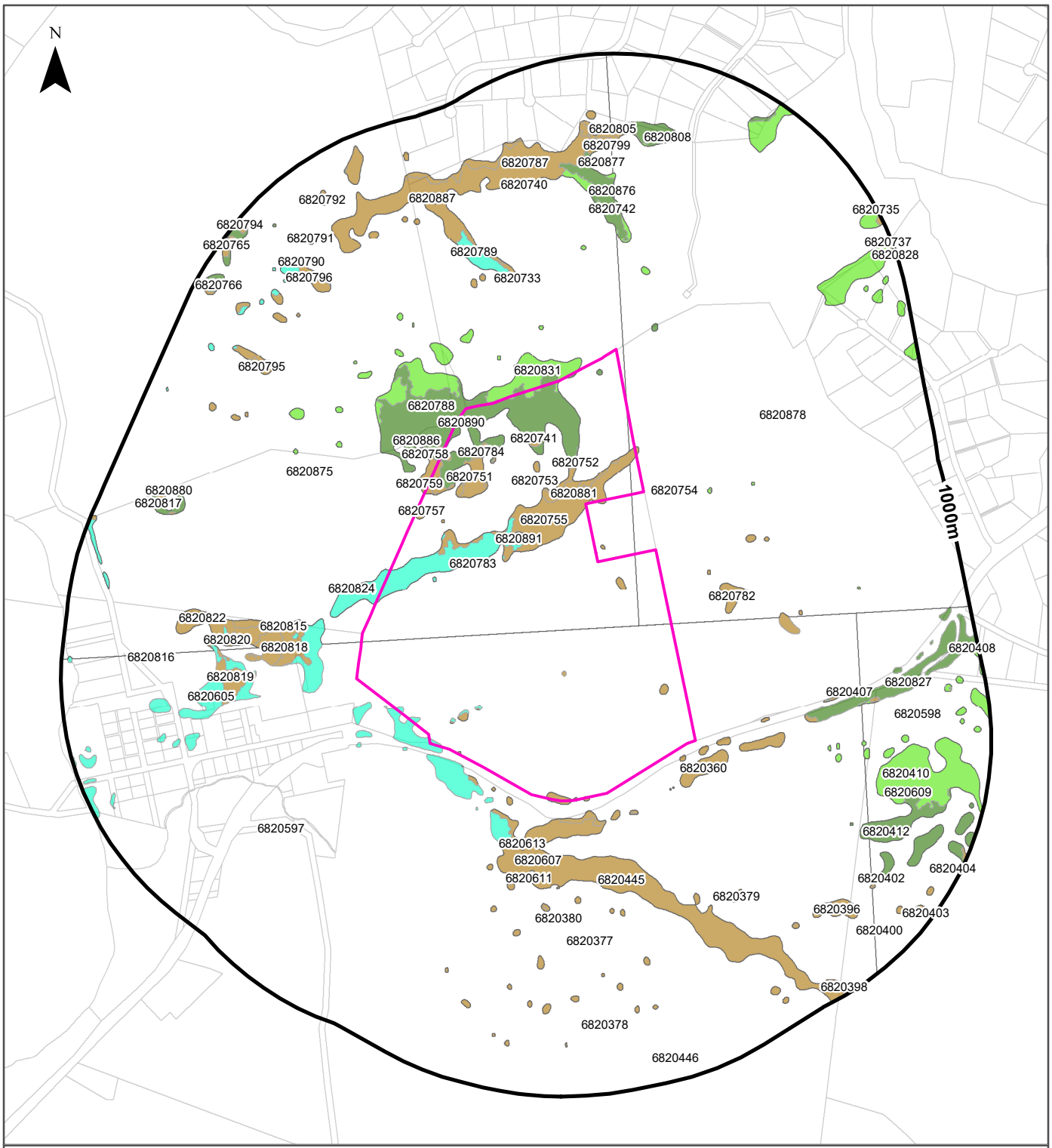
Bush Fire Prone Land

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

Bush Fire Prone Land Category	Distance	Direction
No records in buffer		

Ecological Constraints - Vegetation & Ramsar Wetlands

800 Mid Western Highway, Evans Plains, NSW 2795



Site Boundary
ReportBuffer
Property Boundary
Ramsar Wetland

Native Vegetation

Alpine Complex
Arid Shrublands (Acacia sub-formation)
Arid Shrublands (Chenopod sub-formation)
Dry Sclerophyll Forests (Shrub/grass sub-formation)
Dry Sclerophyll Forests (Shrubby sub-formation)
Forested Wetlands
Freshwater Wetlands
Grasslands
Grassy Woodlands
Heathlands
Rainforests
Saline Wetlands
Semi-arid Woodlands (Grassy sub-formation)
Semi-arid Woodlands (Shrubby sub-formation)
Wet Sclerophyll Forests (Grassy sub-formation)
Wet Sclerophyll Forests (Shrubby sub-formation)
Non vegetated
Unattributed
Not classified
Other

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

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2025

Coordinate System: GDA 1994 MGA Zone 56

Date: 26 February 2025

Ecological Constraints

800 Mid Western Highway, Evans Plains, NSW 2795

Native Vegetation

What native vegetation exists within the dataset buffer?

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
6820360	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	0m	On-site
6820597	Not classified	(Not classified) Not classified	Not classified	0m	On-site
6820741	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	0m	On-site
6820751	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	0m	On-site
6820752	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	0m	On-site
6820753	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	0m	On-site
6820755	Grassy Woodlands	(Grassy Woodlands) Central West Creekflat Grassy Woodland	Western Slopes Grassy Woodlands	0m	On-site
6820756	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Central Tableland Dry Slopes Stringybark-Box Forest	Southern Tableland Dry Sclerophyll Forests	0m	On-site
6820757	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	0m	On-site
6820758	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	0m	On-site
6820782	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	0m	On-site
6820783	Grassy Woodlands	(Grassy Woodlands) Central West Creekflat Grassy Woodland	Western Slopes Grassy Woodlands	0m	On-site
6820784	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	0m	On-site
6820785	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	0m	On-site
6820786	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	0m	On-site
6820788	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Central Tableland Dry Slopes Stringybark-Box Forest	Southern Tableland Dry Sclerophyll Forests	0m	On-site
6820824	Forested Wetlands	(Forested Wetlands) Central and Southern Tableland River Oak Forest	Eastern Riverine Forests	0m	On-site
6820831	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Central West Stony Hills Stringybark-Box Forest	Upper Riverina Dry Sclerophyll Forests	0m	On-site
6820875	Not classified	(Not classified) Not classified	Not classified	0m	On-site
6820878	Not classified	(Not classified) Not classified	Not classified	0m	On-site
6820881	Not classified	(Not classified) Not classified	Not classified	0m	On-site
6820890	Not classified	(Not classified) Not classified	Not classified	0m	On-site
6820891	Not classified	(Not classified) Not classified	Not classified	0m	On-site
6820445	Grassy Woodlands	(Grassy Woodlands) Central West Creekflat Grassy Woodland	Western Slopes Grassy Woodlands	0m	South
6820759	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Central Tableland Dry Slopes Stringybark-Box Forest	Southern Tableland Dry Sclerophyll Forests	18m	North West
6820886	Not classified	(Not classified) Not classified	Not classified	66m	North West
6820754	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	98m	North East

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
6820815	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	159m	West
6820613	Not classified	(Not classified) Not classified	Not classified	162m	South
6820607	Not classified	(Not classified) Not classified	Not classified	197m	South
6820822	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	214m	West
6820823	Forested Wetlands	(Forested Wetlands) Central and Southern Tableland River Oak Forest	Eastern Riverine Forests	215m	West
6820611	Not classified	(Not classified) Not classified	Not classified	249m	South
6820818	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	249m	West
6820410	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Central West Stony Hills Stringybark-Box Forest	Upper Riverina Dry Sclerophyll Forests	293m	South East
6820378	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	301m	South
6820821	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	341m	West
6820820	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	345m	West
6820742	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Central Tableland Dry Slopes Stringybark-Box Forest	Southern Tableland Dry Sclerophyll Forests	366m	North
6820789	Forested Wetlands	(Forested Wetlands) Central and Southern Tableland River Oak Forest	Eastern Riverine Forests	369m	North
6820733	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	373m	North
6820819	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	376m	West
6820827	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Central Tableland Dry Slopes Stringybark-Box Forest	Southern Tableland Dry Sclerophyll Forests	379m	East
6820795	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	387m	North West
6820380	Grassy Woodlands	(Grassy Woodlands) Central West Creekflat Grassy Woodland	Western Slopes Grassy Woodlands	389m	South
6820787	Grassy Woodlands	(Grassy Woodlands) Central West Creekflat Grassy Woodland	Western Slopes Grassy Woodlands	418m	North
6820405	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	432m	East
6820377	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	465m	South
6820605	Not classified	(Not classified) Not classified	Not classified	473m	West
6820876	Not classified	(Not classified) Not classified	Not classified	509m	North
6820379	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	512m	South East
6820407	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	526m	East
6820598	Not classified	(Not classified) Not classified	Not classified	564m	East
6820877	Not classified	(Not classified) Not classified	Not classified	590m	North
6820412	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Central Tableland Dry Slopes Stringybark-Box Forest	Southern Tableland Dry Sclerophyll Forests	591m	South East
6820406	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	602m	East
6820796	Grassy Woodlands	(Grassy Woodlands) Central West Creekflat Grassy Woodland	Western Slopes Grassy Woodlands	616m	North West
6820740	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	630m	North
6820790	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	663m	North West
6820734	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	674m	North

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
6820738	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	680m	North
6820799	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	680m	North
6820396	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	689m	South East
6820816	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	691m	West
6820808	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Central Tableland Dry Slopes Stringybark-Box Forest	Southern Tableland Dry Sclerophyll Forests	693m	North
6820887	Not classified	(Not classified) Not classified	Not classified	699m	North
6820739	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	706m	North
6820805	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	710m	North
6820609	Not classified	(Not classified) Not classified	Not classified	718m	South East
6820880	Not classified	(Not classified) Not classified	Not classified	739m	West
6820791	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	761m	North West
6820402	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	765m	South East
6820817	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	773m	West
6820397	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	779m	South East
6820766	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	802m	North West
6820792	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	839m	North West
6820400	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	882m	South East
6820793	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	893m	North West
6820446	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Central Tableland Dry Slopes Stringybark-Box Forest	Southern Tableland Dry Sclerophyll Forests	911m	South
6820401	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	941m	South East
6820765	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	951m	North West
6820794	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	956m	North West
6820403	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	958m	South East
6820408	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Central West Stony Hills Stringybark-Box Forest	Upper Riverina Dry Sclerophyll Forests	960m	East
6820404	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	962m	South East
6820398	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	968m	South East
6820737	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	972m	North East
6820828	Grassy Woodlands	(Grassy Woodlands) Central Tableland Clay Apple Box Grassy Forest	Southern Tableland Grassy Woodlands	996m	North East
6820735	Grassy Woodlands	(Grassy Woodlands) Southern Tableland Grassy Box Woodland	Southern Tableland Grassy Woodlands	997m	North East

Ecological Constraints

800 Mid Western Highway, Evans Plains, NSW 2795

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

800 Mid Western Highway, Evans Plains, NSW 2795

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

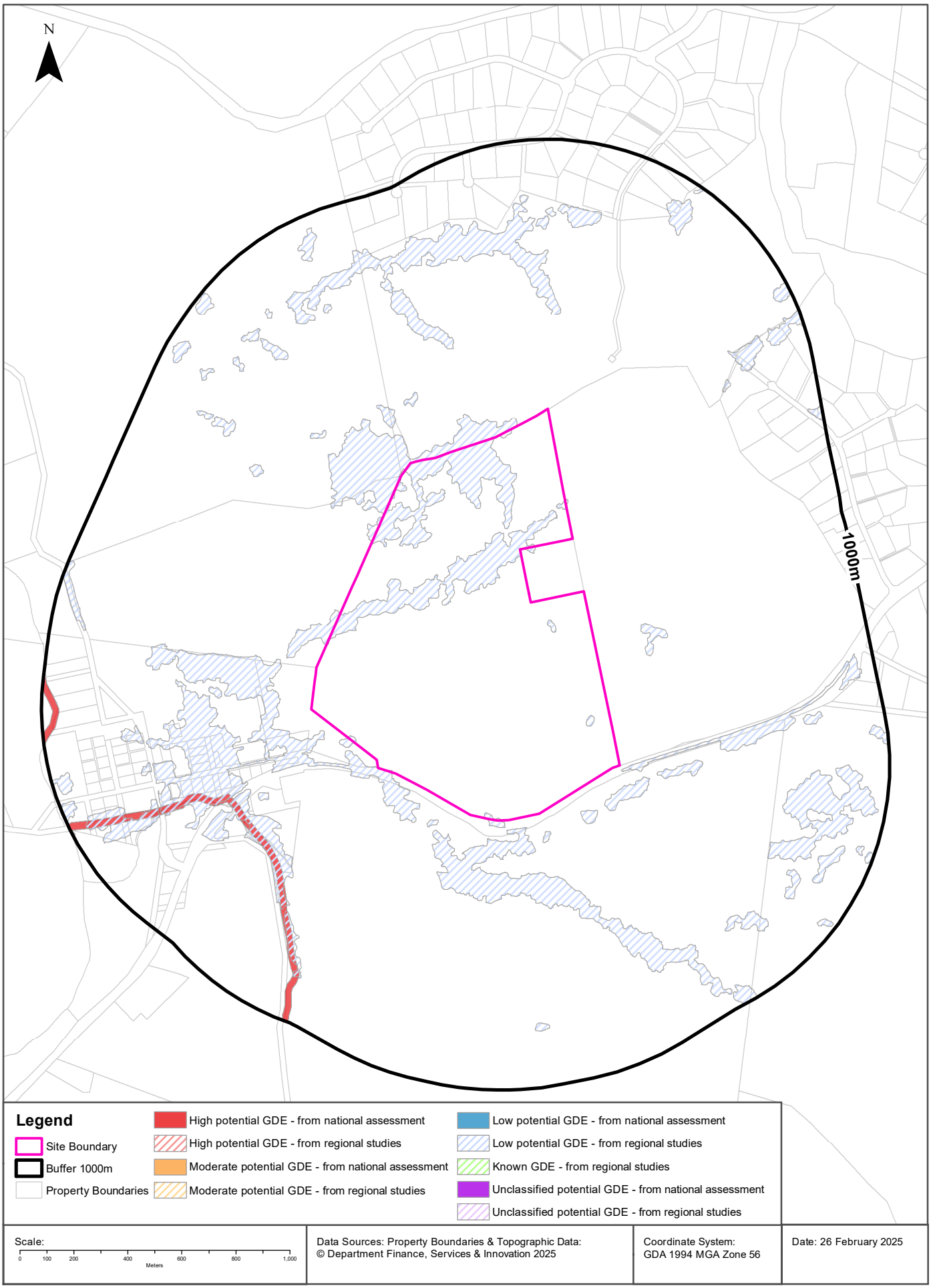
Protected areas in marine environments identified by the CAPAD within the dataset buffer:

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

Ecological Constraints - Groundwater Dependent Ecosystems Atlas

800 Mid Western Highway, Evans Plains, NSW 2795



Ecological Constraints

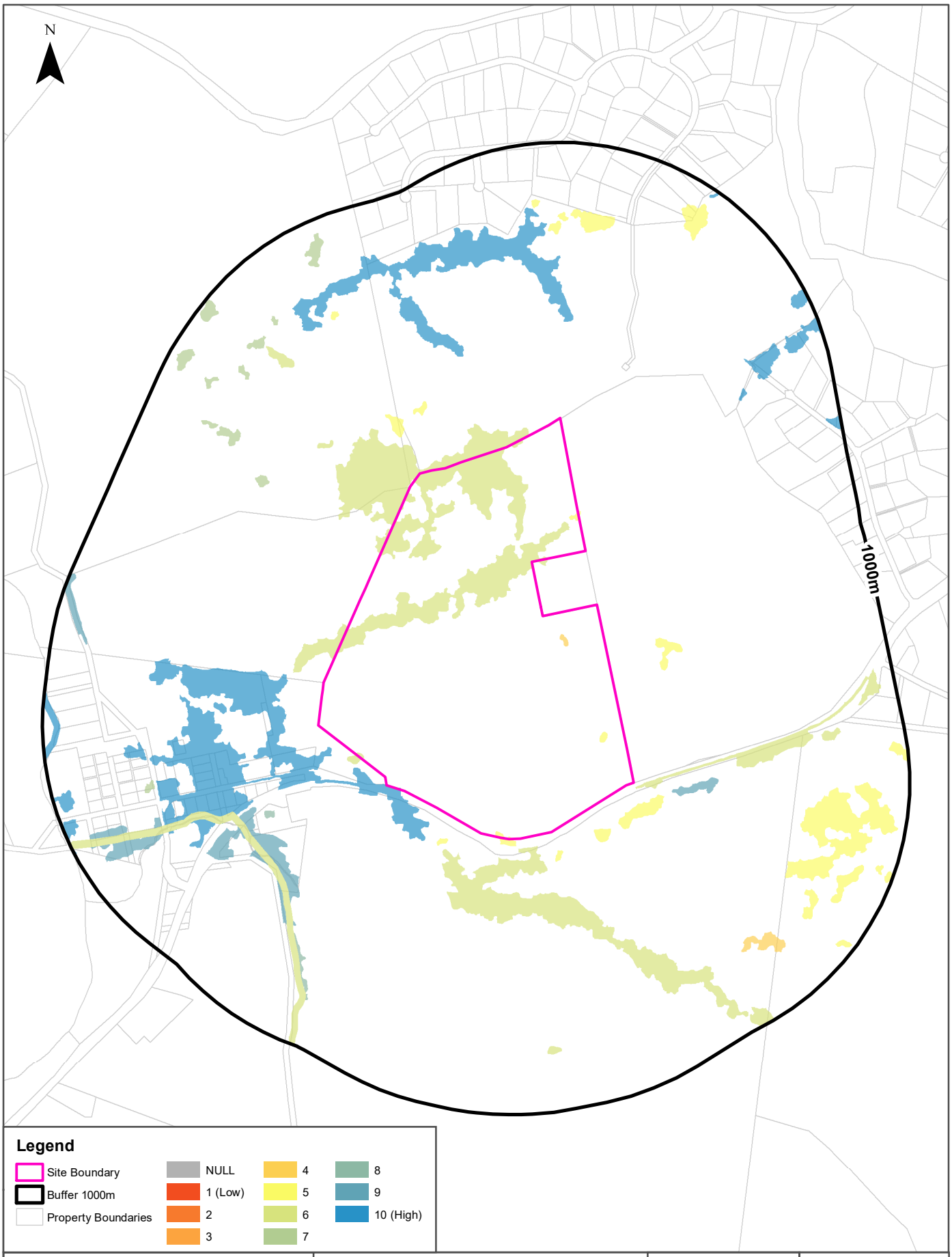
800 Mid Western Highway, Evans Plains, NSW 2795

Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	Low potential GDE - from regional studies	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	Vegetation		0m	On-site
Aquatic	High potential GDE - from national assessment	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	River		439m	South West

Ecological Constraints - Inflow Dependent Ecosystems Likelihood

800 Mid Western Highway, Evans Plains, NSW 2795



Ecological Constraints

800 Mid Western Highway, Evans Plains, NSW 2795

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	6	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	Vegetation		0m	On-site
Terrestrial	4	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	Vegetation		0m	On-site
Terrestrial	5	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	Vegetation		0m	On-site
Terrestrial	10	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	Vegetation		0m	On-site
Terrestrial	9	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	Vegetation		139m	South East
Terrestrial	8	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	Vegetation		341m	South West
Aquatic	6	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	River		439m	South West
Terrestrial	7	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	Vegetation		475m	North West
Aquatic	10	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	River		935m	West
Aquatic	5	Granitic and basaltic tablelands and minor lowlands; includes the Canobolas dissected volcanic pile.	River		996m	South West

Ecological Constraints

800 Mid Western Highway, Evans Plains, NSW 2795

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	Litoria aurea	Green and Golden Bell Frog	Not Sensitive	Endangered	Vulnerable	
Animalia	Amphibia	Litoria booroolongensis	Booroolong Frog	Not Sensitive	Endangered	Endangered	
Animalia	Amphibia	Litoria castanea	Yellow-spotted Tree Frog	Not Sensitive	Critically Endangered	Critically Endangered	
Animalia	Aves	Anseranas semipalmata	Magpie Goose	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Category 2	Critically Endangered	Critically Endangered	
Animalia	Aves	Aphelocephala leucopsis	Southern Whiteface	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ferruginea	Curlew Sandpiper	Not Sensitive	Critically Endangered	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Category 3	Endangered	Endangered	
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Circus assimilis	Spotted Harrier	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Coracina lineata	Barred Cuckoo-shrike	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Not Sensitive	Vulnerable	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	Gallinago hardwickii	Latham's Snipe	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;JAMBA
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Lophochroa leadbeateri	Pink Cockatoo	Category 2	Vulnerable	Endangered	
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	Neophema pulchella	Turquoise Parrot	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Phaethon rubricauda	Red-tailed Tropicbird	Not Sensitive	Vulnerable	Not Listed	CAMBA;JAMBA

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Polytelis anthopeplus monarchoides	Regent Parrot (eastern subspecies)	Category 3	Endangered	Vulnerable	
Animalia	Aves	Polytelis swainsonii	Superb Parrot	Category 3	Vulnerable	Vulnerable	
Animalia	Aves	Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Rostratula australis	Australian Painted Snipe	Not Sensitive	Endangered	Endangered	
Animalia	Aves	Stagonopleura guttata	Diamond Firetail	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Insecta	Keyacris scurra	Key's Matchstick Grasshopper	Not Sensitive	Endangered	Endangered	
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	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	Nyctophilus bifax	Eastern Long-eared Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Reptilia	Tympanocryptis mccartneyi	Bathurst Grassland Earless Dragon	Category 3	Critically Endangered	Critically Endangered	
Plantae	Flora	Bossiaea fragrans		Not Sensitive	Critically Endangered	Critically Endangered	
Plantae	Flora	Calotis glandulosa	Mauve Burr-daisy	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus aggregata	Black Gum	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus leucoxylon subsp. pruinosa	Yellow Gum	Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus pulverulenta	Silver-leafed Gum	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Euphrasia scabra	Rough Eyebright	Category 3	Endangered	Not Listed	
Plantae	Flora	Lepidium hyssopifolium	Aromatic Peppercress	Not Sensitive	Endangered	Endangered	
Plantae	Flora	Persoonia marginata	Clandulla Geebung	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Swainsona sericea	Silky Swainson-pea	Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Zieria obcordata	Granite Zieria	Not Sensitive	Endangered	Endangered	

Source: NSW BioNet Species Sightings

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 Property Report

Property Report

800 MID WESTERN HIGHWAY EVANS PLAINS 2795

Property Details

Address:	800 MID WESTERN HIGHWAY EVANS PLAINS 2795
Lot/Section /Plan No:	2/-/DP864272
Council:	BATHURST REGIONAL COUNCIL

Summary of planning controls

Planning controls held within the Planning Database are summarised below. The property may be affected by additional planning controls not outlined in this report. Please contact your council for more information.

Local Environmental Plans	Bathurst Regional Local Environmental Plan 2014 (pub. 19-11-2014)
Land Zoning	RU1 - Primary Production: (pub. 21-4-2023)
Height Of Building	NA
Floor Space Ratio	NA
Minimum Lot Size	200 ha
Heritage	NA
Land Reservation Acquisition	NA
Foreshore Building Line	NA
Local Provisions	Refer to Clause 4.2B

Detailed planning information

State Environmental Planning Policies which apply to this property

State Environmental Planning Policies can specify planning controls for certain areas and/or types of development. They can also identify the development assessment system that applies and the type of environmental assessment that is required.

- State Environmental Planning Policy (Biodiversity and Conservation) 2021: Allowable Clearing Area (pub. 21-10-2022)
- State Environmental Planning Policy (Biodiversity and Conservation) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008: Land Application (pub. 12-12-2008)
- State Environmental Planning Policy (Housing) 2021: Land Application (pub. 26-11-2021)
- State Environmental Planning Policy (Industry and Employment) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Planning Systems) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Primary Production) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Resilience and Hazards) 2021: Land Application (pub. 2 -12-2021)
- State Environmental Planning Policy (Resources and Energy) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Sustainable Buildings) 2022: Land Application (pub. 29-8-2022)
- State Environmental Planning Policy (Transport and Infrastructure) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Transport and Infrastructure) 2021: Subject Land (pub. 2-12-2021)

Other matters affecting the property

Information held in the Planning Database about other matters affecting the property appears below. The property may also be affected by additional planning controls not outlined in this report. Please speak to your council for more information

1.5 m Buffer around Classified Roads	Classified Road Adjacent
Land near Electrical Infrastructure	This property may be located near electrical infrastructure and could be subject to requirements listed under Transport and Infrastructure SEPP 2021 Clause 2.48. Please contact Essential Energy for more information.
Local Aboriginal Land Council	BATHURST
Regional Plan Boundary	Central West and Orana

Appendix C Soil logs

ENVIRONMENTAL TESTPIT TP01

PROJECT NUMBER 240685	**DRILLING DATE** 09/07/2025	**COORDINATES**
PROJECT NAME Panorama BESS PSI	**METHOD** Excavator	**COORD SYS**
CLIENT Recurrent Energy	**TOTAL DEPTH** 0.5m	**LOGGED BY** MW
ADDRESS 800 Mid-Western Highway	**SURFACE COVERAGE** Grassland	**CHECKED BY**

COMMENTS Weather: Sunny, Partly Cloudy, no wind. Groundcover predominantly grassland, even coverage. Upper gradient of substation lot, a few standing trees within lot.

Depth (m)	Sample ID	Sample Type	Moisture	Graphic Log	Material Description - (texture, coarse fragments, mottling, nodules etc)	Additional Observations
	TP01 _0.0-0.1m	Soil	SM		Dark brown Sandy silt Few coarse fragments <5mm No mottling No nodules Common fine roots	
0.1	TP01_0.5m	Soil	SM		Light brown / yellow Sandy clay Common coarse fragments 2<5mm Some orange mottling White calcium carbonate No roots	DUP02 taken here Uncontrolled fill
0.2						
0.3						
0.4						
0.5					Termination Depth at: 0.5m	

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ENVIRONMENTAL TESTPIT TP02

PROJECT NUMBER 240685
PROJECT NAME Panorama BESS PSI
CLIENT Recurrent Energy
ADDRESS 800 Mid-Western Highway

DRILLING DATE 09/07/2025
METHOD Excavator
TOTAL DEPTH 0.5m
SURFACE COVERAGE Grassland

COORDINATES
COORD SYS
LOGGED BY MW
CHECKED BY

COMMENTS Weather: Sunny, Partly Cloudy, no wind. Groundcover predominantly grassland (exotic) even coverage. Gently undulating. no standing trees

Depth (m)	Sample ID	Sample Type	Moisture	Graphic Log	Material Description - (texture, coarse fragments, mottling, nodules etc)	Additional Observations
	TP02 _0.0-0.1m	Soil	SM		Dark brown Sandy clay Few coarse fragments <5mm No mottling No nodules Common fine roots	
0.1	TP02_0.5m	Soil	D		Reddish brown Medium clay Few coarse fragments <2mm Some orange mottling No nodules No roots	
0.5					Termination Depth at: 0.5m	

ENVIRONMENTAL TESTPIT TP03

PROJECT NUMBER 240685
PROJECT NAME Panorama BESS PSI
CLIENT Recurrent Energy
ADDRESS 800 Mid-Western Highway

DRILLING DATE 09/07/2025
METHOD Excavator
TOTAL DEPTH 0.5m
SURFACE COVERAGE Grassland

COORDINATES
COORD SYS
LOGGED BY MW
CHECKED BY

COMMENTS Weather: Sunny, Partly Cloudy, no wind. Groundcover predominantly grassland (exotic) even coverage. Gently undulating. no standing trees

Depth (m)	Sample ID	Sample Type	Moisture	Graphic Log	Material Description - (texture, coarse fragments, mottling, nodules etc)	Additional Observations
	TP03 _0.0-0.1m	Soil	SM		Dark brown Sandy clay Few coarse fragments <2mm No mottling No nodules Common fine roots	
0.1	TP03_0.5m	Soil	D		Light brown Sandy clay Common coarse fragments <2mm Few orange mottling Few black nodules Few fine roots	DUP01 taken here
0.5					Termination Depth at: 0.5m	

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 15 Oct 2025

ENVIRONMENTAL TESTPIT TP04

PROJECT NUMBER 240685	**DRILLING DATE** 09/07/2025	**COORDINATES**
PROJECT NAME Panorama BESS PSI	**METHOD** Excavator	**COORD SYS**
CLIENT Recurrent Energy	**TOTAL DEPTH** 0.5m	**LOGGED BY** MW
ADDRESS 800 Mid-Western Highway	**SURFACE COVERAGE** Grassland	**CHECKED BY**

COMMENTS Weather: Sunny, Partly Cloudy, no wind. Groundcover predominantly grassland (exotic) even coverage. Gently undulating. no standing trees

Depth (m)	Sample ID	Sample Type	Moisture	Graphic Log	Material Description - (texture, coarse fragments, mottling, nodules etc)	Additional Observations
	TP04 _0.0-0.1m	Soil	SM		Dark brown Sandy clay Few coarse fragments <2mm No mottling No nodules Common fine roots	
0.1	TP04_0.5m	Soil	SM		Brown Sandy clay Common coarse fragments <2mm Few orange mottling Few white/black nodules <3mm Few fine roots	
0.5					Termination Depth at: 0.5m	

Disclaimer This bore log is intended for environmental not geotechnical purposes.

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ENVIRONMENTAL TESTPIT TP05

PROJECT NUMBER 240685
PROJECT NAME Panorama BESS PSI
CLIENT Recurrent Energy
ADDRESS 800 Mid-Western Highway

DRILLING DATE 09/07/2025
METHOD Excavator
TOTAL DEPTH 0.5m
SURFACE COVERAGE Grassland

COORDINATES
COORD SYS
LOGGED BY MW
CHECKED BY

COMMENTS Weather: Sunny, Partly Cloudy, no wind. Groundcover predominantly grassland (exotic) even coverage. Gently undulating. no standing trees

Depth (m)	Sample ID	Sample Type	Moisture	Graphic Log	Material Description - (texture, coarse fragments, mottling, nodules etc)	Additional Observations
	TP05 _0.0-0.1m	Soil	SM		Dark brown Sandy clay Few coarse fragments <2mm No mottling No nodules Common fine roots	
0.1	TP05_0.5m	Soil	SM		Reddish brown Sandy clay Common coarse fragments <2mm Few orange mottling Few white nodules Few fine roots	Additional sample to hold taken here
0.5					Termination Depth at: 0.5m	

produced by ESlog.ESdat.net on 15 Oct 2025

ENVIRONMENTAL TESTPIT TP06

PROJECT NUMBER 240685	**DRILLING DATE** 09/07/2025	**COORDINATES**
PROJECT NAME Panorama BESS PSI	**METHOD** Excavator	**COORD SYS**
CLIENT Recurrent Energy	**TOTAL DEPTH** 0.5m	**LOGGED BY** MW
ADDRESS 800 Mid-Western Highway	**SURFACE COVERAGE** Grassland	**CHECKED BY**

COMMENTS Weather: Sunny, Partly Cloudy, no wind. Groundcover predominantly grassland (exotic) even coverage. Gently undulating. no standing trees

Depth (m)	Sample ID	Sample Type	Moisture	Graphic Log	Material Description - (texture, coarse fragments, mottling, nodules etc)	Additional Observations
	TP06 _0.0-0.1m	Soil	SM		Dark brown Sandy clay Few coarse fragments <1mm No mottling No nodules Common fine roots	
0.1	TP06_0.5m	Soil	SM		Dark brown Sandy clay Few coarse fragments No mottling No nodules Few fine roots	
0.5					Termination Depth at: 0.5m	

produced by ESlog.ESdat.net on 15 Oct 2025

ENVIRONMENTAL BOREHOLE BH07

PROJECT NUMBER 240685	**DRILLING DATE** 03/10/2025	**COORDINATES**
PROJECT NAME Panorama BESS PSI	**METHOD** Mechanical auger	**COORD SYS**
CLIENT Recurrent Energy	**TOTAL DEPTH** 0.5m	**LOGGED BY** MW
ADDRESS 800 Mid-Western Highway	**SURFACE COVERAGE** Grassland	**CHECKED BY**

COMMENTS Weather: Sunny, Partly Cloudy, Windy. Groundcover predominantly grassland, even coverage. Lower gradient of substation lot, a few standing trees within lot.

Depth (m)	Sample ID	Sample Type	Moisture	Graphic Log	Material Description - (texture, coarse fragments, mottling, nodules etc)	Additional Observations
	BH07 _0.0-0.1m	Soil	SM		Dark brown Sandy clay No coarse fragments No mottling No nodules Common fine/large roots	uncontrolled fill noted
0.1	BHO7_0.5m	Soil	D		Brown Sandy clay Common coarse fragments Some orange/white mottling No nodules No roots	DUP01 taken here
0.5					Termination Depth at: 0.5m	

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 15 Oct 2025

ENVIRONMENTAL BOREHOLE BH08

PROJECT NUMBER 240685
PROJECT NAME Panorama BESS PSI
CLIENT Recurrent Energy
ADDRESS 800 Mid-Western Highway

DRILLING DATE 03/10/2025
METHOD Mechanical auger
TOTAL DEPTH 0.5m
SURFACE COVERAGE Grassland

COORDINATES
COORD SYS
LOGGED BY MW
CHECKED BY

COMMENTS Weather: Sunny, Partly Cloudy, Windy. Groundcover predominantly grassland, even coverage. Lower gradient of substation lot, a few standing trees within lot.

Depth (m)	Sample ID	Sample Type	Moisture	Graphic Log	Material Description - (texture, coarse fragments, mottling, nodules etc)	Additional Observations
	BH08 _0.0-0.1m	Soil	SM		Brown Clayey sand No coarse fragments No mottling No nodules Common fine roots	
0.1	BH08_0.5m	Soil	SM		Brown Clayey sand Some coarse fragments <2mm Some orange mottling No nodules No roots	DUP02 taken here
0.5					Termination Depth at: 0.5m	

Disclaimer This bore log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 15 Oct 2025

Appendix D Laboratory results

D.1 Certificate of analysis

CERTIFICATE OF ANALYSIS

Work Order	: **ES2521214**	Page	: 1 of 16
Client	: **NGH PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MARTIN WYBURN	Contact	: Customer Services ES
Address	: Wagga Wagga	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 240685 Panorama BESS PSI	Date Samples Received	: 11-Jul-2025 11:10
Order number	: ----	Date Analysis Commenced	: 11-Jul-2025
C-O-C number	: ----	Issue Date	: 16-Jul-2025 16:17
Sampler	: MARTIN WYBURN		
Site	: ----		
Quote number	: EN/222		
No. of samples received	: 16		
No. of samples analysed	: 16		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

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
- 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*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Rassem Ayoubi	Senior Organic Chemist	Sydney Organics, Smithfield, 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.

- 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.
- EG035: Poor matrix spike recovery was obtained for Mercury on sample ES2521139-#003. Confirmed by reanalysis.
- 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.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0.0-0.1m	TP01_0.5m	TP02_0.0-0.1m	TP02_0.5m	TP03_0.0-0.1m
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-001	ES2521214-002	ES2521214-003	ES2521214-004	ES2521214-005
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		9.4	6.6	19.1	27.4	17.1
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		5	10	6	23	5
Copper	7440-50-8	5	mg/kg		<5	<5	<5	8	<5
Lead	7439-92-1	5	mg/kg		<5	12	7	8	5
Nickel	7440-02-0	2	mg/kg		2	5	2	11	<2
Zinc	7440-66-6	5	mg/kg		8	13	8	34	6
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	----
EP068A: Organochlorine Pesticides (OC)									
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0.0-0.1m	TP01_0.5m	TP02_0.0-0.1m	TP02_0.5m	TP03_0.0-0.1m
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-001	ES2521214-002	ES2521214-003	ES2521214-004	ES2521214-005
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
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)									
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0.0-0.1m	TP01_0.5m	TP02_0.0-0.1m	TP02_0.5m	TP03_0.0-0.1m
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-001	ES2521214-002	ES2521214-003	ES2521214-004	ES2521214-005
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
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)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	<1	<1	----
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	<2	<2	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TP01_0.0-0.1m	TP01_0.5m	TP02_0.0-0.1m	TP02_0.5m	TP03_0.0-0.1m
			Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit	ES2521214-001	ES2521214-002	ES2521214-003	ES2521214-004	ES2521214-005
				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	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	----
Chrysene	218-01-9	0.5	mg/kg	<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	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<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	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<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	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<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	----
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg	<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**	----
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg	**1.2**	**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	<50	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg	<50	<50	<50	<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	<50	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	----
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg	<50	<50	<50	<50	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0.0-0.1m	TP01_0.5m	TP02_0.0-0.1m	TP02_0.5m	TP03_0.0-0.1m
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-001	ES2521214-002	ES2521214-003	ES2521214-004	ES2521214-005
					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	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg		<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	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	----
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**77.1**	**91.8**	**90.3**	**93.4**	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**82.1**	**88.1**	**90.3**	**91.4**	**77.4**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**98.5**	**105**	**111**	**107**	**87.5**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**92.3**	**93.3**	**92.4**	**89.9**	----
2-Chlorophenol-D4	93951-73-6	0.5	%		**101**	**102**	**93.4**	**100**	----
2.4.6-Tribromophenol	118-79-6	0.5	%		**58.9**	**52.9**	**58.2**	**58.6**	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**99.9**	**115**	**106**	**104**	----
Anthracene-d10	1719-06-8	0.5	%		**108**	**112**	**106**	**107**	----
4-Terphenyl-d14	1718-51-0	0.5	%		**110**	**111**	**95.4**	**129**	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**71.7**	**87.5**	**69.6**	**86.5**	----
Toluene-D8	2037-26-5	0.2	%		**97.9**	**102**	**99.6**	**97.6**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0.0-0.1m	TP01_0.5m	TP02_0.0-0.1m	TP02_0.5m	TP03_0.0-0.1m
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-001	ES2521214-002	ES2521214-003	ES2521214-004	ES2521214-005
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**103**	**110**	**99.0**	**102**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP03_0.5m	TP04_0.0-0.1m	TP04_0.5m	TP05_0.0-0.1m	TP05_0.5m
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-006	ES2521214-007	ES2521214-008	ES2521214-009	ES2521214-010
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		14.5	17.6	20.3	16.7	26.8
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		6	9	16	7	26
Copper	7440-50-8	5	mg/kg		<5	<5	<5	<5	6
Lead	7439-92-1	5	mg/kg		<5	<5	<5	<5	9
Nickel	7440-02-0	2	mg/kg		<2	3	7	2	13
Zinc	7440-66-6	5	mg/kg		<5	18	31	12	44
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP03_0.5m	TP04_0.0-0.1m	TP04_0.5m	TP05_0.0-0.1m	TP05_0.5m
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-006	ES2521214-007	ES2521214-008	ES2521214-009	ES2521214-010
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
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)									
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP03_0.5m	TP04_0.0-0.1m	TP04_0.5m	TP05_0.0-0.1m	TP05_0.5m
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-006	ES2521214-007	ES2521214-008	ES2521214-009	ES2521214-010
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
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
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**90.3**	**75.5**	**83.0**	**105**	**87.0**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**109**	**104**	**99.8**	**133**	**110**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP06_0.0-0.1m	TP06_0.5m	DUP01	TRIP BLANK	TRIP SPIKE
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-011	ES2521214-012	ES2521214-013	ES2521214-014	ES2521214-015
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		**19.4**	**15.4**	**13.3**	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	----	----
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	----	----
Chromium	7440-47-3	2	mg/kg		**6**	**8**	**5**	----	----
Copper	7440-50-8	5	mg/kg		<5	<5	<5	----	----
Lead	7439-92-1	5	mg/kg		<5	<5	<5	----	----
Nickel	7440-02-0	2	mg/kg		**2**	**4**	<2	----	----
Zinc	7440-66-6	5	mg/kg		**10**	**10**	<5	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	----	----	----
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	----	----	----
gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg		<0.05	<0.05	----	----	----
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	----	----	----
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	----	----	----
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	----	----	----
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	----	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	----	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	----	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	----	----	----
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	----	----	----
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	----	----	----
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP06_0.0-0.1m	TP06_0.5m	DUP01	TRIP BLANK	TRIP SPIKE
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-011	ES2521214-012	ES2521214-013	ES2521214-014	ES2521214-015
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	----	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	----	----	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	----	----	----
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	----	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	----	----	----
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<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	----	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	----	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	----	----	----
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	----	----	----
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	----	----	----
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	----	----	----
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	----	----	----
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	----	----	----
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	----	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	----	----	----
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP06_0.0-0.1m	TP06_0.5m	DUP01	TRIP BLANK	TRIP SPIKE
				Sampling date / time	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00	09-Jul-2025 00:00
Compound	CAS Number	LOR	Unit		ES2521214-011	ES2521214-012	ES2521214-013	ES2521214-014	ES2521214-015
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	----	----	----
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	----	<10	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	----	<10	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		----	----	----	<10	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	----	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		----	----	----	<0.5	**5.8**
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	----	<0.5	**6.4**
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	----	<0.5	**6.7**
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	----	<0.5	**2.8**
^ **Sum of BTEX**	----	0.2	mg/kg		----	----	----	<0.2	**21.7**
^ **Total Xylenes**	----	0.5	mg/kg		----	----	----	<0.5	**9.5**
Naphthalene	91-20-3	1	mg/kg		----	----	----	<1	<1
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**102**	**83.4**	----	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**126**	**108**	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	----	----	**77.6**	**91.2**
Toluene-D8	2037-26-5	0.2	%		----	----	----	**101**	**101**
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	----	**102**	**96.7**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TSC	----	----	----	----
				Sampling date / time	09-Jul-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2521214-016	--------	--------	--------	--------
					Result	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	----	----	----	----
Toluene	108-88-3	0.5	mg/kg		**7.8**	----	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		**8.4**	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		**8.8**	----	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		**3.7**	----	----	----	----
^ **Sum of BTEX**	----	0.2	mg/kg		**28.7**	----	----	----	----
^ **Total Xylenes**	----	0.5	mg/kg		**12.5**	----	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**83.4**	----	----	----	----
Toluene-D8	2037-26-5	0.2	%		**94.9**	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		**90.0**	----	----	----	----

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

CERTIFICATE OF ANALYSIS

Work Order	: **ES2531376**	Page	: 1 of 16
Client	: **NGH PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MARTIN WYBURN	Contact	: Customer Services ES
Address	: Wagga Wagga	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 240685 Panorama BESS PSI	Date Samples Received	: 08-Oct-2025 11:55
Order number	: ----	Date Analysis Commenced	: 09-Oct-2025
C-O-C number	: ----	Issue Date	: 13-Oct-2025 17:38
Sampler	: MARTIN WYBURN		
Site	: ----		
Quote number	: EN/222		
No. of samples received	: 9		
No. of samples analysed	: 9		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

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
- 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*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	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.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH07_0.0-0.1m	BH07_0.5m	BH08_0.0-0.1m	BH07_0.5m	DUP01
				Sampling date / time	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00
Compound	CAS Number	LOR	Unit		ES2531376-001	ES2531376-002	ES2531376-003	ES2531376-004	ES2531376-005
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		14.8	17.4	7.1	11.7	15.2
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		9	17	7	7	16
Copper	7440-50-8	5	mg/kg		8	5	7	<5	<5
Lead	7439-92-1	5	mg/kg		6	6	5	6	7
Nickel	7440-02-0	2	mg/kg		5	8	4	3	8
Zinc	7440-66-6	5	mg/kg		27	38	29	15	35
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)									
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH07_0.0-0.1m	BH07_0.5m	BH08_0.0-0.1m	BH07_0.5m	DUP01
				Sampling date / time	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00
Compound	CAS Number	LOR	Unit		ES2531376-001	ES2531376-002	ES2531376-003	ES2531376-004	ES2531376-005
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
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)									
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	BH07_0.0-0.1m	BH07_0.5m	BH08_0.0-0.1m	BH07_0.5m	DUP01
			Sampling date / time	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00
Compound	CAS Number	LOR	Unit	ES2531376-001	ES2531376-002	ES2531376-003	ES2531376-004	ES2531376-005
				Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued								
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)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	<2	<2	<2
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	BH07_0.0-0.1m	BH07_0.5m	BH08_0.0-0.1m	BH07_0.5m	DUP01
				Sampling date / time	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00
Compound	CAS Number	LOR	Unit		ES2531376-001	ES2531376-002	ES2531376-003	ES2531376-004	ES2531376-005
					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	BH07_0.0-0.1m	BH07_0.5m	BH08_0.0-0.1m	BH07_0.5m	DUP01
				Sampling date / time	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00
Compound	CAS Number	LOR	Unit		ES2531376-001	ES2531376-002	ES2531376-003	ES2531376-004	ES2531376-005
					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	%		**94.3**	**89.3**	**103**	**81.1**	**117**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**88.2**	**93.3**	**129**	**88.9**	**94.6**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**85.5**	**90.9**	**119**	**80.2**	**89.1**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**81.4**	**80.6**	**82.8**	**80.4**	**86.8**
2-Chlorophenol-D4	93951-73-6	0.5	%		**84.8**	**100**	**88.4**	**88.0**	**88.9**
2.4.6-Tribromophenol	118-79-6	0.5	%		**94.9**	**80.3**	**83.0**	**97.5**	**94.3**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**83.5**	**90.4**	**84.0**	**84.1**	**86.9**
Anthracene-d10	1719-06-8	0.5	%		**83.2**	**93.1**	**87.0**	**86.4**	**90.1**
4-Terphenyl-d14	1718-51-0	0.5	%		**93.8**	**102**	**96.5**	**97.0**	**103**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**73.2**	**70.6**	**77.0**	**76.8**	**80.5**
Toluene-D8	2037-26-5	0.2	%		**84.3**	**85.2**	**88.8**	**88.7**	**93.6**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BH07_0.0-0.1m	BH07_0.5m	BH08_0.0-0.1m	BH07_0.5m	DUP01
				Sampling date / time	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00
Compound	CAS Number	LOR	Unit		ES2531376-001	ES2531376-002	ES2531376-003	ES2531376-004	ES2531376-005
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**88.9**	**88.1**	**91.8**	**92.5**	**98.6**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TRIP BLANK	TRIP SPIKE	TSC	----	----
				Sampling date / time	03-Oct-2025 00:00	03-Oct-2025 00:00	03-Oct-2025 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2531376-007	ES2531376-008	ES2531376-009	--------	--------
					Result	Result	Result	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	----	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		<10	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	**4.3**	**5.6**	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	**5.0**	**6.5**	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	**5.5**	**7.2**	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	**2.5**	**3.3**	----	----
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	**17.3**	**22.6**	----	----
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	**8.0**	**10.5**	----	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**76.5**	**78.9**	**79.0**	----	----
Toluene-D8	2037-26-5	0.2	%		**88.4**	**91.4**	**91.3**	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		**92.0**	**93.3**	**91.8**	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	R01	----	----	----	----
				Sampling date / time	03-Oct-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2531376-006	--------	--------	--------	--------
					Result	----	----	----	----
EG020F: Dissolved 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	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		<0.001	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		<0.005	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EP066: Polychlorinated Biphenyls (PCB)									
^ **Total Polychlorinated biphenyls**	----	1	µg/L		<1	----	----	----	----
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.5	µg/L		<0.5	----	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L		<0.5	----	----	----	----
beta-BHC	319-85-7	0.5	µg/L		<0.5	----	----	----	----
gamma-BHC - (Lindane)	58-89-9	0.5	µg/L		<0.5	----	----	----	----
delta-BHC	319-86-8	0.5	µg/L		<0.5	----	----	----	----
Heptachlor	76-44-8	0.5	µg/L		<0.5	----	----	----	----
Aldrin	309-00-2	0.5	µg/L		<0.5	----	----	----	----
Heptachlor epoxide	1024-57-3	0.5	µg/L		<0.5	----	----	----	----
trans-Chlordane	5103-74-2	0.5	µg/L		<0.5	----	----	----	----
alpha-Endosulfan	959-98-8	0.5	µg/L		<0.5	----	----	----	----
cis-Chlordane	5103-71-9	0.5	µg/L		<0.5	----	----	----	----
Dieldrin	60-57-1	0.5	µg/L		<0.5	----	----	----	----
4.4`-DDE	72-55-9	0.5	µg/L		<0.5	----	----	----	----
Endrin	72-20-8	0.5	µg/L		<0.5	----	----	----	----
beta-Endosulfan	33213-65-9	0.5	µg/L		<0.5	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	R01	----	----	----	----
				Sampling date / time	03-Oct-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2531376-006	--------	--------	--------	--------
					Result	----	----	----	----
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDD	72-54-8	0.5	µg/L		<0.5	----	----	----	----
Endrin aldehyde	7421-93-4	0.5	µg/L		<0.5	----	----	----	----
Endosulfan sulfate	1031-07-8	0.5	µg/L		<0.5	----	----	----	----
4.4`-DDT	50-29-3	2.0	µg/L		<2.0	----	----	----	----
Endrin ketone	53494-70-5	0.5	µg/L		<0.5	----	----	----	----
Methoxychlor	72-43-5	2.0	µg/L		<2.0	----	----	----	----
^ **Total Chlordane (sum)**	----	0.5	µg/L		<0.5	----	----	----	----
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.5	µg/L		<0.5	----	----	----	----
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.5	µg/L		<0.5	----	----	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L		<0.5	----	----	----	----
Demeton-S-methyl	919-86-8	0.5	µg/L		<0.5	----	----	----	----
Monocrotophos	6923-22-4	2.0	µg/L		<2.0	----	----	----	----
Dimethoate	60-51-5	0.5	µg/L		<0.5	----	----	----	----
Diazinon	333-41-5	0.5	µg/L		<0.5	----	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L		<0.5	----	----	----	----
Parathion-methyl	298-00-0	2.0	µg/L		<2.0	----	----	----	----
Malathion	121-75-5	0.5	µg/L		<0.5	----	----	----	----
Fenthion	55-38-9	0.5	µg/L		<0.5	----	----	----	----
Chlorpyrifos	2921-88-2	0.5	µg/L		<0.5	----	----	----	----
Parathion	56-38-2	2.0	µg/L		<2.0	----	----	----	----
Pirimphos-ethyl	23505-41-1	0.5	µg/L		<0.5	----	----	----	----
Chlorfenvinphos	470-90-6	0.5	µg/L		<0.5	----	----	----	----
Bromophos-ethyl	4824-78-6	0.5	µg/L		<0.5	----	----	----	----
Fenamiphos	22224-92-6	0.5	µg/L		<0.5	----	----	----	----
Prothiofos	34643-46-4	0.5	µg/L		<0.5	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	R01	----	----	----	----
				Sampling date / time	03-Oct-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2531376-006	--------	--------	--------	--------
					Result	----	----	----	----
EP068B: Organophosphorus Pesticides (OP) - Continued									
Ethion	563-12-2	0.5	µg/L		<0.5	----	----	----	----
Carbophenothion	786-19-6	0.5	µg/L		<0.5	----	----	----	----
Azinphos Methyl	86-50-0	0.5	µg/L		<0.5	----	----	----	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	1.0	µg/L		<1.0	----	----	----	----
2-Chlorophenol	95-57-8	1.0	µg/L		<1.0	----	----	----	----
2-Methylphenol	95-48-7	1.0	µg/L		<1.0	----	----	----	----
3- & 4-Methylphenol	1319-77-3	2.0	µg/L		<2.0	----	----	----	----
2-Nitrophenol	88-75-5	1.0	µg/L		<1.0	----	----	----	----
2.4-Dimethylphenol	105-67-9	1.0	µg/L		<1.0	----	----	----	----
2.4-Dichlorophenol	120-83-2	1.0	µg/L		<1.0	----	----	----	----
2.6-Dichlorophenol	87-65-0	1.0	µg/L		<1.0	----	----	----	----
4-Chloro-3-methylphenol	59-50-7	1.0	µg/L		<1.0	----	----	----	----
2.4.6-Trichlorophenol	88-06-2	1.0	µg/L		<1.0	----	----	----	----
2.4.5-Trichlorophenol	95-95-4	1.0	µg/L		<1.0	----	----	----	----
Pentachlorophenol	87-86-5	2.0	µg/L		<2.0	----	----	----	----
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	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	R01	----	----	----	----
				Sampling date / time	03-Oct-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2531376-006	--------	--------	--------	--------
					Result	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
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	----	----	----	----
^ **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	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	R01	----	----	----	----
				Sampling date / time	03-Oct-2025 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2531376-006	--------	--------	--------	--------
					Result	----	----	----	----
EP080: BTEXN - Continued									
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	----	----	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	1	%		**75.2**	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.5	%		**66.7**	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.5	%		**51.7**	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**20.2**	----	----	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		**49.2**	----	----	----	----
2.4.6-Tribromophenol	118-79-6	1.0	%		**30.0**	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**46.4**	----	----	----	----
Anthracene-d10	1719-06-8	1.0	%		**45.9**	----	----	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		**77.5**	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**91.7**	----	----	----	----
Toluene-D8	2037-26-5	2	%		**81.8**	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		**85.9**	----	----	----	----

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
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	45	134
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	50	150
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	50	150
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

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP080S: TPH(V)/BTEX Surrogates - Continued			
4-Bromofluorobenzene	460-00-4	73	137

D.2 Chain of custody forms

CHAIN OF CUSTODY

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WOLLONGONG 1/19-21 Ralph Black Drive, Nth Wollongong NSW 2500 Ph: 02 4225 3125 E: wollongong@alsglobal.com

TAT

CLIENT: NGH Pty Ltd	TURNAROUND REQUIREMENTS : ☐ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: 35 Kincaid Street Wagga Wagga NSW 2650	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☒ Non Standard or urgent TAT (List due date): Three day turnaroud please	Custody Seal Intact? Yes No N/A
Panorama BESS PSI PROJECT NO. 240685	ALS QUOTE NO.:	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 6 7 OF: 1 2 3 4 5 6 7
ORDER NUMBER: PURCHASE ORDER NO.:	COUNTRY OF ORIGIN: australia	Free ice / frozen ice bricks present upon receipt? Yes No N/A
PROJECT Controller: Rabeea Azeem	CONTACT PH: 0431 842 388	Random Sample Temperature on Receipt: °C
SAMPLER: Martin Wyburn	SAMPLER MOBILE: 0431 842 388	Other comment:
COC Emailed to ALS? (YES)	EDD FORMAT (or default): YES (ESDAT)	
Email Reports to (will default to PM if no other addresses are listed) martin.wyburn@nghconsulting.com.au		
Email Invoice to (will default to PM if no other addresses are listed): accounts@nghconsulting.com.au		

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 10/07/25	DATE/TIME: Fri 11/7/25 11:20	DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price)													Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	S-2 (8 Metals - As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	S-12 (OC/OP Pesticides)	S-19 (TRH/BTEXN/PAH/Phenols/OC/OP/PCB, 8 Metals)	S-18 (TPH(C6-C9), TRH(C6-C10)/BTEXN plus F1, F2)									HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	TP01_0.0-0.1m	09/07/2025	Soil	Unpreserved glass jar	1			x											
2	TP01_0.5m	09/07/2025	Soil	Unpreserved glass jar	1			x											
3	TP02_0.0-0.1m	09/07/2025	Soil	Unpreserved glass jar	1			x											
4	TP02_0.5m	09/07/2025	Soil	Unpreserved glass jar	2			x										x	please hold one sample in case of breakage
5	TP03_0.0-0.1m	09/07/2025	Soil	Unpreserved glass jar	1	x	x												
6	TP03_0.5m	09/07/2025	Soil	Unpreserved glass jar	1	x	x												
7	TP04_0.0-0.1m	09/07/2025	Soil	Unpreserved glass jar	1	x	x												
8	TP04_0.5m	09/07/2025	Soil	Unpreserved glass jar	1	x	x												
9	TP05_0.0-0.1m	09/07/2025	Soil	Unpreserved glass jar	1	x	x												
10	TP05_0.5m	09/07/2025	Soil	Unpreserved glass jar	2	x	x											x	please hold one sample in case of breakage
11	TP06_0.0-0.1m	09/07/2025	Soil	Unpreserved glass jar	1	x	x												
12	TP06_0.5m	09/07/2025	Soil	Unpreserved glass jar	1	x	x												
13	DUP01	09/07/2025	Soil	Unpreserved glass jar	1	x													
—	DUP02	09/07/2025	Soil	Unpreserved glass jar	1	x													please send intra-lab (Melb for testing)
14	TRIP BLANK								x										
15	TRIP SPIKE								x										
16	TSC			TOTAL	16	10	8	4	2	0	0	0	0	0	0	0	0	2	

Environmental Division Sydney
Work Order Reference
ES2521214

Telephone : +61-2-8784 8555

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

Subcon / Forward To / Split WO:
ALS Melbourne
Lab / Analysis: QC FWD
Relinquished Date:
WO No: ES2521214

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ADELAIDE 3/1 Burma Road Pooraka SA 5095 Ph: 08 8162 5130 E: adelaide@alsglobal.com
☐BRISBANE 2 Byth Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com
☐GLADSTONE 48 Callemondah Drive Gladstone QLD 4680 Ph: 07 4978 7944 E: ALSEnviro.Gladstone@alsglobal.com
☐MACKAY Unit 2/20 Caterpillar Drive Paget QLD 4740 Ph: 07 4952 5795 E: ALSEnviro.Mackay@alsglobal.com
☐MELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com
☐MUDGEE 1/29 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com
☐NEWCASTLE 5/585 Maitland Road Mayfield West NSW 2304 Ph: 02 4014 2500 E: samples.newcastle@alsglobal.com
☐NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com
☐PERTH 26 Rigali Way Wangara WA 6065 Ph: 08 9406 1301 E: samples.perth@alsglobal.com
☐SYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsglobal.com
☐TOWNSVILLE 13 Carlton Street Kirwan QLD 4817 Ph: 07 4773 0000 E: ALSEnviro.Townsville@alsglobal.com
☐WOLLONGONG 1/19-21 Ralph Black Drive, Nth Wollongong NSW 2500 Ph: 02 4225 3125 E: wollongong@alsglobal.com

CLIENT: NGH Pty Ltd	TURNAROUND REQUIREMENTS : ☐ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: 35 Kincaid Street Wagga Wagga NSW 2650	(Standard TAT may be longer for some tests e.g. Ultra Trace Organics) ✠ Non Standard or urgent TAT (List due date): Three day turnaroud please	Custody Seal Intact? Yes No N/A
Panorama BESS PSI PROJECT NO. 240685	ALS QUOTE NO.:	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 6 7 OF: 1 2 3 4 5 6 7 — Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: PURCHASE ORDER NO.:	COUNTRY OF ORIGIN: australia	Random Sample Temperature on Receipt: °C
PROJECT Controller: Tammy Vesely	CONTACT PH: 0431 842 388	Other comment:
SAMPLER: Martin Wyburn	SAMPLER MOBILE: 0431 842 388	
COC Emailed to ALS? (YES)	EDD FORMAT (or default): YES (ESDAT)	
Email Reports to (will default to PM if no other addresses are listed) martin.wyburn@nghconsulting.com.au		
Email Invoice to (will default to PM if no other addresses are listed): accounts@nghconsulting.com.au		

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 07/10/25	DATE/TIME: 8/10/25 11:55	DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price)												Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	S-19 (TRH/BTEXN/PAH/Phenols/OC/OP/PCB, 8 metals	S-18 (TPH (C6-C9), TRH(C6-C10)/BTEXN plus F1, F2	W-19 TRH(C6-C40)/BTEXN/PAH/Phenols/OC/OP/PCB/8 Dissolved Metals									HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	BH07_0.0-0.1m	03/10/2025	Soil	Unpreserved glass jar	1	x												
2	BH07_0.5m	03/10/2025	Soil	Unpreserved glass jar	1	x												
3	BH08_0.0-0.1m	03/10/2025	Soil	Unpreserved glass jar	1	x												
4	BH08_0.5m	03/10/2025	Soil	Unpreserved glass jar	1	x												
5	DUP01	03/10/2025	Soil	Unpreserved glass jar	1	x												
—	DUP02	03/10/2025	Soil	Unpreserved glass jar	1	x												please send intra-lab (Melb for testing)
6	R01	03/10/2025	Water	Glass jar	4			x										
7	TRIP BLANK	03/10/2025	Soil	Unpreserved glass jar	1		x											
8	TRIP SPIKE	03/10/2025	Soil	Unpreserved glass jar	1		x											
9	TSL																	
				TOTAL	12	6	2	1	0	0	0	0	0	0		0	0	0

TAT

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

Subcon / Forward To / Split WO: ALS Melbourne
Lab / Analysis: QC Pair
Relinquished Date:
WO No: ES2531376

Environmental Division
Sydney
Work Order Reference
ES2531376

Telephone : +61-2-8784 8555

D.3 Laboratory QA/QC certificates

QUALITY CONTROL REPORT

Work Order	: **ES2521214**	Page	: 1 of 13
Client	: **NGH PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MARTIN WYBURN	Contact	: Customer Services ES
Address	: Wagga Wagga	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 240685 Panorama BESS PSI	Date Samples Received	: 11-Jul-2025
Order number	: ----	Date Analysis Commenced	: 11-Jul-2025
C-O-C number	: ----	Issue Date	: 16-Jul-2025
Sampler	: MARTIN WYBURN		
Site	: ----		
Quote number	: EN/222		
No. of samples received	: 16		
No. of samples analysed	: 16		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

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*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Rassem Ayoubi	Senior Organic Chemist	Sydney Organics, Smithfield, 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**

				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: 6716231)									
ES2520938-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	42	38	9.9	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	38	34	11.3	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	31	27	13.7	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	9	7	16.6	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	252	223	12.5	0% - 20%
ES2520968-003	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	10	10	0.0	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6716237)									
ES2521276-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	3	<2	46.7	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	19	16	14.4	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: 6716237) - continued									
ES2521276-001	Anonymous	EG005T: Zinc	7440-66-6	5	mg/kg	43	14	102	No Limit
ES2521214-004	TP02_0.5m	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	23	25	7.9	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	11	12	11.6	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	8	10	15.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	8	9	19.7	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	34	38	11.4	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6714957)									
ES2521007-001	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	13.0	13.4	2.5	0% - 50%
ES2521242-006	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	10.8	12.0	10.5	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6716239)									
ES2521214-003	TP02_0.0-0.1m	EA055: Moisture Content	----	0.1 (1.0)*	%	19.1	18.6	2.3	0% - 50%
ES2521214-011	TP06_0.0-0.1m	EA055: Moisture Content	----	0.1 (1.0)*	%	19.4	17.9	7.9	0% - 50%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 6716236)									
ES2521139-003	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2521214-004	TP02_0.5m	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 6715787)									
ES2521214-001	TP01_0.0-0.1m	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 6715786)									
ES2521214-011	TP06_0.0-0.1m	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

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: 6715786) - continued									
ES2521214-011	TP06_0.0-0.1m	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
ES2521214-001	TP01_0.0-0.1m	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
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 6715786)									
ES2521214-011	TP06_0.0-0.1m	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

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: 6715786) - continued									
ES2521214-011	TP06_0.0-0.1m	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
ES2521214-001	TP01_0.0-0.1m	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
EP075(SIM)A: Phenolic Compounds (QC Lot: 6715785)									
ES2521214-001	TP01_0.0-0.1m	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	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)A: Phenolic Compounds (QC Lot: 6715785) - continued									
ES2521214-001	TP01_0.0-0.1m	EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6715785)									
ES2521214-001	TP01_0.0-0.1m	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	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6714440)									
ES2521214-001	TP01_0.0-0.1m	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2521214-002	TP01_0.5m	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6715779)									
ES2521214-001	TP01_0.0-0.1m	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 Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6714440)									
ES2521214-001	TP01_0.0-0.1m	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2521214-002	TP01_0.5m	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6715779)									
ES2521214-001	TP01_0.0-0.1m	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
EP080: BTEXN (QC Lot: 6714440)									

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: BTEXN (QC Lot: 6714440) - continued									
ES2521214-001	TP01_0.0-0.1m	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
ES2521214-002	TP01_0.5m	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

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**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6716231)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	97.4	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	91.1	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	110	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	102	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	95.5	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	97.5	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	91.0	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6716237)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	97.8	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	104	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	108	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	102	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	95.5	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	88.2	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6716236)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	77.8	70.0	125
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 6715787)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	100	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 6715786)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	79.2	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	85.4	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	88.1	67.0	119
EP068: gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	88.2	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	74.3	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	76.6	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	80.2	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	84.5	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	87.9	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	105	66.0	116

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 6715786) - continued								
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.4	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	95.3	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.1	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	86.1	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	94.4	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	93.6	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	102	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	96.6	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	87.7	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	83.8	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	76.2	54.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 6715786)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	85.1	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	83.4	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	79.6	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	79.0	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	89.5	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	82.3	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	76.2	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	79.8	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	81.8	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	80.4	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	79.0	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	88.2	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	78.9	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	89.3	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	104	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	90.8	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	98.8	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	74.4	41.0	123
EP075(SIM)A: Phenolic Compounds (QCLot: 6715785)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	84.8	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	100	72.0	124

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 6715785) - continued								
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	96.0	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	107	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	84.1	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	104	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	97.7	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	105	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	96.3	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	86.0	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	88.3	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	40.6	10.0	80.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6715785)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	107	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	95.4	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	100	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	90.1	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	93.7	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	84.6	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	95.4	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	109	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	79.0	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	104	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	91.7	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	93.8	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	95.3	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	99.5	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	106	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6714440)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	86.5	72.2	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6715779)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	91.4	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	92.4	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	101	71.0	129

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6714440)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	82.3	72.4	133
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6715779)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	92.7	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	94.6	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	104	63.0	131
EP080: BTEXN (QCLot: 6714440)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	89.8	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	97.0	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	98.1	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	99.0	78.2	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	103	81.3	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	107	78.8	122

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**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6716231)							
ES2520938-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	77.7	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	83.8	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	74.0	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	85.6	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	84.1	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	75.7	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	70.6	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6716237)							
ES2521214-004	TP02_0.5m	EG005T: Arsenic	7440-38-2	50 mg/kg	84.9	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	96.6	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	100	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	99.8	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	96.8	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	97.9	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	96.3	66.0	133

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: 6716236)							
ES2521139-003	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	# 63.0	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 6715787)							
ES2521214-001	TP01_0.0-0.1m	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	107	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 6715786)							
ES2521214-001	TP01_0.0-0.1m	EP068: gamma-BHC - (Lindane)	58-89-9	0.5 mg/kg	95.5	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	94.1	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	92.6	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	107	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	86.7	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	83.9	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 6715786)							
ES2521214-001	TP01_0.0-0.1m	EP068: Diazinon	333-41-5	0.5 mg/kg	104	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	88.4	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	99.4	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	104	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	105	70.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 6715785)							
ES2521214-001	TP01_0.0-0.1m	EP075(SIM): Phenol	108-95-2	10 mg/kg	108	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	98.4	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	92.8	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	88.2	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	52.0	20.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6715785)							
ES2521214-001	TP01_0.0-0.1m	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	107	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	111	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6714440)							
ES2521214-001	TP01_0.0-0.1m	EP080: C6 - C9 Fraction	----	32.5 mg/kg	84.3	60.4	142
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6715779)							
ES2521214-001	TP01_0.0-0.1m	EP071: C10 - C14 Fraction	----	480 mg/kg	122	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	109	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	123	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6714440)							
ES2521214-001	TP01_0.0-0.1m	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	82.1	61.1	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6715779)							
ES2521214-001	TP01_0.0-0.1m	EP071: >C10 - C16 Fraction	----	860 mg/kg	111	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	114	53.0	131

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6715779) - continued							
ES2521214-001	TP01_0.0-0.1m	EP071: >C34 - C40 Fraction	----	890 mg/kg	123	52.0	132
EP080: BTEXN (QCLot: 6714440)							
ES2521214-001	TP01_0.0-0.1m	EP080: Benzene	71-43-2	2.5 mg/kg	83.2	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	89.0	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	93.4	67.4	123
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	92.3	66.4	121
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	95.0	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	90.1	61.1	115

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2521214**	Page	: 1 of 6
Client	: **NGH PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MARTIN WYBURN	Telephone	: +61-2-8784 8555
Project	: 240685 Panorama BESS PSI	Date Samples Received	: 11-Jul-2025
Site	: ----	Issue Date	: 16-Jul-2025
Sampler	: MARTIN WYBURN	No. of samples received	: 16
Order number	: ----	No. of samples analysed	: 16

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.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **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

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EG035T: Total Recoverable Mercury by FIMS	ES2521139--003	Anonymous	**Mercury**	7439-97-6	63.0 %	70.0-130%	**Recovery less than lower data quality objective**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

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 / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			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_0.0-0.1m,	TP01_0.5m	**09-Jul-2025**	**----**	----	**----**	**11-Jul-2025**	23-Jul-2025	✓
Soil Glass Jar - Unpreserved (EA055)								
TP02_0.0-0.1m,	TP02_0.5m,	**09-Jul-2025**	**----**	----	**----**	**14-Jul-2025**	23-Jul-2025	✓
TP03_0.0-0.1m,	TP03_0.5m,							
TP04_0.0-0.1m,	TP04_0.5m,							
TP05_0.0-0.1m,	TP05_0.5m,							
TP06_0.0-0.1m,	TP06_0.5m,							
DUP01								
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
TP01_0.0-0.1m,	TP01_0.5m,	**09-Jul-2025**	**14-Jul-2025**	05-Jan-2026	✓	**14-Jul-2025**	05-Jan-2026	✓
TP02_0.0-0.1m,	TP02_0.5m,							
TP03_0.0-0.1m,	TP03_0.5m,							
TP04_0.0-0.1m,	TP04_0.5m,							
TP05_0.0-0.1m,	TP05_0.5m,							
TP06_0.0-0.1m,	TP06_0.5m,							
DUP01								

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m, TP03_0.0-0.1m, TP03_0.5m, TP04_0.0-0.1m, TP04_0.5m, TP05_0.0-0.1m, TP05_0.5m, TP06_0.0-0.1m, TP06_0.5m, DUP01	**09-Jul-2025**	**14-Jul-2025**	06-Aug-2025	✓	**15-Jul-2025**	06-Aug-2025	✓
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066)							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m	**09-Jul-2025**	**14-Jul-2025**	23-Jul-2025	✓	**15-Jul-2025**	23-Aug-2025	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068)							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m, TP03_0.0-0.1m, TP03_0.5m, TP04_0.0-0.1m, TP04_0.5m, TP05_0.0-0.1m, TP05_0.5m, TP06_0.0-0.1m, TP06_0.5m	**09-Jul-2025**	**14-Jul-2025**	23-Jul-2025	✓	**15-Jul-2025**	23-Aug-2025	✓
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved (EP068)							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m, TP03_0.0-0.1m, TP03_0.5m, TP04_0.0-0.1m, TP04_0.5m, TP05_0.0-0.1m, TP05_0.5m, TP06_0.0-0.1m, TP06_0.5m	**09-Jul-2025**	**14-Jul-2025**	23-Jul-2025	✓	**15-Jul-2025**	23-Aug-2025	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved (EP075(SIM))							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m	**09-Jul-2025**	**14-Jul-2025**	23-Jul-2025	✓	**15-Jul-2025**	23-Aug-2025	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m	**09-Jul-2025**	**14-Jul-2025**	23-Jul-2025	✓	**15-Jul-2025**	23-Aug-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP080)							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m, TRIP BLANK	**09-Jul-2025**	**11-Jul-2025**	23-Jul-2025	✓	**12-Jul-2025**	23-Jul-2025	✓
Soil Glass Jar - Unpreserved (EP071)							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m	**09-Jul-2025**	**14-Jul-2025**	23-Jul-2025	✓	**14-Jul-2025**	23-Aug-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP080)							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m, TRIP BLANK	**09-Jul-2025**	**11-Jul-2025**	23-Jul-2025	✓	**12-Jul-2025**	23-Jul-2025	✓
Soil Glass Jar - Unpreserved (EP071)							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m	**09-Jul-2025**	**14-Jul-2025**	23-Jul-2025	✓	**14-Jul-2025**	23-Aug-2025	✓
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)							
TP01_0.0-0.1m, TP01_0.5m, TP02_0.0-0.1m, TP02_0.5m, TRIP BLANK, TRIP SPIKE, TSC	**09-Jul-2025**	**11-Jul-2025**	23-Jul-2025	✓	**12-Jul-2025**	23-Jul-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	4	21	**19.05**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	4	**25.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	12	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	4	**25.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	30	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	4	**25.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	17	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	17	**5.88**	**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).
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 (SnCl2) (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 SnCl2 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.

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, Na2SO4 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.

QUALITY CONTROL REPORT

Work Order	: **ES2531376**	Page	: 1 of 16
Client	: **NGH PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MARTIN WYBURN	Contact	: Customer Services ES
Address	: Wagga Wagga	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 240685 Panorama BESS PSI	Date Samples Received	: 08-Oct-2025
Order number	: ----	Date Analysis Commenced	: 09-Oct-2025
C-O-C number	: ----	Issue Date	: 13-Oct-2025
Sampler	: MARTIN WYBURN		
Site	: ----		
Quote number	: EN/222		
No. of samples received	: 9		
No. of samples analysed	: 9		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

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*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	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**

				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: 6919258)									
ES2531260-028	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	31	31	0.0	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	16	16	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	7	8	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	877	847	3.5	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	21	20	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	59	56	3.8	0% - 50%
ES2531376-005	DUP01	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	16	16	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	8	7	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	7	6	22.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	35	32	10.0	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6919093)									
EP2516111-041	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	27.6	28.7	3.9	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6919263)									
ES2531260-029	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	18.3	17.0	7.6	0% - 50%
ES2531376-004	BH07_0.5m	EA055: Moisture Content	----	0.1 (1.0)*	%	11.7	11.3	3.6	0% - 50%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 6919259)									

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 (%)*
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 6919259) - continued									
ES2531260-028	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2531376-005	DUP01	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 6918484)									
ES2531376-001	BH07_0.0-0.1m	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 6918483)									
ES2531376-001	BH07_0.0-0.1m	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
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 6918483)									
ES2531376-001	BH07_0.0-0.1m	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

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: 6918483) - continued									
ES2531376-001	BH07_0.0-0.1m	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)A: Phenolic Compounds (QC Lot: 6918482)									
ES2531376-001	BH07_0.0-0.1m	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6918482)									
ES2531376-001	BH07_0.0-0.1m	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	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6918482) - continued									
ES2531376-001	BH07_0.0-0.1m	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
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6918310)									
ES2531376-001	BH07_0.0-0.1m	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2531376-005	DUP01	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6918481)									
ES2531376-001	BH07_0.0-0.1m	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 Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6918310)									
ES2531376-001	BH07_0.0-0.1m	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2531376-005	DUP01	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6918481)									
ES2531376-001	BH07_0.0-0.1m	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
EP080: BTEXN (QC Lot: 6918310)									
ES2531376-001	BH07_0.0-0.1m	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
ES2531376-005	DUP01	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 sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 6921520)									

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 (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 6921520) - continued									
ES2531303-014	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.020	0.020	0.0	0% - 20%
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.030	0.029	0.0	No Limit
ES2531398-007	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	0.0154	0.0145	6.1	0% - 20%
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.054	0.053	0.0	0% - 20%
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.064	0.066	1.6	0% - 20%
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	1.02	1.02	0.2	0% - 20%
EG035F: Dissolved Mercury by FIMS (QC Lot: 6921522)									
ES2531398-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	0.0002	<0.0001	78.4	No Limit
ES2531398-008	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6919129)									
ES2531058-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
ES2531381-003	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<400	# <20	181	0% - 20%
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6919129)									
ES2531058-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
ES2531381-003	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<400	# <20	181	0% - 20%
EP080: BTEXN (QC Lot: 6919129)									
ES2531058-001	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	108-38-3 106-42-3	2	µg/L	<2	<2	0.0	No Limit
		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
ES2531381-003	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<20	# <1	181	0% - 20%
		EP080: Toluene	108-88-3	2	µg/L	<20	# <2	164	0% - 50%
		EP080: Ethylbenzene	100-41-4	2	µg/L	<20	# <2	164	0% - 50%
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<40	# <2	181	0% - 20%
		EP080: ortho-Xylene	95-47-6	2	µg/L	<20	# <2	164	0% - 50%

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: BTEXN (QC Lot: 6919129) - continued									
ES2531381-003	Anonymous	EP080: Naphthalene	91-20-3	5	µg/L	<20	<5	120	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**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6919258)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	88.2	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	80.9	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	105	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	94.0	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	91.8	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	90.7	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	84.8	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6919259)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	103	70.0	125
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 6918484)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	110	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 6918483)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	79.8	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	82.9	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	77.6	67.0	119
EP068: gamma-BHC - (Lindane)	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	77.0	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	79.8	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	81.1	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	81.0	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	80.4	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	86.7	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	84.5	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	82.5	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	81.1	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	86.8	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	82.0	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	81.8	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	78.1	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	83.0	62.0	124

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 6918483) - continued								
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	81.6	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	85.1	54.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 6918483)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	79.1	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	93.1	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	103	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	91.2	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	88.0	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	83.2	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	86.0	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	81.2	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	81.7	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	80.9	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	80.5	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	91.0	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	79.5	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	79.3	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	75.2	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	81.7	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	83.5	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	81.9	41.0	123
EP075(SIM)A: Phenolic Compounds (QCLot: 6918482)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	91.8	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	92.4	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	96.0	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	86.6	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	79.8	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	93.0	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	95.0	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	97.3	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	96.9	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	90.9	54.0	114

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 6918482) - continued								
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	87.4	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	43.3	10.0	80.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6918482)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	95.9	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	92.6	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	92.1	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	92.9	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	88.4	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	92.4	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	93.2	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	90.7	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	94.7	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	95.7	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	94.9	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	99.0	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	96.3	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	98.0	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	93.2	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6918310)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	94.5	72.2	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6918481)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	286 mg/kg	98.3	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	1724 mg/kg	111	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	1208 mg/kg	112	71.0	129
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6918310)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	93.6	72.4	133
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6918481)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	464 mg/kg	100	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	2448 mg/kg	114	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	538 mg/kg	104	63.0	131
EP080: BTEXN (QCLot: 6918310)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	92.9	76.0	124

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080: BTEXN (QCLot: 6918310) - continued								
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	99.8	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	101	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	109	78.2	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	114	81.3	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	110	78.8	122

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 6921520)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	88.7	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	87.1	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	94.0	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	88.1	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	88.2	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	87.0	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	89.8	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 6921522)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	97.4	83.0	105
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 6918420)								
EP066: Total Polychlorinated biphenyls	----	1	µg/L	<1	10 µg/L	84.3	68.9	113
EP068A: Organochlorine Pesticides (OC) (QCLot: 6918418)								
EP068: alpha-BHC	319-84-6	0.5	µg/L	<0.5	5 µg/L	93.9	64.9	107
EP068: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	5 µg/L	86.2	58.3	111
EP068: beta-BHC	319-85-7	0.5	µg/L	<0.5	5 µg/L	97.8	69.0	117
EP068: gamma-BHC - (Lindane)	58-89-9	0.5	µg/L	<0.5	5 µg/L	91.7	70.0	112
EP068: delta-BHC	319-86-8	0.5	µg/L	<0.5	5 µg/L	91.8	68.9	110
EP068: Heptachlor	76-44-8	0.5	µg/L	<0.5	5 µg/L	92.8	65.2	108
EP068: Aldrin	309-00-2	0.5	µg/L	<0.5	5 µg/L	91.8	65.8	109
EP068: Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	5 µg/L	89.6	67.1	107
EP068: trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	5 µg/L	89.5	64.1	110
EP068: alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	5 µg/L	92.4	66.7	112
EP068: cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	5 µg/L	90.9	63.2	111
EP068: Dieldrin	60-57-1	0.5	µg/L	<0.5	5 µg/L	90.8	65.2	113

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 6918418) - continued								
EP068: 4.4`-DDE	72-55-9	0.5	µg/L	<0.5	5 µg/L	90.3	66.0	112
EP068: Endrin	72-20-8	0.5	µg/L	<0.5	5 µg/L	89.5	65.2	113
EP068: beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	5 µg/L	93.6	67.3	114
EP068: 4.4`-DDD	72-54-8	0.5	µg/L	<0.5	5 µg/L	102	72.0	122
EP068: Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	5 µg/L	101	66.9	109
EP068: Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	5 µg/L	101	65.2	112
EP068: 4.4`-DDT	50-29-3	2	µg/L	<2.0	5 µg/L	95.4	65.2	112
EP068: Endrin ketone	53494-70-5	0.5	µg/L	<0.5	5 µg/L	94.0	63.8	110
EP068: Methoxychlor	72-43-5	2	µg/L	<2.0	5 µg/L	92.5	61.1	114
EP068B: Organophosphorus Pesticides (OP) (QCLot: 6918418)								
EP068: Dichlorvos	62-73-7	0.5	µg/L	<0.5	5 µg/L	82.4	65.6	114
EP068: Demeton-S-methyl	919-86-8	0.5	µg/L	<0.5	5 µg/L	76.1	63.7	113
EP068: Monocrotophos	6923-22-4	2	µg/L	<2.0	5 µg/L	24.1	19.7	48.0
EP068: Dimethoate	60-51-5	0.5	µg/L	<0.5	5 µg/L	76.1	69.5	110
EP068: Diazinon	333-41-5	0.5	µg/L	<0.5	5 µg/L	92.3	71.1	110
EP068: Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	<0.5	5 µg/L	93.9	77.0	119
EP068: Parathion-methyl	298-00-0	2	µg/L	<2.0	5 µg/L	85.5	70.0	124
EP068: Malathion	121-75-5	0.5	µg/L	<0.5	5 µg/L	86.7	68.4	116
EP068: Fenthion	55-38-9	0.5	µg/L	<0.5	5 µg/L	88.2	68.6	112
EP068: Chlorpyrifos	2921-88-2	0.5	µg/L	<0.5	5 µg/L	95.2	75.0	119
EP068: Parathion	56-38-2	2	µg/L	<2.0	5 µg/L	86.0	67.0	121
EP068: Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5	5 µg/L	87.1	69.0	121
EP068: Chlorfenvinphos	470-90-6	0.5	µg/L	<0.5	5 µg/L	84.4	71.8	110
EP068: Bromophos-ethyl	4824-78-6	0.5	µg/L	<0.5	5 µg/L	87.0	67.5	112
EP068: Fenamiphos	22224-92-6	0.5	µg/L	<0.5	5 µg/L	78.0	64.1	116
EP068: Prothiofos	34643-46-4	0.5	µg/L	<0.5	5 µg/L	89.8	67.8	114
EP068: Ethion	563-12-2	0.5	µg/L	<0.5	5 µg/L	88.7	74.0	120
EP068: Carbophenothion	786-19-6	0.5	µg/L	<0.5	5 µg/L	101	66.2	114
EP068: Azinphos Methyl	86-50-0	0.5	µg/L	<0.5	5 µg/L	89.3	51.6	128
EP075(SIM)A: Phenolic Compounds (QCLot: 6918417)								
EP075(SIM): Phenol	108-95-2	1	µg/L	<1.0	5 µg/L	58.4	24.5	61.9
EP075(SIM): 2-Chlorophenol	95-57-8	1	µg/L	<1.0	5 µg/L	77.6	52.0	90.0
EP075(SIM): 2-Methylphenol	95-48-7	1	µg/L	<1.0	5 µg/L	66.6	51.0	91.0
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	2	µg/L	<2.0	10 µg/L	61.0	44.0	88.0

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)
						LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 6918417) - continued								
EP075(SIM): 2-Nitrophenol	88-75-5	1	µg/L	<1.0	5 µg/L	70.8	48.0	100
EP075(SIM): 2.4-Dimethylphenol	105-67-9	1	µg/L	<1.0	5 µg/L	82.6	49.0	99.0
EP075(SIM): 2.4-Dichlorophenol	120-83-2	1	µg/L	<1.0	5 µg/L	69.2	53.0	105
EP075(SIM): 2.6-Dichlorophenol	87-65-0	1	µg/L	<1.0	5 µg/L	85.2	57.0	105
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	1	µg/L	<1.0	5 µg/L	89.6	53.0	99.0
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	1	µg/L	<1.0	5 µg/L	83.3	50.0	106
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	1	µg/L	<1.0	5 µg/L	64.5	51.0	105
EP075(SIM): Pentachlorophenol	87-86-5	2	µg/L	<2.0	10 µg/L	32.6	10.0	95.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6918417)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	72.6	50.0	94.0
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	69.2	63.6	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	78.2	62.2	113
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	69.9	63.9	115
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	70.2	62.6	116
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	93.4	64.3	116
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	93.7	63.6	118
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	80.3	63.1	118
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	69.9	64.1	117
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	70.3	62.5	116
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	5 µg/L	78.0	61.7	119
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	76.1	63.0	115
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	70.2	63.3	117
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	73.3	59.9	118
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	65.7	61.2	117
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	74.0	59.1	118
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6918419)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	57.5	53.7	97.0
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	66.6	63.3	107
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	73.7	58.3	120
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6919129)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	83.6	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6918419)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	64.6	53.9	95.5

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6918419) - continued								
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	68.2	57.8	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	78.2	50.5	115
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6919129)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	82.9	75.0	127
EP080: BTEXN (QCLot: 6919129)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	101	68.3	119
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	96.0	73.5	120
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	98.3	73.8	122
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	99.0	73.0	122
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	99.0	76.4	123
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	93.3	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**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6919258)							
ES2531260-028	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	94.0	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	96.8	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	96.7	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	98.8	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	97.3	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	95.4	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	94.8	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6919259)							
ES2531260-028	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	97.8	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 6918484)							
ES2531376-001	BH07_0.0-0.1m	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	114	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 6918483)							
ES2531376-001	BH07_0.0-0.1m	EP068: gamma-BHC - (Lindane)	58-89-9	0.5 mg/kg	85.1	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	98.8	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	111	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP068A: Organochlorine Pesticides (OC) (QCLot: 6918483) - continued							
ES2531376-001	BH07_0.0-0.1m	EP068: Dieldrin	60-57-1	0.5 mg/kg	102	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	95.1	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	98.1	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 6918483)							
ES2531376-001	BH07_0.0-0.1m	EP068: Diazinon	333-41-5	0.5 mg/kg	109	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	107	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	112	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	104	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	89.8	70.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 6918482)							
ES2531376-001	BH07_0.0-0.1m	EP075(SIM): Phenol	108-95-2	10 mg/kg	84.6	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	99.5	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	84.1	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	80.9	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	68.9	20.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6918482)							
ES2531376-001	BH07_0.0-0.1m	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	83.6	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	80.3	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6918310)							
ES2531376-001	BH07_0.0-0.1m	EP080: C6 - C9 Fraction	----	32.5 mg/kg	90.2	60.4	142
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6918481)							
ES2531376-001	BH07_0.0-0.1m	EP071: C10 - C14 Fraction	----	480 mg/kg	130	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	85.1	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	99.8	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6918310)							
ES2531376-001	BH07_0.0-0.1m	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	88.1	61.1	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6918481)							
ES2531376-001	BH07_0.0-0.1m	EP071: >C10 - C16 Fraction	----	860 mg/kg	112	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	90.9	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	90.9	52.0	132
EP080: BTEXN (QCLot: 6918310)							
ES2531376-001	BH07_0.0-0.1m	EP080: Benzene	71-43-2	2.5 mg/kg	76.9	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	85.1	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	87.5	67.4	123
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	94.5	66.4	121

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: 6918310) - continued							
ES2531376-001	BH07_0.0-0.1m	EP080: ortho-Xylene	95-47-6	2.5 mg/kg	98.3	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	81.3	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*
EG020F: Dissolved Metals by ICP-MS (QCLot: 6921520)							
ES2531327-005	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	96.5	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	97.9	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	101	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	99.2	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	107	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	97.0	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	99.7	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 6921522)							
ES2531376-006	R01	EG035F: Mercury	7439-97-6	0.01 mg/L	93.2	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6919129)							
ES2531058-001	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	94.9	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6919129)							
ES2531058-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	88.7	70.0	130
EP080: BTEXN (QCLot: 6919129)							
ES2531058-001	Anonymous	EP080: Benzene	71-43-2	25 µg/L	97.8	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	101	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	100	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	102	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	101	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	106	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2531376**	Page	: 1 of 9
Client	: **NGH PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MARTIN WYBURN	Telephone	: +61-2-8784 8555
Project	: 240685 Panorama BESS PSI	Date Samples Received	: 08-Oct-2025
Site	: ----	Issue Date	: 13-Oct-2025
Sampler	: MARTIN WYBURN	No. of samples received	: 9
Order number	: ----	No. of samples analysed	: 9

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 Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **Duplicate outliers exist - please see following pages for full details.**
- **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.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EP080/071: Total Petroleum Hydrocarbons	ES2531381--003	Anonymous	**C6 - C9 Fraction**	----	181 %	0% - 20%	**RPD exceeds LOR based limits**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2	ES2531381--003	Anonymous	**C6 - C10 Fraction**	C6_C10	181 %	0% - 20%	**RPD exceeds LOR based limits**
EP080: BTEXN	ES2531381--003	Anonymous	**Benzene**	71-43-2	181 %	0% - 20%	**RPD exceeds LOR based limits**
EP080: BTEXN	ES2531381--003	Anonymous	**Toluene**	108-88-3	164 %	0% - 50%	**RPD exceeds LOR based limits**
EP080: BTEXN	ES2531381--003	Anonymous	**Ethylbenzene**	100-41-4	164 %	0% - 50%	**RPD exceeds LOR based limits**
EP080: BTEXN	ES2531381--003	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	181 %	0% - 20%	**RPD exceeds LOR based limits**
EP080: BTEXN	ES2531381--003	Anonymous	**ortho-Xylene**	95-47-6	164 %	0% - 50%	**RPD exceeds LOR based limits**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	6	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	0	6	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	0	4	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	6	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	6	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	0	6	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	0	4	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	6	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

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 / ***Container*** / Client Sample ID(s)	***Sample Date***	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	***Date analysed***	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01	**03-Oct-2025**	**----**	----	**----**	**09-Oct-2025**	17-Oct-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01	**03-Oct-2025**	**10-Oct-2025**	01-Apr-2026	✓	**10-Oct-2025**	01-Apr-2026	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01	**03-Oct-2025**	**10-Oct-2025**	31-Oct-2025	✓	**12-Oct-2025**	31-Oct-2025	✓
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01	**03-Oct-2025**	**10-Oct-2025**	17-Oct-2025	✓	**11-Oct-2025**	19-Nov-2025	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01	**03-Oct-2025**	**10-Oct-2025**	17-Oct-2025	✓	**10-Oct-2025**	19-Nov-2025	✓
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved (EP068)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01	**03-Oct-2025**	**10-Oct-2025**	17-Oct-2025	✓	**10-Oct-2025**	19-Nov-2025	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01	**03-Oct-2025**	**10-Oct-2025**	17-Oct-2025	✓	**10-Oct-2025**	19-Nov-2025	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01	**03-Oct-2025**	**10-Oct-2025**	17-Oct-2025	✓	**10-Oct-2025**	19-Nov-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP080)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01, TRIP BLANK	**03-Oct-2025**	**09-Oct-2025**	17-Oct-2025	✓	**10-Oct-2025**	17-Oct-2025	✓
Soil Glass Jar - Unpreserved (EP071)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m	**03-Oct-2025**	**10-Oct-2025**	17-Oct-2025	✓	**10-Oct-2025**	19-Nov-2025	✓
Soil Glass Jar - Unpreserved (EP071)							
DUP01	**03-Oct-2025**	**10-Oct-2025**	17-Oct-2025	✓	**11-Oct-2025**	19-Nov-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP080)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01, TRIP BLANK	**03-Oct-2025**	**09-Oct-2025**	17-Oct-2025	✓	**10-Oct-2025**	17-Oct-2025	✓
Soil Glass Jar - Unpreserved (EP071)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m	**03-Oct-2025**	**10-Oct-2025**	17-Oct-2025	✓	**10-Oct-2025**	19-Nov-2025	✓
Soil Glass Jar - Unpreserved (EP071)							
DUP01	**03-Oct-2025**	**10-Oct-2025**	17-Oct-2025	✓	**11-Oct-2025**	19-Nov-2025	✓
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)							
BH07_0.0-0.1m, BH07_0.5m, BH08_0.0-0.1m, BH07_0.5m, DUP01, TRIP BLANK, TRIP SPIKE, TSC	**03-Oct-2025**	**09-Oct-2025**	17-Oct-2025	✓	**10-Oct-2025**	17-Oct-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
R01	**03-Oct-2025**	**----**	----	----	**10-Oct-2025**	01-Apr-2026	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F)							
R01	**03-Oct-2025**	**----**	----	----	**12-Oct-2025**	31-Oct-2025	✓
EP066: Polychlorinated Biphenyls (PCB)							
Amber Glass Bottle - Unpreserved (EP066)							
R01	**03-Oct-2025**	**09-Oct-2025**	10-Oct-2025	✓	**13-Oct-2025**	18-Nov-2025	✓
EP068A: Organochlorine Pesticides (OC)							
Amber Glass Bottle - Unpreserved (EP068)							
R01	**03-Oct-2025**	**09-Oct-2025**	10-Oct-2025	✓	**13-Oct-2025**	18-Nov-2025	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068B: Organophosphorus Pesticides (OP)							
Amber Glass Bottle - Unpreserved (EP068)							
R01	**03-Oct-2025**	**09-Oct-2025**	10-Oct-2025	✓	**13-Oct-2025**	18-Nov-2025	✓
EP075(SIM)A: Phenolic Compounds							
Amber Glass Bottle - Unpreserved (EP075(SIM))							
R01	**03-Oct-2025**	**09-Oct-2025**	10-Oct-2025	✓	**13-Oct-2025**	18-Nov-2025	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM))							
R01	**03-Oct-2025**	**09-Oct-2025**	10-Oct-2025	✓	**13-Oct-2025**	18-Nov-2025	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071)							
R01	**03-Oct-2025**	**09-Oct-2025**	10-Oct-2025	✓	**13-Oct-2025**	18-Nov-2025	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
R01	**03-Oct-2025**	**09-Oct-2025**	17-Oct-2025	✓	**11-Oct-2025**	17-Oct-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
R01	**03-Oct-2025**	**09-Oct-2025**	10-Oct-2025	✓	**13-Oct-2025**	18-Nov-2025	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
R01	**03-Oct-2025**	**09-Oct-2025**	17-Oct-2025	✓	**11-Oct-2025**	17-Oct-2025	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
R01	**03-Oct-2025**	**09-Oct-2025**	17-Oct-2025	✓	**11-Oct-2025**	17-Oct-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	3	16	**18.75**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	10	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	6	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	5	**20.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	11	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	12	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	10	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	18	**5.56**	**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)							
Dissolved Mercury by FIMS	EG035F	2	16	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	6	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	0	6	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	0	4	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	6	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	12	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	6	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	0	6	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	0	4	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	6	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	12	**8.33**	**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).
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 (SnCl2) (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 SnCl2 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.
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. 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.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 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).

Analytical Methods	Method	Matrix	Method Descriptions
Polychlorinated Biphenyls (PCB)	EP066	WATER	In house: Referenced to USEPA SW 846 - 8270 Sample 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	WATER	In house: Referenced to USEPA SW 846 - 8270 Sample 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)
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, Na2SO4 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.
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.

Appendix E Chemical summary tables

Location														-	TP01	TP01	TP02	TP02	TP03	TP03	TP03	TP04	TP04	TP05	TP05	TP06	TP06	BH07	BH07	BH07	BH08	BH08
Sample ID														TRIP BLANK	TP01_0.0-0.1m	TP01_0.5m	TP02_0.0-0.1m	TP02_0.5m	TP03_0.0-0.1m	TP03_0.5m	DUP01	TP04_0.0-0.1m	TP04_0.5m	TP05_0.0-0.1m	TP05_0.5m	TP06_0.0-0.1m	TP06_0.5m	BH07_0.0-0.1m	BH07_0.5m	BH07_0.5m	BH08_0.0-0.1m	BH08_0.5m
Date Sampled														09/07/2025	09/07/2025	09/07/2025	09/07/2025	09/07/2025	09/07/2025	09/07/2025	09/07/2025 14:16	09/07/2025	09/07/2025	09/07/2025	09/07/2025	09/07/2025	09/07/2025	03/10/2025	03/10/2025	03/10/2025	03/10/2025	03/10/2025
Sample Type														Trip Blank	Primary Sample	Primary Sample	Primary Sample	Primary Sample	Primary Sample	Primary Sample	Duplicate Sample	Primary Sample	Primary Sample	Primary Sample	Primary Sample	Primary Sample	Primary Sample	Primary Sample	Primary Sample	Duplicate sample	Primary Sample	Primary Sample
Primary Sample ID															TP01_0.0-0.1m	TP01_0.5m	TP02_0.0-0.1m	TP02_0.5m	TP03_0.0-0.1m	TP03_0.5m	TP03_0.5m	TP04_0.0-0.1m	TP04_0.5m	TP05_0.0-0.1m	TP05_0.5m	TP06_0.0-0.1m	TP06_0.5m	BH07_0.0-0.1m	BH07_0.5m	BH07_0.5m	BH08_0.0-0.1m	BH08_0.5m
Lab Sample ID														ES2521214014	ES2521214001	ES2521214002	ES2521214003	ES2521214004	ES2521214005	ES2521214006	ES2521214013	ES2521214007	ES2521214008	ES2521214009	ES2521214010	ES2521214011	ES2521214012	ES2531376-001	ES2531376-002	ES2531376-005	ES2531376-003	ES2531376-004
Batch No.														ES2521214	ES2521214	ES2521214	ES2521214	ES2521214	ES2521214	ES2521214	ES2521214	ES2521214	ES2521214	ES2521214	ES2521214	ES2521214	ES2521214	ES2531376	ES2531376	ES2531376	ES2531376	ES2531376
Analyte	**LOR**	**Units**	**HIL 'A'**	**HSL-A/B, 0 to <1m, Sand**	**HSL-A Residential (Low Density). Direct Contact**	**TPH Management Limits - Residential (Coarse Soil)**	**TPH Management Limits - Residential (Fine Soil)**	**HIL 'D'**	**HSL-D, 0 to <1m, Sand**	**TPH Management Limits - Commercial/industrial (Coarse Soil)**	**TPH Management Limits - Commercial/industrial (Fine Soil)**	**HSL-D Commercial/Industrial, Direct Contact**	**HSL-D Intrusive Maintenance Worker, Direct Contact**																				
Physico-Chemical Parameters																																
Moisture Content	1	%	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	**9.4**	**6.6**	**19.1**	**27.4**	**17.1**	**14.5**	**13.3**	**17.6**	**20.3**	**16.7**	**26.8**	**19.4**	**15.4**	14.8	17.4	15.2	7.1	11.7
Metals (total)																																
Arsenic	5	mg/kg	100	ne	ne	ne	ne	3000	ne	ne	ne	ne	ne	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cadmium	1	mg/kg	20	ne	ne	ne	ne	900	ne	ne	ne	ne	ne	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium	2	mg/kg	100	ne	ne	ne	ne	3600	ne	ne	ne	ne	ne	-	**5**	**10**	**6**	**23**	**5**	**6**	**5**	**9**	**16**	**7**	**26**	**6**	**8**	**9**	**17**	**16**	**7**	**7**
Copper	5	mg/kg	6000	ne	ne	ne	ne	240000	ne	ne	ne	ne	ne	-	<5	<5	<5	**8**	<5	<5	<5	<5	<5	<5	**6**	<5	<5	**8**	**5**	<5	**7**	<5
Lead	5	mg/kg	300	ne	ne	ne	ne	1500	ne	ne	ne	ne	ne	-	<5	**12**	**7**	**8**	**5**	<5	<5	<5	<5	<5	**9**	<5	<5	**6**	**6**	**7**	**5**	**6**
Mercury	0.1	mg/kg	40	ne	ne	ne	ne	730	ne	ne	ne	ne	ne	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	2	mg/kg	400	ne	ne	ne	ne	6000	ne	ne	ne	ne	ne	-	**2**	**5**	**2**	**11**	<2	<2	<2	**3**	**7**	**2**	**13**	**2**	**4**	**5**	**8**	**8**	**4**	**3**
Zinc	5	mg/kg	7400	ne	ne	ne	ne	400000	ne	ne	ne	ne	ne	-	**8**	**13**	**8**	**34**	**6**	<5	<5	**18**	**31**	**12**	**44**	**10**	**10**	**27**	**38**	**35**	**29**	**15**
Total Petroleum Hydrocarbons																																
C10 - C14 Fraction	50	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<50	<50	<50	<50	-	-	-	-	-	-	-	-	-	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)	50	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<50	<50	<50	<50	-	-	-	-	-	-	-	-	-	<50	<50	<50	<50	<50
C15 - C28 Fraction	100	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<100	<100	<100	<100	-	-	-	-	-	-	-	-	-	<100	<100	<100	<100	<100
C29 - C36 Fraction	100	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<100	<100	<100	<100	-	-	-	-	-	-	-	-	-	<100	<100	<100	<100	<100
C6 - C9 Fraction	10	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	<10	<10	<10	<10	<10	-	-	-	-	-	-	-	-	-	<10	<10	<10	<10	<10
Total Recoverable Hydrocarbons																																
>C10 - C16 Fraction	50	mg/kg	ne	ne	3300	1000	1000	ne	ne	1000	1000	20000	62000	-	<50	<50	<50	<50	-	-	-	-	-	-	-	-	-	<50	<50	<50	<50	<50
>C10 - C16 Fraction minus Naphthalene (F2)	50	mg/kg	ne	110	ne	ne	ne	ne	NL	ne	ne	ne	ne	-	<50	<50	<50	<50	-	-	-	-	-	-	-	-	-	<50	<50	<50	<50	<50
>C10 - C40 Fraction (sum)	50	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<50	<50	<50	<50	-	-	-	-	-	-	-	-	-	<50	<50	<50	<50	<50
>C16 - C34 Fraction	100	mg/kg	ne	ne	4500	2500	3500	ne	ne	3500	5000	27000	85000	-	<100	<100	<100	<100	-	-	-	-	-	-	-	-	-	<100	<100	<100	<100	<100
>C34 - C40 Fraction	100	mg/kg	ne	ne	6300	10000	10000	ne	ne	10000	10000	38000	120000	-	<100	<100	<100	<100	-	-	-	-	-	-	-	-	-	<100	<100	<100	<100	<100
C6 - C10 Fraction	10	mg/kg	ne	ne	4400	700	800	ne	ne	700	800	26000	82000	<10	<10	<10	<10	<10	-	-	-	-	-	-	-	-	-	<10	<10	<10	<10	<10
C6 - C10 Fraction minus BTEX (F1)	10	mg/kg	ne	45	ne	ne	ne	ne	260	ne	ne	ne	ne	<10	<10	<10	<10	<10	-	-	-	-	-	-	-	-	-	<10	<10	<10	<10	<10
BTEXN																																
Benzene	0.2	mg/kg	ne	0.5	100	ne	ne	ne	3	ne	ne	430	1100	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2
Ethylbenzene	0.5	mg/kg	ne	55	45000	ne	ne	ne	NL	ne	ne	27000	85000	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	1	mg/kg	ne	3	1400	ne	ne	ne	NL	ne	ne	11000	29000	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1
ortho-Xylene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Sum of BTEX	0.2	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	0.5	mg/kg	ne	160	14000	ne	ne	ne	NL	ne	ne	99000	120000	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	0.5	mg/kg	ne	40	12000	ne	ne	ne	230	ne	ne	81000	130000	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Polycyclic Aromatic Hydrocarbons																																
Acenaphthene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ (half LOR)	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	**0.6**	**0.6**	**0.6**	**0.6**	-	-	-	-	-	-	-	-	-	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
Benzo(a)pyrene TEQ (LOR)	0.5	mg/kg	3	ne	ne	ne	ne	40	ne	ne	ne	ne	ne	-	**1.2**	**1.2**	**1.2**	**1.2**	-	-	-	-	-	-	-	-	-	**1.2**	**1.2**	**1.2**	**1.2**	**1.2**
Benzo(a)pyrene TEQ (zero)	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3,cd)pyrene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene (Ex SVOC)	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Total PAHs	0.5	mg/kg	300	ne	ne	ne	ne	4000	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Polychlorinated Biphenyls																																
Total PCBs	0.1	mg/kg	1	ne	ne	ne	ne	7	ne	ne	ne	ne	ne	-	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols																																
2,4,5-Trichlorophenol	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	0.5	mg/kg	400	ne	ne	ne	ne	25000	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
2-Nitrophenol	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1	mg/kg	400	ne	ne	ne	ne	25000	ne	ne	ne	ne	ne	-	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1
4-Chloro-3-methylphenol	0.5	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	2	mg/kg	100	ne	ne	ne	ne	660	ne	ne	ne	ne	ne	-	<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	<2	<2	<2	<2	<2
Phenol	0.5	mg/kg	3000	ne	ne	ne	ne	240000	ne	ne	ne	ne	ne	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Organochlorine Pesticides																																
Aldrin	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Aldrin + Dieldrin	0.1	mg/kg	6	ne	ne	ne	ne	45	ne	ne	ne	ne	ne	-	<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
alpha-BHC	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
alpha-Endosulfan	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
beta-BHC	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
beta-Endosulfan	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
cis-Chlordane	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
DDD	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
DDD+DDE+DDT	0.1	mg/kg	240	ne	ne	ne	ne	3600	ne	ne	ne	ne	ne	-	<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
DDE	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
DDT	0.2	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

delta-BHC	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Dieldrin	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Endosulfan (sum)	0.1	mg/kg	270	ne	ne	ne	ne	2000	ne	ne	ne	ne	ne	-	<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
Endosulfan sulfate	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Endrin	0.1	mg/kg	10	ne	ne	ne	ne	100	ne	ne	ne	ne	ne	-	<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
Endrin aldehyde	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Endrin ketone	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
gamma-BHC	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Heptachlor	0.1	mg/kg	6	ne	ne	ne	ne	50	ne	ne	ne	ne	ne	-	<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
Heptachlor epoxide	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Hexachlorobenzene (HCB)	0.1	mg/kg	10	ne	ne	ne	ne	80	ne	ne	ne	ne	ne	-	<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
Methoxychlor	0.2	mg/kg	300	ne	ne	ne	ne	2500	ne	ne	ne	ne	ne	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total Chlordane (sum)	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
trans-Chlordane	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Organophosphorus Pesticides																															
Methyl Parathion	0.2	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos Methyl	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Bromophos-ethyl	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Carbophenothion	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Chlorfenvinphos	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Chlorpyrifos	0.1	mg/kg	160	ne	ne	ne	ne	2000	ne	ne	ne	ne	ne	-	<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
Chlorpyrifos-methyl	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Demeton-S-methyl	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Diazinon	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Dichlorvos	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Dimethoate	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Ethion	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Fenamiphos	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Fenthion	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Malathion	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Monocrotophos	0.2	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion	0.2	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Pirimiphos-ethyl	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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
Prothiofos	0.1	mg/kg	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	-	<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

Exceeds the NEPC - 2013 Health-based investigation levels for low-density residential land use
Exceeds the NEPC - 2013 HSL-A/B, 0 to <1m, Sand Soils for Vapour Intrusion
Exceeds the CRC Care HSL-A Residential (Low Density), Direct Contact
Exceeds the NEPC - 2013 TPH Management Limits for Residential Land Use (Coarse Soil)
Exceeds the NEPC - 2013 TPH Management Limits for Residential Land Use (Fine Soil)
Exceeds the NEPC - 2013 Health-based investigation levels for commercial/industrial land use
Exceeds the NEPC - 2013 HSL-D, 0 to <1m, Sand Soils for Vapour Intrusion
Exceeds the NEPC - 2013 TPH Management Limits for Commercial and Industrial Land Use (Coarse Soil)
Exceeds the NEPC - 2013 TPH Management Limits for Commercial and Industrial Land Use (Fine Soil)
Exceeds the CRC Care HSL-D Commercial/Industrial, Direct Contact
Exceeds the CRC Care HSL-D Intrusive Maintenance Worker

Appendix F RPD tables

F.1 Intra-laboratory duplicates

First sampling event (9 July 2025)

	Metals							
	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TP03_0.5	<5	<1	6	<5	<5	<0.1	<2	<5
DUP01	<5	<1	5	<5	<5	<0.1	<2	<5
RPD (%)	0.00%	0.00%	18.18%	0.00%	0.00%	0.00%	0.00%	0.00%

Second sampling event (3 October 2025)

	Metals							
	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH07_0.5	<5	<1	17	5	6	<0.1	8	38
DUP01	<5	<1	16	<5	7	<0.1	8	35
RPD (%)	0.00%	0.00%	6.06%	0.00%	15.38%	0.00%	0.00%	8.22%

F.2 Inter-laboratory duplicates

First sampling event (9 July 2025)

	Metals							
	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TP01_0.5	<5	<1	10	<5	12	<0.1	5	13
DUP02	<5	<1	9	<5	5	<0.1	4	12
RPD (%)	0.00%	0.00%	10.53%	0.00%	82.35%	0.00%	22.22%	8.00%

Second sampling event (3 October 2025)

	Metals							
	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH08_0.5	<5	<1	7	<5	6	<0.1	3	15
DUP02	<5	<1	7	<5	<5	<0.1	3	14
RPD (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.90%

F.3 Trip Spike / Trip Spike Control

Second sampling event (3 October 2025)

	BTEXN							
	Benzene	Toluene	Ethylbenzene	Met- & Para-Xylene	Ortho-Xylene	Sum of BTEX	Total Xylenes	Naphthalene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Trip Spike	<0.2	4.3	5.0	5.5	2.5	17.3	8.0	<1
Trip Spike Control	<0.2	5.6	6.5	7.2	3.3	22.6	1.5	<1
RPD (%)	0%	26.26%	26.09%	26.77%	27.59%	26.57%	136.84%	0%

Appendix G Site photos

Figure 14-1 Topography of the site

Figure 14-2 Transmission line infrastructure in the Transgrid Lot

Figure 14-3 Transgrid substation

Figure 14-4 Coarse woody debris occurring within the site

Figure 14-5 Location of TP01

Figure 14-6 TP01 – profile

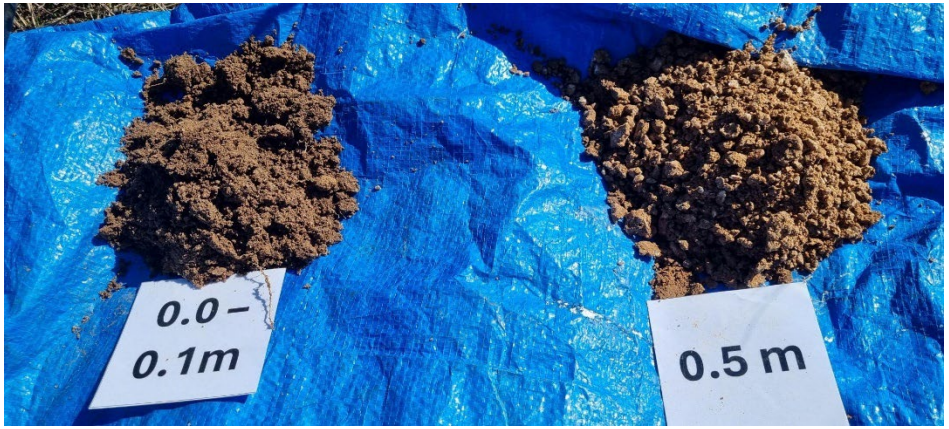

Figure 14-7 TP01 – soil samples

Figure 14-8 TP01 post-sampling

Figure 14-9 Location of TP02

Figure 14-10 TP02 – profile

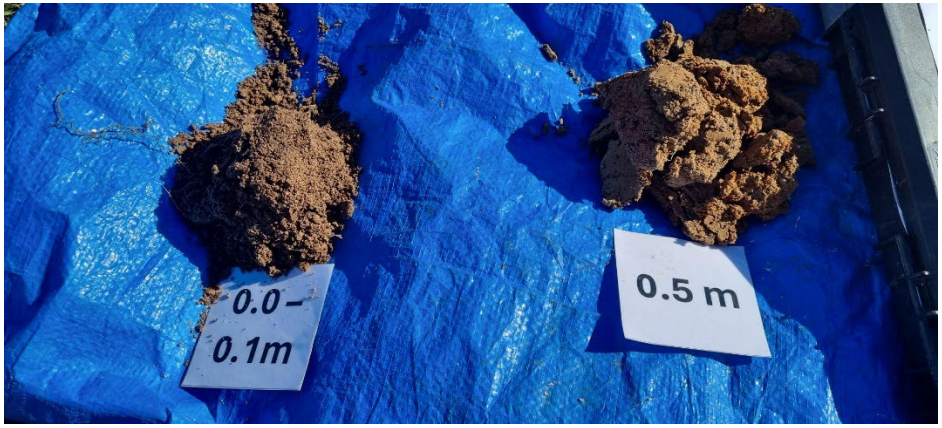

Figure 14-11 TP02 – soil samples

Figure 14-12 TP02 – post-sampling

Figure 14-13 Location of TP03

Figure 14-14 TP03 – profile

Figure 14-15 TP03 – soil samples

Figure 14-16 TP03 – post-sampling

Figure 14-17 Location of TP04

Figure 14-18 TP04 – profile

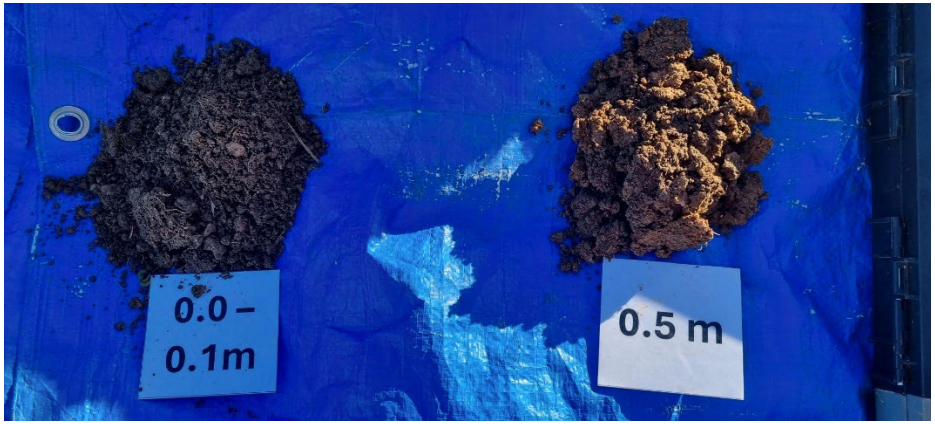

Figure 14-19 TP04 – soil samples

Figure 14-20 TP04 – post-sampling

Figure 14-21 Location of TP05

Figure 14-22 TP05 – profile

Figure 14-23 TP05 – soil samples

Figure 14-24 TP05 – post-sampling

Figure 14-25 Location of TP06

Figure 14-26 TP06 – profile

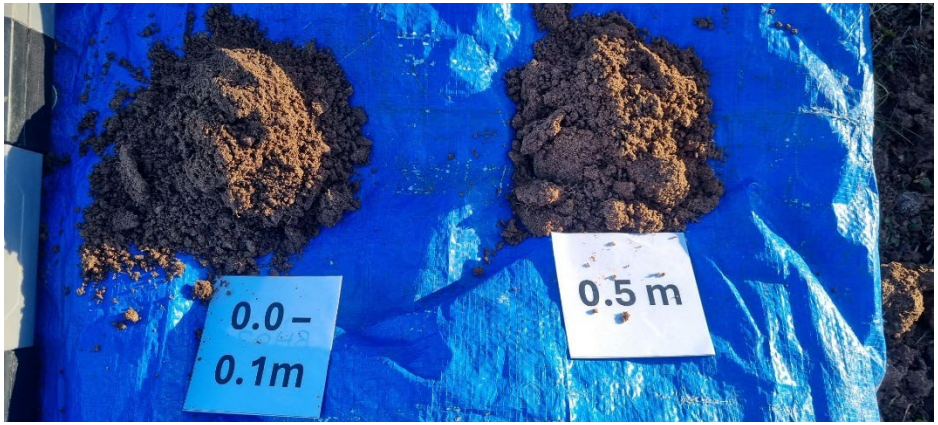

Figure 14-27 TP06 – soil samples

Figure 14-28 TP06 – post-sampling

Figure 14-29 Location of BH07

Figure 14-30 BH07 – surface sample

Figure 14-31 BH07 – depth (0.5 m) sample

Figure 14-32 BH07 – post sampling

Figure 14-33 Location of BH08

Figure 14-35 BH08 – post-sampling

Figure 14-34 BH08 – soil sample

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