



Government  
of South Australia

Department for  
Energy and Mining

19 April 2024

Mr Matt Hudson  
Director  
Paratoo Resources Pty Ltd  
Suite 304, 22 St Kilda Road  
ST KIDLA VIC 3182

mjhudson75@gmail

Dear Mr Hudson

### **Approval Notification - Exploration Program for Environment Protection and Rehabilitation (MPEPR2023-010) Review RL 128**

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The program review for RL 128, final version submitted on 16 April 2024 to conduct a 35 drillhole program at Paratoo, approximately 56 km north-east of Peterborough, has been approved in accordance with Section 70C(5) of the *Mining Act, 1971 (the Act)*.

In accordance with section 70C(7a) of the Act, the approved program is subject to the conditions listed in the attached notice.

You are reminded that:

1. You must at all times implement and comply with the approved MPEPR.
2. The approved MPEPR will be made publicly available on the Mining Register.
3. Exploration operations on “native title land” (as defined in the *Native Title (South Australia) Act, 1994*) must be conducted in accordance with Part 9B of the Act.
4. In accordance with Section 70C of the Act, the lessee must review the MPEPR on request of the Minister’s Delegate within a time specified in the request and submit the revised MPEPR for approval.
5. As the operator for the approved MPEPR you must take all reasonable and practical measures to avoid undue damage to the environment and meet all the approved outcomes (when measured against the approved criteria) listed within the MPEPR.
6. In accordance with regulation 78 of the *Mining Regulations 2020* and Terms of Reference 012 (TOR 012), the lessee must submit an Exploration Compliance Report to the Mineral Exploration Branch each year, within 60 days after the anniversary of the date the licence was granted, and 60 days after the expiry or surrender of the EL, or in accordance with joint reporting requirements agreed to with the Minister.
7. In accordance with regulation 16(4) of the *Mining Regulations 2020*, drillhole and geological samples must be kept in accordance with guidelines issued by the Department for the term of the relevant tenement and for 7 years after the expiry, surrender, cancellation or forfeiture of the tenement to which the sample relates. Furthermore, samples must be retained by the tenement holder, or provided to the Director, in accordance with those guidelines (unless the Minister has authorised, on application by the tenement holder in a manner and form set out in the guidelines, the destruction or disposal of the samples).

Mineral Exploration

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8. The MPEPR is approved for a period of twelve months from the date of this letter.

This approval does not constitute endorsement of the systems that you have in place to manage your exploration operations in compliance with the Act and lease conditions. In granting the approval, the MPEPR and your capacity to undertake the proposed activities have been considered. However, responsibility for compliance with the Act and the lease conditions, remains at all times with the lessee.

This approval relates only to the requirements of the Act. Other legislation relevant to this application includes the *South Australian Work Health and Safety Act, 2012* and Regulations. For example, Chapter 10 of the *Work Health and Safety Regulations, 2012* (SA) introduced new requirements for mine operators in South Australia. The new requirements include a notification for mining operations and the establishment of a Safety Management System. For further information on your responsibilities, including a guide to Chapter 10 and the Mine Operator Notification Form, contact SafeWork SA on 08 8303 0255 or via its website at [www.safework.sa.gov.au](http://www.safework.sa.gov.au).

The proposed program may be subject to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Mineral exploration industry-specific information is contained in an appendix in the EPBC Matters of National Environmental Significance – Significant impact guidelines 1.1. This document is available on the Australian Government's Department for Agriculture, Water and the Environment website at <http://www.environment.gov.au/resource/significant-impact-guidelines-11-matters-national-environmental-significance>. For further information, contact the Department for Agriculture, Water and the Environment, or visit its website at [www.environment.gov.au/](http://www.environment.gov.au/).

Proposed changes to exploration operations stated in the approved MPEPR may require a *PEPR review* to be submitted for assessment. Where a *PEPR review* is required, implementation of the operational changes can only occur after the revised MPEPR is approved. Further information on when an exploration PEPR review is required can be found in Departmental guideline [MG22 Conducting mineral exploration](#).

If you require any further information, please email [DEM.exploration@sa.gov.au](mailto:DEM.exploration@sa.gov.au).

Yours sincerely



Tony Halls  
**A/DIRECTOR EXPLORATION & LICENCING  
REGULATION & COMPLIANCE**

In accordance with delegated  
Ministerial powers and functions

The Department's Regulatory Guidelines, Ministerial Determinations and Information Sheets are available at: [http://energymining.sa.gov.au/minerals/knowledge\\_centre](http://energymining.sa.gov.au/minerals/knowledge_centre)

**APPLICATION**

Mining Act 1971 and Mining Regulations 2020



Government of South Australia

Department for Energy and Mining

**EXPLORATION PROGRAM FOR ENVIRONMENT PROTECTION AND REHABILITATION (PEPR)**

USE THIS TEMPLATE TO: Apply to conduct mineral exploration operations not covered by the Generic PEPR (Adopted Program) for a 12 month period of time on one or more exploration licences (ELs), retention leases (RLs) or mineral claims (MCs) in South Australia.

Refer to the Exploration PEPR Terms of Reference and [Minerals Regulatory Guidelines MG22](#) when completing this application. Further information on exploration requirements in South Australia is available on the Department for Energy and Mining (DEM) Minerals website [www.energymining.sa.gov.au](http://www.energymining.sa.gov.au).

**SECTION A – GENERAL DETAILS**

Operational approval period	<b>12-month approval period, with an additional 3 months to complete all rehabilitation</b>		
Tenement details	Retention Lease (RL) 128 within Exploration Licence (EL) 6599		
Tenement holder(s) (for each tenement)	Paratoo Resources Pty Ltd (100%)		
Operating company	Paratoo Resources Pty Ltd		
Agency agreement (if applicable)	Refer to Asset Sale Agreement – Paratoo Tenements dated 13 October 2022, uploaded with this application.		
PEPR prepared by	JBS&G Australia, Paratoo Resources Pty Ltd		
Project supervisor/contact person(s)	Ana Storey will oversee the exploration program on behalf of Paratoo Resources. Ana is a geologist and Exploration Manager with more than 20 years experience in greenfields exploration and environmental project management. Based in Broken Hill, Ana is also a Director on the PEACH Proactive Environmental Aboriginal Community Heritage Group and the Chair of the Minerals and Metals Industry Group.		
Project/prospect name	Paratoo		
Location details	Approximately 56 km north-east of Peterborough and approximately 24 km south-west of Yunta		
Project description, commodity type and mineralisation model	Paratoo Resources Pty Ltd (Paratoo Resources) propose to undertake a drilling program of the Paratoo copper-rare earth mineral occurrence situated within RL 128, located within EL 6599 (Figure 1). The proposed program will comprise 30 RC drill holes for approximately 6000 metres and 5 Diamond drill holes for 2000 metres. Paratoo has been historically explored in the past for near-surface copper but the more recent discovery of significant rare earth metals within the deposit has created new exploration interest particularly into deeper fresh rock. The deposit is known to be sediment-hosted within a regional dome structure however the source of the rare earth metals is as yet unknown and also forms part of the exploration rationale.		
Proposed project schedule	Start date	15/03/2024	End date 15/03/2025

**DECLARATION**

I, the tenement holder, declare under regulation 84 of the Mining Regulations 2020, that I have taken reasonable steps to review the information in this PEPR/ revised PEPR to ensure its accuracy.

Name	Matthew Hudson	Signature (digital allowed)	
Position	Director, Paratoo Resources Pty Ltd	Date	15/04/2024

Copy and paste the above table if there is more than 1 tenement holder.

Note: An authorised representative from each tenement holder must sign the declaration (eg in accordance with the Corporations Act 2001).

**SECTION B – PROGRAM PREPARATION AND ACCESS TO LAND**

**Work undertaken in preparing the proposal**

Summarise the research and fieldwork undertaken in preparing the proposal including:

- desktop reviews of existing information
- field visits for reconnaissance
- contractor consultation (i.e. equipment scale, type)
- other information used when planning the proposed program.

- Desktop reviews of all relevant databases together with the review of information provided by tenement holder, Gawler Craton Resources
- Discussions with contractors (Chief Drilling and Euro Exploration Services) regarding equipment and personnel
- Discussions with the landowner regarding a range of matters including access, the drilling program, compensation and use of water. See below.

**Consultation (r. 64)**

Using the table below, provide a summary of the individual or group of similarly affected persons and summarise the results of consultation that has been undertaken on the proposed operation. Types of interested or affected parties include residents, council, government agencies etc (exclude native title groups and defence owned or controlled lands – refer to relevant sections below).

Tenement	Stakeholder	Land tenure	Land use	Date and type of NOE served	Type of exempt land	Date waiver obtained	Date consultation/access agreement and/or permits signed/authorised	Stakeholder concerns raised and how addressed
RL 128 (within EL 6599)	Samuel Peter Matthey	Crown Lease under Occupational Licence OP004928B	Grazing	Land Access and Compensation Agreement – provided on 8 January 2024. .	Nil	n/a	28 February 2024	<ul style="list-style-type: none"> <li>• Discussions with the landowner commenced prior to the provision of a Land Access and Compensation Agreement (LACA).</li> <li>• No concerns were raised, and the LACA was signed on 28 February 2024.</li> <li>• See below for the matters discussed to date.</li> </ul>

If any individual or group of similar affected persons were not able to be consulted, what steps were taken to consult with them?

N/A

Provide any additional relevant information.

N/A

The LACA was executed on 28 February 2024 and a Form 21 D submitted to the Mining Registrar. 7 March 2024.

**SECTION C – DESCRIPTION OF THE ENVIRONMENT**

Include a description of the features of the environment that are expected to be affected by the proposed operations. Each of the elements of the existing environment listed below must be described only to the extent that they may need to be considered in assessing the impacts that the proposed exploration operations are reasonably expected to have on the environment. If the element is not likely to be impacted by the operation, a statement to that effect must be included.

Where the terms and conditions of an RL include environmental outcomes, include any new baseline environmental data relevant to the control strategies or measurement criteria, and where changes to the environment are identified, provide an updated description of the environment to describe the changes.

**Proximity to infrastructure and housing**

Provide the following information:

- Settlements – indicate the name and distance of the nearest town, and residences within, or near the proposed exploration operations.
- Roads and tracks – indicate existing fence lines, roads and tracks, including those which are to be used in the exploration program.
- Other human infrastructure such as schools, hospitals, commercial or industrial sites, roads, sheds, bores, dams, ruins, pumps, scenic lookouts.
- Railway lines, transmission lines, gas and water pipelines, communication lines – e.g. fibre optic cables etc., if these may be impacted by the exploration operations.

Provide this information on a locality plan/map.

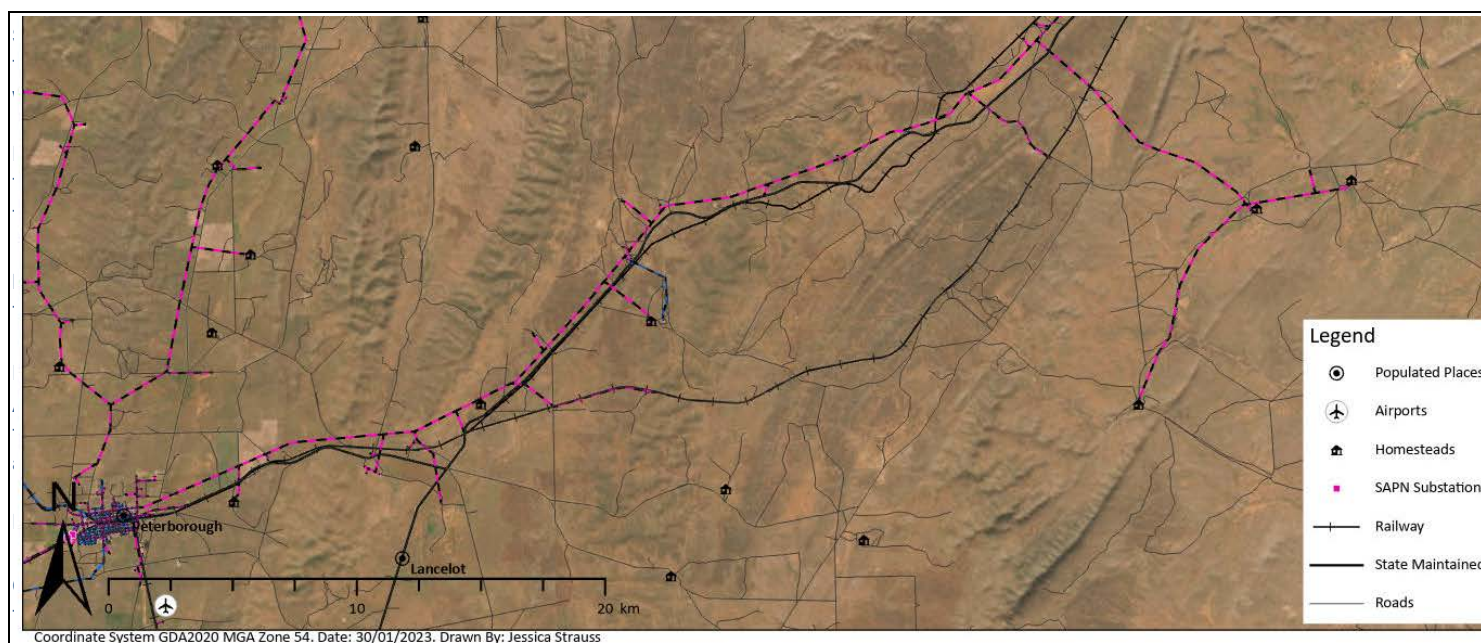


Figure 2.

The Dog Fence is approximately 150 km to the north-east of the proposed exploration areas (DEW 2018).

The nearest railway is the Crystal Brook – Broken Hill line, which is approximately 4.3 km to the south-east of the proposed exploration area.

The nearest power line is an overhead SA Power Networks line approximately 7 km to the south-west.

There are aeroplane landing areas at Yunta and Peterborough.

The nearest hospital is the Peterborough Soldiers’ Memorial Hospital and Health Service at Peterborough.

The nearest school is Yunta Rural School located in Yunta. Peterborough also has the Peterborough Community Preschool, Peterborough Primary School and Peterborough High School.

Peterborough contains retail, hospitality, tourism and fuel precincts.

The site contains two serviceable caravans plus one shipping container with roof. These items are located between the exploration areas.

DEW 2018, The Dog Fence in South Australia. Accessed on 10 January 2023.

Information regarding distances to homesteads, infrastructure, and amenities sourced from SARIG, NatureMaps and Google Maps. Accessed on 10 January 2023.

## Exploration PEPR application – 12-month period

### Land use and tenure

Using the table below, select the land tenure and land use that the proposed exploration activities will occur in. Include additional information where prompted.

Land tenure/type	Applicable
Freehold	<input type="checkbox"/>
Pastoral lease	<input type="checkbox"/>
Perpetual lease	<input checked="" type="checkbox"/>
Crown land	<input type="checkbox"/>
Mining reserve	<input type="checkbox"/>
Aboriginal freehold/leasehold land (e.g. Anangu Pitjantjatjara Yankunytjatjara and Maralinga Tjarutja lands)	<input type="checkbox"/>
Forestry reserve	<input type="checkbox"/>
Marine parks	<input type="checkbox"/>
National parks, conservation parks, conservation reserves, regional reserves*	<input type="checkbox"/>
Adelaide Dolphin Sanctuary	<input type="checkbox"/>
Murray Darling Basin	<input type="checkbox"/>
Other*	<input type="checkbox"/>
Land tenure for both Sections 134 and 135 is Perpetual Crown Lease held under Occupational Licence OP004928B ( <a href="#">Figure 3</a> ).	

Land use	Applicable
Grazing	<input checked="" type="checkbox"/>
Cultivated land	<input type="checkbox"/>
Residential	<input type="checkbox"/>
Township	<input type="checkbox"/>
Industrial	<input checked="" type="checkbox"/>
Tourism	<input type="checkbox"/>
Conservation	<input type="checkbox"/>
Defence activity	<input type="checkbox"/>
Road reserve	<input type="checkbox"/>
Sites of scientific significance (geological monuments, fossil reserves etc.)	<input type="checkbox"/>
Orchard/vineyard	<input type="checkbox"/>
*Native vegetation heritage agreements	<input type="checkbox"/>
*European heritage sites	<input type="checkbox"/>
*Other (e.g. historic mining)	<input checked="" type="checkbox"/>
<a href="#">Historic exploration/mining activities.</a>	

\* Indicates more information required in field immediately below.

Describe any council policies (or out of council) or development plans that may impact the program area.

The proposed exploration areas are situated within the following Planning & Design Code Policies (Plan SA):

**Zone**  
Rural

**Overlays**  
Water Resources  
Hazards (Flooding – Evidence Required)  
Native Vegetation  
Murray Darling Basin  
Hazards (Bushfire – Regional)

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[Plan SA, SA Property and Planning Atlas. Accessed 10 January 2023.](#)

Provide a description of any known plans for future land use changes by other parties.

None known.

Provide any additional relevant information.

N/A

## Exploration PEPR application – 12-month period

### Woomera Prohibited Area (WPA)

Will activities be conducted within the WPA	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Do you have a resource exploration permit in place?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
In which zone will activities be conducted?			N/A		
Does the Exploration Permit allow the operator to conduct exploration operations in the WPA?				Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
What is the expiry date of the resource exploration permit?				N/A	
Identify closure periods that may impact on the exploration program.					
N/A					

### Other land owned or controlled by the Commonwealth Department of Defence

Lands in South Australia that are owned or controlled by the Commonwealth Department of Defence, which they manage either as a training or test area, include the Port Wakefield Proof and Experimental Establishment, Murray Bridge Training Area, and Cultana Training Area.

These lands remain to be mineral land under the Mining Act 1971 (SA) and can be accessed for mineral exploration and mining subject to certain restrictions and conditions under the Defence Act 1903 (Cth) and the Defence Regulation 2016 (Cth).

Will operations be conducted within the Port Wakefield Proof and Experimental Establishment, Murray Bridge Training Area, or Cultana Training Area?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		
Do you have a Deed of Access with Defence?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
What is the expiry date of the Deed of Access?	N/A	
Provide the date the Range Control Officer granted access permission to conduct the proposed exploration operations.	N/A	
Describe the results of consultation and how any concerns raised were addressed.		
N/A		

### Native title

Using the table below, describe how you have complied with the requirements of Part 9B of the Mining Act for each tenement (for further information refer to [Minerals Regulatory Guidelines MG22](#)).

Native title			
Is the proposed area of exploration located on native title land?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If no, no further information in this section required.)		
Are there registered native title party/parties in the area of proposed exploration?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Adnyamanthanha, Ngadjuri and Wilyakali Overlap Claim group; and Ngadjuri Nation #2 native title claimants. See further information below.	If no, an Environment, Resources and Development (ERD) Court determination is required.
Have you negotiated a native title mining agreement?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Is the agreement registered?* Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A
Have you accepted an Indigenous land use agreement (ILUA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the ILUA registered?* Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A
Have you obtained ERD Court determination?†	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the determination registered?* Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A

\* The registration date refers to the date the agreement, determination or ILUA was registered with DEM.

† An ERD Court determination cannot be conjunctive (i.e. cannot apply to subsequent licences).

Provide any additional relevant information.

<p>The Federal Court has determined that native title rights and interests have been extinguished over Sections 134 and 135, Hundred of Paratoo, where the drill holes will be located (National Native Title Tribunal 2022, accessed November 2022).  <a href="http://www.nntt.gov.au/searchRegApps/NativeTitleRegisters/Pages/NNTR_details.aspx?NNTT_FileNo=SCD2018/002">http://www.nntt.gov.au/searchRegApps/NativeTitleRegisters/Pages/NNTR_details.aspx?NNTT_FileNo=SCD2018/002</a>.</p>
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## Landform and topography

Describe the topography of the general area affected by the exploration program. Include the susceptibility to erosion and visual attributes (steep or undulating slopes, plains, rocky outcrops, dunes, salt pans, clay pans etc.).

The proposed exploration areas are situated within the Olary Spur IBRA sub-region within the Flinders Lofty Block IBRA region (NatureMaps 2023a).

The landform in the Flinders Lofty Block IBRA region is characterised as Ranges and Hills with extensive rock outcrop and shallow soils; stony pediments and small basin plains; some remnants of stony downs; narrow valleys, some with gorges. Ranges and hills in form of hogback ridges in quartzite (NatureMaps 2023a).

The topography of the proposed exploration area is relatively flat with a gentle slope towards the east, with a rise and depression located outside of the proposed exploration areas (NatureMaps 2023b) (Figure 4).

The landform and topography is shown in Photo 1, Photo 2 and Photo 3.

The proposed exploration areas are mapped in NatureMaps as negligible to 'up to 5%' of land affected by gully erosion. The water erosion potential of the proposed exploration areas in NatureMaps is mapped as 'Moderately low (modified surface management needed)' and 'High (non arable)'. The wind erosion potential of the proposed exploration areas in NatureMaps is mapped as 'Low' (NatureMaps 2023c).

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NatureMaps 2023a. *IBRA Subregion 7.0* layer, NatureMaps mapping portal. Accessed on 10 January 2023.

NatureMaps 2023b. *Contours* layer, NatureMaps mapping portal. Accessed on 10 January 2023.

NatureMaps 2023c. *Soils* layer, NatureMaps mapping portal. Accessed on 10 January 2023.

## Soil and surface cover

Describe soil types and soil surface cover - e.g. gibber, rocky - in the general area affected by the exploration program. Include details on the susceptibility to compaction, erosion, dust, runoff and any other soil characteristics – e.g. acid sulphate – that may require control strategies to reduce environmental impacts during operations or rehabilitation.

The soils within the Flinders Lofty Block IBRA region are categorised as loamy soils with weak pedologic development, crusty loamy soils with red clayey subsoils. The geology of the Flinders Lofty Block IBRA region is characterised as bare rock, some alluvium and colluvium (sand, silt & clay) with less common dune sand and some sand mantles. There are calcreted gravels derived from silcreted deposits and probably equate with Ripon Calcrete. There are younger Telford gravels (Middle Pleistocene) (NatureMaps 2023a).

The proposed exploration areas are considered to have:

- Negligible extent of surface soil acidity
- Negligible extent of subsurface soil acidity
- Negligible extent of subsoil acidity
- Negligible proportion of land susceptible to acid sulfate soil potential
- More than 60% of soils within 30cm contain carbonate (i.e., are calcareous soils) (NatureMaps 2023b).

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NatureMaps 2023a. *IBRA Region 7.0* layer, NatureMaps mapping portal. Accessed on 10 January 2023.

NatureMaps 2023b. *Soils* layer, NatureMaps mapping portal. Accessed on 10 January 2023.

## Exploration PEPR application – 12-month period

### Surface water

Will the proposed program interfere with surface water bodies and natural drainage (e.g. drainage lines, creeks, floodplains, wetlands)? If yes, describe the potential interference and surface water bodies and natural drainage on maps. If no, indicate why.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
A review of aerial imagery and NatureMaps indicates no evident drainage lines, creeks, floodplains or wetlands within the proposed exploration areas (NatureMaps 2023a, NatureMaps 2023b). There are watercourses and water bodies (land subject to flooding) mapped in proximity around the proposed exploration areas (NatureMaps 2023a) (Figure 5).  The site gently slopes downhill from the west to the east, with a slight incline to the east (NatureMaps 2023c).  ----- NatureMaps 2023a. Surface water layer, NatureMaps mapping portal. Accessed on 10 January 2023. NatureMaps 2023b. Wetlands layer, NatureMaps mapping portal. Accessed on 10 January 2023. NatureMaps 2023c. Contours layer, NatureMaps mapping portal. Accessed on 10 January 2023.		
Is the program area located within water protection areas defined under the River Murray Act 2003? If yes, provide the name(s).	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		
Is the program area located within any prescribed watercourses or prescribed surface water areas under the Landscape South Australia Act 2019? If yes, provide the name(s).	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		

### Groundwater

Is groundwater likely to be intersected when conducting the exploration program? If yes, use the table below to describe the expected groundwater (hydrogeological) conditions, and identify groundwater aquifers in the exploration area(s) that may be affected. Indicate the approximate depth of drillholes in each area. Copy and paste a new table for each area where different groundwater conditions are expected. If no, provide evidence or any supporting information demonstrating this.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>																								
There is an existing production well located due east of the proposed exploration area drilled in 2016 (673200404).  Records show the well to have a standing water level of approximately 44 m below surface (279 mAHD), and a yield of 5.5 L/s. The well has a total depth of 119 m below ground level and is cased to 113 m below surface.  The drillhole was logged by the driller as:																										
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;">Depth From (m)</th> <th style="width: 15%;">Depth To (m)</th> <th style="width: 15%;">Lith Code</th> <th style="width: 55%;"></th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> <td>TPSL</td> <td>Top soil, brown</td> </tr> <tr> <td>1</td> <td>50</td> <td>SAND</td> <td>SAND slate grey</td> </tr> <tr> <td>50</td> <td>74</td> <td>SAND</td> <td>SLATE sand and gravel, grey</td> </tr> <tr> <td>74</td> <td>84</td> <td>SAND</td> <td>Black sticky SAND and clay</td> </tr> <tr> <td>84</td> <td>119</td> <td>GRVL</td> <td>Coarse GRAVEL grey</td> </tr> </tbody> </table>			Depth From (m)	Depth To (m)	Lith Code		0	1	TPSL	Top soil, brown	1	50	SAND	SAND slate grey	50	74	SAND	SLATE sand and gravel, grey	74	84	SAND	Black sticky SAND and clay	84	119	GRVL	Coarse GRAVEL grey
Depth From (m)	Depth To (m)	Lith Code																								
0	1	TPSL	Top soil, brown																							
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50	74	SAND	SLATE sand and gravel, grey																							
74	84	SAND	Black sticky SAND and clay																							
84	119	GRVL	Coarse GRAVEL grey																							
which is consistent with the Auburn Dolomite Member, which is described as “Dolomite, flaggy, dark to medium grey; silty and sandy dolomite and thin dolomite conglomerate, pale grey, olive, brown; shale, slate and siltstone, grey, green, brown”.  Approximate depth of proposed drillholes is up to 200 m (RC holes) and up to 400 m (diamond holes). Intersected water is proposed to be contained within excavated sumps, or alternatively provided to the landholder for use.																										

## Exploration PEPR application – 12-month period

### Description of the locality/area where different groundwater conditions may be encountered

The proposed exploration areas are located in the Neoproterozoic to Cambrian Adelaide Geosyncline within the core of a breached, doubly plunging anticline, near a zone of disruption containing brecciated Adelaidean sedimentary rocks and dolerite ('Paratoo Diapir'), and hosted in dolomitic shales of the Neoproterozoic Burra Formation. Near the surface, the mineralization resides mainly in deeply weathered quartz-magnetite-sulphide (pyrite, chalcopyrite) veins ( $\leq 10$  cm wide). At depth, drill cores reveal disseminated magnetite, pyrite, chalcopyrite, copper sulphide and native copper associated with extensive potassic alteration. K-Na-rich fluids also affected the dolerite in the 'Paratoo diapir', resulting in the precipitation of K-feldspar, dravite and K-bearing chabazite-Na. The most likely scenario for the genesis of the Paratoo deposit involves circulation of basinal fluids, focusing into the 'Paratoo Diapir', and ore precipitation through neutralization by fluid-rock interaction with the dolomitic shales hosting the mineralization (Source: Origin of the secondary REE-minerals at the Paratoo copper deposit near Yunta, South Australia, Published online by Cambridge University Press, 5 July 2018 (<https://www.cambridge.org/core/journals/mineralogical-magazine/article/abs/origin-of-the-secondary-reeminerals-at-the-paratoo-copper-deposit-near-yunta-south-australia/BC14EDE835A5083A0C5FF8757F05DDFC>)).

Formation age and/or stratigraphic unit	Stratigraphic intervals (depth range) (m)	Aquifer formation name	Aquifer interval/thickness (from-to) (m)	Type of aquifer(s) intersected (e.g. unconfined, confined, artesian)	Provide aquifer salinity, depth to water level and any other relevant comments
Neoproterozoic to Cambrian Adelaide Geosyncline	To be confirmed through drilling program.	Expected to be either Ketchowla Siltstone or Tapley Hill formation	To be confirmed through drilling program.	TBC.	Depth to water is approximately 45 to 90 m below surface.  TDS – approximately 6,000 mg/L.

Provide the environmental value of each aquifer present determined according to the current Environment Protection (Water Quality) Policy.

Well 673200404 drilled in 2016 returned a TDS of approximately 6,000 mg/L. Water of this quality has an Environmental Value of:

- Primary industries —livestock drinking water
- Primary industries —aquaculture and human consumption of aquatic foods.

Provide a description of the existence, location and value of all Groundwater Dependent Ecosystems (GDEs) within and immediately surrounding the project area.

There are no aquatic or terrestrial GDEs mapped within the proposed exploration areas listed within the GDE Atlas (BOM 2023). There are aquatic and terrestrial GDEs within the proximity of the proposed exploration areas listed within the GDE Atlas (BOM 2023) (Figure 6).

There are seven (7) aquatic GDEs within approximately 5 km of the proposed exploration areas, with additional aquatic GDEs further from the proposed exploration areas.

The aquatic GDEs within approximately 5 km are characterised as:

- Wetland systems that are low potential GDE (from national assessment) with an inflow dependent ecosystem likelihood of 3 – 9.
- A wetland system with a high potential GDE (from national assessment) with an inflow dependent ecosystem likelihood of 5.
- A river (Paratoo Creek) that is a moderate potential GDE (from national assessment) with an inflow dependent ecosystem likelihood of 4 – 6.

There are no terrestrial GDE within 5 km of the proposed exploration areas. The closest terrestrial GDE is approximately 7 km to the northwest, being a wetland with a high potential GDE (from national assessment) with an inflow dependent ecosystem likelihood of 8.

Given the distance to any potential GDE, no impact is expected.

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Bureau of Meteorology (BOM) 2020. *GDE Atlas*. Accessed on 11 January 2023.

Is the proposed program located within a prescribed wells area or prescribed water resource area?

Yes  No

If yes, provide the name of the area.

N/A

Provide any additional information, if required.

N/A

## Exploration PEPR application – 12-month period

### Native vegetation

Will you be working within areas of native vegetation? If yes, provide the following information: <ul style="list-style-type: none"> <li>description of the formation and structure of vegetation in the area (e.g. woodland, shrubland, grassland)</li> <li>list of the dominant species.</li> </ul> If no, indicate why you will not be working within areas of native vegetation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
The dominant species across the landscape of the proposed exploration areas are chenopod shrubland and tussock grassland. The proposed exploration area is within the broader Flinders Lofty Block IBRA Region which has the dominant vegetation of Chenopod Shrub, Samphire Shrub and Forbland (NatureMaps 2023a). The majority of the proposed drill holes are located on areas that have been previously disturbed by exploration activities (i.e. drilling, trenching, excavation). A few small areas may have regrowth of small trees and shrubs. All endeavours will be made to preserve any larger trees in order to minimise unnecessary disturbance. Refer Section I Photos which shows existing site conditions. Representative vegetation is shown in Photo 2, Photo 3 and Photo 4, with Photo 3 and Photo 4 also showing representative existing disturbance to the area. ----- NatureMaps 2023a. IBRA Region 7.0 and SA Vegetation layers. Accessed on 11 January 2023.		

### Significant habitats and flora

If you are working within areas of native vegetation, use the table below to list any significant habitats and any rare or endangered flora species located or reported to have been in the area that may be impacted by the proposed program. Include known sightings of listed species on a locality plan/map.

A search of the NatureMaps “State Rated Flora Sites” and “Nationally Rated Flora Sites” database was undertaken on 11 January 2023. The results identified that there are no significant flora species recorded to date within the proposed exploration areas.

The following significant species (as outlined in the table below) are located within a 30 km buffer zone. Figure 7 outlines the locations of the identified significant flora.

A Protected Matters Search Tool (PMST) search of the proposed exploration areas and a 5 km buffer zone was conducted on 11 January 2023 and identified two listed threatened species (*Pterostylis xerophila* Desert Greenhood (vulnerable) and *Codonocarpus pyramidalis* Slender Bell-fruit, Camel Poison (vulnerable)) that may occur within the proposed exploration areas and one listed threatened species (*Acacia carneorum* Needle Wattle, Dead Finish, Purple-wood wattle (vulnerable)) that is known to occur in the proposed exploration areas.

These species will be included in the drillers induction packs for identification and avoidance as required.

R= Rare; V= Vulnerable; E = Endangered

Species/habitat	Common name	NPWN Act rating*	EPBC Act rating†
Swainsona fuscoviridis	Dark Green Swainson-pea	R	
Rumex dumosus	Wiry Dock	R	-
Orobanche cernua var. australiana	Australian Broomrape	R	-
Bothriochloa macra	Red-leg Grass	R	-
Swainsona viridis	Creeping Darling Pea	V	-
Codonocarpus pyramidalis	Slender Bell-fruit	E	V
Olearia passerinoides ssp. glutescens	Sticky Daisy-bush	R	-
Cullen parvum	Small Scurf-pea	V	-
Maireana excavata	Bottle Fissure-plant	V	-
<b>The entries below are from a PMST search of the proposed exploration areas with a 5 km radius</b>			
<i>Pterostylis xerophila</i>	Desert Greenhood		V
<i>Codonocarpus pyramidalis</i>	Slender Bell-fruit, Camel Poison		V
<i>Acacia carneorum</i>	Needle Wattle, Dead Finish, Purple-wood Wattle		V

\* National Parks and Wildlife Act 1972 (NPW Act) conservation status includes extinct, endangered, vulnerable, threatened and rare.

† Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) listings include extinct, extinct in the wild, critically endangered, endangered, vulnerable and conservation dependent.

## Weeds and pathogens

Provide information of the extent the area is affected or potentially affected by weeds and pathogens (e.g. phytophthora; buffel grass *Cenchrus ciliaris*).

There are no recorded phytophthora records within the proposed exploration areas or within a 30 km radius (NatureMaps 2022a). There are no identified weeds of national significance or Buffel grass recorded within the proposed exploration areas. Within a 10 km radius, *Tamarix aphylla* (Athel Pine), a weed of national significance, is mapped on NatureMaps (NatureMaps 2023b). The following weeds of national significance are mapped on NatureMaps within a 30km radius of the proposed exploration area:

- *Opuntia robusta* (Wheel Pear)
- *Lycium ferocissimum* (African Boxthorn)
- *Tamarix aphylla* (Athel Pine) (NatureMaps 2023b).

The landowner has advised that there are no known noxious or poisonous weeds (pers comms Andrew Bailey).

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NatureMaps 2023b. Flora and Fauna, Phytophthora Records Layer. Accessed on 11 January 2023  
NatureMaps 2023a. Weeds of National Significance and Buffel Grass. Accessed on 11 January 2023.

## Fauna

Describe the native and feral fauna that may be present in the application area, including feral species.

A search of the NatureMap 'Fauna Super Table – Public' has no recorded sightings of native and/or feral fauna within the proposed exploration areas. Identified sightings of *Macropus fuliginosus* (Western Grey Kangaroo) and *Macropus (Osphranter) rufus* (Red Kangaroo) (NatureMaps 2023a) within a 5 km radius of the proposed exploration areas are recorded.

Identified sightings of the following species were recorded within a 30 km radius around the proposed exploration areas:

### Mammals

- *Macropus (Osphranter) rufus* (Red Kangaroo)
- *Macropus fuliginosus* (Western Grey Kangaroo)
- *Pseudomys bolami* (Bolam's Mouse)

### Birds

- *Dromaius novaehollandiae* (Emu)
- *Macropus (Osphranter) robustus* (Euro)
- ***Falco peregrinus Macropus* (Peregrine Falcon) (State rating: Rare)**
- *Cacatua sanguinea gymnopsis* (Little Corella)
- *Eolophus roseicapilla* (Galah)
- *Aquila audax audax* (Wedge-tailed Eagle)
- *Psophodes cristatus* (Chirruping Wedgebill)
- *Milvus migrans affinis* (Black Kite)
- *Sturnus vulgaris vulgaris* (Common Starling)
- ***Biziura lobata menziesi* (Musk Duck) (State rating: Rare)**
- *Epthianura aurifrons* (Orange Chat)
- *Podargus strigoides* (Tawny Frogmouth)
- *Petrochelidon ariel* (Fairy Martin)
- *Coracina maxima* (Ground Cuckooshrike)
- *Manorina flavigula* (Yellow-throated Miner)
- ***Grantiella picta* (Painted Honeyeater) (State rating: Rare)**
- *Cracticus torquatus leucopterus* (Grey Butcherbird).

### Reptiles

- *Tiliqua rugosa* (Sleepy Lizard)
- *Heteronotia binoei* (Bynoe's Gecko).

### Introduced/ pet species

- *Capra hircus* (Goat (Feral Goat))
- *Vulpes vulpes* (Fox (Red Fox)) (NatureMaps 2023b).

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NatureMaps 2023a. Fauna Super Table - Public layer. Accessed on 12 January 2023.

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### Significant fauna

Where possible, using the table below, list any rare or endangered fauna species located or reported to have been in the area that may be impacted by the proposed program. Include known sightings of listed species on a locality plan/map.

A search of the NatureMaps “State Rated Fauna Sites” and “Nationally Rated Fauna Sites” database (as searched on 12 January 2023) indicated that no species have been recorded within the proposed exploration area or within a 5 km buffer zone. Figure 8 outlines the location of the identified significant fauna within a 30 km buffer zone of the proposed exploration area.

Ssp = rated sub-species; R= Rare; V = Vulnerable; CE = critically endangered, E = Endangered

A PMST search identified five (5) birds and one (1) fish that ‘may’ occur in the proposed exploration areas and two (2) birds and one (1) mammal that are ‘likely to’ occur in the proposed exploration areas.

All species are avian and no impact is expected.

Species	Common name	NPW Act rating	EPBC Act rating
<i>Manorina flavigula</i>	Yellow-throated Miner	ssp	ssp
<i>Microeca fascinans</i>	Jacky Winter	ssp	-
<i>Egretta garzetta nigripes</i>	Little Egret	R	-
<i>Falco peregrinus macropus</i>	Peregrine Falcon	R	-
<i>Dromaius novaehollandiae</i>	Emu	ssp	ssp
<i>Hieraaetus morphnoides</i>	Little Eagle	V	-
<i>Grantiella picta</i>	Painted Honeyeater	R	V
<i>Northiella haematogaster (NC)</i>	Bluebonnet (Eastern and Naretha)	ssp	-
<b>The entries below are from a PMST search of the proposed exploration areas with a 5 km radius</b>			
<i>Pedionomus torquatus</i>	Plains-wanderer		CE (may occur)
<i>Calidris ferruginea</i>	Curlew Sandpiper		CE (may occur)
<i>Pezoporus occidentalis</i>	Night Parrot		E (may occur)
<i>Rostratula australis</i>	Australian Painted Snipe		E (may occur)
<i>Grantiella picta</i>	Painted Honeyeater		V (may occur)
<i>Falco hypoleucos</i>	Grey Falcon		V (Likely to occur)
<i>Amytornis modestus</i>	Thick-billed Grasswren		V (Likely to occur)
<i>Nyctophilus corbeni</i>	Corben's Long-eared Bat, South-eastern Long-eared Bat		V (may occur)

Note: NPW Act conservation status includes extinct, endangered, vulnerable, threatened and rare.

EPBC Act listings include extinct, extinct in the wild, critically endangered, endangered, vulnerable and conservation dependent.

### Environmentally sensitive locations

Are there any environmentally sensitive locations within or close to the proposed exploration area (e.g. areas having particular ecological, cultural, scientific, aesthetic or conservation value)? If yes, provide a description of identified environmentally sensitive location(s). Mark these areas on a locality plan to identify any areas of conflict so that access roads or other activities can be planned and located effectively.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Are you likely to impact on the environmentally sensitive area? If yes, detail the likely effects the proposed program may have.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Include a statement concerning whether or not an Aboriginal heritage survey has been conducted by the proponent and if so, the results of the survey.		
An Aboriginal heritage survey has not been conducted for the proposed exploration program. A search of the Central Archive, which includes the Register of Aboriginal Sites and Objects maintained by Aboriginal Affairs and Reconciliation within the Attorney-Generals Department, was undertaken. Results were received on 7 February 2023 and confirmed that there are no registered or recorded sites within the proposed exploration areas.		

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### SECTION D – DESCRIPTION OF PROPOSED EXPLORATION OPERATIONS

Each of the elements listed below must be described only to the extent that they apply to the proposed exploration program.

#### Equipment and personnel requirements

Using the table below, describe the equipment, size and composition of field crews, and proposed working hours/days required to conduct the proposed program.

Type of personnel	Number	Name of contractor company (if applicable)	
Geologists	2	Various consultants/contractor will be utilised.	
Land access/environmental			
Field assistants/technicians	2	Likely to be sourced from Euro Exploration.	
Drilling crew	1	Chief Drilling (RC). Likely Ophir Drilling for DD.	
Site preparation and rehabilitation	1		
Other (provide details)			
Shifts worked per day	Hours worked per day	Days worked per week	
1	7.5	7	
Equipment type	Owner/operator	Description/capacity	Activity/purpose
RC percussion drill	Chief Drilling	Top-drive hydraulic drill mounted on a Landcruiser 6 wheel mounted rig.	Installation of drill holes to provide sub-surface samples for characterisation and assay.
Drillers support vehicle	Chief Drilling	4WD turbo diesel, dual cab, light truck or similar.	Carrying additional supplies
Support vehicles for field staff and geologists	Euro Exploration	4WD Turbo diesel, dual cab, light truck or similar	For access to and from site by the geologists and field staff.
Compact Sandvik DE710 or DE712 track-mounted diamond drill rig.	Ophir Drilling (likely)	Track-mounted core drill rig	Installation of diamond drill holes.
Hanjin CR 10 tracked rod carrier / Jack-up road sloop	Ophir Drilling (likely)	Mercedes Benz truck, 6x4 truck	Support vehicle, carrying additional supplies including rods.
JCB Telehandler with bucket	Chief Drilling or Ophir Drilling	74Hp, 2500kg lift capacity	For clearing pads
JCB Backhoe Loader	Chief Drilling or Ophir Drilling	55kW, Loader capacity 2690kg, max dig depth 4.3m	For digging sumps

Provide any additional information, if required.

In all, up to 3 x 4WD vehicles are expected to be utilised to support the RC drilling. The diamond drilling program will not be undertaken until after completion of the RC works. Paratoo Resources will confirm drilling contractor for DD and advise DEM of details, including equipment and number of personnel.

#### Low impact exploration activities

Will low impact exploration operations be conducted that are not covered by the <a href="#">Generic program for environment protection and rehabilitation – low impact mineral exploration in South Australia</a> , (generic PEPR)? If yes, describe each type of low impact operations proposed.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		

#### Drilling activities

Will exploration drilling activities be conducted? If yes, fill out the below table	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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Tenement	Drilling type	Maximum number of drillholes	Maximum drillhole depth (m)	Maximum number of sumps required	Maximum size of sumps (length x	Average size of each drill pad* (m2) (no excavation required)	Number of sites requiring pad excavation	Average volume (m3) of material to be excavated (excluding sumps)

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				at each site	depth x width (m <sup>3</sup> )			
RL 128 within EL 6599	RC	30	200	1	12.5m <sup>3</sup>	200m <sup>2</sup>	Nil	Nil
	Diamond	5	400	1	12.5m <sup>3</sup>	200m <sup>2</sup>	Nil	Nil
<b>TOTAL</b>		<b>35</b>	<b>8000</b>	<b>35</b>	<b>437.5m<sup>3</sup></b>	<b>7000m<sup>2</sup></b>	<b>Nil</b>	<b>Nil</b>

Total number of drillholes (add each row to calculate the total).	Total metres proposed (maximum number of holes x average depth for each row, then add each row to calculate the total).	Total number of sumps (maximum number of sumps x drillsites for each row, then add each row to calculate the total).	Total volume of sumps (maximum size of sumps x number of sumps for each row, then add each row to calculate the total).	Total area of disturbance (number of holes x average size for each row, then add each row to calculate the total).	Total number of pads requiring excavation (add each row to calculate the total).	Total volume of material to be excavated (number of sites requiring excavation x average volume for each row, then add each row to calculate the total).
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\* The footprint includes all areas of disturbance associated with the drillsite.

### Drillsite preparation

If exploration drilling activities are proposed, describe the methods used to prepare sites, including vegetation clearance requirements, site levelling and digging of sumps.

Sites will be cleared with a small loader or telehandler that is locally sourced.

Larger trees will be avoided where possible (no identified large trees in the areas anyway).

Sites require minimum disturbance since the areas are largely flat and only require pushing of small bushes, shrubs, grasses and rocks in order to create a surf working environment for the drill and geology crews.

Topsoil and vegetation will be excavated and stockpiled separately to one side and respread during later rehabilitation.

Diamond holes are likely to occur on the same pads as RC in order to allow an increased depth penetration where holes are mineralised at the end of hole thereby minimising surface disturbance.

In addition, many sites do not require any surface disturbance at all due to previous past disturbance and clearing by extensive historic mining and exploration activity in the Paratoo copper mine area.

### Drillhole construction and decommissioning

Have the personnel responsible for implementing the proposed program read and understood the Earth Resources Information Sheet M21, <a href="#">Mineral exploration drillholes – general specifications for construction and backfilling?</a>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Describe how drillholes will be constructed, including the casing material to be used, depth of casing, if the casing will be cemented, cementing intervals and the class of driller that will install the casing.		
Only shallow PVC casing to a depth of 2-5m is used for drilling and is later cut and capped below surface during later rehabilitation processes. Cement casing is not anticipated to be required. Appropriately licenced RC and diamond drillers will be utilised.		
When describing drillhole decommissioning requirements, include the materials to be used, stratigraphic intervals where cement plugs will be placed, if the casing will be removed and when decommissioning will occur after drilling is completed.		
Rehabilitation will occur as soon as practicable after drilling and finalised within 6 months of drill hole completion. Shallow PVC casing is cut and capped with cement or PVC plugs below surface during then topsoil spread over the top during later rehabilitation.		

Where confined or artesian conditions are expected, include a schematic diagram demonstrating how drillholes will be constructed and decommissioned

### Costeans and bulk sample disposal pits

Will costeans/bulk sample disposal pits be required for the proposed program? If yes, fill out the table below.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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Tenement	Number of costeans/pits	Size of costean (length x width) (m <sup>2</sup> )	Average depth (m)	Volume excavated (m <sup>3</sup> )	Total volume excavated (m <sup>3</sup> ) (number of costeans/pits x volume)	Total area of disturbance* (length x width) (m <sup>2</sup> )
<b>TOTAL</b>						

Total number of costeans/pits (add each row to

Total volume of material to be excavated (add each row to calculate the total)

Total area of disturbance (number of costeans/pits x area of disturbance for each

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calculate the total).

row, then add each row to calculate the total).

\*Includes storage of excavated material at the site (e.g. topsoil and subsoil segregation).

### Costeans and bulk sample disposal pit preparation

If costeans/bulk sample disposal pits are required, describe site preparation methods, vegetation clearance, and safety and maintenance requirements.

N/A

### Sample management

Describe the size of samples collected (including drilling samples and bulk sampling), collection methods, materials used when collecting the sample, sample disposal methods (including removal of sample bags), safety management and any other sample management requirements at the exploration site (e.g. tarps or matting used to contain cuttings). Include requirements for on-site geological sample management (splitting of archive samples, bag farms, core processing and storage).

For RC drilling, 15-20 kg sample piles for each metre will be lined up along the surface in 20m rows and in addition 1 kg representative samples will be taken from each interval that will be either sent off site to the lab or storage. Piles are later rehabilitated within 6 months of drilling and once assays are received. Diamond core will be stored in core trays and taken off site for logging and sampling.

These processes are currently in discussion with the landowner to ensure the agricultural operations will not be adversely affected by these sampling procedures. Best practice safety procedures will be adopted during the sampling process by Paratoo Resources.

All samples will be removed from site upon completion of the drilling program.

### Access routes to work areas

Will existing tracks require upgrading and/or maintenance? If yes, detail the work required to upgrade/maintain existing tracks.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Some tracks will require minor modification as discussed with the landowner in order to maintain safe road conditions for all geological and drilling personnel. Once track locations are confirmed, Paratoo Resources will advise DEM of the length and width of the tracks, their locations and extent of construction required and a plan for rehabilitation.		
Will access be required across adjoining tenements? If yes, detail the method(s) for gaining access, and if an agreement is in place with all stakeholders. Include the total area of disturbance required (i.e. length (km) and width (m) of tracks) and provide on a locality map.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		
Will access off existing tracks be required? If yes, detail the method(s) for gaining access and if vegetation clearance is required. Include the total area of disturbance (includes drill traverses and seismic lines) required off existing tracks (i.e. length (km) and width (m) of new tracks).	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Only very minor track construction may be necessary, primarily through overgrown vegetation in previously disturbed areas and across existing unformed tracks in order to gain access to drill pads from abundant existing tracks on the property.		

Indicate planned access routes on a locality plan and distinguish between existing and proposed new access tracks and drill lines (including fence lines).

### Campsites, storage and equipment laydown areas

Using the tables below, provide a description of campsites and/or laydown areas required. Indicate the campsite and laydown area on a locality plan.

Campsite details	
Indicate where staff and contractors will be accommodated during the exploration program.	
At present there are two accommodation options that will be utilised by drilling and geology personnel including the nearby Yunta caravan park (and other similar accommodation options) as well as accommodation provided by the landowner (discussions and negotiations in progress).	
What is the maximum number of personnel requiring accommodation?	7
Is a campsite required to be established? If no, no further information is required.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Provide a description and justification of the camp location (e.g. previously cleared areas etc.), and any other relevant information.	
A campsite is not required.	
What will be the total area (ha) of the campsite(s)?	0ha

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What will be the total area (ha) of vegetation clearance for the campsite?		0ha
If vegetation clearance is required, describe the methods used to prepare the site.		
N/A		
Will any excavations be required? If yes, describe the purpose of the excavation and the maximum volume (m <sup>3</sup> ) of material to be excavated.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		
Are the proposed ablution facilities endorsed/approved for use by the Department of Health or local council, where applicable? If no, indicate why.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		
<b>Proposed infrastructure (includes caravans, tents, offices, hydrocarbon and water storage requirements etc)</b>	<b>Quantity</b>	<b>Description/capacity</b>
		N/A

<b>Laydown area details</b>		
Will laydown areas be required? If no, no further information is required.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Will the laydown area(s) be located at the same location as the campsite? If no, has the location(s) been discussed with the landowner?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p>The exact location for the laydown area will be discussed with the landowner.</p> <p>This will likely be on a previously disturbed flat area suitable for the purpose where no surface disturbance is required.</p> <p>Once known and agreed to by the landowner, Paratoo Resources will notify DEM of the location and any proposed clearance requirements.</p>		
What will be the maximum area (ha) required for the laydown area(s)?	0.1 ha	
What will be the total area (ha) of vegetation clearance for the site?	0 ha	
If vegetation clearance is required, describe the methods used to prepare the site.		
N/A		
Will any excavations be required? If yes, describe the purpose of the excavation and volume (m <sup>3</sup> ) of material to be excavated.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		
<b>Proposed infrastructure (includes hydrocarbon and water storage requirements)</b>	<b>Quantity</b>	<b>Description/capacity</b>
Water tank, tool trailer, fuel tank, storage trailer		<p>Water tank will likely be utilised by the DD rig only and will have an expected capacity of 20,000 Litres maximum</p> <p>Fuel tank with an expected capacity of 1,000 Litres</p> <p>Storage and tool trailer – 6 m x 2.2 m (approximate size)</p> <p>Rod trailer – 2.5 m x 3.6 m (approximate size)</p>
Provide a description and justification of the location (e.g. previously cleared areas), and any other relevant information if required.		
As noted above, the location of the laydown area is currently being negotiated with the landowner and will likely be on a previously disturbed flat area suitable for the purpose where no additional disturbance is required. Each contractor		

### Other exploration methods and/or ancillary operations

Are any other proposed exploration methods (e.g. seismic) and/or ancillary exploration operations required? If yes, describe the activity(s), site preparation, vegetation clearance, and safety and maintenance requirements.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		

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### Water supply and management

Will camp and/or drilling water be required? If yes, describe how and where water will be sourced for drilling, track maintenance and camping purposes (e.g. groundwater, surface water, mains). Provide details on the volume of water required and how wastewater or runoff water will be managed.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water will be required for diamond drilling. The former landowner advised that there is a bore with sufficient water located in the central mining area where the drilling will occur that is available for use by Paratoo Resources (well ID 673200404).		
Will surface water and/or mineral drillholes be used as a water source/supply? If yes, indicate if a licence for water extraction/usage is required (refer to relevant Natural Resources Management water allocation plan available on the Department for Environment and Water (DEW) website. If a licence is required and has been obtained please attach a copy. Where a licence has not been obtained, include a statement confirming that a licence will be obtained before the extraction and/or usage of water.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		

### Groundwater and drilling investigation activities

Will any water bores be required and/or water investigation activities (e.g. pump testing, water monitoring sites, water storage, turkey nests/dams) be conducted? If yes, describe the water drilling and investigation activities, including site preparation, vegetation clearance, and safety and maintenance requirements.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		
Indicate if well permits have been obtained and whether or not a water extraction licence is required in accordance with the Landscape South Australia Act 2019. If yes, attach a copy of the permit(s)/licences. If no, provide a statement confirming that permits/licences will be obtained prior to commencement of water investigation activities.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		

### Water affecting activities

Will any water affecting activities, other than drilling a water well, be undertaken (refer to s. 127 of the Landscape South Australia Act 2019)? If yes, attach a copy of the permit. If a permit has not been obtained, provide a statement confirming that a water affecting activity permit(s) will be obtained and provide a description of the site preparation, vegetation clearance, and safety and maintenance requirements.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		

### Management of hazardous materials

Will activities be conducted in areas of known uranium and thorium mineralisation? If yes, attach a Radiation Management Plan and confirmation of endorsement of the plan by the Environment Protection Authority South Australia (EPA).	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Will any other hazardous material be encountered when exploring in the area? If yes, list the types of hazardous materials and provide a management plan on how these materials will be managed.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
There are no hazardous substances known in the area therefore none are anticipated to be encountered.		

### Rehabilitation

Detail all the activities and strategies relating to the remediation of impacts associated with the proposed exploration operations.  Completion of rehabilitation must be achieved within 3 months after the expiry of this PEPR.
All drillholes will be cut and capped beneath the surface, all sumps filled in, drill spoil placed down the wells or in the sumps, rubbish removed and topsoil spread over the disturbed areas to promote vegetation growth from the existing seedback. In the unlikely event a pressured aquifer is encouted, the hole will be abandoned, a van ruth plug inserted and the hole cemented. Access tracks are currently in good condition. However, they may need widening in some places for the safe transport of larger vehicles where overgrown with vegetation. In areas of soft material like calcrete bulldust, a gravel fill may be required for rehabilitation.
State the estimated budget required to rehabilitate impacted sites. \$20,000.

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### Vegetation Clearance

Will any area of cleared native vegetation be unrehabilitated after the authorised period?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If yes, provide a description of the vegetation present in the application area, the extent of the proposed vegetation clearance and the likelihood of the presence of threatened flora. Provide this information on a map.		
N/A		
State the estimated quantum of significant environmental benefit (SEB) to be gained in exchange for the proposed native vegetation clearance and describe how the SEB will be provided.		
N/A		
<b>SECTION E – LEASE CONDITIONS</b>		

### Retention leases

Where the retention lease includes specific conditions that are not environmental outcomes, demonstrate where these have been addressed in the PEPR (if relevant) or demonstrate how otherwise they have or will be complied with.

The drilling will occur on RL 128 within EL 6599.
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Where the terms and conditions of an RL include environmental outcomes, list them (where different) in the table below and complete all sections (ie receptor, potential impacts, control strategies, risk a

### Environmental management – potential impacts/events, outcomes, measurable criteria and monitoring plan

			Likelihood of consequence (LH)				
			1	2	3	4	5
			Rare	Unlikely	Possible	Likely	Almost certain
Severity of consequence (CQ)	A	Insignificant	Low	Low	Low	Low	Low
	B	Minor	Low	Low	Moderate	Moderate	Moderate
	C	Moderate	Moderate	Moderate	High	High	High
	D	Major	High	High	Extreme	Extreme	Extreme
	E	Catastrophic	High	Extreme	Extreme	Extreme	Extreme

#### How to fill out the table

- Based on the description of the environment and exploration operations, identify some potential impacts are applicable to all programs.
- For each applicable potential impact (and corresponding receptor), describe the acceptable level, and achieve the corresponding environmental outcome.
- Conduct an impact assessment to determine if the control strategies address the impact. If there is uncertainty pertaining to the likely effectiveness of the control strategies, the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level.
- For each applicable potential impact, the corresponding outcome and outcome measurement criteria.
- Based on the description of the environment and proposed exploration activities, for each potential impact, describe proposed control and rehabilitation strategies and outcome measurement criteria.

Use the above matrix to conduct an impact assessment for each potential impact.

Impact assessment							Outcomes
Receptor	Potential impacts	Is the potential impact applicable (Yes/No)	Control strategies	Risk assessment			
Lists are not exhaustive.	Lists are not exhaustive.	Some potential impacts are applicable to all programs.	Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to <a href="#">Minerals Regulatory Guidelines MG22</a> for more information.	LH	CQ	Risk	
<b>Stakeholders:</b> <ul style="list-style-type: none"> <li>freehold land owners</li> <li>perpetual lease holders</li> <li>pastoral lease holders</li> <li>Aboriginal land (Anangu Pitjantjatjara Yankunytjatjara and Maralinga Tjarutja lands)</li> <li>Department of Defence</li> <li>state government departments.</li> <li>local government (councils)</li> <li>federal government</li> <li>native title parties.</li> </ul>	<b>Interference to:</b> <ul style="list-style-type: none"> <li>existing or permissible land use (includes loss of income, noise, dust, light and other emissions).</li> <li>buildings, structures, existing tracks or other infrastructure.</li> <li>aesthetic values of an area.</li> </ul> Noncompliance with legislative requirements.	Yes (Applicable to all programs.)	<ul style="list-style-type: none"> <li>New landowner Peter Matthey of Terowie will be contacted prior to the commencement of works, and at the completion of works, to provide regular opportunity to discuss any concerns. He will be contacted during the program to be informed of any changes to the program. He will be provided with Ana Storey's contact details in order to advise of any concerns during the program. All contact will be made either by phone, email or in person.</li> <li>All access / notice requirements as agreed between Mr Matthey and Paratoo Resources are set out in the Land Access and Compensation Agreement dated 28 February 2024. This also includes a complaints resolution management procedure.</li> <li>Ongoing liaison with the landowner prior to, during and following exploration activities will occur.</li> <li>Exploration activities to be carried out with minimal disturbance and areas re-instated to current condition.</li> </ul>	2	B	L	<b>Stakeholders are fully informed and satisfied with the proposed methods used to conduct exploration activities on their land, and all prescribed forms are served and agreements obtained in accordance with the Mining Act.</b>
<b>Stakeholder:</b> DEW	<b>Interference to:</b> <ul style="list-style-type: none"> <li>existing or permissible land use.</li> <li>buildings, structures, existing tracks or other infrastructure.</li> <li>aesthetic values of an area.</li> </ul> Noncompliance with legislative requirements.	No (Applicable to programs located adjacent to or within parks and reserves.)	N/A	n/a	n/a	n/a	<b>For activities located within or adjacent to regional reserves, national, conservation and marine parks only:</b> <ul style="list-style-type: none"> <li>no unauthorised interference with park management activities.</li> </ul>

		are applicable to all programs.	level. – refer to Minerals Regulatory Guidelines MG22 for more information.	or consequence			
				LH	CQ	Risk	
Flora and fauna and their habitats; includes Commonwealth and state scheduled species.	Loss/modification of native vegetation and associated habitats through the clearance of vegetation.	Yes (Applicable to exploration programs located within or impacting on native vegetation.)	<ul style="list-style-type: none"> <li>• Include EPEPR and ID of listed species (including pictures) in driller's information pack and discuss with all field crew as part of site induction.</li> <li>• EPEPR and ID of listed species, including pictures, to be kept on site during the exploration program.</li> <li>• The contractor responsible for clearing the sites will be provided with the drillers pack and induction.</li> <li>• Exploration activities to be carried out with minimal disturbance with progressive rehabilitation to be undertaken and areas re-instated to original conditions through the course of the program.</li> <li>• Controls will be implemented to reduce fire danger and in the event of a fire, Yunta Country Fire Service (08) 8650 5158 that will be the point of contact.</li> <li>• Existing cleared areas will be utilised wherever possible.</li> <li>• Vegetation disturbance will be planned out as part of the program preparation to ensure only the necessary vegetation for drill pads, tracks or drill holes will be disturbed. Any unnecessary vegetation disturbance will be avoided. As stated in the Native Vegetation Section, the majority of the proposed drill holes are located on areas that have been previously disturbed by exploration or historic mining activities. Paratoo Resources will adhere to the standard state guidelines and avoiding all unnecessary clearing of vegetation particularly larger trees.</li> <li>• Access to the drill sites will be via existing tracks wherever possible, with minor modifications required. New tracks may need to be constructed in previously disturbed areas in order to gain access to drill pads from the numerous existing tracks on the property. Modified and new tracks will be designed to minimise impacts to vegetation / vegetation clearance.</li> <li>• Where possible, trimming of vegetation will be the preferred method of managing vegetation as opposed to vegetation removal. Information collected during the site inspection will enable minor adjustments of the location of tracks and the orientation of pads to minimise vegetation clearance and avoid mature trees/vegetation.</li> <li>• A raise blade will be available on site and utilised for the site clearing works.</li> <li>• The blade will be kept above ground level to avoid displacing soil and rootstock.</li> <li>• Drill pad size will be minimised according to the local topography, whilst maintaining a safe working environment. Drill pads will generally be approximately 20 x 10 metres.</li> <li>• Scouting for nests will be undertaken once tracks and sites are finalised.</li> </ul>	2	B	L	<p><b>No permanent loss/modification of native flora and fauna populations and their habitats through:</b></p> <ul style="list-style-type: none"> <li>• clearance</li> <li>• fire</li> <li>• other</li> </ul> <p><b>unless prior approval under the relevant legislation is obtained.</b></p>
All flora and fauna, especially listed species.	Loss/modification of the environment (biological, social and economic) through the introduction of weeds and pathogens.	Yes (Applicable to all programs.)	<ul style="list-style-type: none"> <li>• Interrogate relevant SA Government GIS databases to determine presence and extent of current weed infestation.</li> <li>• There are no weeds on site (pers comms Andrew Bailey, the landowner); regardless, Paratoo Resources will work the landowner to ensure appropriate measures are in place to ensure no weeds are brought onto the land. This will include making observations of any weed presence and distribution during the reconnaissance phase.</li> <li>• All new vehicles entering the program area, or vehicles re-entering the program area after travelling on other unsealed roads, will be cleaned first and visually inspected (personnel to be made aware of various vehicle washing facility locations). A register of those inspections will be</li> </ul>	2	B	L	<p><b>No introduction of new species of weeds and plant pathogens, nor increase in abundance of existing weeds species.</b></p>

		are applicable to all programs.	level. – refer to <a href="#">Minerals Regulatory Guidelines MG22</a> for more information.	or consequence			
				LH	CQ	Risk	
All fauna	Entrapment of fauna through open drillholes and excavations.	Yes (Applicable to exploration programs that involve drilling and/or require excavations.)	<ul style="list-style-type: none"> <li>All drillholes will be capped upon completion.</li> <li>When rehabilitated, the PVC casing on all drill holes will be removed or cut-off below the ground and backfilled in line with DEM Information Sheet M21 – Mineral Exploration Drill holes - General Specifications for Construction and Backfilling. Should casing need to be left temporarily above ground (e.g. for hole re-entry, down-hole survey, monitoring water levels etc.), the casing will be capped immediately, and the cutting and rehabilitation will be completed when the hole is no longer required.</li> <li>Sumps will be constructed with a sloping ingress/egress to prevent fauna from falling into the sumps. Windrows will also be established around the sumps to deter fauna from congregating around the sumps and potentially falling in.</li> <li>Hi-vis fencing will be installed around the sumps to further reduce the risk of fauna impacts.</li> </ul>	2	B	L	<b>No fauna traps created as a result of exploration activities.</b>
Aboriginal heritage sites	Disturbance to Aboriginal heritage.	Yes (Applicable to all programs.)	<ul style="list-style-type: none"> <li>A search of the Central Archive maintained by AGD-AAR has confirmed that there are no registered/recorded sites within the proposed exploration areas. This was expected given the historic disturbance of the land. Search results were received on 7 February 2023.</li> <li>Vehicle movements will be kept to existing tracks and disturbed areas wherever possible. Modification to existing tracks will occur only once a visual inspection on foot has occurred to reduce risk of disturbing any as-yet unidentified sites, objects or remains.</li> <li>During the induction process, all personnel will be reminded that sites may exist and the importance of not disturbing any sites.</li> <li>In the event of discovery of a potential Aboriginal site, object or remains, all works will stop in the immediate vicinity; the area will be clearly marked and isolated from other work, recorded on appropriate registers, and relevant authorities and/or stakeholders will be notified. Work will recommence only after authorisation has been received from the Traditional Owners.</li> </ul> <p>-----</p> <p>Location SA Map viewer. Accessed on 2 November 2022. SARIG. Search of the SARIG database viewed on 2 November 2022</p>	1	B	L	<b>No disturbance to Aboriginal artefacts or sites of significance unless prior approval under the relevant legislation is obtained.</b>
European heritage sites and sites of scientific and environmental significance	Disturbance to European heritage sites and sites of scientific and environmental significance (e.g. geological monuments, fossil reserves).	No (Applicable to exploration programs located close to or within European heritage sites and sites of scientific and environmental significance.)	<ul style="list-style-type: none"> <li>A search of the Heritage SA database has shown the nearest registered place is approximately 35 km to the south-west of the proposed exploration areas.</li> <li>A search of the geological monuments on SARIG has shown there are no geological monuments within the proposed exploration areas. The nearest geological monument is approximately 20 km to the south-east of the proposed exploration areas.</li> <li>In the event of discovery of a potential European heritage artefact all works will stop in the immediate vicinity; the area will be clearly marked and isolated from other work and relevant authorities and/or stakeholders will be notified. Work to recommence only after authorisation has been received.</li> </ul> <p>-----</p> <p>Location SA Map viewer. Accessed on 2 November 2022. SARIG. Search of the SARIG database viewed on 2 November 2022</p>	1	B	L	<b>No disturbance to European heritage sites and to sites of scientific and environmental significance unless prior approval under the relevant legislation is obtained.</b>

		are applicable to all programs.	level. – refer to Minerals Regulatory Guidelines MG22 for more information.	or consequence			
				LH	CQ	Risk	
Soil/vegetation/fauna	Soil/vegetation contamination (e.g. hydrocarbons, rubbish, drill samples/cuttings, ablutions, other sources).	Yes (Applicable to all programs.)	<ul style="list-style-type: none"> <li>All vehicles will be checked for oil and fuel leak prior to site mobilisation.</li> <li>Hydrocarbon spills will be contained immediately, collected, bagged and disposed of in an approved bioremediation facility.</li> <li>Any spill (or other reportable) incidents will be reported to DEM via its Incident Reporting Procedure within 24 hours after Paratoo Resources become aware of the reportable incident. A final and comprehensive report of the incident will be provided to the Minister for Energy and Mining within one month of the incident.</li> <li>In the event of a spill, a site inspection will be undertaken and corrective actions implemented before project sign-off is completed.</li> <li>During rehabilitation, the drill spoils will be placed in the sumps or down the wells.</li> <li>Pre-start checks (safety and environment) will be undertaken on equipment to identify any leaks</li> <li>Vehicles and drill rigs will have a spill kit on board in the event of a spill. All operators will be trained in the use of the spill kits</li> <li>Drill cuttings will be used to backfill completed drill holes and not left on surface in-situ.</li> <li>Sample bags will be removed once logging and sampling have been completed.</li> <li>Rubbish bags and bins will located at various areas at the rig. All rubbish will be placed securely, removed daily and disposed of at an appropriate waste facility, either at Yunta (for small quantities of domestic waste), or to the Peterborough Waste Management and Transfer Station (for larger quantities of waste and for hazardous waste).</li> <li>All bulk diesel or other hydrocarbon/chemical storage will be banded in accordance with EPA guidelines.</li> <li>A portable lavatory will be provided by the drillers for use onsite.</li> </ul>	2	B	L	<b>No contamination of soil and vegetation as a result of exploration activities.</b>
Soil	Disturbance to the soil profile and topography, and accelerated soil erosion caused by exploration activities (e.g. construction of sumps, new tracks and drill pads; ground compaction at laydown areas and camps).	Yes (Applicable to all programs.)	<ul style="list-style-type: none"> <li>Consultation and agreement of actions and remediation with the landowner will be undertaken prior to the commencement of work.</li> <li>Exploration activities will be carried out with minimal disturbance to soil profile and topography.</li> <li>All drill holes will be rehabilitated within 3 months of the expiry of this PEPR, unless otherwise authorised in accordance with Minerals Regulatory Guideline MG22.</li> <li>The original contours will be re-established as part of the rehabilitation process. Soil pushed aside to establish level drill pads and any windrows constructed as part of the drilling or for the establishment of sumps will be reinstated as near as possible to the original contour profile of the terrain.</li> <li>On completion of the drilling program, disturbed areas (access tracks and pad areas) will be scarified (e.g. topsoil) to re-establish the pre-existing conditions and promote regeneration of vegetation.</li> <li>Topsoil will be stored separately from subsoil.</li> <li>Exploration blade work will be kept to a necessary minimum; rolling will be the preferred method rather than grading. If blade work is required, the blade will be kept above ground level to avoid displacing soil and rootstock.</li> <li>Erosion will be minimised by building small berms along down-incline</li> </ul>	3	A	L	<b>Where soil disturbance occurs as a result of exploration activities, ensure that:</b> <ul style="list-style-type: none"> <li>topsoil quality and quantity is maintained</li> <li>the soil profile and topography is reinstated to original conditions</li> <li>there is no accelerated soil erosion.</li> </ul>

		are applicable to all programs.	level. – refer to <a href="#">Minerals Regulatory Guidelines MG22</a> for more information.	or consequence			
				LH	CQ	Risk	
			<ul style="list-style-type: none"> <li>In areas of soft material like calcrete bulldust, these will be raked and/or graded first and then sprayed with water.</li> <li>Gravel fill may be required for the rehabilitation of access tracks if the raking/grading and water spraying does not work. Gravel will be sourced from the landowner to reduce the risk of introducing weeds onto the property.</li> </ul>				
Surface water	Alteration to surface water – interference to surface drainage.	No (Applicable to exploration programs that are likely to impact on surface drainage channels.)	N/A	n/a	n/a	n/a	<b>No permanent modification to hydrological features caused by exploration activities without obtaining a water affecting permit from the relevant Landscape Board (under Landscapes Act SA 2019).</b>
Groundwater/aquifer	Groundwater contamination: <ul style="list-style-type: none"> <li>contamination of aquifers through entry of pollutants from the surface</li> <li>interconnection between aquifers</li> <li>degradation of natural hydrostatic conditions (maintain pre-drilling pressures).</li> </ul>	Yes (Applicable to all exploration programs that may intersect groundwater.)	<ul style="list-style-type: none"> <li>No fuels to be stored on site, other than on support trucks in approved fuel tanks for the purpose of supplying fuel for the drill rig and support vehicles. No chemicals to be stored on site other than approved standard drilling additives (muds, polymers etc), that will be stored in appropriate containers, with Safety Data Sheets (SDS) available on site.</li> <li>All fuel sites will be bunded in accordance with EPA guidelines.</li> <li>Sumps will be constructed adjacent to each drill hole. Nominal sump dimensions are approximately 2.5 x 2.5 x 2 m, subject to topography and ground conditions. All sumps will be backfilled to restore the area to its original condition once contained groundwater has evaporated</li> <li>Refuelling (if necessary) will be undertaken with spill controls in place – e.g. spill mats (vehicles and drill rigs will have a spill kit on board) and all operators will be trained in the use of the spill kits.</li> <li>Hydrocarbon spills will be contained immediately, collected, bagged and disposed of in an approved bioremediation facility.</li> <li>Any spill (or other reportable) incidents will be reported to DEM via its Incident Reporting Procedure within 24 hours after Paratoo Resources become aware of the reportable incident. A final and comprehensive report of the incident will be provided to the Minister for Energy and Mining within one month of the incident.</li> <li>In the event of a spill, a site inspection will be undertaken and corrective actions implemented before project sign-off is completed</li> <li>During rehabilitation, the drill spoil will be placed down the wells or in the sumps.</li> <li>Drill holes that encounter groundwater will have the groundwater level recorded and then left to stand for 15 minutes before down hole measurements are repeated to determine if the water level is static, rising or falling.</li> <li>Rehabilitation of drill holes that encounter aquifers will be managed as per the following: <ul style="list-style-type: none"> <li>Drill holes that penetrate a single unconfined aquifer, will be backfilled upon completion with drill cuttings or, clean fill containing clay as per DEM Information Sheet M21. Cement grouting will be used when groundwater reaches a nominal 5 m below ground level to limit the potential for artesian groundwater flows, except where conditions preclude the use of cement (for example the presence of calcrete in the upper soil strata).</li> </ul> </li> </ul>	2	B	L	<b>Drillholes restored to controlling geological conditions that existed before the hole was drilled or, where it is intended to re-enter the hole, the hole must be completed with casing of adequate strength and the casing cemented so that all aquifers are isolated to prevent the movement of any fluids behind the casing.</b>

		are applicable to all programs.	level. – refer to Minerals Regulatory Guidelines MG22 for more information.	or consequence			
				LH	CQ	Risk	
			on the thickness of the aquifer and aquifer pressure. The plug should extend through the aquifer into the confining bed above, with a total minimum length of 20 m of grout. For an intermediate aquifer the plug should be emplaced 15 m below the aquifer and extend upwards through the aquifer to a distance of 15 m above the aquifer. Generally a minimum of 20 m of cement should be positioned between aquifers. Shallow holes (<200 m) can be backfilled from the bottom back to the surface using grout.				
Soil/vegetation/fauna	Discharge of groundwater into the surrounding environment.	Yes (Applicable to all exploration programs that may intersect groundwater or where activities require the discharge of groundwater into the surrounding environment.)	<ul style="list-style-type: none"> <li>Sumps will be constructed adjacent to each drill hole. Nominal sump dimensions are 2.5 x 2.5 x 2 m, subject to topography and ground conditions. All sumps will be backfilled to restore the area as near as possible to its original condition once contained potentially saline groundwater has evaporated.</li> <li>If additional groundwater is encountered during drilling, drilling may stop to allow for the construction of additional sumps as necessary to control groundwater within the confines of the drill pad.</li> <li>If there is uncontrolled discharge of groundwater that may reach the surrounding environment small diversion or containment bunds will be constructed to keep the groundwater within the confines of the drill pad.</li> <li>Should a pressurised aquifer be intersected, the RC drill hole will be shut down, a van ruth plug inserted into the hole and the hole cemented.</li> </ul>	3	A	L	<b>No discharge of groundwater outside of the exploration site (e.g. drillsite) into the surrounding environment and no discharge of water into a watercourse, unless prior approval under the relevant legislation is obtained.</b>
Groundwater users	Interference to existing water users when extracting water from existing dams, water bores or mineral drillholes.	No (Applicable to all exploration programs that may require the use of water from existing dams, water bores or mineral drillholes.)	<ul style="list-style-type: none"> <li>Water required for diamond drilling will be supplied by the landowner from a bore on the property, located nearby the proposed exploration area.</li> <li>No other groundwater users will be impacted.</li> </ul>	1	A	L	<b>No public nuisance impacts resulting from the extraction of water for exploration purposes, unless prior approval under the relevant legislation is obtained.</b>
Soil/vegetation/fauna	Degradation of rehabilitated access tracks caused by third party access (includes previously closed and rehabilitated access tracks).	Yes (Applicable to exploration programs that create new access tracks.)	<ul style="list-style-type: none"> <li>During drilling activities, signage and barricades will be erected in work areas to notify unauthorised personnel of 'no-go' zones</li> <li>The property gate will be locked at the main road</li> <li>Where practicable, the start of new access tracks coming off existing tracks will be doglegged and blocked at the entrance to reduce visibility and discourage third party access</li> </ul>	2	B	L	<b>Rehabilitated access tracks remain permanently closed, unless prior approval under the relevant legislation is obtained.</b>
Community/landowners	Damage to infrastructure and loss of income through fire.	Yes (Applicable to all programs.)	<ul style="list-style-type: none"> <li>Comply with all relevant fire restrictions and safeguards in the conduct of exploration activities</li> <li>Plant and equipment will be serviced and maintained as per manufacturers instructions</li> <li>Fire extinguishers will be kept on all drilling sites</li> <li>Weather warnings will be reviewed prior to the start of each day during a drilling program.</li> <li>If there is a severe weather warning, or existing fire in the area, the program will be delayed. In the case of forecast Extreme or Catastrophic Fire Danger limitations in activities will be guided by the authorities at Yunta and the landowner's requirements.</li> </ul>	2	B	L	<b>No loss of infrastructure or income through fire as a result of exploration activities.</b>

		are applicable to all programs.	level. – refer to <a href="#">Minerals Regulatory Guidelines MG22</a> for more information.	or consequence			
				LH	CQ	Risk	
			<p>protect personnel, land users, the public and animals from dangers to health and safety arising from exploration activities</p> <ul style="list-style-type: none"> <li>• Toolbox meetings for drilling activities will include the health and safety risks that are posed by exploration drilling</li> <li>• Cones and signage will be at place at the entry to the drill pad to stop unauthorised personnel</li> <li>• During drilling activities signage and barricades will be erected in work areas to notify unauthorised personnel of 'no-go' zones</li> <li>• Comply with all relevant fire restrictions and safeguards in the conduct of exploration activities</li> <li>• Where practical the start of new access tracks coming off existing tracks will be doglegged and blocked at the entrance to reduce visibility and discourage third party access</li> <li>• Open excavations will comply with SafeWork SA requirements</li> <li>• All drill holes will be rehabilitated within 3 months of expiry of this PEPR and in accordance with Minerals Regulatory Guideline MG22, unless otherwise authorised</li> </ul>				<b>reasonably prevented by the licensee.</b>
General public, employees, contractors and the environment	<p>Contamination of the environment when exploring for known uranium and thorium deposits.</p> <p>Public and employee/contractor exposure to low level radiation.</p>	No (Applicable to exploration programs located within known uranium or thorium deposits.)	N/A				<b>No increase in background radiation levels, and employee/contractor exposure levels during the exploration program are within safe limits.</b>
Other (if applicable)							

\* Uncontrolled fires = fires that escape outside of the work area (e.g. drillsite).

† Properties = freehold (cropping and grazing land); perpetual/pastoral lease land; council land; regional reserves; national, conservation and marine parks; Aboriginal land; Commonwealth land etc.

## SECTION G - OPERATOR CAPABILITY

Provide information demonstrating that the tenement holder and operator (where applicable) has the capability to conduct the program in a manner that consistently ensures ongoing achievement of the environmental outcomes. This may be demonstrated within the PEPR by providing an overview of the following:

- Manuals or standard operating procedures that outline the safe and environmentally sound operation of all critical operations associated with the exploration program that ensure compliance with the PEPR.
- Systems in place to monitor, audit and assess compliance against the criteria approved in the PEPR.
- Systems in place to identify and report any noncompliance with regulatory requirements or relevant environmental outcomes (e.g. measures in place to report incidents in accordance with regulation 79(3)).
- Practices and procedures in place to provide appropriate communication of regulatory requirements to employees and contractors (e.g. induction programs).
- Practices and procedures in place to respond to, and communicate with landowners and external parties on the proposed program and compliance matters (e.g. complaints)

Ana Storey of Paratoo Resources has extensive experience as an Exploration Manager across . She has a degree in geology from Monash University and more than 20 years experience in greenfields exploration and environmental project management.

As a new company, Paratoo Resources is in the process of developing a range of policies and procedures such as:

- A Community Engagement Plan, including (but not limited to):
  - Project overview and existing environment
  - Engagement objectives
  - Communities and stakeholders
  - Stakeholder groups
  - Engagement and communication methods
  - Complaints management
  - Issues/Risks and mitigations
- An Emergency Response Plan, including (but not limited to):
  - Key internal and external contact details
  - Site personnel responsibilities in the event of an emergency
  - Actions on alerts
  - A site map detailing emergency muster locations, fire extinguishers, etc
  - General emergency procedures (e.g. fire; storm events; flooding; structural failure; chemical emergency; power failure; medical emergency; fire prevention etc)
- HSEC Management Plan (including but not limited to):
  - Incorporating safety, environment , community, sustainability policies/requirements
  - Journey management
  - SWMS
- OHS policies including (but not limited to):
  - Communications (internal and external)
  - Training
  - Compliance monitoring, review and reporting

These will be in place prior to the commencement of operations. Onsite personnel will also comply with the established policies and procedures of their respective employers, being Chief Drilling and Euro Exploration (and potentially Ophir Drilling for the DD program). These will include an incident reporting system and induction procedures.

## SECTION H –ADDITIONAL INFORMATION

List any other supporting information and/or documents submitted with the application, including land access approvals/permits required to conduct the proposed exploration program.

The landowner and Paratoo Resources have executed a Land Access and Compensation Agreement in lieu of a 42 day Notice of Entry form. A Form 21D has been submitted to the Mining Registrar.

**SECTION I – PHOTOS**

Include photographs in this section:

- that have been obtained during site visits
- that help describe relevant environmental and operational aspects in the PEPR.

*To insert photos, copy and paste the photo into the template below. Resize photos to fit page width. Ensure that all information about each photo is completed and refer to the photo number in the relevant section of the PEPR.*

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Google Earth	15/1/2023	Photo 1	343450	6383045	54	Paratoo aerial photo



Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Paratoo Project	August 2012	Photo 2	343,120	6,380,120	54	Paratoo looking north



Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Paratoo Project	August 2012	Photo 3	342,980	6,383,100	54	Paratoo North Waste Dump



## Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Paratoo Mine Site	August 2012	Photo 4	343,320	6,382,800	54	Southern workings cross cut east wall, south end.



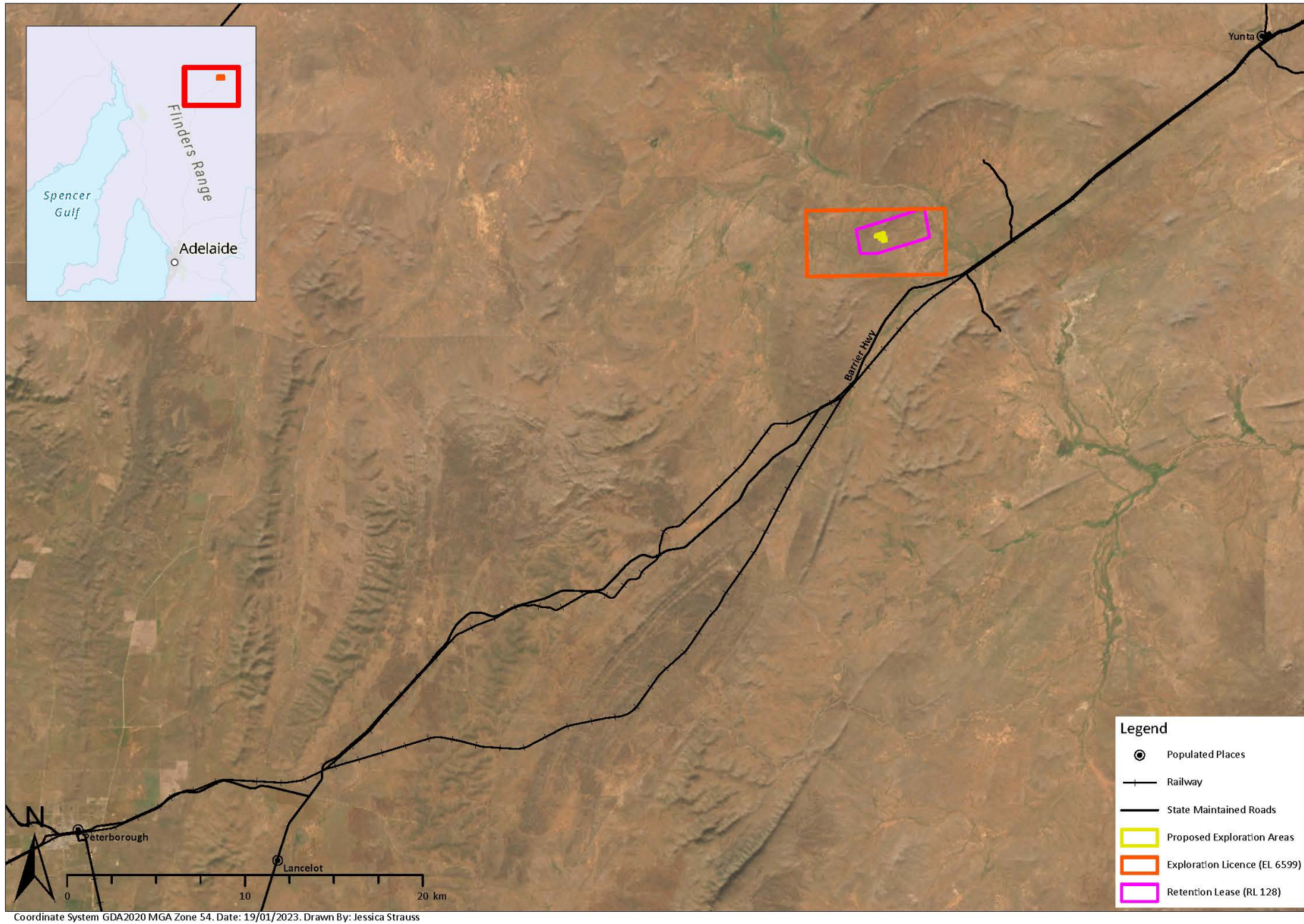
### SECTION J – MAPS

Provide a map(s) showing the following information that is located adjacent to or within the proposed area of operations, where applicable:

- tenement boundaries,
- cadastral information,
- existing surface contours,
- existing vegetation,
- location of the proposed exploration operations (includes drillholes, existing and new access tracks, drill traverses, campsites, laydown areas and other applicable information) and/or the target exploration area(s),
- location of existing ephemeral and permanent rivers, creeks, swamps, streams or watercourses and water management structures,
- location of towns, houses and homesteads, existing roads, rails, fences, transmission lines, buildings, dams and pipelines
- known sightings of listed species,
- location and extent of all environmentally sensitive areas,
- any relevant land use types (e.g. parks and reserves, Aboriginal freehold land, Woomera Prohibited Area).

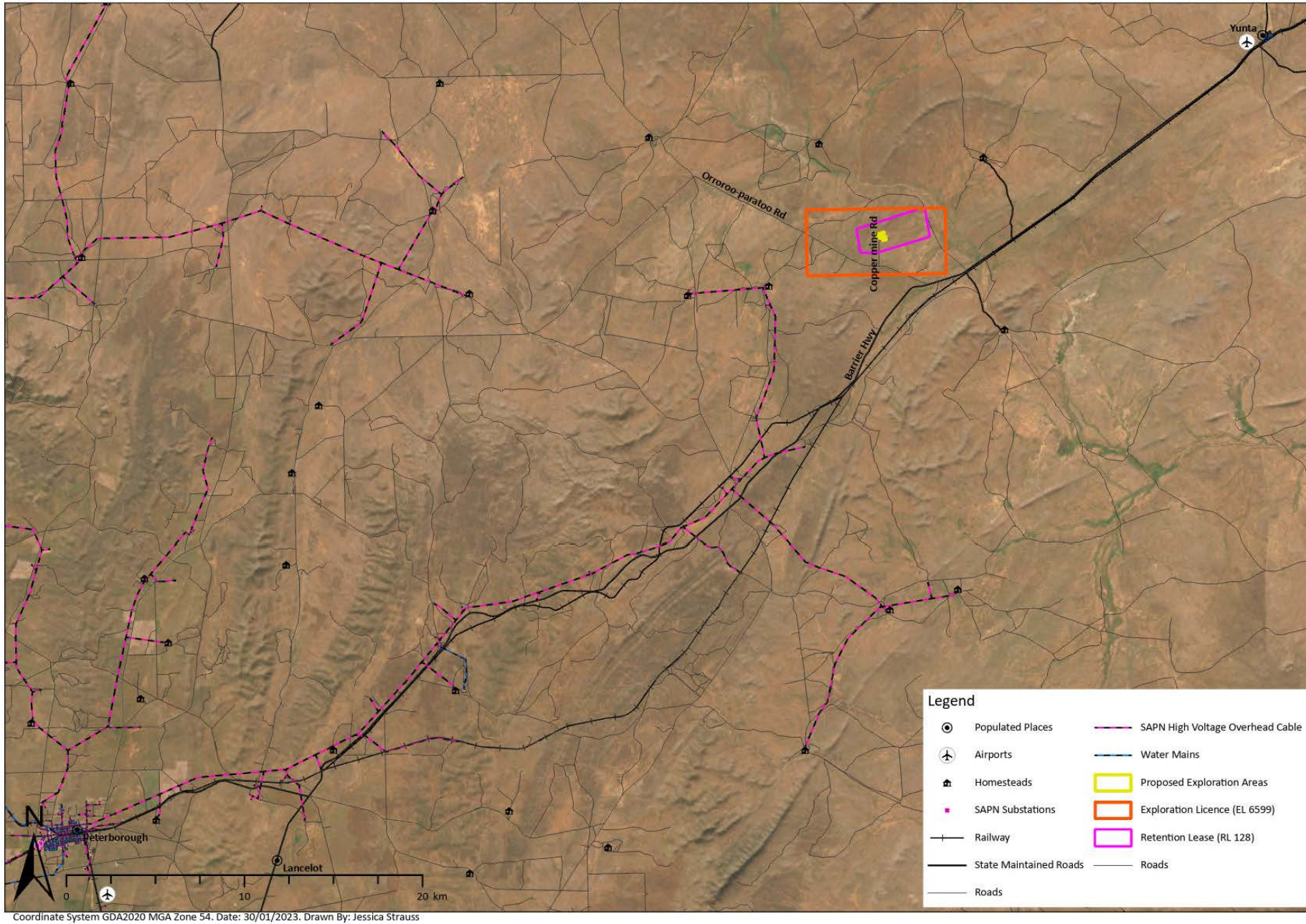
All maps and sections must conform to the standards outlined in the Exploration PEPR Terms of Reference.

Exploration PEPR application – 12-month period



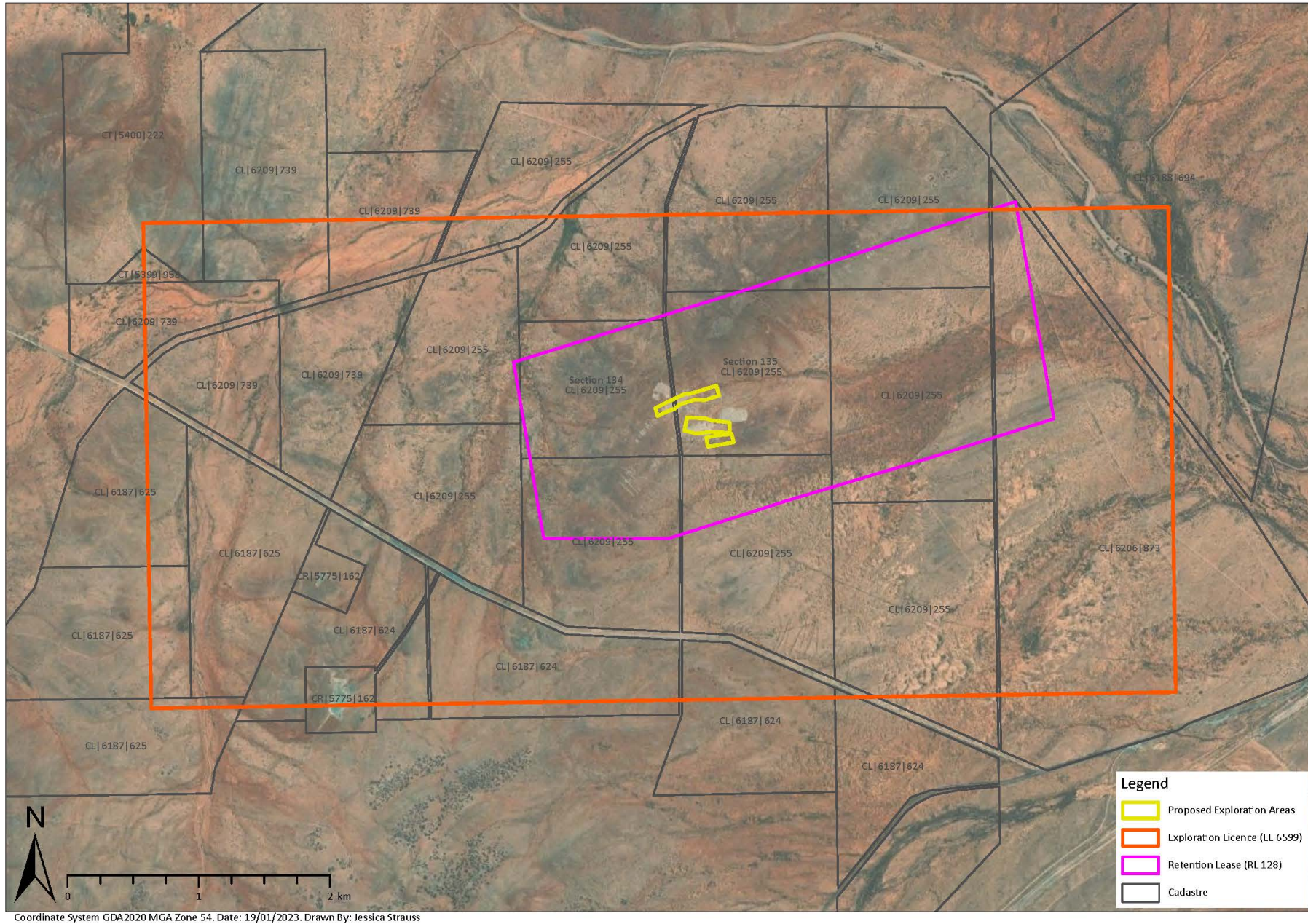
**Figure 1: Proposed Exploration Area**  
12-month Exploration PEPR template – January 2021

Exploration PEPR application – 12-month period



**Figure 2: Infrastructure**  
12-month Exploration PEPR template – January 2021

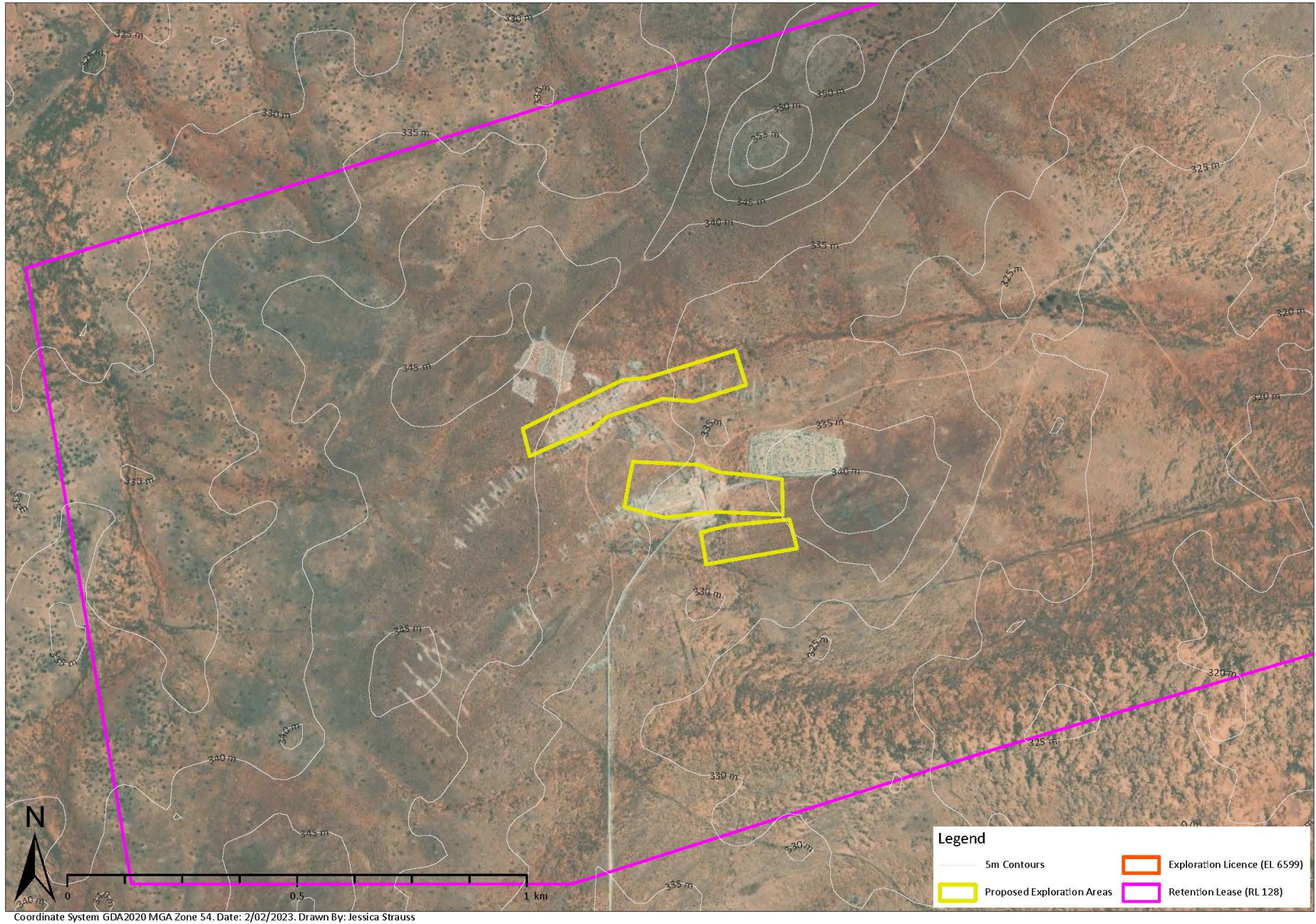
### Exploration PEPR application – 12-month period



**Figure 3: Cadastre**

12-month Exploration PEPR template – January 2021

# Exploration PEPR application – 12-month period



**Figure 4: Contours**

12-month Exploration PEPR template – January 2021

Exploration PEPR application – 12-month period

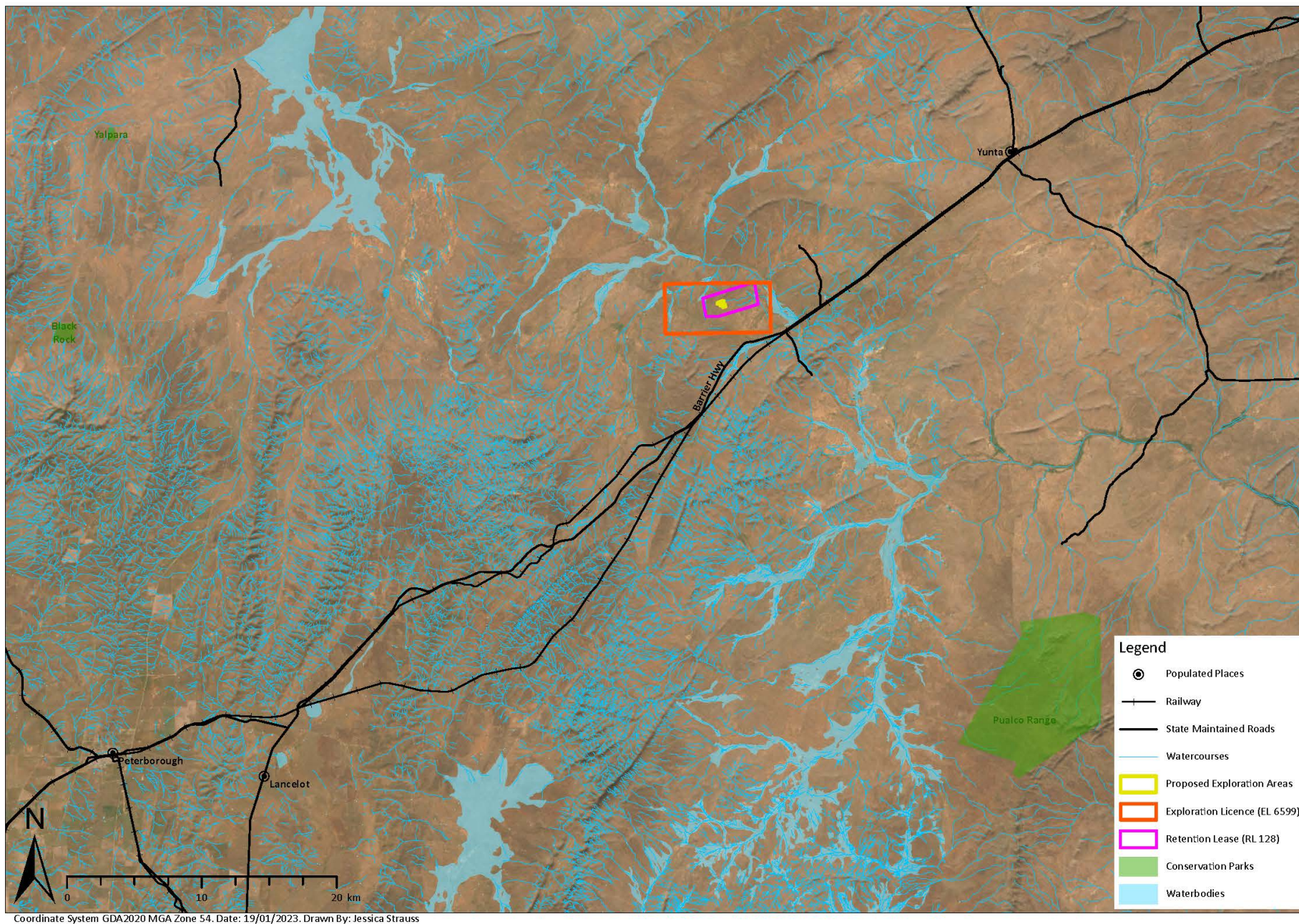


Figure 5: Waterbodies, Water Courses and Environmentally Sensitive Locations  
12-month Exploration PEPR template – January 2021

Exploration PEPR application – 12-month period

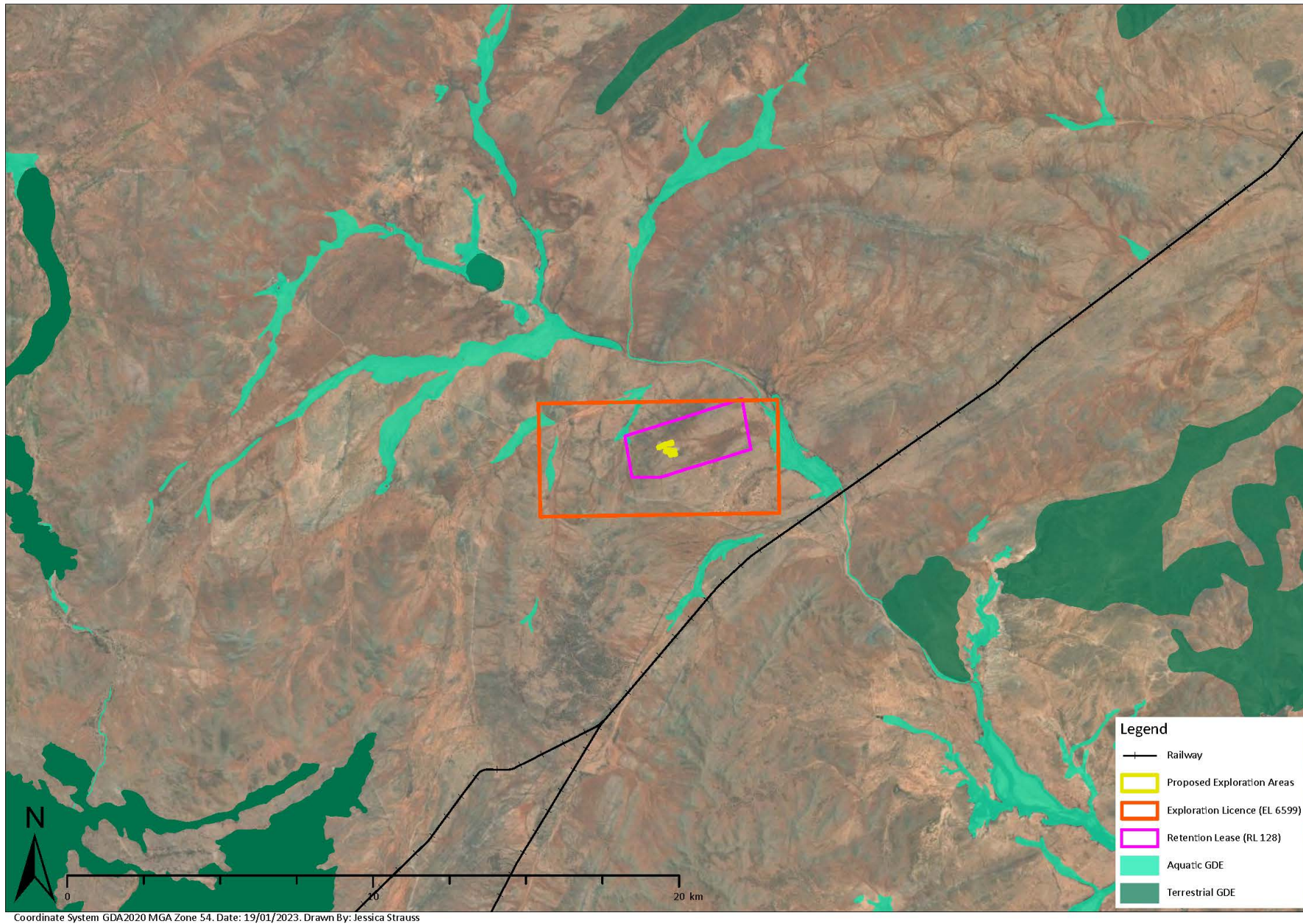
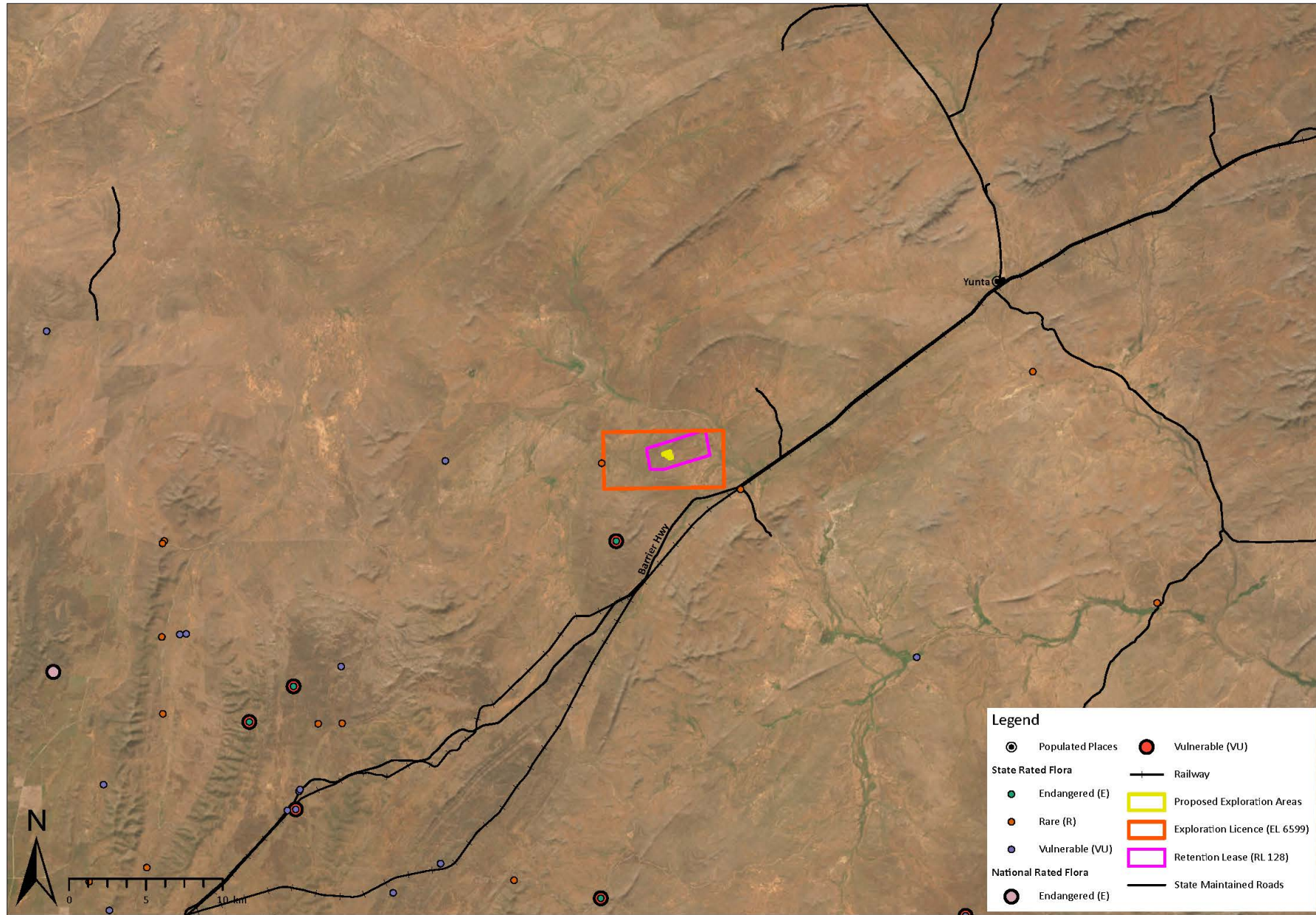


Figure 6: Groundwater dependent ecosystems (GDE)

Exploration PEPR application – 12-month period

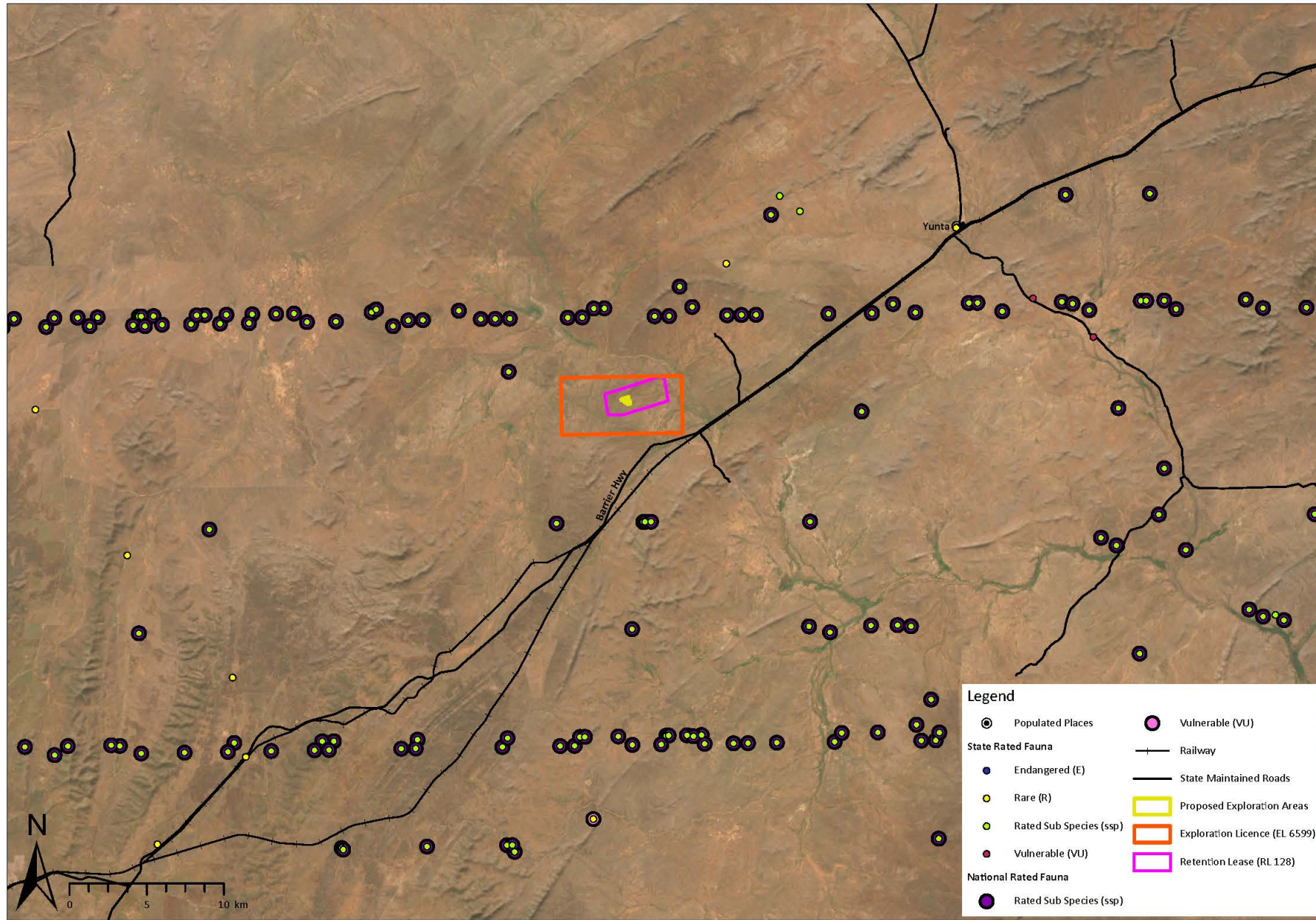


Coordinate System GDA2020 MGA Zone 54. Date: 19/01/2023. Drawn By: Jessica Strauss

Figure 7: Rated Flora Species

12-month Exploration PEPR template – January 2021

Exploration PEPR application – 12-month period



**Figure 8: RATED FAUNA SPECIES**  
12-month Exploration PEPR template – January 2021

## SECTION K – PUBLIC RELEASE

PEPR documents will be registered on the mining register and publicly released in full without the need to request consent from the tenement holder(s). Ultimately, it is the applicant's responsibility to ensure that confidential, or commercially sensitive, information is not included within the PEPR application.

## SECTION L – SUBMISSION OF THE APPLICATION

An application for an Exploration PEPR or PEPR review, must be submitted in the following form, unless otherwise specified by the Director of Mines or an authorised officer:

- an electronic version of the PEPR must be submitted using the exploration PEPR template(s) provided on the DEM Minerals website,
- the electronic version must be submitted online through the DEM Minerals website using the exploration PEPR submission form,
- the electronic version must be submitted in one single Acrobat PDF file, and
- Microsoft Word-compatible files must be submitted if requested by the Director of Mines (or delegate), or other authorised officers.