Doc Ref: EPEPR2023-047 2024D021843

Government of South Australia
Department for Energy and Mining

5 June 2024

Mathew Perrot
Exploration Manager
Indiana Resources Limited
Level 2, 50 Kings Park Road
WEST PERTH WA 6005

mathew.perrot@indianaresources.com.au

Dear Mr Perrot,

Approval Notification - Exploration Program for Environment Protection and Rehabilitation (EPEPR2023-047) EL 5786, EL 5989, EL 5991, EL 5992, EL 6186, EL 6256, EL 6570, EL 6575, EL 6576, EL 6600, EL 6667, EL 6688

The program for EL 5786, EL 5989, EL 5991, EL 5992, EL 6186, EL 6256, EL 6570, EL 6575, EL 6576, EL 6600, EL 6667, EL 6688, final version submitted on 30 May 2024 to conduct Auger, RAB, AC, RC and Diamond drilling at Tarcoola, has been approved in accordance with Section 70B(5) of the *Mining Act, 1971 (the Act)*.

In accordance with section 70B(7a)(b) 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 EPEPR.
2. The approved EPEPR 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 licensee must review the EPEPR on request of the Minister’s Delegate within a time specified in the request and submit the revised EPEPR for approval.
5. As the operator for the approved EPEPR 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 EPEPR.
6. In accordance with regulation 78 of the *Mining Regulations 2020* and Terms of Reference 012 (TOR 012), the licensee 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).

8. The EPEPR is approved for the term of Exploration Licence(s): EL 5786, EL 5989, EL 5991, EL 5992, EL 6186, EL 6256, EL 6570, EL 6575, EL 6576, EL 6600, EL 6667, EL 6688.

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 licence conditions. In granting the approval, the EPEPR and your capacity to undertake the proposed activities have been considered. However, responsibility for compliance with the Act and the licence conditions, remains at all times with the licensee.

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.

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/.

Proposed changes to exploration operations stated in the approved EPEPR 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 EPEPR 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 contact David Schubert on 8429 0469 or Simon Constable on 8429 2516 or email DEM.exploration@sa.gov.au.

Yours sincerely

Simon Constable
GENERAL MANAGER MINERAL EXPLORATION 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

Notice of Approval Conditions – EPEPR2023-047

In accordance with section 70B(7a)(b) of the Act, the approved program is subject to the following conditions:

1. Prior to conducting exploration operations a Program Notification must be submitted to the Department for Energy and Mining in accordance with the approved PEPR, 21 days prior to commencement of each new exploration program (maximum period of twelve months). Forward all Program Notifications to Mineral Exploration Branch – Attn: Exploration Regulation, email: DEM.exploration@sa.gov.au

APPLICATION Mining Act 1971 and Mining Regulations 2020

EXPLORATION PROGRAM FOR ENVIRONMENT PROTECTION AND REHABILITATION (PEPR)

Government of South Australia
Department for Energy and Mining

USE THIS TEMPLATE TO:	Apply to conduct mineral exploration operations not covered by the Generic PEPR (Adopted Program) for an ongoing period 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 to 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 .

SECTION A – GENERAL DETAILS

Operational approval period	**Ongoing approval period.** **A program notification is required to be provided to DEM 21 days prior to the start date of each new program of works (PEPR program notification template is available from the DEM Minerals website). All rehabilitation is to be completed within 3 months after the expiry of each program notification.**
Tenement details	EL 5786, EL 5989, EL 5991, EL 5992, EL 6186, EL 6256, EL 6570, EL 6575, EL 6576, EL 6600, EL 6667, EL 6688
Tenement holder(s) (for each tenement)	Endeavour Copper Gold Pty Ltd Earea Dam Mining Pty Ltd
Operating company	Indiana Resources Limited 2/50 Kings Park Rd, West Perth WA 6005, Australia +61 8 6241 1870 info@indianaresources.com.au
Agency agreement (if applicable)	Teneman Consulting act as appointed agent for Indiana Resources Limited and its wholly owned subsidiaries; Endeavour Copper Gold Pty Ltd, and Earea Dam Mining Pty Ltd. Agency agreement was registered 05/03/2021
PEPR prepared by	Travis Sickerdick Target Exploration Pty Ltd 0421 840 664 travis.sickerdick@targetex.com.au
Project supervisor/contact person(s)	Travis Sickerdick Target Exploration Pty Ltd 0421 840 664 travis.sickerdick@targetex.com.au
Project/prospect name	Tarcoola
Location details	35km West of Kingoonya, South Australia
Project description, commodity type and mineralisation model	The scope of this EPEPR relates to the activities outlined in this document being carried out on tenements wholly or parts thereof which are within the Gawler Ranges Aboriginal Corporation RNTBC Native Title Determination area. See section J, *GRAC EPEPR imagery.* The collective tenements are within proximity to historic gold mining areas; Glenloth, Earea Dam, and Tarcoola. Gold was mined in the Glenloth and Earea Dam areas by shallow underground workings between ~1900 – 1930. Gold is contained within narrow shear zones hosted in Archean-age gneiss. Proposed exploration operations include Auger, RAB, AC, RC and Diamond drilling, and may include ground geophysical surveys such as ground magnetics, IP, EM, and Gravity. All these methods are aimed at identifying and delineating potential gold resources as well as other commodities of interest..

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	John Fitzgerald	Signature (digital allowed)	
Position	Indiana Resources Commercial Manager	Date	30/5/2024

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 publicly available data and reports
Consultation with landowners
Consultation with Gawler Ranges Aboriginal Corporation RNTBC
Aboriginal Heritage clearance
Consultation with contractors

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
EL 5786 EL 5989 EL 5991 EL 5992 EL 6186 EL 6256 EL 6570 EL 6575 EL 6576 EL 6600 EL 6667 EL 6688	AJ & PA MCBRIDE LTD – North Well and Wilgena Stations	Pastoral Lease	Grazing	Form 21 served 23/12/2021				Various phone calls and emails- IDA has developed a good relationship with Station Manager over the many years of operations. Mat Perrot is in regular contact with Station Managers Restricted property access to Wilgena Station and use thereof shearers quarters around shearing times- late February through all of March. Indiana to plan field activities to avoid interfering with shearing time frames Consultation with AJ and PA McBride has been on-going for several years via the company headquarters and the station managers. Indiana company staff members are accommodated in the shearers quarters on Wilgena Station. Station Managers are contacted prior to any visit to the station.

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.

Indiana Resources has engaged the Gawler Ranges Aboriginal Corporation (GRAC) and successfully negotiated an active Native Title Mining Agreement (NTMA) which has been registered and endorsed by DEM 24/02/2022. A preliminary Cultural Heritage Survey was completed in 2013 and remains valid, as per notation in the NTMA.

Indiana intend to engage the GRAC during the planning phase of any on-ground exploration activities, to address Aboriginal Cultural Heritage, as required in the NTMA. Indiana will act accordingly as per the outcomes of the Surveys, and through continued engagement with the GRAC.

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.

Tarcoola township is located 45km Northwest. Tarcoola is deemed to be abandoned. Kingoonya township is located 40km to the East, and Wilgena Station homestead is located 28km Northwest. See Section J, maps titled: *Tenements Location & Native Title*, *Imagery, Pastoral Stations* and *National Parks and Conservation Areas*.

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	☐
Pastoral lease	☒
Perpetual lease	☐
Crown land	☒
Mining reserve	☐
Aboriginal freehold/leasehold land (e.g. Anangu Pitjantjatjara Yankunytjatjara and Maralinga Tjarutja lands)	☐
Forestry reserve	☐
Marine parks	☐
National parks, conservation parks, conservation reserves, regional reserves*	☐
Adelaide Dolphin Sanctuary	☐
Murray Darling Basin	☐
<If park/reserve is selected, please provide the name of the park>	
Other*	☐
<If other is selected, describe the land tenure here.>	

Land use	Applicable
Grazing	☒
Cultivated land	☐
Residential	☐
Township	☐
Industrial	☐
Tourism	☐
Conservation	☐
Defence activity	☐
Road reserve	☐
Sites of scientific significance (geological monuments, fossil reserves etc.)	☐
Orchard/vineyard	☐
*Native vegetation heritage agreements	☐
<Provide the name of the area>	
*European heritage sites	☐
<Provide the name of the site>	
*Other (e.g. historic mining)	
Historic workings at the Earea Dam goldfield	

* 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.

Nil

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

Nil

Provide any additional relevant information.

N/A

Woomera Prohibited Area (WPA)

Will activities be conducted within the WPA	Yes ☐	No ☒	Do you have a resource exploration permit in place?	Yes ☐	No ☐
In which zone will activities be conducted?					
Does the Exploration Permit allow the operator to conduct exploration operations in the WPA?				Yes ☐	No ☐
What is the expiry date of the resource exploration permit?					
Identify closure periods that may impact on the exploration program.					
<Include text here.>					

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 ☐	No ☒
<If yes, indicate which area.>		
Do you have a Deed of Access with Defence?	Yes ☐	No ☐
What is the expiry date of the Deed of Access?		
Provide the date the Range Control Officer granted access permission to conduct the proposed exploration operations. Describe the results of consultation and how any concerns raised were addressed.		
<Include text here.>		

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 ☒ No ☐ (If no, no further information in this section required.)		
Are there registered native title party/parties in the area of proposed exploration?	Yes ☒ No ☐	Gawler Ranges Aboriginal Corporation RNTBC	If no, an Environment, Resources and Development (ERD) Court determination is required.
Have you negotiated a native title mining agreement?	Yes ☒ No ☐	Is the agreement registered?* Yes ☒ No ☐	EL 5786, EL 5992, EL 5989, EL 6570, EL 6575, EL 6576, EL 5991, EL 6186, EL 6256, EL 6600, EL 6688, EL 6667

Have you accepted an Indigenous land use agreement (ILUA)?	Yes ☐ No ☒	Is the ILUA registered?* Yes ☐ No ☐	<List the tenements covered by the ILUA>
Have you obtained ERD Court determination?†	Yes ☐ No ☒	Is the determination registered?* Yes ☐ No ☐	<List the tenements covered by the determination>

* 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.

Native Title Mining Agreement for Mineral Exploration between Gawler Ranges Aboriginal Corporation RNTBC, Endeavour Copper Gold Pty Ltd, Earea Dam Mining Pty Ltd, and Indiana Resources Limited was registered and endorsed by DEM 24/02/2022

See Section J *Tenements Location and Native Title* map for reference.

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, saltpans, claypans etc.).

The topography is relatively flat, featuring some small low angled hills less than 20m.

Landforms within the general area include sandplains, sand dunes, woodlands, gibber flats, drainage systems, salt lakes and uplands.

As the topography is relatively flat there is limited potential for erosion due to exploration activities. See Section J, *Vegetation*, *Elevation Model*, and *Elevation Contours*.

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.

Soil and regolith regimes across the area range from outcropping basement rocks on the topographic highs through to areas of relatively shallow transported cover. Soil development is minimal (<100mm) to non-existent with windblown sand/silt dominating the near surface environment. Sub-surface calcrete is common in the area.

Exploration and rehabilitation procedures employed on other tenements in the local area, including scarification of compacted or rutted tracks, separation of near-surface material versus calcrete, has enable successful rehabilitation outcomes.

The Geoscience Australia Portal using the Australian Soil classification ascribes the majority of the region to Calcarosols, minor Rudosols, with only limited areas of Hydrosols being ascribed to lake features, such as Lake Labyrinth. On-ground exploration activities are not intended to be undertaken on lakes or lake margins reflecting the cultural sensitivity of such places. Calcarosols and rudosols will be explored and as such need controls. These controls include:

- utilise existing station tracks wherever possible,
- tracks to follow the contours of the land wherever possible rather than directly over hills,
- minimise the number of sharp corners on tracks
- ensure runoff from track surface is able to occur and the track does not become the drainage line during heavy rainfall

All these controls will assist to minimise erosion.

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 ☐	No ☒
Proposed exploration activities will not interfere with the surface hydrology regime of the area. No exploration activities will be conducted within 50m of a creek, as outlined within the GRAC Preliminary Heritage Clearance Report, and there is a 200m buffer zone around significant salt lakes.		
Is the program area located within water protection areas defined under the *River Murray Act 2003*? If yes, provide the name(s).	Yes ☐	No ☒
<If yes, provide the name(s)>		
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 ☐	No ☒
<If yes, provide the name(s)>		

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 ☒	No ☐

Previous drilling data indicates very minor, saline water in unconfined, fractured basement on EL 5989, and EL 6256. Similar conditions have been experienced at the Company's other prospects in the area (Minos and Ariadne), and it is assumed these conditions will remain similar across the general area. Two tenements have been specifically noted as their recent drilling data contribute to the assumption that the groundwater conditions remain consistent across the wider region. Data obtained from Waterconnect SA also supports this assumption; recorded SWL's across the tenements listed in this EPEPR remain consistent between 10-35m, with some low recorded TDS 408 (5835-9) EL 5786 to hyper saline, TDS 6664 (5836-20) EL 6575, TDS 9942 (5836-19) EL 6576, TDS 10,878 (5836-36) EL 6210.

Previous drilling on EL 5989 included 15 holes with a maximum depth of 204m. Most holes were recorded as being dry with minor saline water encountered in some holes from approximately 50m.

Groundwater is not noted from reporting of previous drilling on EL 6256.

Water bore data from Waterconnect SA database indicates presence of groundwater with SWL between 10-35m.

Yields range from quite low; between 0.03L/s (5835-9), to 0.16L/s (5836-4), to moderate; 3.3L/s (5935-259), to high; 12L/s (5835-1021) across the multiple tenements.

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

Lake Labyrinth Shear Zone

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
Gawler Ranges volcanics-Mesoproterozoic	0-300m	N/A	Unknown	Unconfined	+30,000 TDS, Limited saline water intersected from ~60m vertical
Hiltaba Suite Granitoids-Mesoproterozoic	0-300m	N/A	Unknown	Unconfined	+30,000 TDS, Limited saline water intersected from ~60m vertical

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

Primary Industries- Irrigation and general water uses

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.

Lake Harris, which forms part of the Lake Gairdner National Park, is located to the East of the tenements.

South Lake is located on EL 6256.

Lake Moolkra is located to the North of EL 6575.

There are numerous smaller salt lakes within EL's 6688, 6570, 6575, 6256, 5992, 5989.

GDE's noted from BoM Groundwater Dependant Ecosystems Atlas are:

Aquatic GDE

- Lacustrine Wetland ecosystem of South Lake – High Potential GDE (National Assessment)
- Lacustrine Wetland ecosystem of Lake Moolkra – High Potential GDE (National Assessment)
- Lacustrine Wetland ecosystem of Lake Harris – High Potential GDE (National Assessment)
- Lacustrine Wetland ecosystem (EL 6688) – Moderate Potential GDE (National Assessment)
- Lacustrine Wetland ecosystem (EL 6575) – Low Potential GDE (National Assessment)

Terrestrial GDE

- Acacia Shrublands – Moderate Potential GDE (National Assessment)
- Acacia Woodlands – Low Potential GDE (National Assessment)
- Samphire Shrublands – High Potential GDE (National Assessment)

- Chenopod Shrublands, Samphire Shrublands, and Forblands – Low Potential GDE (National Assessment)

See Section J, *Lake Locations, Aquatic GDE* and *Terrestrial GDE*.

Is the proposed program located within a prescribed wells area or prescribed water resource area? If yes, provide the name of the area.	Yes ☐	No ☒
<Insert the name of the area>		

Provide any additional information, if required.

N/A

Native vegetation

Will you be working within areas of native vegetation? If yes, provide the following information: • description of the formation and structure of vegetation in the area (e.g. woodland, shrubland, grassland) • list of the dominant species. If no, indicate why you will not be working within areas of native vegetation?	Yes ☒	No ☐

The vegetation within the general area varies with the landform as detailed below:

- Sand plains with woodlands: mulga, woollybutt, bandicoot grass, pearl bluebush, bladder saltbush
- Sand dunes: mulga, bullock bush, tar bush, bandicoot grass, woollybutt, red mallee, northern cypress pine, umbrella bush, blackoak, western myall, saltbush bluebush, grasses, spear grass, wattle, pigface, turkey bush, emu bush, fuschia bush, neverfail, lovegrass
- Drainage with claypans, salt lakes & dunes: cypress pine, mulga, speargrass, lignum, bluebush, pigface, deadfinish, bullockbush, broombush, saltbush, woollybutt, samphire, canegrass, glassworts, hopbush, nitrebush
- Drainage with floodplains & creeks: saltbush, bluebush, cottonbush, swamp canegrass, coolibah, boree tea tree, umbrella bush, hopbush, deadfinish, broughton willow, nitre bush, glassworts
- Plains: bluebush, saltbush, mulga, grasses, western myall, mulga, blackoak, spiny goosefoot, Australian boxthorn, kerosene grass, canegrass, samphire, Mitchell grass, neverfail
- Uplands with scrubland & shrublands: saltbush, samphire, seaheath, neverfail, Mitchell grass, daisies, mulga, turkey bush, emu bush, cassias, western myall, cottonbush, goosefoot, poverty bush

A long history of stock grazing has significantly altered the basic structure of the vegetation.

Location plans for significant habitats and flora listed below have been included in Section J.

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.

Species/habitat	Common name	NPW Act rating*	EPBC Act rating†
Santalum spicatum	Sandalwood	Vulnerable	Not Rated
Sclerolaena symoniana	Symon's Bindyi	Vulnerable	Not Rated
Swainsona microcalyx	Wild Violet	Rare	Not Rated
Eragrostis lacunaria	Purple Love-grass	Rare	Not Rated
Swainsona fuscoviridis	Dark Green Swainson-Pea	Rare	Not Rated

* *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 several locations with noted species of Weeds of National Significance. These are predominantly restricted to roadways in the area and the townships of Tarcoola and Kingoonya. Species include *Prospopic Juliflora* (Mesquite), *Tamarix aphylla* (Athel Pine), *Cenchrus* ciliaris (Buffel Grass), *Cylindropuntia imbricata* (Devil's Rope Pear), *Opuntia stricta* (Erect Prickly Pear) and *Opuntia monacantha* (Drooping Prickly Pear).

Cylindropuntia imbricata (Devil's Rope Pear) is recorded on Neighbouring EL 6301.

Opuntia sp (Prickly Pear) and *Parkinsonia aculeata* (Jerusalem Thorn) are recorded at one site on EL 5786.

It is noted that occurrences of Buffel grass are recorded in the district, but none has been observed within the proposed area of activities. The operational area falls with PIRSA's Buffel Grass Management Zone 2 and the requirements of the SA Buffel Grass Strategic Plan; "To prevent the ongoing spread of buffel grass into clean or priority areas within or beyond zone 2, aiming for a significant reduction in all infestations" are observed in Indiana's existing controls for addressing the spread of weeds.

See Section J for locations of weeds of significance.

Fauna

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

Data obtained from BDBSA indicates the presence of a variety of birds, mammals, and reptiles, both native and introduced. Feral species observed and recorded include red foxes, feral cats, camels, house mouse, and European rabbit.

See Section J for rare species location maps.

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.

Species	Common name	NPW Act rating	EPBC Act rating
Acanthiza iredalei iredalei	Slender-billed Thornbill (western)	Rare	Not Rated
Aphelocephala leucopsis leucopsis	Southern Whiteface	Sp	Vulnerable
Climacteris affinis	White-browed Treecreeper	Rare	Not Rated
Falco peregrinus macropus	Peregrine Falcon	Rare	Not Rated
Lophochroa leadbeateri	Major Mitchell's Cockatoo	Rare	Not Rated
Manorina flavigula	Yellow-throated Miner	Ssp	Not Rated
Melanodryas cucullata	Hooded Robin	Ssp	Not Rated
Northiella haematogaster (NC)	Bluebonnet (Eastern and Naretha)	Ssp	Not Rated

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 ☒	No ☐

Lake Harris forms part of Lake Gairdner National park and is deemed an environmentally sensitive location; classified as High Potential GDE for aquatic GDE. Lake Harris is defined as a wetland ecosystem.

Lake Harris is located on the Southeast border of EL 6688.

Yellabinna Regional Reserve is located to the West of the tenements.

See Section J, *Lake Gairdner National Park and Conservation Areas.*

Are you likely to impact on the environmentally sensitive area? If yes, detail the likely effects the proposed program may have.	Yes ☐	No ☒

There will be no potential impacts to the Yellabinna Regional Reserve or the Lake Gairdner Nation Park; a 200m buffer zone around these areas will preclude any on-ground exploration activities.

The Yellabinna Regional Reserve is located adjacent to EL's 5786, 5989, 5991, and 6600. Access to the tenements is not required through the Regional Reserve.

Lake Gairdner National Park is located adjacent to EL's 6667 and 6688. Access to the tenements is not required through the National Park.

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.

A Preliminary Cultural Heritage Survey was undertaken during 2013. This survey forms part of the NTMA, which was registered and endorsed by DEM 24/02/2022, is considered current and valid . A number of significant Dreaming and other sites were identified. Heritage clearances were given for all survey areas which are dependent on adherence to the heritage management recommendations outlined in the report. These recommendations include:

- All registered and reported sites be avoided

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 ☒	No ☐
Lake Harris forms part of Lake Gairdner National park and is deemed an environmentally sensitive location; classified as High Potential GDE for aquatic GDE. Lake Harris is defined as a wetland ecosystem. Lake Harris is located on the Southeast border of EL 6688. Yellabinna Regional Reserve is located to the West of the tenements. See Section J, *Lake Gairdner National Park and Conservation Areas.*		
Are you likely to impact on the environmentally sensitive area? If yes, detail the likely effects the proposed program may have.	Yes ☐	No ☒
There will be no potential impacts to the Yellabinna Regional Reserve or the Lake Gairdner Nation Park; a 200m buffer zone around these areas will preclude any on-ground exploration activities. The Yellabinna Regional Reserve is located adjacent to EL's 5786, 5989, 5991, and 6600. Access to the tenements is not required through the Regional Reserve. Lake Gairdner National Park is located adjacent to EL's 6667 and 6688. Access to the tenements is not required through the National Park.		

• No drilling or development activities occur within;
  ○ 50m of small salt pans and clay pans
  ○ 200m of large salt lakes
• No drilling or development activities occur on sandhills or water courses
• Road and track use be restricted to existing road or track alignments wherever possible
• All drill sites be remediated as soon as possible, and that all evidence of drilling be removed by the conclusion of the project
• Any proposed drilling or infrastructure construction on or under hills be surveyed and cleared by male and female GRAC representatives
• Ensure there is minimal impact on Mallee, Mulga, Sandalwood, Wild Peach (Quandong), Wild Plum and Myall trees, particularly mature examples
• Any proposed drilling or construction that extends outside of the clearance area be surveyed and cleared by male and female GRAC representatives
• Any development activities other than minimally invasive exploratory drilling (for example, RAB, Diamond, Aircore and auger methods) be surveyed and cleared by male and female GRAC representatives
As a requirement of the NTMA, if proposed exploration activities fall outside the scope of the current surveys, Indiana will engage with GRAC to undertake the relevant procedures and commission a survey, which will be addressed and documented at the Program Notification stage.		

SECTION D– DESCRIPTION OF PROPOSED EXPLORATION OPERATIONS

Include a description of the proposed operations. Each of the elements listed in below must be described only to the extent that they apply to the proposed exploration program.

Exploration scope

Describe the scope of the proposed exploration operations and detailing the following:

- all exploration methods to be covered by the PEPR.
- extent of exploration operations – e.g. drillhole spacing and drill line density.
- geographic extent of the area covered by the PEPR, including a general locality plan with tenement details, landowner boundaries and areas with environmental classifications or sensitivities.
- specific environments where exploration operations will not be conducted – e.g. parks, reserves, salt lakes etc.

Reconnaissance Stage Exploration Areas

- Airborne photography and magnetics
- Auger / vacuum drilling and geological mapping to be completed to assess potential of areas and identify targets
- Drilling to include all types of drilling (RAB, Aircore, RC and Diamond).
- Reconnaissance drilling (RAB, Aircore, slimline-RC) will be completed generally on a line spacing of 400m, with drillholes spaced 50m.

Early-Stage Exploration Areas

- Auger drilling utilised to test areas for anomalous results, spacing commences at 400m x 400m, progressing to 50m x 50m where anomalies are defined.
- Drilling to include all types of drilling (RAB, Aircore, RC and Diamond).
- Initially reconnaissance drilling (RAB, Aircore, slimline-RC) will be completed generally on a line spacing of 500m, with drillholes spaced 50m.
- Should results be encouraging then drill spacing may tighten to a line spacing of 40m with holes spaced at 20m.

No on-ground exploration activities will be undertaken immediately adjacent to Lake Gairdner National Park or the Yellabinna Regional Reserve; a 200m exclusion buffer zone will be implemented.

No on-ground exploration activities will be undertaken within 50m of small salt pans and clay pans, and 200m of large salt lakes.

Equipment and personnel requirements

Describe the maximum composition of field crews (operator, contractors, and geologists) and proposed working hours/days for each type of activity.

Field crews for drilling programs will consist of up to two geologists, two field assistants, up to six contract drilling personnel and an earthmoving contractor engaged for site preparation and rehabilitation.

Operations will be undertaken on a campaign basis, operating seven days per week on a single twelve-hour day shift for the duration of each program.

Field crews for auger programs will consist of an operator and a geologist and/or field assistant

Using the table below, describe the equipment (size, number and contractor details) required to conduct the proposed operations.

Equipment type	Owner/operator	Description/capacity	Activity/purpose
Multipurpose Drill Rig	Bullion Drilling	RC/Diamond	Exploration Drilling
Slimline RC/AC Drill Rig	Bullion Drilling	Small footprint rig	Exploration Drilling
Rod Truck	Bullion Drilling		Drill rods
Support Truck	Bullion Drilling		Service and spares
Booster Truck	Bullion Drilling	Air compressor booster	Exploration Drilling
Diamond Drill Rig	Bullion Drilling	Diamond core drilling	Exploration Drilling
Water Truck	Bullion Drilling	Diamond drill support rig	Exploration Drilling
RAB Drill Rig	Bullion Drilling	Small footprint rig	Exploration Drilling
Backhoe	DRM Equipment		Drill site preparation and rehabilitation
Light Vehicle	Various	4wd Utility vehicles	Site access
Auger Drill Rig	Jim McLeod	Light vehicle mounted auger	Shallow sampling

Low impact exploration activities

Will low impact exploration operations be conducted that are not covered by the Generic program for environment protection and rehabilitation – low impact mineral exploration in South Australia, (generic PEPR)? If yes, describe each type of low impact operations proposed.	Yes ☐	No ☒
<Include text here.>		

Drilling Operations

Will exploration drilling activities be conducted? If yes, identify all the drilling methods that may be used.										Yes ☒	No ☐
AC	**RAB**	**RM**	**RC**	**DD**	**AC/DD**	**RAB/DD**	**RM/DD**	**RC/DD**	**Vibracore**	**Auger**	**Other**
☒	☒	☐	☒	☒	☒	☒	☐	☒	☐	☒	☐

AC = aircore, RAB = rotary air blast, RM = rotary mud, RC = reverse circulation, DD = diamond drilling, AC/DD = aircore with diamond tails, RAB/DD = rotary air blast with diamond tails, RM/DD= rotary mud with diamond tails, RC/DD = reverse circulation with diamond tails.

Where 'Other' drilling method is selected, provide a description of the drilling method.

<Include text here.>

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.

Drill hole locations will be sited to minimise disturbance to existing vegetation and landforms. Avoidance of vegetation where practicable, will be the primary focus during drill program planning. Pruning of existing vegetation, vegetation rolling and moving fallen branches are all strategies which will be undertaken in preference to clearing of vegetation. Where clearing of vegetation is required, common species will be cleared in preference to less common species. Clearing, using a backhoe or bobcat, will be conducted “blade up” to preserve vegetation root stock.

Drill pad sizes will vary dependent on the drill type and additional requirements (eg. if night drilling a larger pad is required for light tower placement and ample space for safety requirements), however the following are standard pad sizes:

- Diamond drilling 30m x 25m
- RC drilling 20m x 25m
- Slimline-RC 15m x 20m
- Aircore and RAB drilling 10m x 15m

Note that the pad sizes refer to the area of workspace required, not the area required to be cleared (ie. can be naturally clear area). Indiana adopts a minimal disturbance approach; however sufficient room is required to provide a safe working environment. Drill pads must be level and stable to minimise inadvertent vehicle movements and remove any trip hazards.

Earthmoving activities for the digging of drill hole sumps, will follow a protocol of separating and stockpiling any topsoil and subsoil layers to allow for reinstatement of the original soil profile during site rehabilitation. Soil profiles will be reinstated on a last-out, first in basis when rehabilitated. Drill sumps required for diamond drilling will be plastic lined to restrict water loss during drilling. Two sumps will be required for diamond drilling, sump size is dictated by the requirements of the drilling crew to ensure safe operation, however sumps sizes for diamond drilling are generally 3m x 3m x 1m. Plastic will be removed and disposed of at an EPA authorised waste facility, with the remainder of the drill cuttings buried with subsoil and topsoil. Drill sumps will be dug for RC and AC drilling on a needs-only basis, that is only when groundwater is likely to be intersected. Where required, sumps will remain unlined and rehabilitated as per the protocol outlined above.

RC, AC and RAB drilling samples will be collected in plastic bags and laid out in rows on the ground. Rehabilitation of plastic bags will be undertaken as soon as practicable following completion of drilling and receipt of results, with drill cuttings used to backfill drill holes. Excess drill cuttings will be disposed of either in an existing drill sump or in a bulk sample disposal pit, following the protocols outlined in this section. All plastic bags will be disposed of at an authorised waste facility.

Sites for AC, RAB or slimline RC drilling require minimal preparation, primarily being the clearing of any bushes or shrubs around the immediate working area for the drilling personnel – clearing is generally done by hand using a rake/shovel, and the preparation of a sample laydown area. The total area of disturbance will be in the order of 5m wide by 5m long.

Sites for auger drilling require no preparation. These vehicles use a GPS to locate and approach the drill site as close as is practicable without clearing any vegetation. If dense vegetation is present at the designated site the vehicle will travel to a more suitable site nearby that is less densely vegetated and does not require vegetation clearing.

Drillhole construction and decommissioning

Have the personnel responsible for implementing the proposed program read and understood the Earth Resources Information Sheet M21, Mineral exploration drillholes – general specifications for construction and backfilling?	Yes ☒	No ☐
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.		
Diamond and RC drill holes will be constructed by establishing a PVC collar at the commencement of drilling, set in place using expandable foam. PVC collar casing generally does not exceed 6m. AC and Slimline RC drilling may require the placement of a short length of PVC in the collar which is removed at the completion of drilling (i.e. not cemented or set in place with expandable foam). No regulated drilling qualifications are required for the proposed drilling methods.		
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.		

Immediately upon finishing a drillhole the following will be undertaken:

- Drillholes will be temporarily plugged using an appropriately sized concrete or plastic hole plug to protect native fauna and prevent contamination of the ground water resource. The plug must fit snugly in the hole and not be too small as to fall down.
- Ensure that all hydrocarbon spills are removed from the drill site. Contaminated soil must be bagged and removed to an appropriate waste disposal facility. Hydrocarbon spills should be cleaned up immediately after they occur.
- Ensure site rubbish is removed before moving on to another drill pad. This includes used and broken drilling equipment.
- Perform a 'post drill site check' using Indiana's check sheets and procedures to keep a record.

Full rehabilitation of drillholes includes the following:

Permanent capping of drill collars:

- If the hole has a PVC collar, using a collar cutter cut the PVC collar to a minimum of 40cm below the surface. (Ensure removed PVC is disposed of appropriately);
- Insert a correct sized concrete hole plug so that it has a tight for with the PVC collar. Tap it into place;
- Backfill the hole with a low permeability material, such as clay from any drill sample on site;
- No stratigraphic intervals have been identified that would require down-hole cementing or grouting to separate stratigraphic intervals.
- Mound over the back filled hole with low permeability material to direct drainage away from the drill hole. The dimensions of the mound should be 25cm high by 80cm wide;
- Cover the mound with topsoil to aid regeneration, or if a whole site is being rehabilitated, cover the site with topsoil.
- When finished, the profile should not allow water to pond near the drill hole and develop subsidence and erosion.
- Permanent capping to be completed within 3 months of drilling, unless additional approval granted in Program Notification

All drill samples will be disposed of and rehabilitated.

- If the sample is non-hazardous, the green plastic and calico sample bags must be split and their contents dumped into sumps, down drill holes or other excavations (e.g. sample disposal pit).
- If the sample contains hazardous materials, such as asbestiform minerals, all rehabilitation and sample handling must follow the appropriate procedure, e.g. Fibrous Materials Guideline:
    - All contaminated material must be returned to the drillhole or sump, including the samples. If available, a binding material may be sprayed onto the affected area. Dust suppression must be used to minimise airborne particles.
    - The drillhole should be backfilled at least one metre with appropriate, uncontaminated material and the hole plugged as soon as possible. A binding agent maybe used on the hole collar prior to plugging the hole.
    - As soon as practicable after completion of drilling, the sump must be backfilled and signage erected indicating the presence of buried asbestiform or other hazardous material.
- The sump or excavations backfilled with sub soil and topsoil.
- Sample bags must be removed from site and disposed of appropriately.
- Samples to be rehabilitated within 3 months of drilling, unless additional approval granted in Program Notification

All sumps and excavations must be backfilled as part of rehabilitation:

- Prior to backfilling sumps and excavations ensure the following:
    - Drill fluids must be allowed to completely evaporate;
    - Plastic liners are removed (if applicable).
- Backfill the sump as soon as possible using the material that was removed from the site in the reverse order to which material was extracted. That is:
    - Subsoil;
    - Topsoil;
    - Vegetation.
- When filled, scarify and contour the ground surface.
- Sumps to be rehabilitated within 3 months of drilling, unless additional approval granted in Program Notification

Rehabilitation of Cleared Areas:

Cleared areas include drill pads and laydown areas. Upon the completion of drilling it is best practice to rehabilitate disturbed areas (if possible), leaving vehicle access to the plugged collar. This form of progressive rehabilitation provides more successful outcomes and faster rehabilitation results and has the added bonus of avoiding re-mobilisation costs of machinery.

Rehabilitation steps are:

- Ground should be gently scarified; this helps to reintegrate topsoil, promote seed recruitment and reduce water assisted soil erosion;
- In areas that have been significantly compacted, deeper ripping may be necessary but being careful not to disturb any buried and rehabilitated holes.

Rehabilitation of Tracks

Tracks that were created for access, such as access to a drilling program must be rehabilitated, unless an extension on the rehabilitation time is approved prior to the Program Notification expiry. Track rehabilitation requires:

- Respreading topsoil if it was stripped during construction;
- Gently scarifying the ground; this helps to reintegrate topsoil, promote seed recruitment and reduce water assisted soil erosion.
- Deep ripping in areas that have been significantly compacted, taking care not to disturb any buried drillholes.

- Restricting access to rehabilitated sites by erecting signage and physical barriers. This may include fencing or the replacing of cleared vegetation.

Ongoing monitoring:

Monitoring will be required to ensure rehabilitated sites are progressing and further remedial work is not required. The nature of each site and rehabilitation conducted will dictate the frequency of inspections. Indiana has the following monitoring guidelines:

- Implement a program of rehabilitation checks sufficient to cover the type and extent of rehabilitation works carried out for each project. For example, sites located on a hill may require longer monitoring and additional monitoring criteria to ensure success than flat sites;
- Ensure inspections are carried out to check on the progress and quality of rehabilitation;
- Ensure inspections are of an appropriate regular interval, such as annually;
- Maintain a record of all checks, preferably in electronic format; Any problems or shortfalls noted are to be rectified as soon as possible.

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, indicate the maximum dimensions and size of pits and costeans.	Yes ☒	No ☐
Bulk sample disposal pits will be 10m x 3m x 1.5m deep.		
Describe site preparation methods, vegetation clearance, and safety and maintenance requirements if pits and costeans are required.		
Bulk sample disposal pits will only be excavated where required; if samples cannot be completely disposed of down the drill hole from which they were derived or buried in drill pad sump. Sample disposal pits will be sited to minimise impact on vegetation, generally within existing drill pads. Separate stockpiling of topsoil and subsoil layers will be observed during the excavation to allow for reinstatement of the original soil profile during site rehabilitation. Soil profiles will be reinstated on a last-out, first in basis when rehabilitated. Sample disposal pits are not excavated in advance and will be closed upon completion of disposal of bulk samples.		

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).

Auger Drilling

Material up to 2m depth is collected alongside the drill hole - topsoil. At the calcrete horizon (or horizon of interest) a sample tray is placed alongside the drill hole for material to collect in, with samples taken from this at various depths. At the termination of the hole the material is returned back down the hole on a last out - first in basis, finished by backfilling with the separated topsoil.

AC, RAB and Slimline RC

Samples are collected from the rig at one metre intervals within green plastic bags from which either composite or 1m samples are collected for analysis. The one-metre plastic bags are laid out at the drillsite and retained at the site for the duration of the drilling program and until assays have been returned from the laboratory.

Upon receipt of all assays, all remaining drill spoils and cuttings will be disposed of back down the drill hole from which they were derived. In the event of excess spoil, the spoil will be disposed of in a sample disposal pit as described previously. Green bags and drill sites will be rehabilitated within 3 months of the completion of the drilling program, unless additional approval is granted in the Program Notification.

Reverse Circulation

RC samples are collected in large plastic bags directly from the cyclone and splitter, with samples for analysis collected simultaneously in one metre sub-splits from the sample splitter. Bulk samples range in weight from 20-40kg, with one metre splits weighing around 2kg.

The one-metre plastic bags are laid out at the drill site and retained at the site for the duration of the drilling program. One-metre samples are collected in calico bags and retained at the field camp in bulka bags in existing open areas until they are dispatched for assay or disposed of in accordance with the protocols outlined in this PEPR.

Disposal of the bulk sample residues in plastic bags will generally take place as soon as practicable following completion of the drilling program and during rehabilitation of all other elements of the drilling program. Green bags and drill sites will be rehabilitated within 3 months of the completion of the drilling program, unless additional approval is granted in the Program Notification.

Diamond core

Diamond drill core is collected and stored in core trays. Drill core is temporarily stored at the field laydown area prior to permanent storage off-site. Drill core is marked up and logged either at the drill site, at the field camp or at Wilgena Shearers Quarters.

Cutting and sampling of drill core will be undertaken either on-site at Wilgena Shearers Quarters or off-site. In the instance cutting is undertaken on site, the following practises are employed:

- Water used during core cutting is recirculated and recycled where possible, with cutting sludge disposed of either in an existing sample disposal pit, or in a shallow pit excavated for this purpose. Pits will be up to 1m deep and approximately 1m long and will be fenced off with orange bunting. The pits will be backfilled once the pit is dry.
- Only stock-grade water (i.e. low salinity) is used for core cutting where the water will be disposed of in a shallow soakage sump – same as outlined above.

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 ☒	No ☐
Access to the project area is obtained by using existing station and exploration tracks. Maintenance of tracks will be completed to ensure tracks are left good condition for pastoralists. Maintenance work has been discussed with the managers of pastoral leases as per current practice. Pastoral Stations are equipped to maintain their station tracks. Indiana have negotiated any maintenance works required to access tracks will be offered to the pastoralist, with all costs being the responsibility of Indiana.		
Will access off existing tracks be required? If yes, detail the method(s) for gaining access and if vegetation clearance is required. Details of 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) must be provided in the program notification.	Yes ☒	No ☐
Where clearing of vegetation is required for new access tracks, the protocols described in DEM information sheet M33 will be observed, together with the protocols outlined in "drill site preparation" section of this PEPR. Protocols include: minimising vegetation disturbance, "blade up" line clearing, construction of "dog legs" at track starts and avoidance of thicker areas of vegetation where possible. Prior reconnaissance (aerial imagery review &/or ground reconnaissance) will be undertaken to plan the most effective route. Significant species will also be avoided should they be identified in a work area. Details of total disturbance will be provided in each Program Notification.		

Where possible, 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

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.		
Wilgena Station shearer's quarters: • Restricted property access to Wilgena Station and use thereof shearers quarters around shearing times- late February through all of March. Indiana to plan field activities to avoid interfering with shearing time frames Kingoonya Hotel and/or caravan park		
What is the maximum number of personnel requiring accommodation?	6	
Is a campsite required to be established? If no, no further information is required.	Yes ☐	No ☒
Provide a description and justification of the camp location (e.g. previously cleared areas etc.), and any other relevant information.		
<Include text here.>		
What will be the total area (ha) of the campsite(s)?	ha	
What will be the total area (ha) of vegetation clearance for the campsite?	ha	
If vegetation clearance is required, describe the methods used to prepare the site.		
<Include text here.>		
Will any excavations be required? If yes, describe the purpose of the excavation and the maximum volume (m^3) of material to be excavated.	Yes ☐	No ☐
<Include text here.>		
Are the proposed ablution facilities endorsed/approved for use by the Department of Health or local council, where applicable? If no, indicate why.	Yes ☐	No ☐
<Include text here.>		

Proposed infrastructure (includes caravans, tents, offices, hydrocarbon and water storage requirements etc)	**Quantity**	**Description/capacity**
Caravan	1	*25ft caravan, 4 bed capacity*
Cabins/hotel rooms	8	*Caravan park cabins or Kingoonya Hotel rooms pending availability*
Portable toilet	1	*Coates Hire tow behind portable toilet*

Diesel fuel tanker	1	*17,000L capacity*

Laydown area details		
Will laydown areas be required? If no, no further information is required.	Yes ☒	No ☐
Will the laydown area(s) be located at the same location as the campsite?	Yes ☐	No ☒
What will be the maximum area (ha) required for the laydown area(s)?	0.5ha	
What will be the total area (ha) of vegetation clearance for the site?	0ha	
If vegetation clearance is required, describe the methods used to prepare the site.		
No vegetation clearance is required. There exists ample, naturally clear areas at all sites which will be utilised for laydown purposes.		
Will any excavations be required? If yes, describe the purpose of the excavation and volume (m^3) of material to be excavated.	Yes ☐	No ☒
<Include text here.>		

Proposed infrastructure (includes hydrocarbon and water storage requirements)	**Quantity**	**Description/capacity**
Water tank	2	2000 litres
Hydrocarbon storage	1	800 litre bunded pallet for storage of oils, on self-bunded mobile fuel/service truck
Diesel fuel tanker	1	17,000L capacity

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 ☐	No ☒
<If yes, include text here.>		

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). Indicate how wastewater and/or runoff water will be managed.	Yes ☒	No ☐
Camp water supplied via Wilgena Station infrastructure, servicing shearer's quarters. Drilling water supplied by drilling contractor from mains water supply; Port Augusta.		
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 ☐	No ☒
<Include text here.>		

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 ☐	No ☒
<If yes, include text here.>		
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 ☐	No ☒
<Include text here.>		

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 ☐	No ☒
<If yes, include text here.>		

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 ☐	No ☒
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 ☒	No ☐

Historical drilling records indicate the possibility of fibrous material (unconfirmed asbestos). The Asbestos Management Plan is attached, see appendix A.

The Asbestos Management Plan Includes:

- Identifying the potential for intersecting asbestos minerals in the tenements – page 13
- Establishing criteria for classifying designated areas containing asbestiform minerals – page 15
- Assessment of potential risk from exposure to respirable asbestos fibres – page16
- Minimum requirements for all personnel entering a designated area – page 20, and PPE requirements – page 25
- Controls for designated areas for drilling – page 21 and 26, and earth moving – page 22
- Decontamination for personnel, vehicles, plant, tools, and equipment – page 27
- Waste disposal – page 28
- Reporting and record management – page 32

Rehabilitation

Detail all the activities and strategies relating to the remediation of all impacts associated with the proposed exploration operations (includes exploration camps and laydown areas, tracks).

Completion of rehabilitation must be achieved within 3 months after the expiry of each program notification.

Rehabilitation of drill holes and sites will be completed as soon as is practicable.

At the completion of drilling, the casing is capped, and the pits undergo risk assessment for health and safety to personnel and livestock. If the pits are flagged as a hazard, they are fenced off with orange bunting and allowed to dry before rehabilitation.

Rehabilitation of the drill sites includes the following: The green bag sample contents are either tipped down the hole or buried onsite within the existing pit (which may be expanded if not suitable). The drill hole collar is cut below the surface, capped, and buried. All green bags and PVC casing offcuts will be removed from site and disposed of at an approved waste disposal facility. The site will then be levelled, and the topsoil or surface material replaced over the site area. A series of photographs (prior to clearing and post rehabilitation) are taken at drill sites, laydown areas and tracks for compliance reporting and monitoring.

All sumps and excavations must be backfilled as part of rehabilitation:

- Prior to backfilling sumps and excavations ensure the following:
  - Drill fluids must be allowed to completely evaporate;
  - Plastic liners are removed (if applicable).
- Backfill the sump as soon as possible using the material that was removed from the site in the reverse order to which material was extracted. That is:
  - Subsoil;
  - Topsoil;
  - Vegetation.
- When filled, scarify and contour the ground surface.
- Sumps to be rehabilitated within 3 months of drilling, unless additional approval granted in Program Notification

Rehabilitation of Cleared Areas:

Cleared areas include drill pads and laydown areas. Upon the completion of drilling it is best practice to rehabilitate disturbed areas (if possible), leaving vehicle access to the plugged collar. This form of progressive rehabilitation provides more successful outcomes and faster rehabilitation results and has the added bonus of avoiding re-mobilisation costs of machinery.

Rehabilitation steps are:

- Ground should be gently scarified; this helps to reintegrate topsoil, promote seed recruitment and reduce water assisted soil erosion;
- In areas that have been significantly compacted, deeper ripping may be necessary but being careful not to disturb any buried and rehabilitated holes.

Detail all the activities and strategies relating to the remediation of all impacts associated with the proposed exploration operations (includes exploration camps and laydown areas, tracks). Completion of rehabilitation must be achieved within 3 months after the expiry of each program notification.
Rehabilitation of Tracks Tracks that were created for access, such as access to a drilling program must be rehabilitated, unless an extension on the rehabilitation time is approved prior to the Program Notification expiry. Track rehabilitation requires: • Respreading topsoil if it was stripped during construction; • Gently scarifying the ground; this helps to reintegrate topsoil, promote seed recruitment and reduce water assisted soil erosion. • Deep ripping in areas that have been significantly compacted, taking care not to disturb any buried drillholes. • Restricting access to rehabilitated sites by erecting signage and physical barriers. This may include fencing or the replacing of cleared vegetation.
State the estimated budget required to rehabilitate all impacted sites.
Rehabilitation is costed at approximately $3000/day – to cover cost of personnel and machinery. Rehabilitation details and costs will be included in Program Notifications.

Vegetation Clearance

Will any area of cleared native vegetation be unrehabilitated after the authorised period? If yes, provide a map and description of the vegetation present in the application area, the extent of any proposed vegetation clearance and the likelihood of the presence of threatened flora. 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.	Yes ☐	No ☒
<Include text here.>		

SECTION E – LEASE CONDITIONS

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.

N/A

SECTION 6 – MANAGEMENT OF ENVIRONMENTAL IMPACTS

Use the table below (instructions provided) to identify all of the potential environmental, social and economic impact events that are likely to occur as a result of the proposed exploration operations, how each of the identified impacts will be managed, and the residual risk, i.e. the level of risk remaining after implementing control and management strategies. Identified potential impact events should be developed based on the aspects of the environment that may be impacted on and the proposed operational details. Potnetial impact events must have corresponding outcomes and measurement criteria.

Where the terms and conditions of an RL include environmental outcomes, list them (where different) in the table below and complete all sections (receptor, potential impacts, control strategies, risk assessment and measurement criteria).

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

1. Based on the description of the environment and exploration operations, indicate which potential impacts are applicable to the proposed program. Note that some potential impacts are applicable to all programs.
2. For each applicable potential impact (and corresponding receptor), describe control strategies that will reduce the risk of the potential impact to an acceptable level, and achieve the corresponding environmental outcomes.
3. Conduct an impact assessment to determine if the control strategies address the potential impact (i.e. reduce the risk to an acceptable level). 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.
4. For each applicable potential impact, the corresponding outcome and outcome measurement criteria are required.

5 Based on the description of the environment and proposed exploration activities, determine if any other potential impacts are applicable. For each new potential impact, describe proposed control and rehabilitation strategies, conduct an impact assessment, and develop corresponding outcomes and outcome measurement criteria.

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

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** 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 Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of consequence				
				LH	**CQ**	**Risk**		
Stakeholders: • freehold land owners • perpetual lease holders • pastoral lease holders • Aboriginal land (Anangu Pitjantjatjara Yankunytjatjara and Maralinga Tjarutja lands) • Department of Defence • state government departments. • local government (councils) • federal government • native title parties.	Interference to: • existing or permissible land use (includes loss of income, noise, dust, light and other emissions). • buildings, structures, existing tracks or other infrastructure. • aesthetic values of an area. Noncompliance with legislative requirements.	Yes (Applicable to all programs.)	• Consultation with stakeholders during planning of exploration field programs to identify potential issues prior to implementation. The Company maintains contact with Pastoral Lease Managers, with the Company predominantly staying at the Wilgena Shearers quarters. Indiana has ongoing communication with the Station Managers of both Wilgena and North Well Pastoral Leases, mostly via phone but also via face-to-face contact. There have been no issues raised to date, any issues raised will be discussed openly between the station manager, Exploration Manager and Technical Director to facilitate a positive outcome. • Fulfilment of statutory notifications prior to entry – program notification • A preliminary cultural heritage survey was completed in 2013. Areas designated as “No Exploration Activity” will be made aware to any staff or contractors working for the Company. Rehabilitation will be undertaken to the satisfaction of the landholders. Representatives from GRAC may visit sites to inspect rehabilitation.	3	A	L	**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.**	Provide the information requested within the ‘Complaints’ section of the annual exploration compliance report demonstrating that all reasonable complaints from stakeholders are resolved to the satisfaction of both parties prior to and ongoing during the course of exploration program, without the involvement of DEM. Provide the information requested within the ‘Landowner details and liaison’ section of the annual exploration compliance report demonstrating that prescribed forms were served and agreements obtained in accordance with the Mining Act prior to the commencement of exploration activities.
Stakeholder: DEW	Interference to: • existing or permissible land use. • buildings, structures, existing tracks or other infrastructure. • aesthetic values of an area. Noncompliance with legislative requirements.	No (Applicable to programs located adjacent to or within parks and reserves.)	<If the potential impact is applicable, list the control and rehabilitation strategies>				**For activities located within or adjacent to regional reserves, national, conservation and marine parks only:** • **no unauthorised interference with park management activities.**	Provide confirmation that: • Park access notification forms were submitted to DEW and DEM at least 10 days prior to entry into regional reserves, national, conservation and marine parks, or • Program notifications for PEPRs approved for an ongoing period of time, were submitted to DEW and the DEM at least 21 days prior to entry into regional reserves, national, conservation and marine parks.

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** 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 Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of 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.)	Planning of activity locations such that clearance of vegetation & habitats is minimised as per the following controls: • PEPR to be referred to prior to any clearance being undertaken to ensure it complies with what has been approved. • Inductions, training and supervision of exploration personnel to ensure clearing is kept to a minimum. • Utilise existing roads, tracks lines or open cross-country routes to gain access into prospect area. • Avoid long straight traverses and follow contours as much as possible. • Use of appropriate machinery. • Use of aerial imagery &/or ground reconnaissance to plan routes. • Mechanised clearing is undertaken using a “blade up” protocol that cuts the vegetation at the stem whilst leaving the root stock in situ, thus minimising soil disturbance. • Listed species avoided with recognition materials available and used by field crews involved in access and clearing activities. • Clearing of trees will be undertaken as a last resort and bird nesting trees not removed. Where access tracks are required to pass through vegetated areas, trimming of tree branches may be required to facilitate access and provide a safe working area for drill crew and field staff. Areas which require clearing will be inspected for significant flora and fauna species. • Any vegetation cleared will be collected and used in the rehabilitation process. • Indiana has extra conditions included within a recently completed heritage clearance which includes not working within creeks or clay pans and no removal of black oak trees. • Observed fauna nests/habitats will be avoided in favour of alternative routes or sites. • Minimisation of risk of “uncontrolled fires” through current procedures including – compliance with CFS Fire Ban declarations (no open flames), fire extinguishers to be carried in all vehicles, 1,000 litres of fire water plus pump and hose at rig during summer, no drilling on “catastrophic” bush fire rated days (CFS). • The risk of fire is mitigated by the exclusive use of diesel vehicles and all vehicles has a fire extinguisher. • Avoid field activities during wet conditions to minimise risk of vehicle bogging / having to deviate from tracks.	2	B	L	**No permanent loss/modification of native flora and fauna populations and their habitats through:** • **clearance** • **fire** • **other** **unless prior approval under the relevant legislation is obtained.**	Maintain before, during and after photographic evidence of all exploration sites (e.g. drillsites, new track exit/entry points off existing tracks, costeans, campsites) demonstrating that: • The area and method of disturbance is consistent with that described in the PEPR. • No uncontrolled fires* occurred as a result of exploration activities. Representative photos to be included within the annual exploration compliance report.
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.)	• Inspection & documentation of exploration areas prior to commencement of activities to note pre-existence of any weeds • avoidance of any areas of recorded weed occurrences. • Cleaning and inspection of all vehicles prior to entry onto site • Avoid travel through know sites of weeds in local area • Avoiding and minimising movement between sites during periods of wet weather & muddy conditions • Follow-up seasonal inspection of exploration sites to note presence of any new weed occurrences. • Vehicle logs demonstrate that all vehicles are clean and free of plant and mud material before entering properties associated with exploration activity. • Information on the significant flora and fauna present or likely to be present within the project area will be kept on site and included within Company inductions and made available to staff, contractors and visitors. • Clearing of mature trees will be avoided wherever possible whilst clearing tracks and drill sites. Tracks and drill sites will be moved. • Observed fauna nests/habitats will be avoided in favour of alternative routes or sites.	2	B	L	**No introduction of new species of weeds and plant pathogens, nor increase in abundance of existing weeds species.**	Provide a statement within the ‘Compliance with approved programs’ section of the annual exploration compliance report, confirming that: • Vehicle logs were kept during the exploration program, demonstrating that all vehicles are clean and free of plant and mud material prior to entering properties† within the tenement areas, unless otherwise agreed to with the relevant landowners. • Photographic evidence before and during exploration operations and after rehabilitation of disturbed sites was captured, demonstrating that no new weeds and plant pathogens were introduced, nor an increase in abundance of existing weeds recorded.

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** 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 Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of 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.)	• Temporary capping of all drill holes immediately following drilling, unless permanently rehabilitated • Drill holes permanently rehabilitated by removing collar casing, plugging and backfilling to at least 0.5m below surface. • Periodic inspection post rehabilitation to ensure no slumping of backfilled collars has occurred. • Construction/placement of egress ramps in all open excavations (drill sumps, sample pits) • Temporary fencing of all excavations if left open beyond completion of field operations (prior to rehabilitation). DDH sumps may be left open to dry out sludge before backfilling and final rehabilitation as detailed previously in "Costeans and bulk sample disposal pits"	2	B	L	**No fauna traps created as a result of exploration activities.**	Maintain before, during and after photographic evidence of all drillholes and/or excavations demonstrating that: • All drillholes were permanently or temporarily capped/plugged immediately upon completion. • No fauna and livestock became trapped in drillholes and/or excavations throughout the duration of the program. • All rehabilitation was completed within 3 months of expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Representative photos are to be included within the annual exploration compliance report. Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.
Aboriginal heritage sites	Disturbance to Aboriginal heritage.	Yes (Applicable to all programs.)	• Review of state database records during planning of field activities. • Check heritage reports to avoid heritage highlighted areas when planning exploration activities. • Induction of staff and contractors to their obligations with respect to aboriginal heritage. • A Preliminary Cultural Heritage survey was completed in 2013 • Additional clearances will be completed as required in accordance with protocols agreed to in the GRAC NTMA. • GRAC will be kept informed of the exploration progress within the relevant project area. • If works are to be carried out within close proximity to Heritage sites, sites will be flagged off to exclude access. Site induction will include mention of the site and direct all staff and contractors to avoid the area. • Induction of staff and contractors outlining their obligations to notify the site supervisor immediately in the event a discovery is made in respect to Aboriginal Heritage. If a discovery is made at the worksite, all work is to cease and the GRAC is to be notified. Operations will recommence only after authorisation from the GRAC. • Ensure any Aboriginal Heritage sites/ potential Heritage sites discovered during exploration activities are not disturbed, have GPS coordinated noted, photographed, and reported to GRAC	3	A	L	**No disturbance to Aboriginal artefacts or sites of significance unless prior approval under the relevant legislation is obtained.**	Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that: • Heritage sites were not impacted during the conduct of the exploration program, unless prior approval was obtained under the appropriate legislation. • Work ceased on discovery of a significant site and recommenced only after authorisation. • Aboriginal heritage sites identified during the exploration program were appropriately recorded and reported to authorities, if not previously known.
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.)	<If the potential impact is applicable, list the control and rehabilitation strategies>				**No disturbance to European heritage sites and to sites of scientific and environmental significance unless prior approval under the relevant legislation is obtained.**	Demonstrate no impact to heritage sites and sites of scientific and environmental significance by: • Maintaining evidence, including detailed maps showing sites compared to the location of exploration activities, and photographic evidence of sites before and after the conduct of the exploration program. • Providing a statement within the annual exploration compliance report confirming sites were not impacted during the conduct of the exploration program.

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** 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 Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of 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.)	Hydrocarbons • Hydrocarbons stored in a centralised, bunded &/or lined facility, or in an EPA-compliant mobile storage tank (eg fuel trailer). • Spill matting and clean-up materials available at all locations where a risk exists for hydrocarbon spillage. Use spill matting at rig refuelling and under rigs where deemed necessary. • Any contaminated soil removed and disposed of at authorised waste disposal facility. • Regular vehicles checks and maintenance to ensure no oil leaks. General Waste • Domestic waste bagged and taken to station waste disposal facility on a regular basis. Drill Cuttings • Excess drill cuttings disposed of either back down drill holes or within a dedicated sample disposal pit, after removal of foreign materials such as sample/plastic bags. • Calcrete contamination with topsoil will be avoided by separation of soil layers during excavations i.e. topsoil separately stockpiled from subsoil layers. See Section D – Drillsite Preparation • Bags will be monitored, with rehabilitation completed prior to deterioration of plastics. Ablutions • Construction of temporary “long drop” toilets utilising lime to facilitate decomposition. Camp water • Only relatively low salinity water to be disposed of in soakage trenches. • Soakage trenches reinstated with topsoil when rehabilitated.	3	A	L	**No contamination of soil and vegetation as a result of exploration activities.**	Demonstrate that all domestic or industrial waste (includes general rubbish and hydrocarbons) is disposed of in accordance with the *Environment Protection Act 1993* within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), and that all fuel and chemicals are stored in accordance with EPA requirements, by providing: • The name, location and contact details of the authorised waste disposal facility. • A statement within the ‘Compliance with approved programs’ section of the annual exploration compliance report confirming domestic and industrial waste was removed from all exploration sites and disposed of at an authorised waste disposal facility. • Photographic evidence within the annual exploration compliance report demonstrating that all fuel and chemical storage facilities were managed in accordance with EPA requirements. Maintain photographs of all exploration sites and provide representative photos within the annual exploration compliance report demonstrating that drill cuttings are: • removed from site and disposed of at a licensed facility • buried under a minimum of 30 cm of soil, or in accordance with EPA guideline, *Radiation protection guidelines on mining in South Australia: mineral exploration*, available on the EPA website, or • backfilled down the drillhole, within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Provide the information requested within the ‘Rehabilitation’ section of the annual exploration compliance report.
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.)	• Ground disturbing/excavation activities (eg drill sumps, soakage trenches, sample disposal pits) sited to minimise potential erosion in the event of rainfall. • Prompt rehabilitation to reduce likelihood of exposure to rainfall events. • Separation and stockpiling of topsoil and sub soil layers during excavation activities, and reinstatement of original soil profiles during rehabilitation. • Temporarily stockpiled soil from excavations stored in a location to minimise loss (erosion) or contamination in the event of rain. • Light, shallow scarification of compacted or rutted areas. • Complete rehabilitation of new tracks and pads as per best practice model (eg removing windrows, restoring original contours, light scarification where appropriate, replacing topsoil and stockpiled vegetation) • Sites will be inspected and monitored following completion of rehabilitation to identify any environmental risks such as hole/collar collapse and surface erosion. Any sites which show signs of environmental damage will be further rehabilitated and photographs taken for inclusion within Compliance Reporting. • Exploration activities to cease if heavy rainfall occurs. The Company will seek guidance from Station Manager when tracks are ready for access after heavy rainfall events.	2	B	L	**Where soil disturbance occurs as a result of exploration activities, ensure that:** • **topsoil quality and quantity is maintained** • **the soil profile and topography is reinstated to original conditions** • **there is no accelerated soil erosion.**	Maintain before, during and after photographic evidence of all excavations, drillsites, camps, laydown areas and new tracks demonstrating that: • The soil profile and topography is reinstated to original conditions and is consistent with natural surroundings within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. • Where required, sufficient topsoil is removed (depending on soil profile), stored separately from subsoil and reinstated (in the correct order) within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. • There are no signs of accelerated soil erosion during and post rehabilitation of disturbed sites. Representative photos to be included within the annual exploration compliance report. Provide the information requested within the ‘Rehabilitation’ section of the annual exploration compliance report.

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** 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 Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of consequence				
				LH	**CQ**	**Risk**		
Surface water	Alteration to surface water – interference to surface drainage.	No (Applicable to exploration programs that are likely to impact on surface drainage channels.)	• Avoidance of drainage areas with defined channels.	2	B	L	**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).**	Provide before, during and after photographic evidence within the annual exploration compliance report demonstrating that original drainage contours (watercourses and lakes) are consistent with the natural relief post rehabilitation within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period). Alternatively, provide copies of water affecting permits within the annual exploration compliance report.
Groundwater/aquifer	Groundwater contamination: • contamination of aquifers through entry of pollutants from the surface • interconnection between aquifers • degradation of natural hydrostatic conditions (maintain pre-drilling pressures).	Yes (Applicable to all exploration programs that may intersect groundwater.)	• Only biodegradable drill additives to be used during drilling operations. • Drill rigs will be refuelled with standard operating procedures designed to minimise the chances of hydrocarbon spills. • Spare green plastic drilling bags will be kept in vehicles for the disposal of any contaminated material and general site waste. • Any contaminated soil will be removed from site and disposed of at a approved EPA facility. • Diamond drill hole sumps will be lined with heavy duty plastic to prevent drilling muds etc seeping into the ground and contaminating groundwater. • When water is intersected within a drill hole, the water is taste tested for salinity. If the water is not overly saline, a sample is collected for testing and for the landowner. • Drill collars will be temporarily capped on completion to prevent entry of surface water runoff. • Drill holes rehabilitated as soon as practicable upon completion (as per item 5 of this impact assessment) in the (unlikely) event of multiple aquifers being intersected, ensure aquifers are isolated in accordance with DEW requirements (DEM Guidance M21) and reporting of occurrence to DEW. • Obtaining appropriate permits prior to establishing permanent or long-term water bores (if required).	2	A	L	**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.**	Maintain evidence demonstrating that drillholes are decommissioned in accordance with Earth Resources Information Sheet M21, *Mineral exploration drillholes – general specifications for construction and backfilling*, and/or specific conditions from DEW (Groundwater) within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Provide the information requested within the 'Groundwater' section of the annual exploration compliance report.
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.)	• Sumps to be constructed where required on the drill pad to contain excess down hole water and sited to minimise vegetation impacts. • Photographs are taken pre-drilling and post drilling and post rehabilitation and included within Compliance reporting.	2	A	L	**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.**	Maintain photographic evidence of all drillsites demonstrating that groundwater was not discharged into the surrounding environment, unless water affecting activity permits were obtained allowing the discharge of groundwater into watercourses and/or lakes. Representative photos and water affecting activity permits (where applicable) to be included within the annual exploration compliance report.
Groundwater users	Interference to existing water users when extracting water from existing dams, water bores or mineral drillholes.	Yes (Applicable to all exploration programs that may require the use of water from existing dams, water bores or mineral drillholes.)	• Water sourced from existing station infrastructure only done so in consultation and agreement with station manager • The poor quality of groundwater renders it unsuitable for use by the station owners for stock watering purposes, so there is no applicable impact in this respect.	1	B	L	**No public nuisance impacts resulting from the extraction of water for exploration purposes, unless prior approval under the relevant legislation is obtained.**	Provide the information requested within the 'Complaints' section of the annual exploration compliance report demonstrating that all reasonable complaints from stakeholders were resolved to the satisfaction of both parties, prior to and ongoing during the course of the exploration program without the involvement of DEM. Where permits are required for the extraction and/or usage of groundwater, provide copies of the licence or permit within the annual exploration compliance report.
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.)	• Planning of new access routes done in a manner that enables for effective disguising following rehabilitation, including choosing entry/take off points adjacent to vegetation and the use of doglegs at track commencements where possible. • Maintaining operational protocols during the use of newly created tracks to ensure they do not become excessively degraded whereby they cannot be readily rehabilitated (eg minimising/containing rutting, avoidance of use during wet weather)	1	B	L	**Rehabilitated access tracks remain permanently closed, unless prior approval under the relevant legislation is obtained.**	Maintain before and after photographic evidence demonstrating that all tracks are closed and rehabilitated within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Representative photos are to be included within the annual exploration compliance report.

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor Lists are not exhaustive.	**Potential impacts** Lists are not exhaustive.	**Is the potential impact applicable (Yes/No)** Some potential impacts are applicable to all programs.	**Control strategies** 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 Minerals Regulatory Guidelines MG22 for more information.	**Risk assessment** LH = likelihood of consequence CQ = severity of consequence				
				LH	**CQ**	**Risk**		
			• Vegetation such as logs and branches will be placed across the track entrance to discourage third party access. • Photographic evidence of access tracks will be maintained.					Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.
Community/landowners	Damage to infrastructure and loss of income through fire.	Yes (Applicable to all programs.)	• Identification of all potential sources of ignition relating to exploration activities, with appropriate controls in place to prevent both ignition and spread of fires, including: • Compliance with CFS fire ban declarations. No work to be undertaken on Total Fire Ban days • Carrying of fire extinguishers in all vehicles • Drill rig to maintain a firefighting pump plus water supply during fire danger season. • Protocols addressing smoking and safe disposal of cigarettes. • Assessment of prevailing conditions and activities during weather conditions with an elevated fire danger risk, and stopping of exploration activities if the risk is determined to be unacceptable (ie bushfire risk assessment process). • Only the use of diesel vehicles for most activities.	2	B	L	**No loss of infrastructure or income through fire as a result of exploration activities.**	Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report confirming that no uncontrolled fires* occurred. Alternatively, provide a report on the independent investigation of all uncontrolled fires* demonstrating that the licensee could not have reasonably prevented the fire through the implementation of precautionary measures.
General public	Injury or death to members of the public as a result of exploration activities.	Yes (Applicable to all programs.)	• Identification and assessment of all hazards to the general public associated with exploration activities, with implementation of appropriate controls as required. Such controls may include: • Warning signage - especially when drilling • Temporary fencing around open excavations (sumps) • Implementation of 'no-go' safety zones around operating machinery. • Designated appropriate vehicle speeds on existing tracks. • Regular communication with landholders to keep them informed of exploration activities and work areas. • Ensuring notification protocols are followed prior to commencement of field activities	2	B	L	**No accidents involving the public that could have been reasonably prevented by the licensee.**	Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report confirming no accidents occurred involving the public during and after the exploration program. If an accident involving the public did occur, provide a copy of the independent investigation report within the annual exploration compliance report demonstrating that the licensee could not have reasonably prevented the accident through the implementation of precautionary measures.
General public, employees, contractors and the environment	Contamination of the environment when exploring for known uranium and thorium deposits. Public and employee/contractor exposure to low level radiation.	No (Applicable to exploration programs located within known uranium or thorium deposits.)	• Not applicable – not exploring for uranium – do not expect to intersect uranium/thorium rich units				**No increase in background radiation levels, and employee/contractor exposure levels during the exploration program are within safe limits.**	Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that: • Radiation levels post exploration and rehabilitation are consistent with pre-existing background levels. • Employee and contractors exposure levels were within safe limits during the exploration program.
General public, employees, contractors and the environment	Contamination of the environment through intersecting asbestiform minerals. Public and employee/contractor exposure to asbestos minerals/fibres	Yes	• Utilisation of dust suppression systems and dust suppression additives • Disposal of asbestiform minerals in approved locations/pits, adequately sign posted, recorded, and monitored. • Disposal of contaminated materials i.e. PPE, in heavy duty polyethylene bag, disposed at an authorised waste facility. • Consultation and communication with employees and contractors through Management plans, inductions, daily pre-start meetings, and training. • Maintaining availability and supply of suitable PPE and contaminated disposal bins. • Maintaining adequate signage around suspected, potential asbestos related drill sites. • Public exposure - Ensure all potentially contaminated vehicles and equipment are adequately decontaminated prior to leaving site and entering public areas. • Plan drill sites to avoid intersecting known asbestos minerals.	2	B	L	**Exposure levels to employees/contractors are within safe limits.** **No public exposure to asbestos materials/fibres**	Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that: • Asbestos levels post exploration and rehabilitation are consistent with pre-existing environment levels. • Employee and contractors exposure levels were within safe limits during the exploration program.

* 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)

Indiana has an Environmental Health & Safety Policy document which is reviewed annually or updated if situations alter.

Field staff, visitors and contractors are inducted on site. The induction includes emergency contacts (sheet provided for each vehicle and one kept at camp); code of conduct for exploration programs which includes safety, communication; possible landowner issues, native title and heritage issues and compliance issues including hazard identification, reporting of hazards and incidents. All staff. Visitors and contractors arerequired to sign a form they have been inducted and understand the issues and have the opportunity to ask questions.

Indiana has a suite of procedures to cover field work and these form the basis of the Company's Induction Presentation. Indiana has Incident reporting forms available at camp.

Indiana generally conducts daily pre-start meetings which may be held weekly if the same personnel are on site for extended periods. At these meetings a discussion of any safety issues including hazard identification and reporting of hazards is the main focus.

The drilling contractors camp at the Wilgena Shearers quarters with Indiana personnel and they have regular contact and discussion about any issues which are generally resolved.

The senior person on site (usually a geologist) will inspect sites at the completion of drilling etc to ensure there has been no hydrocarbon spills and the hole is capped and the site is tidy with no safety issues.

Indiana has constant contact with landowners (especially at Wilgena) where Indiana and contractors stay in the Wilgena Shearers Quarters. When working on North Well Pastoral Lease Indiana will have regular contact with the Manager to keep him updated on work areas and travel routes to make sure he knows where people may be and to make sure Indiana is not interrupting the running of his business (i.e making sure the Company does not work in paddocks which are being mustered without approval).

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.

<Include text here.>

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
LLRC 070	24/05/2022					Prior to rehabilitation

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
LLRC 029	16/02/2022					Drill collar cut and capped

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
LLRC 029	16/02/2022					After rehabilitation

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.

<Attach maps here

List of Figures

- Tenements Locations & Native Title
- Imagery
- Pastoral Stations
- Vegetation
- Soil Classification
- Elevation Contours
- Elevation Model
- Aquatic GDE
- Terrestrial GDE
- Lake Gairdner National Park and Conservation Areas
- Heritage Exclusions & Lake and Clay Pan Buffers

Flora

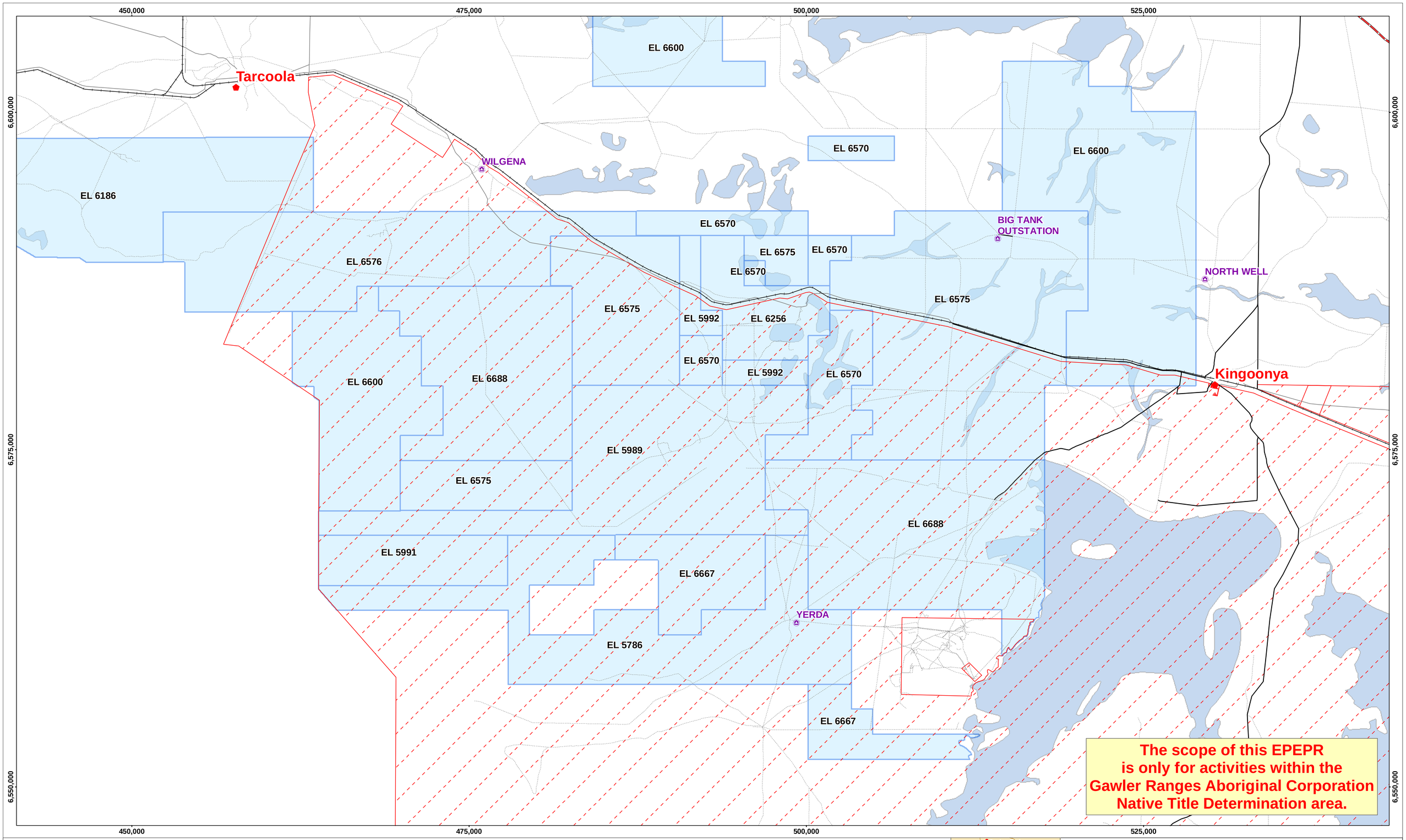
- Sandalwood Occurrences
- Symon's Bindyi Occurrences
- Wild Violet Occurrences
- Purple Love-grass Occurrences
- Dark Green Swainson-pea Occurrences
- Weeds of Significance Occurrences

Fauna

- Slender-billed Thornbill Occurrences
- Southern Whiteface Occurrences
- White-browed Treecreeper Occurrences
- Peregrine Falcon Occurrences
- Major Mitchell's Cockatoo Occurrences
- Yellow-throated Miner Occurrences
- Hooded Robin Occurrences
- Bluebonnet (Eastern and Naretha) Occurrences

Appendix A

- Asbestos Management Plan



Homesteads
- Homesteads

Places
- Places

Railway
- Railway

Principal Roads
- Principal Roads

Minor Roads

CLASS
- Secondary Road
- Minor Road
- Track

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Source: SARIG

INDIANA RESOURCES LIMITED

GRAC EPEPR
Tenements Locations & Native Title

Originator:
Drawn: PJB
Print Date: 6/03/2024
Page Size: A1

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Kilometres
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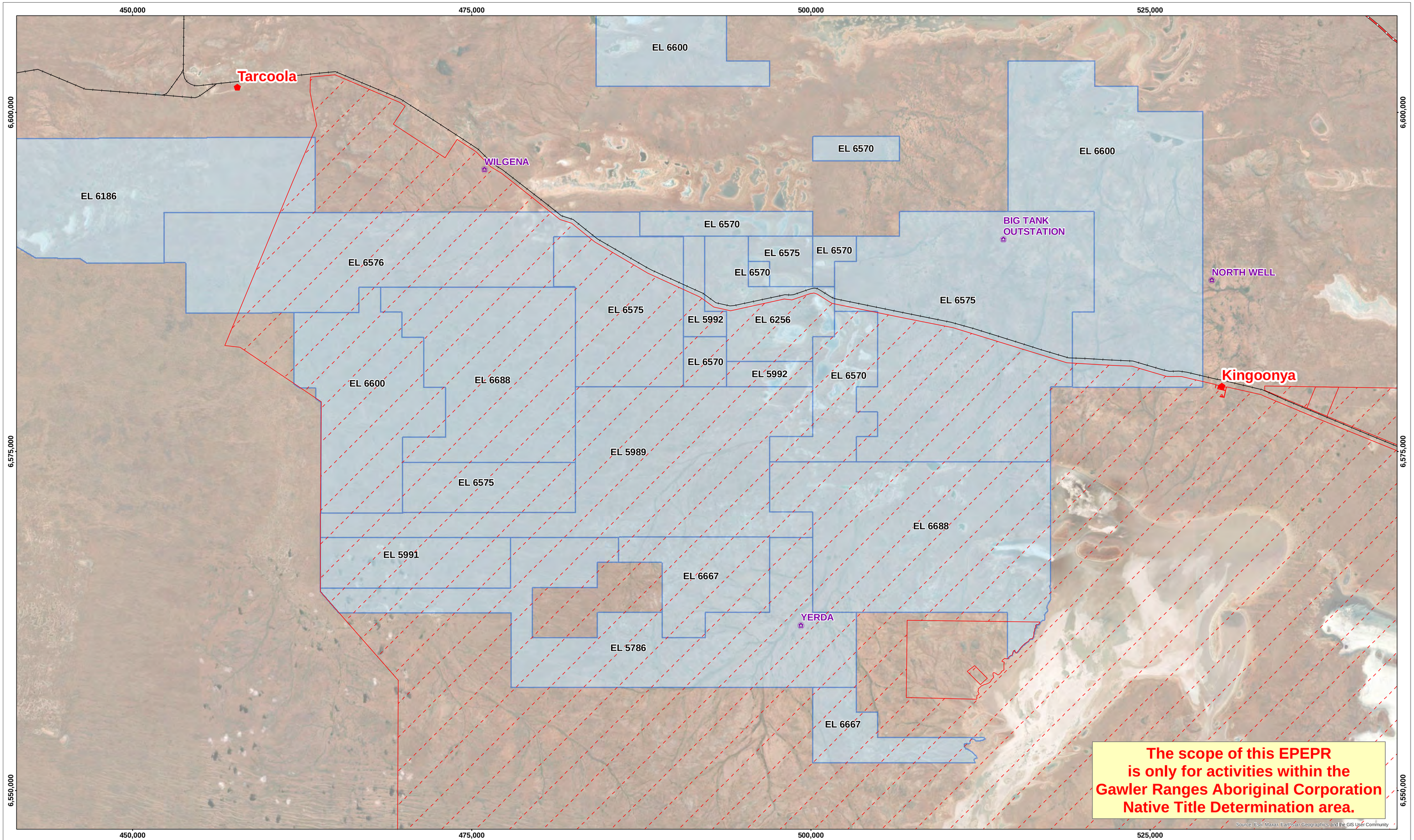
GDA 1994 MGA Zone 53

N

Indiana Resources Limited

Ref: Overview Tenements Locations and Native Title



Homesteads

Homesteads

Places

Places

Railway

Railway

Principal Roads

Principal Roads

Native_Title_Nat

NAME, DETOUTCOME

Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL

EL 5786
EL 5989
EL 5991
EL 5992
EL 6186
EL 6256
EL 6570
EL 6575
EL 6576
EL 6600
EL 6667
EL 6688

Data Source: SARIG

INDIANA RESOURCES LIMITED

GRAC EPEPR
Imagery

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GDA 1994 MGA Zone 53

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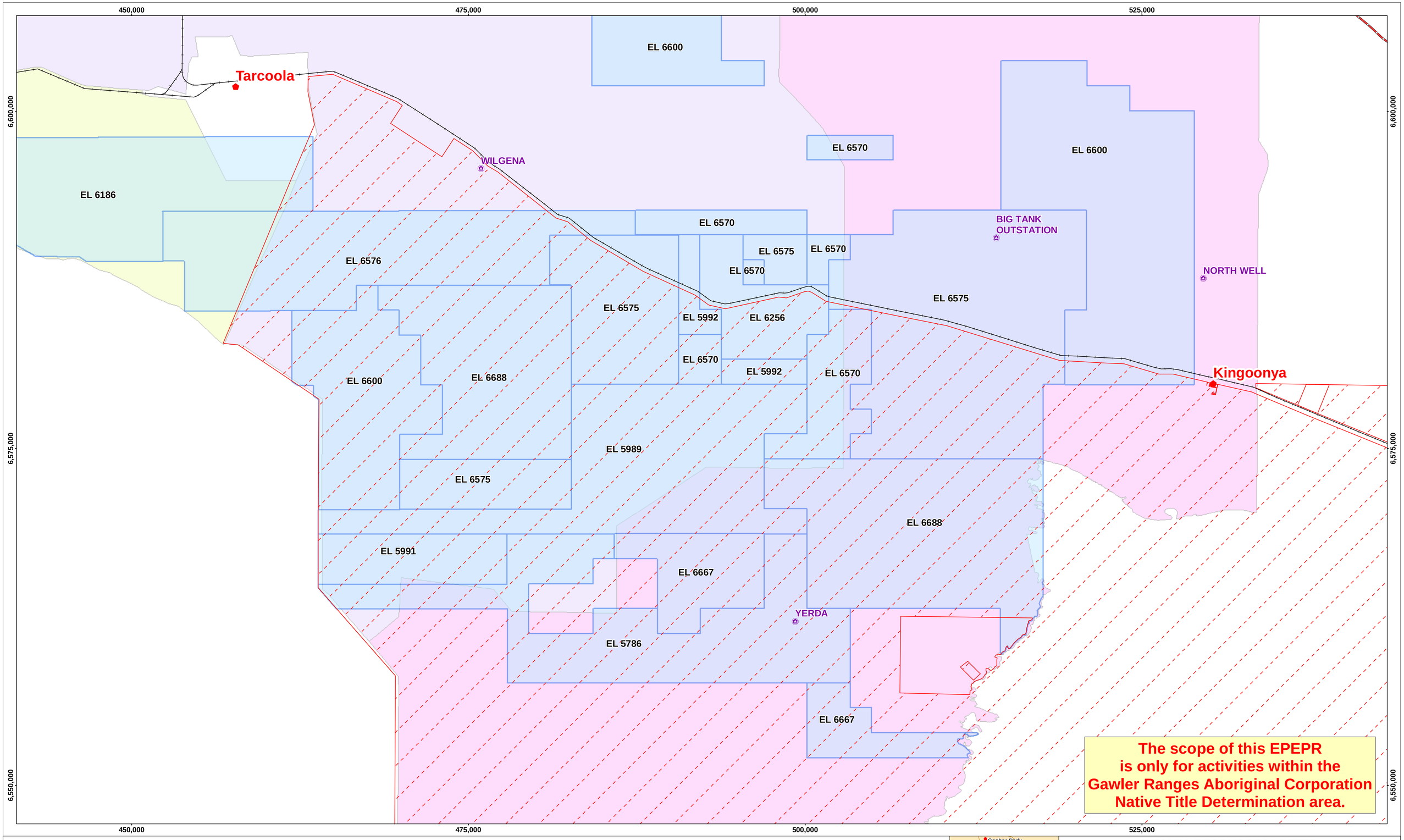
Indiana Resources Limited

Ref: Overview Tenements Locations and Imagery



Homesteads

Homesteads

Places

Places

Railway

Railway

Principal Roads

Principal Roads

Native_Title_Nat

NAME, DETOUTCOME

Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL

- EL 5786
- EL 5989
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- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Pastoral Stations

NAME

- Mulgathing
- North Well
- Wilgena

Data Source: SARIG

INDIANA RESOURCES LIMITED

GRAC EPEPR
Pastoral Stations

Originator:
Drawn: PJB
Print Date: 6/03/2024
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GDA 1994 MGA Zone 53

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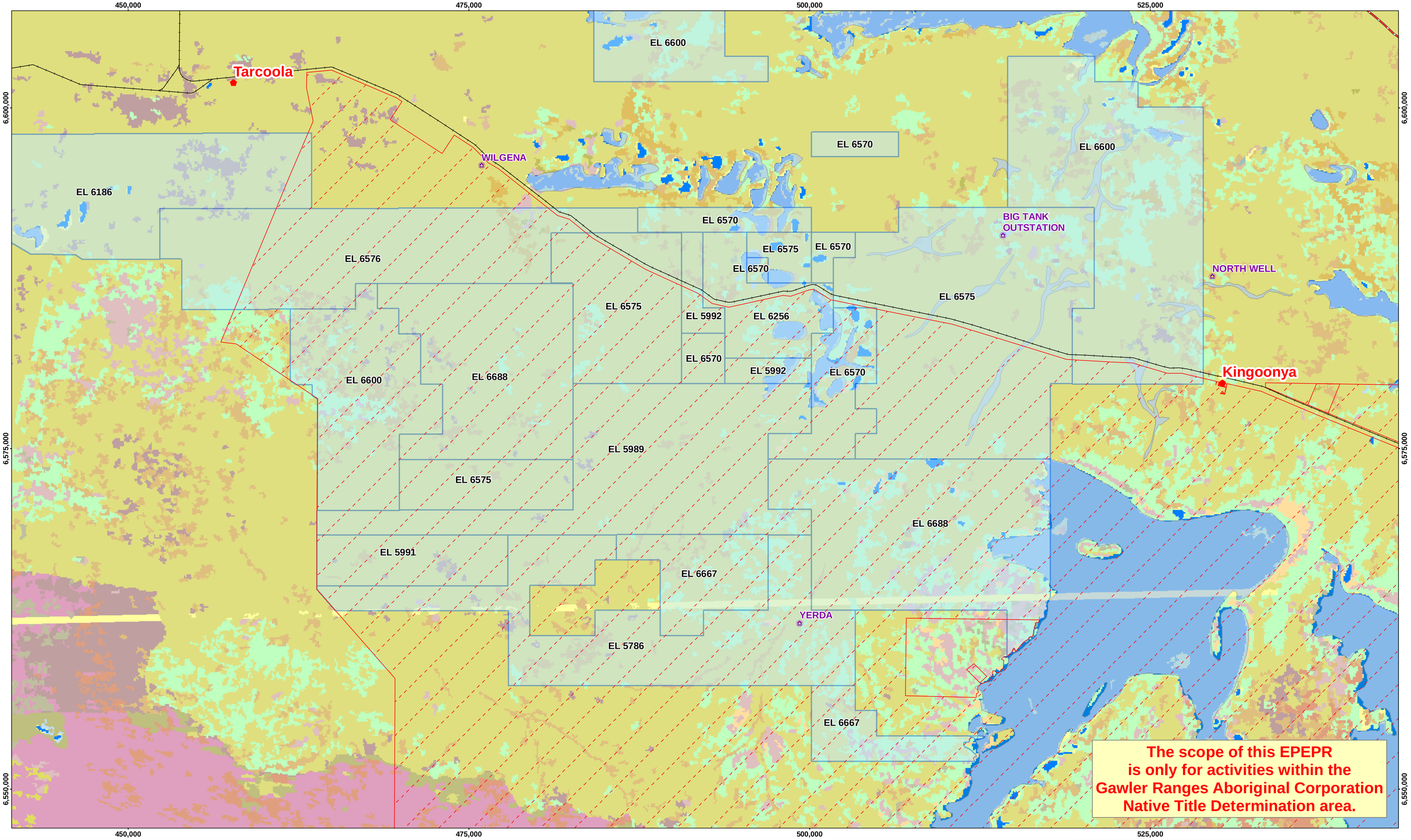
Indiana Resources Limited

Ref: Overview Tenements Locations and Pastoral Stations



Homesteads
- Homesteads

Places
- Places

Railway
- Railway

Principal Roads
- Principal Roads

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
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- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

aust4_1e_all_mvs2

Value
- Other Acacia forests and woodlands
- Other Acacia tall open shrublands and [tall] shrublands
- Acacia (+/- low) open woodlands and shrublands with chenopods
- Acacia (+/- low) open woodlands and shrublands with hummock grass
- Acacia (+/- low) open woodlands and shrublands +/- tussock grass
- Casuarina and Allocasuarina forests and woodlands
- Mallee with hummock grass
- Saltbush and Bluebush shrublands
- Other shrublands
- Temperate tussock grasslands
- Mixed chenopod, samphire +/- forbs
- Naturally bare, sand, rock, claypan, mudflat
- Salt lakes and lagoons
- Freshwater, dams, lakes, lagoons or aquatic plants
- Mulga (Acacia aneura) open woodlands and sparse shrublands +/- tussock grass
- Mallee with an open shrubby understorey
- Eucalyptus (+/- low) open woodlands with a chenopod or samphire understorey
- Casuarina and Allocasuarina open woodlands with a chenopod shrub understorey
- Melaleuca open woodlands
- Unclassified native vegetation

Data Source: SARIG

INDIANA RESOURCES LIMITED

GRAC EPEPR Vegetation

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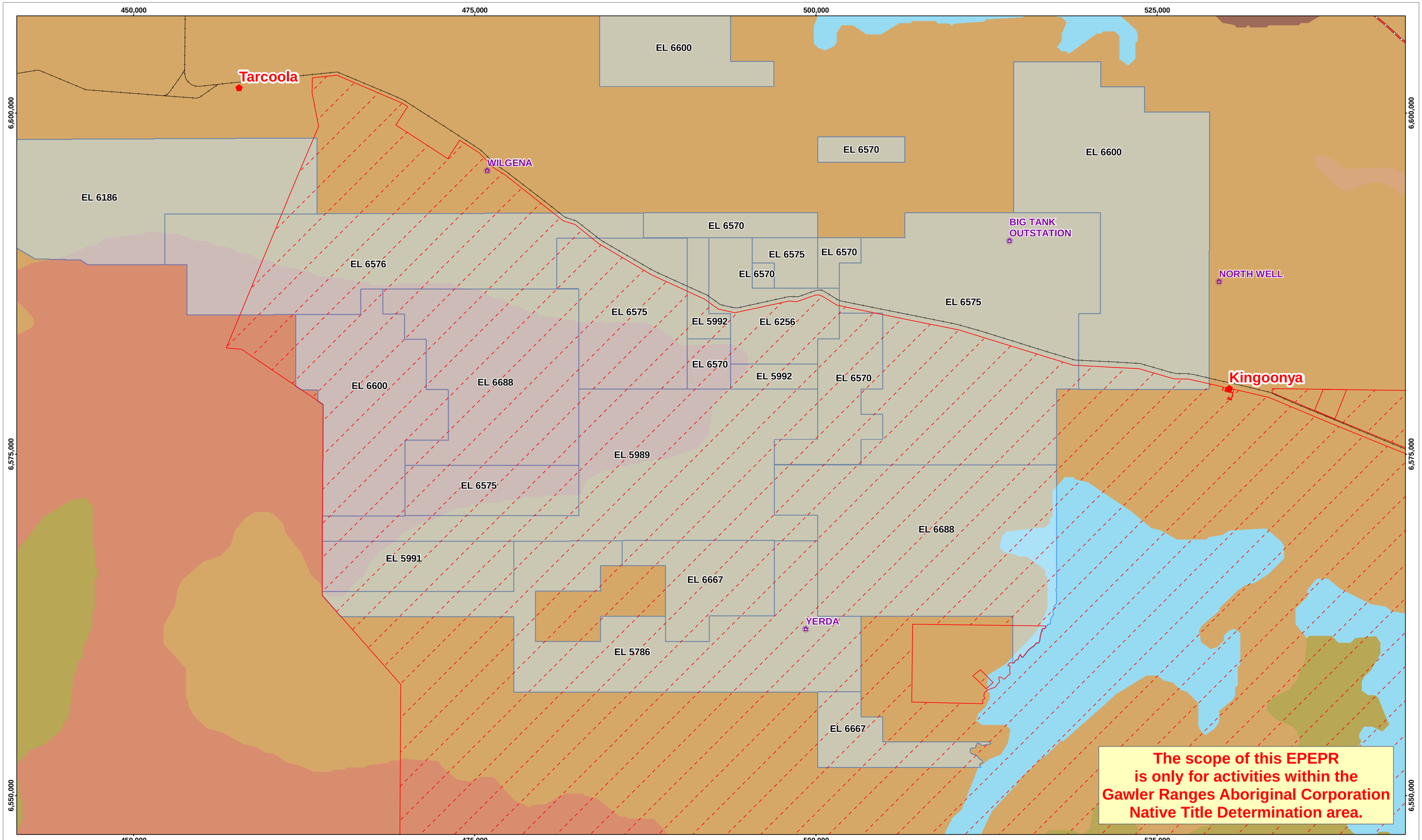
Indiana Resources Limited

Ref: Overview Tenements Locations and Vegetation



Homesteads

- Homesteads

Places

- Places

Railway

- Railway

Principal Roads

- Principal Roads

Native_Title_Nat

NAME, DETOUTCOME

- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL

- EL 5786
- EL 5989
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- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Soil Atlas

Map_Code_Name

- Calcarosol
- Kandosol
- Lake
- Rudosol
- Tenosol
- Vertosol

Data Source: SARIG

INDIANA RESOURCES LIMITED

GRAC EPEPR
Soil Classification

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GDA 1994 MGA Zone 53

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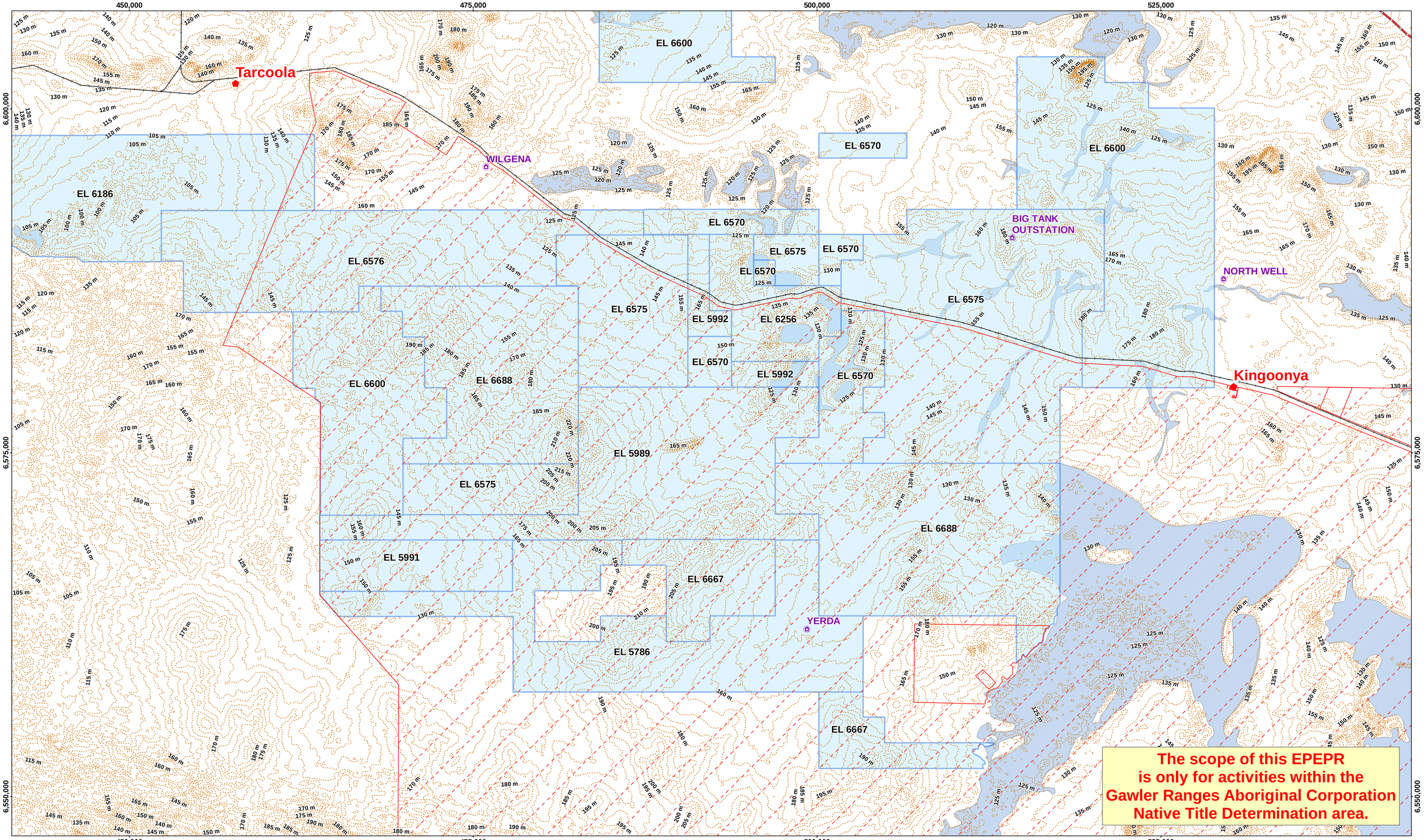
Indiana Resources Limited

Ref: Overview Tenements Locations and Soil Classification



Homesteads
- Homesteads

Places
- Places

Railway
- Railway

Principal Roads
- Principal Roads

Areas_9A_9B_5m_Contours
- Areas_9A_9B_5m_Contours

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
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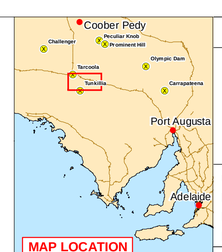
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Source: SARIG



INDIANA RESOURCES LIMITED

GRAC EPEPR
Elevation Contours

Originator:
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GDA 1994 MGA Zone 53

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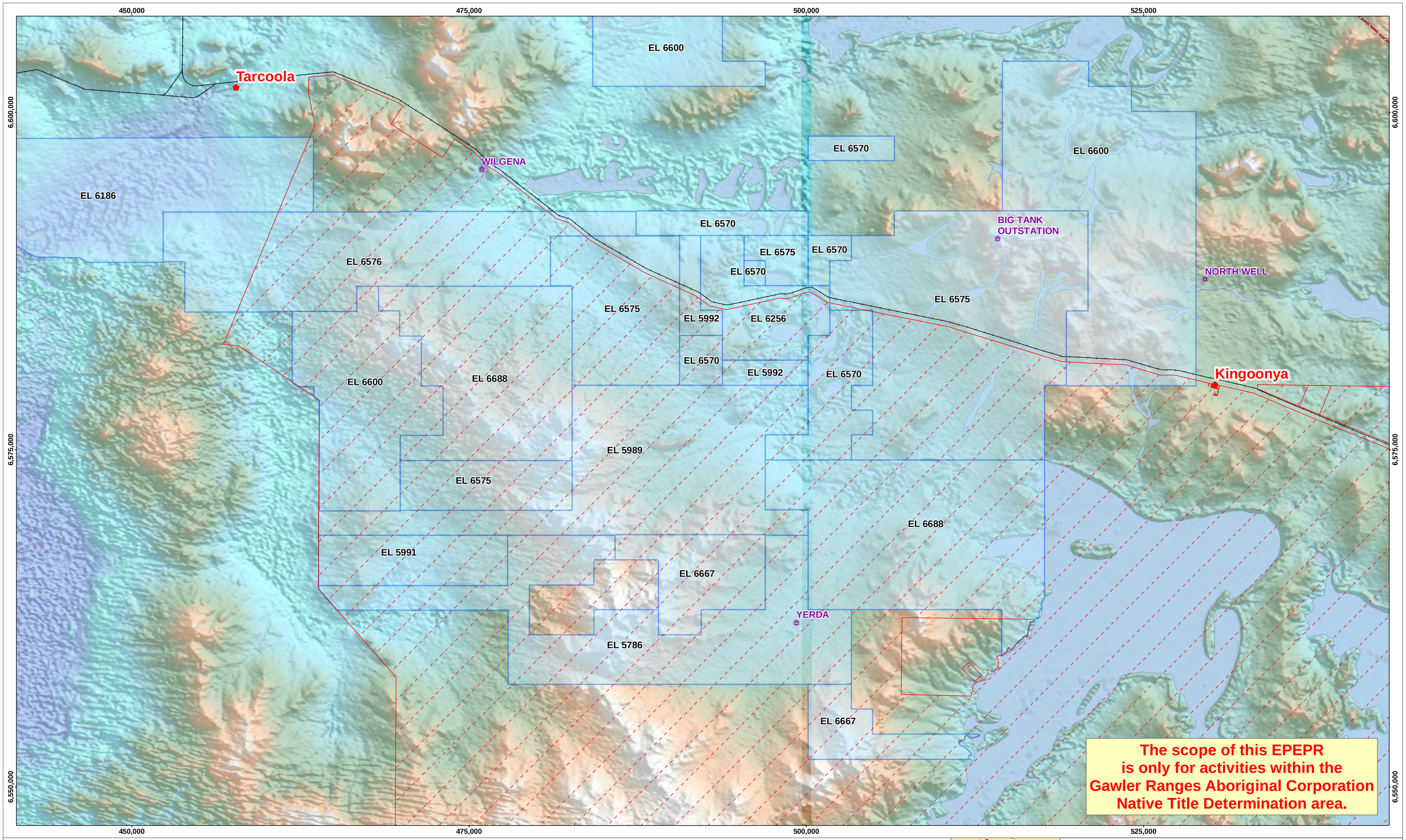
Indiana Resources Limited

Ref: Overview Tenements Locations and Elevation Contours



Homesteads

- Homesteads

Places

- Places

Railway

- Railway

Principal Roads

- Principal Roads

Native_Title_Nat

NAME, DETOUTCOME

- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL

- EL 5786
- EL 5989
- EL 5991
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- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways

- Inland Waterways

Data Source: SARIG

INDIANA RESOURCES LIMITED

GRAC EPEPR
Elevation Model

Originator:
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GDA 1994 MGA Zone 53

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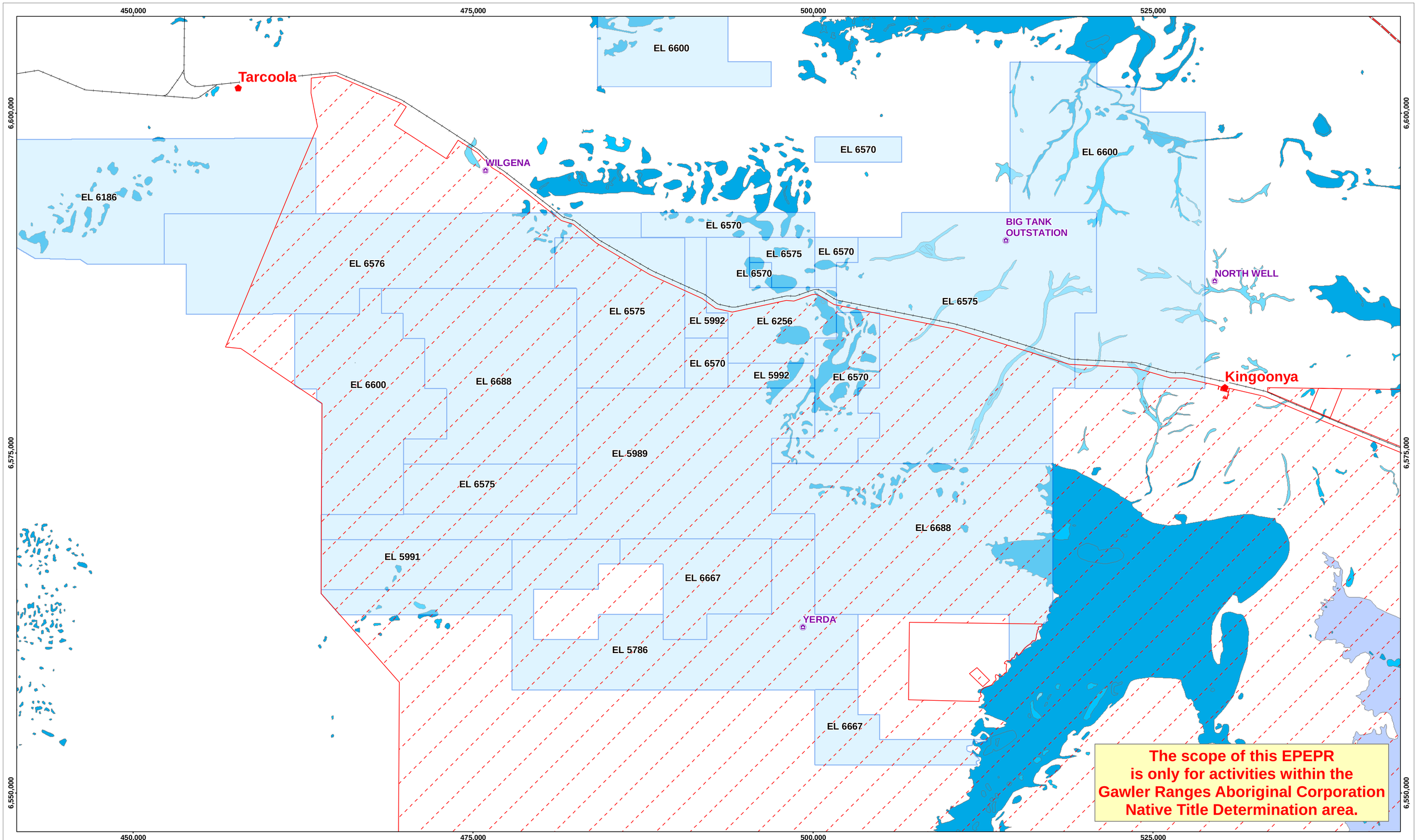
Indiana Resources Limited

Ref: Overview Tenements Locations and Elevation Model



Places
- Places

Homesteads
- Homesteads

Railway
- Railway

Principal Roads
- Principal Roads

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
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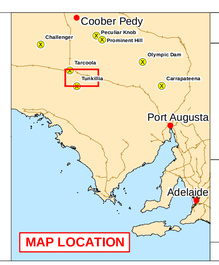
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Aquatic GDE

Assesment
- High potential GDE - from national assessment
- Moderate potential GDE - from national assessment
- Low potential GDE - from national assessment
- Unclassified potential GDE - from regional studies

Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps
BOM http://www.bom.gov.au/water/groundwater/gde/map.shtml



INDIANA RESOURCES LIMITED

GRAC EPEPR
Aquatic GDE

Originator:
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Print Date: 1/05/2024
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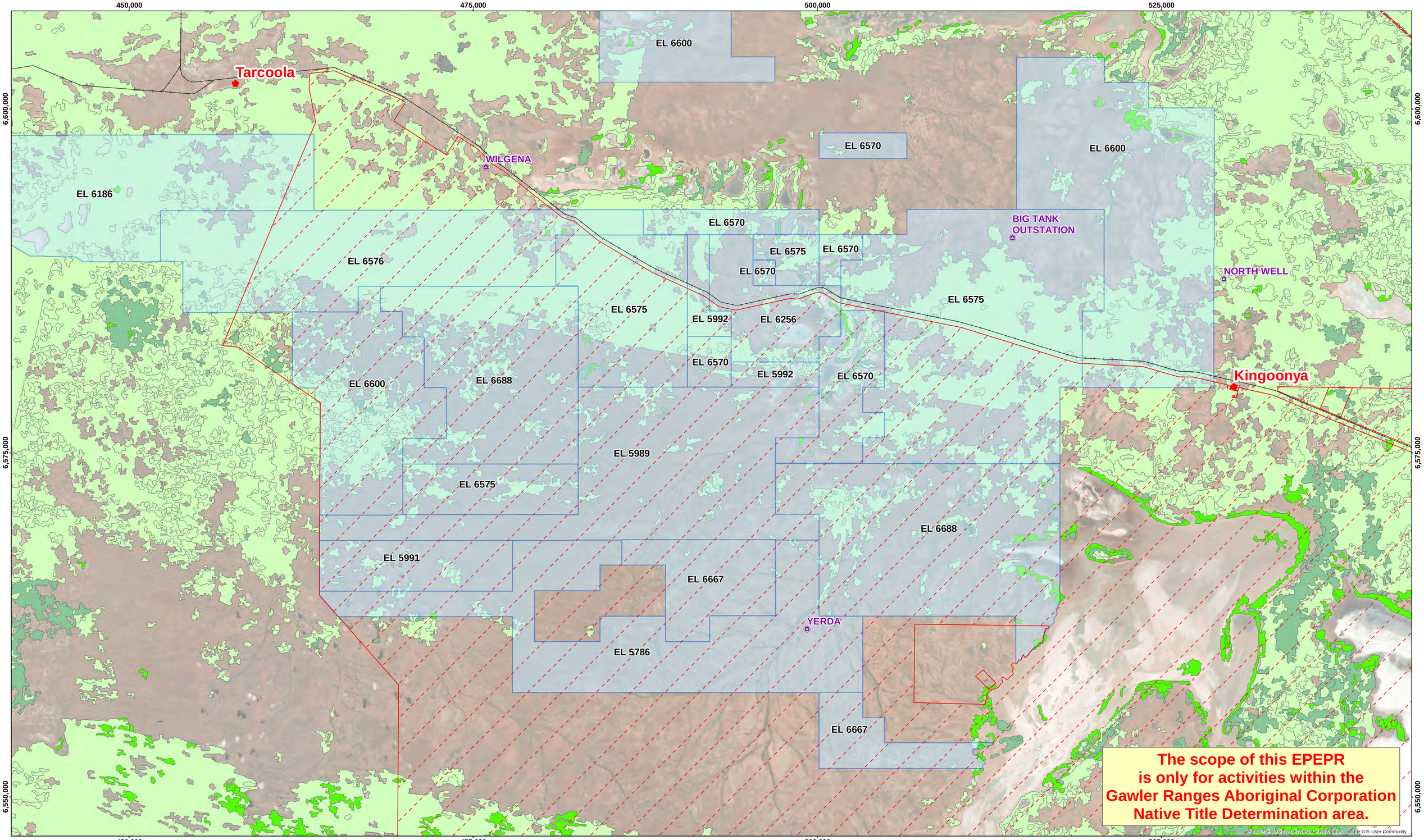
Kilometres
1:125,000
GDA 1994 MGA Zone 53

N

Indiana Resources Limited

Ref: Overview Tenements Aquatic GDE



Places
- Places

Homesteads
- Homesteads

Railway
- Railway

Principal Roads
- Principal Roads

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
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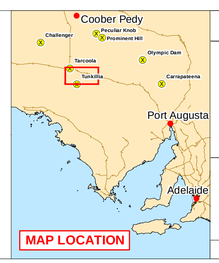
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Terrestrial GDE

gwdep_ds
- High potential GDE - from national assessment
- Low potential GDE - from national assessment
- Moderate potential GDE - from national assessment

Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps
BOM http://www.bom.gov.au/water/groundwater/gde/map.shtml



INDIANA RESOURCES LIMITED

GRAC EPEPR
Terrestrial GDE

Originator:
Drawn: PJB
Print Date: 1/05/2024
Page Size: A1

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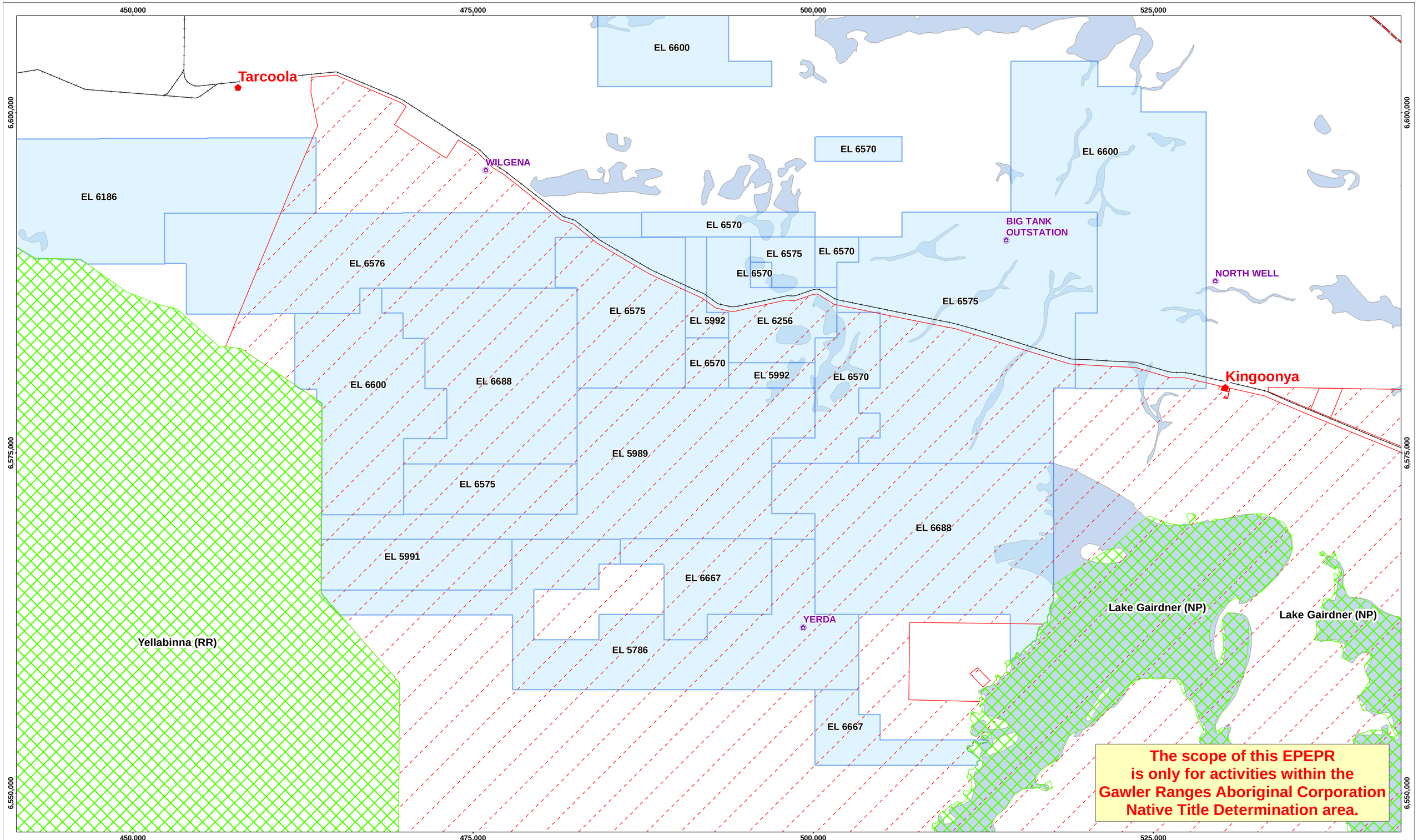
Kilometres
1:125,000
GDA 1994 MGA Zone 53

N

Indiana Resources Limited

Ref: Overview Tenements Terrestrial GDE



Homesteads
- Homesteads

Places
- Places

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME

Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
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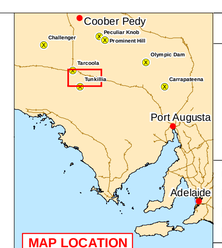
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Source: SARIG



INDIANA RESOURCES LIMITED

GRAC EPEPR
Lake Gairdner National Park and Conservation Areas

Originator:
Drawn: PJB
Print Date: 6/03/2024
Page Size: A1

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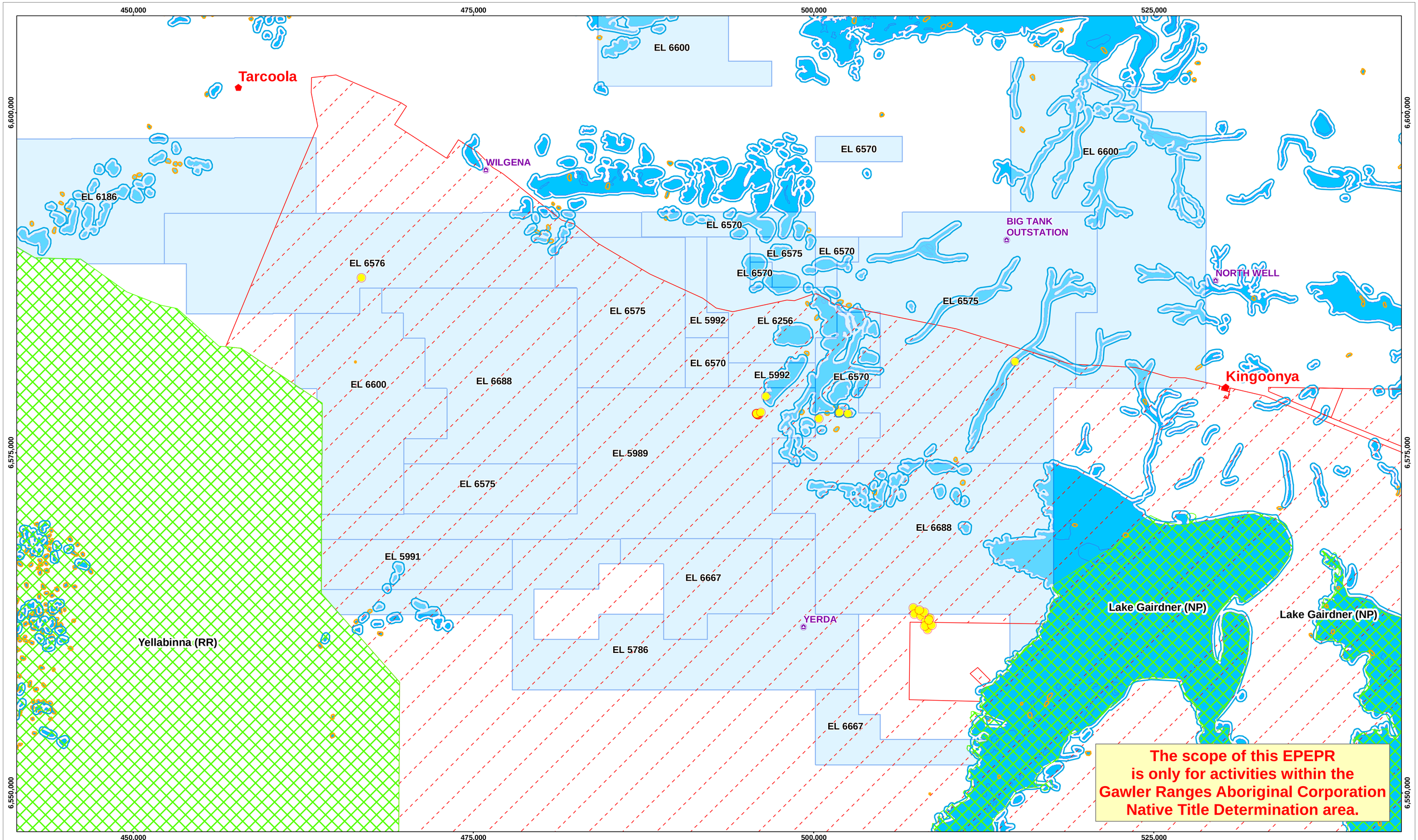
Kilometres
1:125,000
GDA 1994 MGA Zone 53

N

Indiana Resources Limited

Ref: Overview Tenements and Lake Gairdner NP



Places
- Places

Homesteads
- Homesteads

Heritage Exclusion Points
- Heritage Exclusion Points

Lake and Clay Pan Buffers
- Buffer 200m
- Buffer 50m

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
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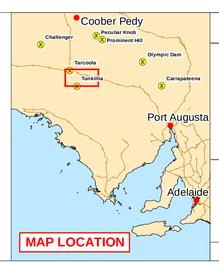
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Aquatic GDE
- Aquatic GDE

Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps
BOM http://www.bom.gov.au/water/groundwater/gde/map.shtml



INDIANA RESOURCES LIMITED

GRAC EPEPR
Heritage Exclusions & Lake and Clay Pan Buffers

Originator:
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Print Date: 1/05/2024
Page Size: A1

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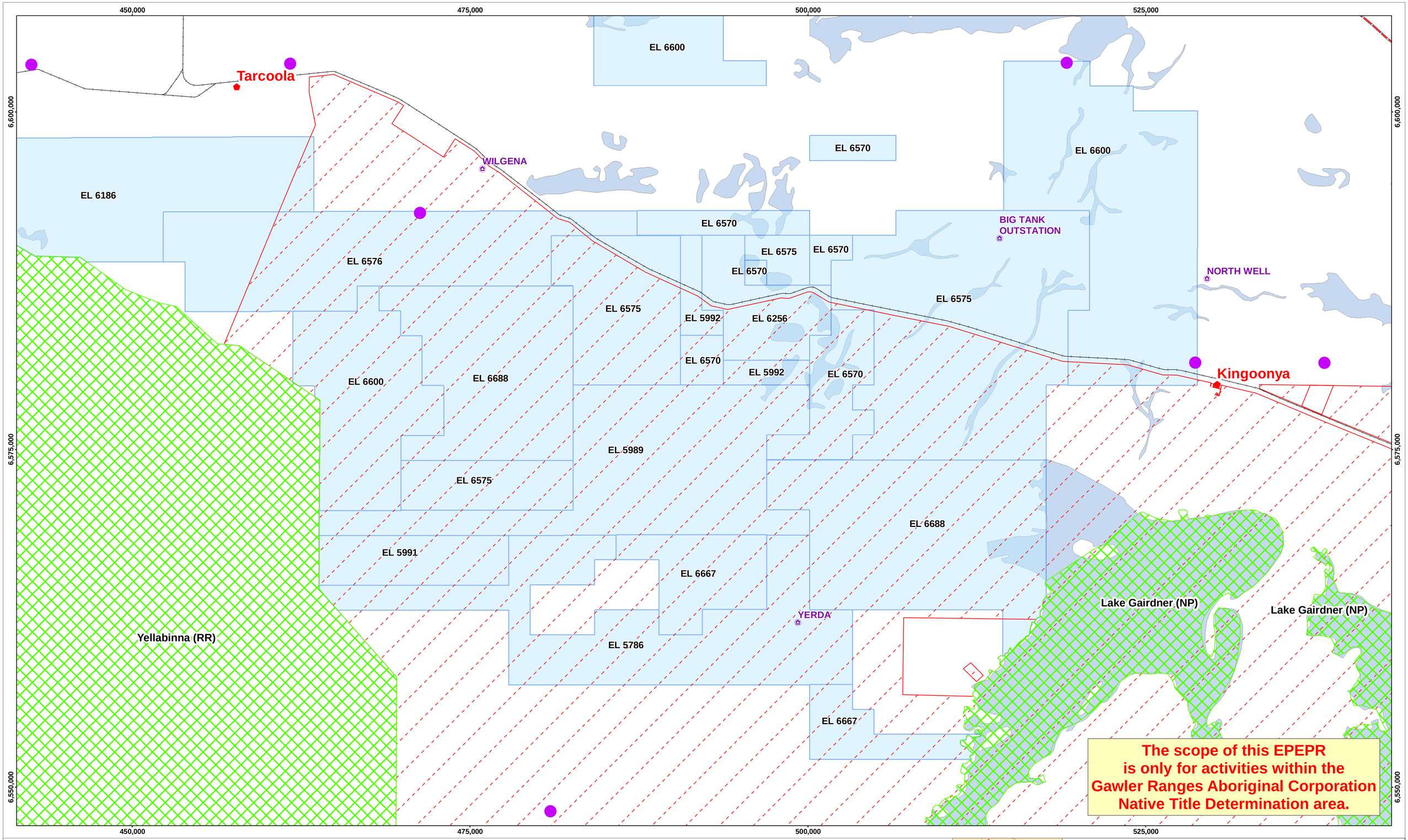
Kilometres
1:125,000
GDA 1994 MGA Zone 53

N

Indiana Resources Limited

Ref: Overview Tenements Heritage Exclusion and Lake Buffers



Places
- Places

Homesteads
- Homesteads

Common Name
- Sandalwood

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps

INDIANA RESOURCES LIMITED

GRAC EPEPR Sandalwood Occurrences

Originator:
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Print Date: 1/05/2024
Page Size: A1

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GDA 1994 MGA Zone 53

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Indiana Resources Limited

Ref: Overview Tenements Sandalwood Occurrences

450,000 475,000 500,000 525,000

6,600,000 6,575,000 6,550,000

Tarcoola

WILGENA

BIG TANK OUTSTATION

NORTH WELL

Kingoonya

YERDA

EL 6600

EL 6570

EL 6600

EL 6186

EL 6570

EL 6575

EL 6570

EL 6570

EL 6576

EL 6575

EL 6575

EL 5992

EL 6256

EL 6570

EL 5992

EL 6570

EL 6600

EL 6688

EL 5989

EL 6575

EL 6688

EL 5991

EL 6667

EL 5786

Yellabinna (RR)

EL 6667

Lake Gairdner (NP)

Lake Gairdner (NP)

The scope of this EPEPR is only for activities within the Gawler Ranges Aboriginal Corporation Native Title Determination area.

Places
- Places

Homesteads
- Homesteads

Common Name
- Symon's Bindyi

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps

INDIANA RESOURCES LIMITED

GRAC EPEPR
Symon's Bindyi Occurrences

Originator:
Drawn: PJB
Print Date: 1/05/2024
Page Size: A1

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Kilometres
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GDA 1994 MGA Zone 53

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Indiana Resources Limited

Ref: Overview Tenements Symons Bindyi Occurrences

450,000 475,000 500,000 525,000

6,600,000 6,575,000 6,550,000

Tarcoola

WILGENA

BIG TANK OUTSTATION

NORTH WELL

Kingoonya

YERDA

Yellabinna (RR)

Lake Gairdner (NP)

Lake Gairdner (NP)

EL 6600

EL 6186

EL 6570

EL 6576

EL 6575

EL 5992

EL 6256

EL 6688

EL 5989

EL 5991

EL 6667

EL 5786

The scope of this EPEPR is only for activities within the Gawler Ranges Aboriginal Corporation Native Title Determination area.

Places
- Places

Homesteads
- Homesteads

Common Name
- Wild Violet

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
SARIG https://map.sarig.sa.gov.au/
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INDIANA RESOURCES LIMITED

GRAC EPEPR Wild Violet Occurrences

Originator:
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Print Date: 1/05/2024
Page Size: A1

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GDA 1994 MGA Zone 53

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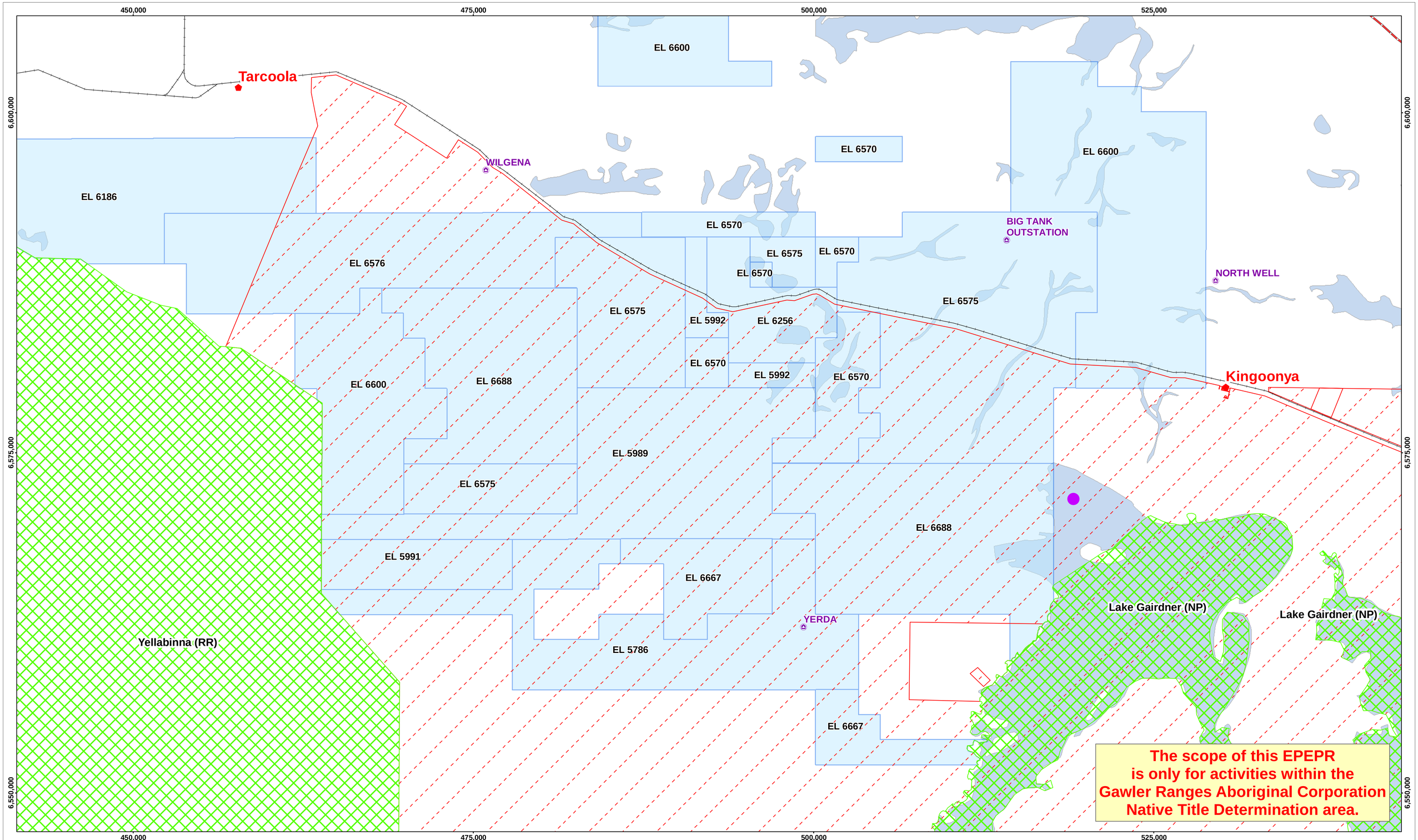
Indiana Resources Limited

Ref: Overview Tenements Wild Violet Occurrences



Places
- Places

Homesteads
- Homesteads

Common Name
- Purple Love-grass

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

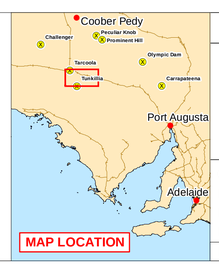
Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways



Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps

INDIANA RESOURCES LIMITED

GRAC EPEPR
Purple Love-grass Occurrences

Originator:
Drawn: PJB
Print Date: 1/05/2024
Page Size: A1

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Kilometres
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GDA 1994 MGA Zone 53

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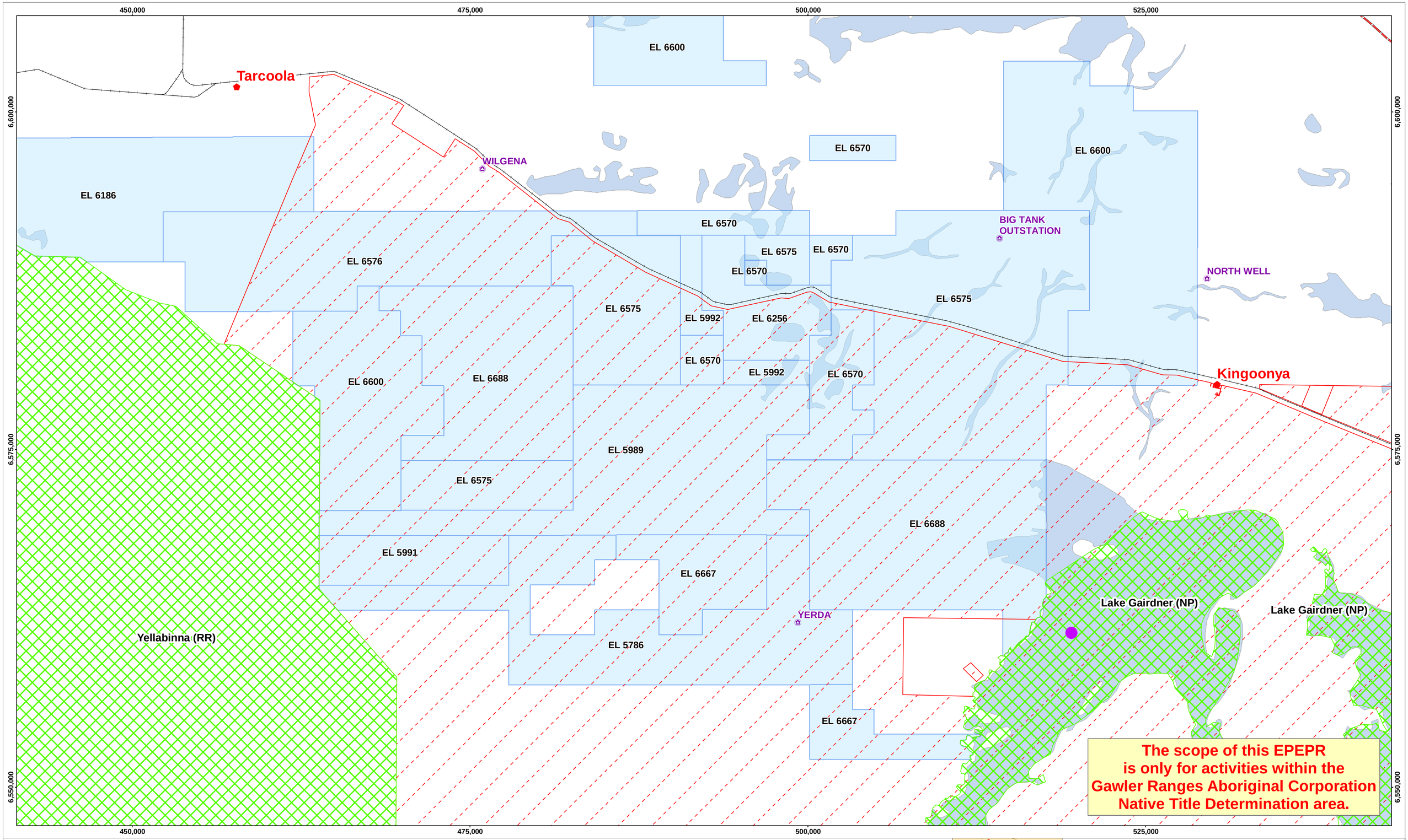
Indiana Resources Limited

Ref: Overview Tenements Purple Love-grass Occurrences



Places
- Places

Homesteads
- Homesteads

Common Name
- Dark Green Swainson-pea

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps

INDIANA RESOURCES LIMITED

GRAC EPEPR
Dark Green Swainson-pea Occurrences

Originator:
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Indiana Resources Limited

Ref: Overview Tenements Dark Green Swainson-pea Occurrences

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6,600,000 6,575,000 6,550,000

Tarcoola

WILGENA

BIG TANK OUTSTATION

NORTH WELL

Kingoonya

YERDA

Yellabinna (RR)

Lake Gairdner (NP)

Lake Gairdner (NP)

EL 6600

EL 6186

EL 6570

EL 6576

EL 6575

EL 5992

EL 6256

EL 6688

EL 5989

EL 5991

EL 6667

EL 5786

The scope of this EPEPR is only for activities within the Gawler Ranges Aboriginal Corporation Native Title Determination area.

Places
- Places

Homesteads
- Homesteads

Nature Map Flora

Common Name
- Buffel Grass
- Drooping Prickly Pear
- Erect Prickly Pear
- Mesquite
- Prickly Pear

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
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GRAC EPEPR
Weeds of Significance Occurrences

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Ref: Overview Tenements Weeds of Significance Occurrences

450,000 475,000 500,000 525,000

6,600,000 6,575,000 6,550,000

Tarcoola

WILGENA

BIG TANK OUTSTATION

NORTH WELL

Kingoonya

YERDA

EL 6600

EL 6570

EL 6600

EL 6186

EL 6570

EL 6575

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EL 6570

EL 5992

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EL 6600

EL 6688

EL 5989

EL 6575

EL 6688

EL 5991

EL 6667

EL 5786

Yellabinna (RR)

EL 6667

Lake Gairdner (NP)

Lake Gairdner (NP)

The scope of this EPEPR is only for activities within the Gawler Ranges Aboriginal Corporation Native Title Determination area.

Places
- Places

Homesteads
- Homesteads

Nature Map Fauna

Common Name
- Slender-billed Thornbill

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
SARIG https://map.sarig.sa.gov.au/
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GRAC EPEPR
Slender-billed Thornbill Occurrences

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Indiana Resources Limited

Ref: Overview Tenements Slender-billed Thornbill Occurrences

450,000 475,000 500,000 525,000

6,600,000

6,575,000

6,550,000

Tarcoola

WILGENA

BIG TANK OUTSTATION

NORTH WELL

Kingoonya

YERDA

Yellabinna (RR)

Lake Gairdner (NP)

Lake Gairdner (NP)

EL 6600

EL 6570

EL 6186

EL 6576

EL 6575

EL 6570

EL 6570

EL 6575

EL 5992

EL 6256

EL 6570

EL 5992

EL 6570

EL 6600

EL 6688

EL 5989

EL 6575

EL 6688

EL 5991

EL 6667

EL 5786

EL 6667

The scope of this EPEPR is only for activities within the Gawler Ranges Aboriginal Corporation Native Title Determination area.

Places
- Places

Homesteads
- Homesteads

Nature Map Fauna

Common Name
- Southern Whiteface

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
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GRAC EPEPR Southern Whiteface Occurrences

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GDA 1994 MGA Zone 53

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Indiana Resources Limited

Ref: Overview Tenements Southern Whiteface Occurrences

450,000 475,000 500,000 525,000

6,600,000 6,575,000 6,550,000

Tarcoola

WILGENA

BIG TANK OUTSTATION

NORTH WELL

Kingoonya

YERDA

Yellabinna (RR)

Lake Gairdner (NP)

Lake Gairdner (NP)

EL 6600

EL 6570

EL 6600

EL 6186

EL 6570

EL 6575

EL 6570

EL 6570

EL 6576

EL 6575

EL 6575

EL 5992

EL 6256

EL 6570

EL 5992

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EL 6688

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EL 6688

EL 5991

EL 6667

EL 5786

EL 6667

The scope of this EPEPR is only for activities within the Gawler Ranges Aboriginal Corporation Native Title Determination area.

Places
- Places

Homesteads
- Homesteads

Nature Map Fauna

Common Name
- White-browed Treecreeper

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps

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GRAC EPEPR
White-browed Treecreeper Occurrences

Originator:
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Indiana Resources Limited

Ref: Overview Tenements White-browed Treecreeper Occurrences

450,000 475,000 500,000 525,000

6,600,000 6,575,000 6,550,000

Tarcoola

WILGENA

BIG TANK OUTSTATION

NORTH WELL

Kingoonya

YERDA

Yellabinna (RR)

Lake Gairdner (NP)

Lake Gairdner (NP)

EL 6600

EL 6570

EL 6600

EL 6186

EL 6570

EL 6575

EL 6570

EL 6570

EL 6576

EL 6575

EL 6575

EL 5992

EL 6256

EL 6570

EL 5992

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EL 6688

EL 5991

EL 6667

EL 5786

EL 6667

The scope of this EPEPR is only for activities within the Gawler Ranges Aboriginal Corporation Native Title Determination area.

Places
- Places

Homesteads
- Homesteads

Nature Map Fauna

Common Name
- Peregrine Falcon

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps

INDIANA RESOURCES LIMITED

GRAC EPEPR Peregrine Falcon Occurrences

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Kilometres
1:125,000
GDA 1994 MGA Zone 53

N

Indiana Resources Limited

Ref: Overview Tenements Peregrine Falcon Occurrences

450,000 475,000 500,000 525,000

6,600,000 6,575,000 6,550,000

Tarcoola

WILGENA

BIG TANK OUTSTATION

NORTH WELL

Kingoonya

YERDA

Yellabinna (RR)

Lake Gairdner (NP)

Lake Gairdner (NP)

EL 6600
EL 6570
EL 6600
EL 6186
EL 6570
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EL 5786
EL 6667

The scope of this EPEPR is only for activities within the Gawler Ranges Aboriginal Corporation Native Title Determination area.

Places
- Places

Homesteads
- Homesteads

Nature Map Fauna

Common Name
- Major Mitchell's Cockatoo

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
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- EL 5991
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- EL 6186
- EL 6256
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- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
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NATUREMAPS https://data.environment.sa.gov.au/NatureMaps

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GRAC EPEPR
Major Mitchell's Cockatoo Occurrences

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Kilometres
1:125,000
GDA 1994 MGA Zone 53

N

Indiana Resources Limited

Ref: Overview Tenements Major Mitchells Cockatoo Occurrences

450,000 475,000 500,000 525,000

6,600,000 6,575,000 6,550,000

Tarcoola

WILGENA

BIG TANK OUTSTATION

NORTH WELL

Kingoonya

YERDA

Yellabinna (RR)

Lake Gairdner (NP)

Lake Gairdner (NP)

EL 6600

EL 6570

EL 6186

EL 6576

EL 6575

EL 6570

EL 6570

EL 6575

EL 6575

EL 5992

EL 6256

EL 6570

EL 6600

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EL 5991

EL 6667

EL 5786

EL 6667

The scope of this EPEPR is only for activities within the Gawler Ranges Aboriginal Corporation Native Title Determination area.

Places
- Places

Homesteads
- Homesteads

Nature Map Fauna

Common Name
- Yellow-throated Miner

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
- EL 6256
- EL 6570
- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps

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GRAC EPEPR
Yellow-throated Miner Occurrences

Originator:
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Kilometres
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GDA 1994 MGA Zone 53

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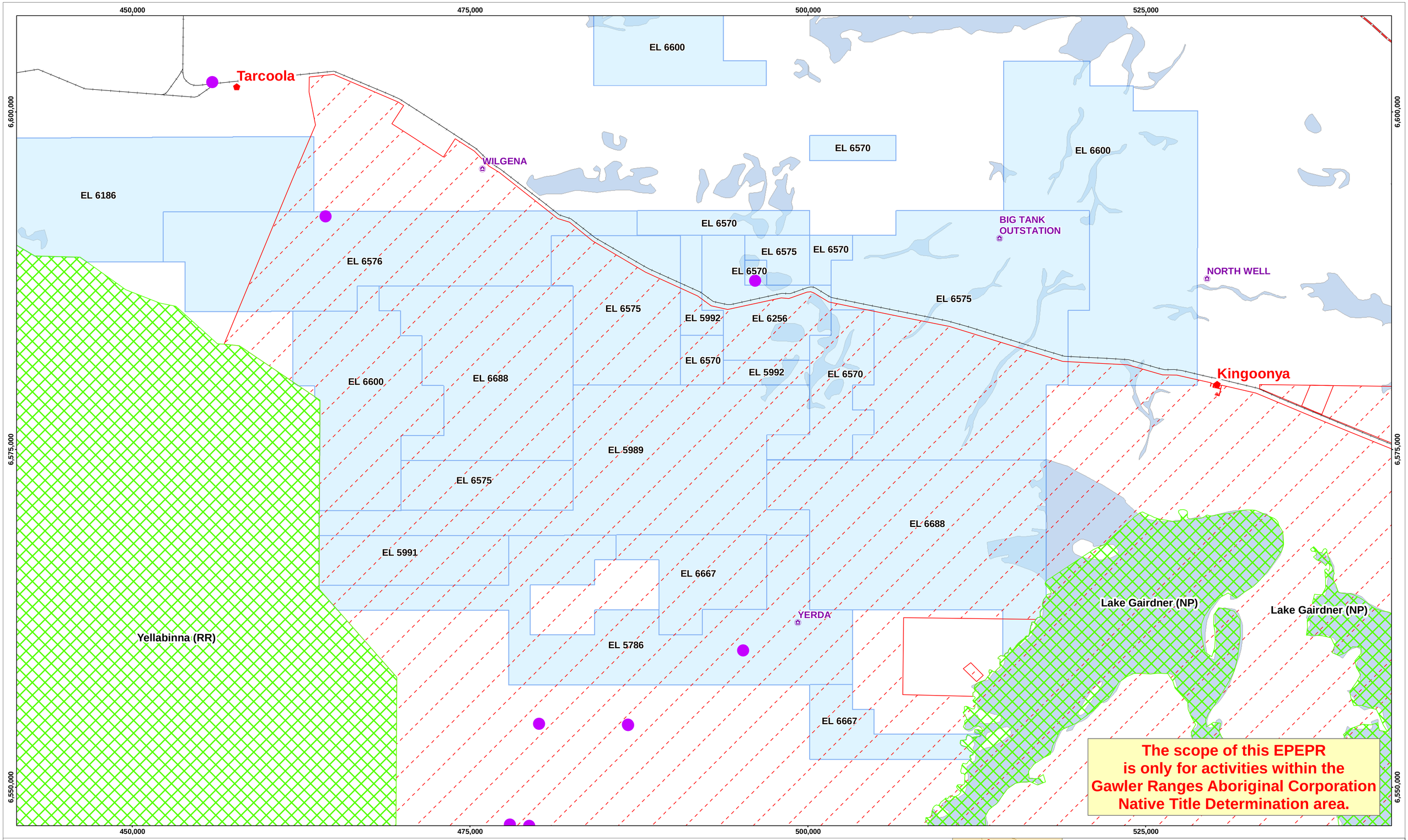
Indiana Resources Limited

Ref: Overview Tenements Yellow-throated Miner Occurrences



Places
- Places

Homesteads
- Homesteads

Nature Map Fauna

Common Name
- Hooded Robin

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
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- EL 6600
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- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
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NATUREMAPS https://data.environment.sa.gov.au/NatureMaps

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GRAC EPEPR Hooded Robin Occurrences

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Kilometres
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GDA 1994 MGA Zone 53

N

Indiana Resources Limited

Ref: Overview Tenements Hooded Robin Occurrences

450,000 475,000 500,000 525,000

6,600,000 6,575,000 6,550,000

Tarcoola

WILGENA

BIG TANK OUTSTATION

NORTH WELL

Kingoonya

YERDA

EL 6600

EL 6570

EL 6186

EL 6576

EL 6575

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EL 6600

EL 6688

EL 5992

EL 6570

EL 5989

EL 6575

EL 6688

EL 5991

EL 6667

EL 5786

EL 6667

Yellabinna (RR)

Lake Gairdner (NP)

Lake Gairdner (NP)

The scope of this EPEPR is only for activities within the Gawler Ranges Aboriginal Corporation Native Title Determination area.

Places
- Places

Homesteads
- Homesteads

Nature Map Fauna

Common Name
- Bluebonnet (Eastern and Naretha)

Railway
- Railway

Principal Roads
- Principal Roads

CONSERVATION Npwsa Reserves
- CONSERVATION Npwsa Reserves

Native_Title_Nat

NAME, DETOUTCOME
- Gawler Ranges People, Native title exists (non-exclusive)

INDIANA Exploration Licences

TENEMENT_LABEL
- EL 5786
- EL 5989
- EL 5991
- EL 5992
- EL 6186
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- EL 6575
- EL 6576
- EL 6600
- EL 6667
- EL 6688

Inland Waterways
- Inland Waterways

Data Sources:
SARIG https://map.sarig.sa.gov.au/
NATUREMAPS https://data.environment.sa.gov.au/NatureMaps

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GRAC EPEPR
Bluebonnet (Eastern and Naretha) Occurrences

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Kilometres
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Indiana Resources Limited

Ref: Overview Tenements Bluebonnet Eastern and Naretha Occurrences

Asbestos Management Plan

Indiana Resources Limited

27/05/2024

IDA-EXP-PLN-006-AMP

Authorisation

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1 Purpose

This management plan describes the expected requirements to protect, so far as is reasonably practical, employees and contractors from health risks associated with exposure to naturally occurring asbestiform minerals.

2 Scope

This management plan covers exploration and associated activities undertaken by Indiana Resources Limited (Indiana) and appointed contractors for exploration projects located in South Australia.

2.1 Application

This management plan applies to all employees, contractors, and visitors at Indiana exploration projects where there is the potential for encountering naturally occurring asbestiform minerals.

3 Definitions and Abbreviations

Definitions are provided in Table 3-1and abbreviations in Table 3-2.

Table 3-1 Definitions of terms used in this AMP

Term	Definition
Indiana	Indiana Resources Limited
Action level	The exposure at which controls to reduce the potential health effect to employees are necessary. Action level are set as half the adjusted national WES, unless otherwise specifically stipulated.
Asbestos	"Asbestos" is a commercial term referring to six types of naturally occurring silicate mineral fibres that can be separated into two broad categories: amphibole and serpentine minerals. These compromise the following: • Actinolite; • amosite (brown asbestos); • anthophyllite; • chrysotile (white asbestos); • crocidolite (blue asbestos); • tremolite. Any mixture containing one or more of the mineral silicates belonging to the serpentine and amphibole groups.
Asbestiform	Asbestiform is a crystal habit that refers to minerals having the following properties: • asbestiform morphology; • flexible fibres; • durable; • heat and corrosion resistant; • high tensile strength; and • low electrical conductivity. It describes a mineral that grows in a asbestiform aggregate of high tensile strength and in addition to being asbestiform is also flexible, long, and easily separable. Other amphiboles and serpentine minerals can be referred to as asbestiform minerals that are not normally referred to as asbestos e.g. lizardite & antigorite
AMP	Asbestos Management Plan

Term	Definition
Clean shaven	As per AS1715:2009, facial hair must be trimmed to be excluded from the seal of the respirator: moustaches should be short enough so as not to interfere with the seal and stubble should not be present, which requires daily shaving. It is possible some individuals may be required to shave twice per day.
Designated area (DA)	An area surrounding a known source of asbestiform material either visual or airborne (through air monitoring results). This also includes an area where a fibre intersection has occurred historically or where there is an almost certain likelihood of intersecting asbestiform minerals during drilling/mining
Fibre/asbestiform	Naturally occurring minerals that have an asbestiform form. Some occur naturally in both asbestiform and non-asbestiform forms, which have identical chemical compositions but different physical properties, morphology, and health consequences.
Asbestiform minerals	Any mineral that has an asbestiform form, including asbestos, asbestiform silica, and asbestiform goethite.
Ground disturbing activity	An activity that disturbs the natural ground enough to generate dust. Examples include land clearing. drilling, blasting, loading, and hauling and construction activities using machines.
Membrane filter method	The technique outlined in the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003(2005)]
Normal area	An area for which it is unlikely that fibres will be encountered during ground disturbing activities.
Respiratory protective equipment	A personal respiratory protective device, which is designed to prevent the inhalation of contaminated air
Shall	To be interpreted as mandatory
Should	To be interpreted as recommended
Time weight average	Average concentration of a particular substance when calculated over a normal eight-hour working day, for five-day working week.
Waste	Material (mineral overburden, detritals, non-mineralised, uneconomic etc.) that may have to be disturbed / moved and relocated
WES	Workplace exposure standard. The regulatory standard for which a worker is exposed to an airborne concentration of a particular substance, which should not cause adverse health effects

Table 3-2 Definitions of abbreviations used in this AMP

Term	Definition
AL	Action limit
AC	Air conditioning
DA	Designated area
HEPA	High efficiency particulate air, it refers to HEPA filters
HME	Heavy mobile equipment
JHA	Job hazard analysis
LV	Light vehicle
ME	Mobile mechanical equipment
MFM	Membrane filter method
MSIR	Mines Safety and Inspection Regulations
NATA	National Association of Testing Authorities
PAPR	Powered air purifying respirator
PPE	Personal protective equipment
EM	Exploration Manager
RPE	Respiratory protective equipment
SEM	Scanning electron microscopy
SVO	Surface ventilation officer
TWA	Time weighted average
WES	Workplace Exposure Standard

4 Responsibilities

Position	Description of responsibility
Exploration Manager	• Ensure AMP is maintained, reviewed and updated as required. • Familiar with the asbestiform minerals controls relevant to their operation. • Ensure appropriate resources are provided for their effective implementation. • Monitor compliance to the AMP requirements. • Ensure employees and contractors are trained to recognise asbestiform minerals. • Ensure adequate resources and appropriate controls are in place for drilling activities in relation to asbestiform mineral intersections. • Ensure that all employees and contractors are trained in the proper use of personal protection equipment (PPE) inclusive of fit-testing for respiratory protection devices (RPE).

Position	Description of responsibility
Superintendent/ Site Supervisor	• Familiarise themselves with the Asbestos Management Plan relevant to their scope of operations. • Assess relevant conditions to ensure that planned work does not generate excessive dust. • Communicate updates and changes to the AMP to workers. • Will determine the implementation of this Plan on Site. • Ensure all employees and contractors are aware of the controls and procedures relating to working with asbestiform minerals. • Communicate updates and changes to workers. • Monitor compliance to the AMP requirements. • Confirm presences of asbestiform materials and ensure appropriate notification and controls occur at the site. • Ensure any potential or DA is on the asbestiform minerals register.
Surface Ventilation Officer (SVO)	• Undertake personal air monitoring as per the health management plan. • Provide guidance on required and recommended controls in accordance with this Plan. • In addition they are also responsible for: 1. *regularly inspecting and testing workplaces, travel ways, and locations where persons may travel at the site to determine whether atmospheric contaminants at the mine are maintained at levels as low as can reasonably be achieved; and* 2. *ensuring that any sampling of atmospheric contaminants is carried out and recorded and reported accurately, within the time required and, in the manner, provided in this Part; and* 3. *examining, and reporting on, the means and effectiveness of dust suppression or dust collection devices and systems at the mine; and* 4. *operating, calibrating, and maintaining any metering or monitoring device used to determine the levels of emission of toxic or other atmospheric contaminants from any plant or equipment at the mine; and* 5. *reporting promptly to the Exploration Manager or the manager's representative —* a. *any defect or deficiency of which the ventilation officer is aware in the ventilation system at the mine; and* b. *any atmospheric contaminant level in a workplace at the mine that exceeds the exposure standard; and* • *entering in the ventilation logbook all records required under this Part to be entered in that book and ensuring that each complete entry is dated and signed.*
Drilling Crew (Drillers, Offsiders) and Field Technicians	• Comply with any work procedures and job hazard analysis relating to asbestiform minerals • Cooperate with any instructions provided by the geologist in relation to the identification, assessment, and controls of any asbestiform minerals • Report any presence of suspected asbestiform minerals and cease work immediately • Comply with any personal air monitoring requirements
Geologist	• Stop operations immediately if a previously unidentified area is suspected of containing asbestiform materials.
Occupational Hygiene Contractor	• Provide, develop, and implement the fibre monitoring program. • Review effectiveness of controls. • Provide advice in the minimisation of exposures. • Coordinate consultation and communications between key stakeholders • Provide information, instruction and specialised training where required

Position	Description of responsibility
Employees and Contractors	• Adhere to all air monitoring requirements and are not to tamper with equipment. • Comply with: 1. relevant asbestiform minerals plan, procedures, and instructions; 2. personal protective equipment requirements; 3. decontamination requirements; • Report unsafe conditions relating to fibre and dust emissions.

5 Introduction

5.1 Location

Indiana is exploring a large 100% owned tenement package in the Gawler Craton region of South Australia, located to the northwest of Port Augusta (**Error! Reference source not found.**). Exploration is active for gold, base metals and Rare Earth Elements (REE).

5.2 Legislative Requirements

Under the Work Health and Safety Act 2012 and the Work Health and Safety Regulations 2012, employers shall provide a safe working environment for all personnel working in mining and exploration operations. This Asbestos Management Plan (AMP) shall comply with all relevant Federal, State, and local legal requirements regarding the management and control of asbestiform minerals.

This AMP was developed with reference to existing legislation and associated guidelines and standards. Asbestiform minerals management and control is consistent with the following key South Australian legislation and guidelines:

- Work Health and Safety Act 2012;
- Work Health and Safety Regulations 2012;
- SafeWork SA “How to manage and control asbestos in the workplace” Code of Practice 2024.
- Safe work Australia ‘Workplace Exposure Standards for Airborne Contaminants’.

Responsibility for the safe operations at all Indiana exploration sites belongs to both employers and employees including contractors.

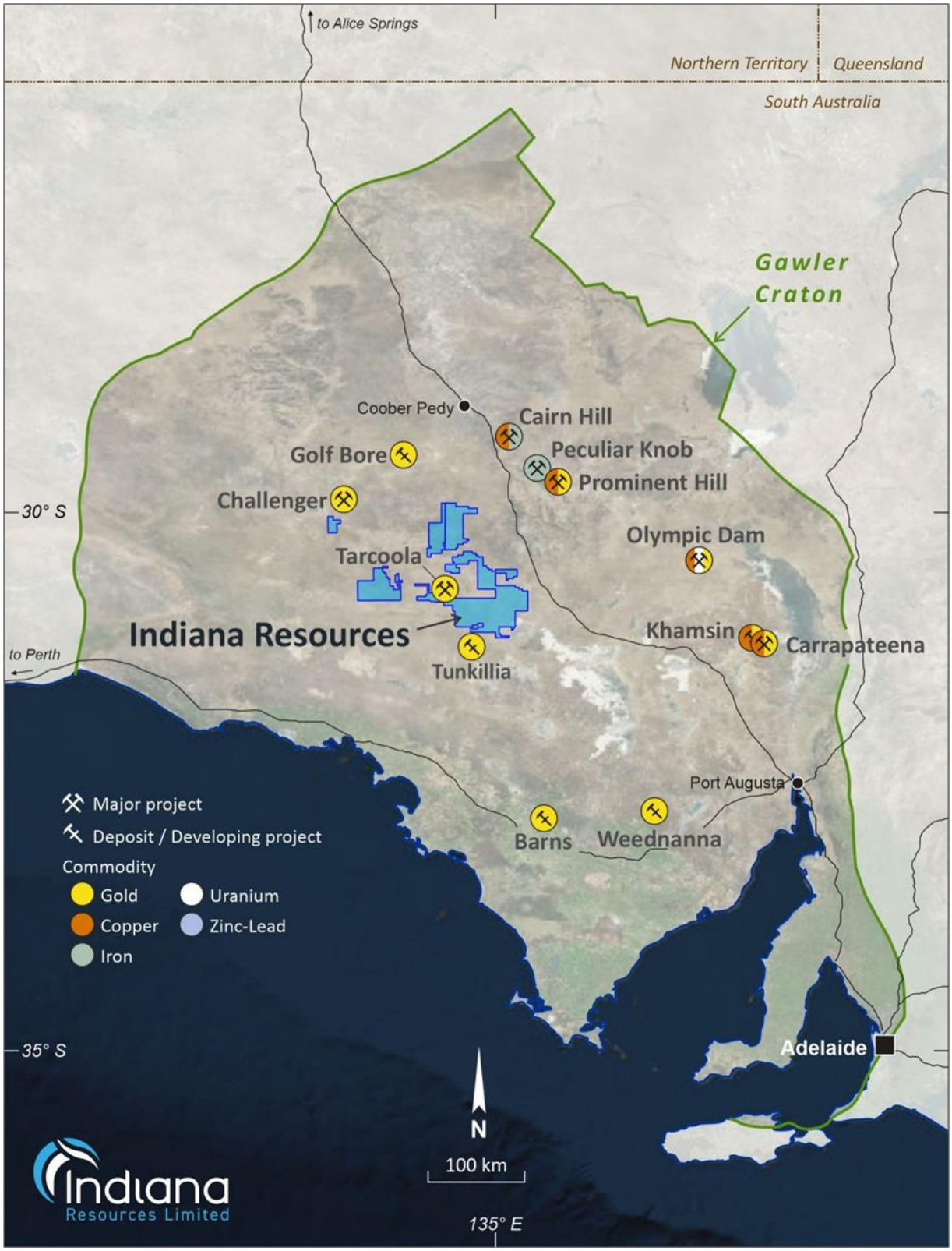


Figure 1: Indiana Resources Tenure in South Australia

6 Hazard Assessment

6.1 Hazard Identification

6.1.1 Asbestos Minerals

Asbestos is a general term applied to a group of asbestiform silicate minerals belonging to the serpentine and amphibole mineral groups. These asbestiform minerals include: the serpentine mineral chrysotile (white asbestos), and the amphibole minerals crocidolite (blue asbestos), amosite (brown asbestos), anthophyllite, tremolite and actinolite.

Asbestos minerals can also occur naturally in the non-asbestiform habit, where they do not exhibit the unique physical properties that made them useful in certain industrial and domestic applications and hazardous to health. Only in certain geological circumstances are these minerals asbestiform. These non-asbestiform minerals (often referred to as cleavage fragments) may still be hazardous, such as riebeckite and grunerite, and should therefore also be managed as hazardous.

Asbestiform varieties, if present, usually occur in veins or small veinlets with the occurrences generally being small and isolated and therefore may not often be noticed.

Further information and specific examples of asbestiform minerals can also be found in the Indiana “Fibrous Mineral Intersection via RC Drilling Procedure” and the training resource PowerPoint presentation “Asbestos Management”.

6.1.2 Geology of Indiana Tenure

Asbestiform minerals are prevalent in many rock types, particularly those rock types of the right chemistry that have been subjected to metamorphism involving the application of heat, pressure and fluids. As with many areas of Archean rocks in Australia, the Gawler Craton includes rock types that have the potential to contain asbestiform minerals. With respect to the Indiana tenure in South Australia, the potential for the presence of asbestos minerals is shown in Figure 2 below. As can be seen from the map, the majority of Indiana tenure is of low or medium risk for exposure to asbestiform minerals.

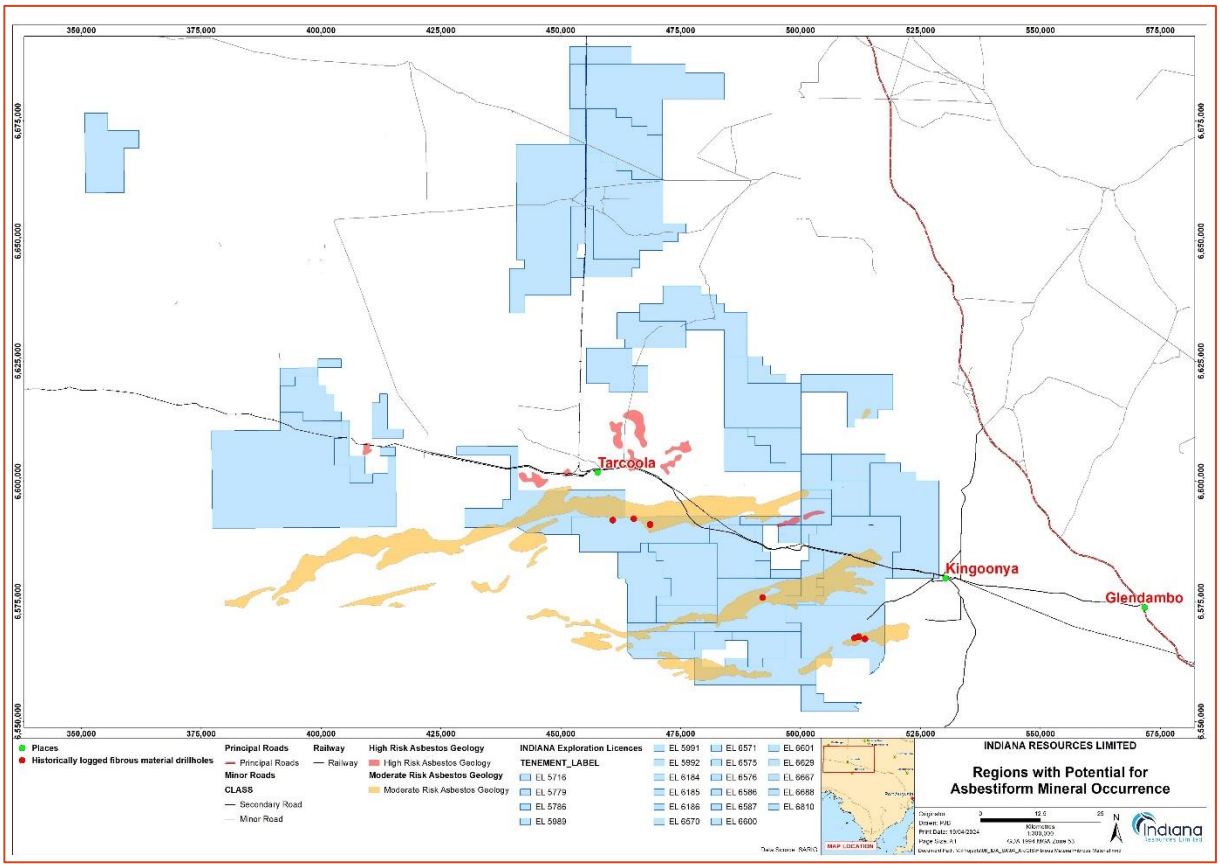


Figure 2: Indiana Resources Limited Gawler Craton Project area tenements with high potential areas for fibres in red, medium potential areas in light brown and historical collars of drill holes that have had asbestiform material logged (but not confirmed as asbestos, red dots).

6.2 Health Impact

Asbestos is classified by the International Agency for Research on Cancer as a Group One carcinogen, carcinogenic to humans.

Asbestiform minerals present a potential risk to health if the fibres are of a respirable size and become airborne. The effects of exposure are not immediate and take years for any related disease to develop. Most fibres can be removed from the body via natural processes (coughing, sneezing) however the small respirable fibres can become lodged in the lungs which can lead to asbestos related diseases. These include:

- pleural plaques
- asbestosis
- lung cancer
- mesothelioma.

The risk of an adverse health effect because of exposure to asbestiform minerals is dependent on:

- concentration of fibres in the air
- length of time of exposure
- type, size and shape of fibre
- persistence in the lung.

Only certain fibres have the dimensions allowing them to enter the lung. The NOHSC (2005) Guidance Note indicates fibres need have a maximum width less than 3 µm and a length greater than 5 µm, plus a length/width ratio greater than 3:1 to be a risk. Noting that this is specific to sampled airborne fibres.

Larger fibres are trapped within the upper respiratory tract where they can be removed by natural body processes; for example, mucociliary action. The danger from airborne asbestos fibres is not immediately obvious because the harmful fibres are too small to be seen with the naked eye.

It should be stressed that the average person inhales up to a million fibres every year and that this clearly demonstrates that inhalation of asbestos fibres does not necessarily mean illness and death. Notably smoking greatly enhances the risk of lung cancer developing after asbestos exposure, i.e. it is synergistic.

6.3 Classifying Designated Areas

An area shall be classified as a Designated Area (DA) by the Exploration Manager if it meets the following criteria:

Areas confirmed to contain asbestiform minerals that could, if disturbed, consistently produce respirable fibres in concentrations in excess of the exposure standard, should be demarcated and clearly signposted. Such a location should be termed a "Designated Area" (DA)

The classification of a DA should not take into account the use of the hierarchy of controls contributing to decreased exposures. In addition, even if air sampling results indicate very low exposures, i.e. below the workplace exposure standard (WES), the DA cannot be declassified because of the sampling results alone, because the production of respirable fibres in concentrations in excess of the exposure standard may start again under altered circumstances.

Personnel working in an DA are required to comply with additional controls measures such as decontamination and more stringent respiratory protection equipment (RPE)/personal protective equipment (PPE) requirements.

6.3.1 Establishing Criteria

An area will be a DA, when:

- a site geologist identifies hazardous asbestiform materials, or rock likely to contain hazardous asbestiform materials that could, if disturbed, consistently produce respirable fibres in concentrations in excess of the exposure standard, and:
- a NATA accredited laboratory confirms identification of mineral samples as asbestiform minerals using AS 4964, which includes dispersion staining and can use scanning electron microscopy (SEM), or
- air monitoring results consistently indicate exposures above the WES (Section 8.2).

Where there is no reason to suspect, or where there is a rare or unlikely probability of detecting airborne fibres or intersecting asbestiform minerals then this area will be undesignated and considered an "normal area".

6.3.2 Designated Area Requirements

In a DA, drilling or earthmoving operations require stringent controls. No-one should enter a DA without permission from the Exploration Manager or designate. All work performed within DAs shall require prior approval from the Exploration Manager. The approval process shall require a risk assessment to be completed.

Any area that is confirmed to be a DA shall be identified on the Asbestiform Minerals Register, clearly demarcated and all personnel likely to work in the area shall be notified.

Demarcation and signage shall be placed a minimum of 50 metres from/around the area, or 100 metres when drilling and earthmoving operations are occurring (Section 9.11). As a minimum requirement, anyone entering a DA will be provided the required PPE (Section 9.17). All personnel required to work in a DA must be formally notified.

6.3.3 Non-Designated Areas – "Normal Area"

Where there is no reason to suspect, or where there is a rare or unlikely probability of detecting airborne fibres or intersecting asbestiform minerals then this area will be undesignated, referred to as an "Normal Area". Normal areas are those areas where the likelihood of encountering asbestiform minerals has been determined by risk assessment to be unlikely.

PPE for normal areas shall be the standard Site PPE.

6.3.4 Downgrading of areas

A DA may be downgraded to a normal area when there is collective agreement from the Exploration Manager and Surface Ventilation Officer that the following have been satisfied:

- there is no asbestiform mineral intercept evident through inspections
- the material is determined to be non-asbestiform by the Site geologist and the Exploration Manager
- the material initiating the DA has been removed or encapsulated by inert material (and will not be accessed again, see Section **Error! Reference source not found.**)
- representative samples from a specific location are interpreted by a competent person to not contain any asbestiform minerals i.e lab testing.

Following the clearance of the DA to a Normal Area a formal site notice shall be issued and recorded in the Ventilation Logbook by the Surface Ventilation Officer.

7 Risk Assessment

This section details information and data used to conduct qualitative assessments of the potential for personal exposure to asbestiform minerals for all work activities conducted over the course of exploration activities. The information contained within this Plan must be read in conjunction with any other procedures or standard work instructions available.

The risk of exposure to hazardous asbestiform minerals shall be assessed prior to executing any Site ground disturbing activities that may expose hazardous asbestiform minerals via penetrating in-situ rock or ground. Before any activity or drilling programme commences the likelihood of intersecting asbestiform minerals must be assessed. This includes referring to any previously documented intersections or anticipating potential intersections based on previous drilling.

All drill crews shall be aware of this AMP and be trained in asbestiform minerals management.

7.1 Risk Factors

The assessment of the potential risk from exposure to respirable asbestos fibres is based on three criteria:

- the geological characteristics of the rocks encountered;

- the potential of drilling and earthworks activities to release asbestiform minerals into the atmosphere; and
- the measured concentrations of airborne asbestiform fibres.

7.2 Work Activities being Undertaken

Other activities not listed in this Plan will be risked assessed and classified by the SVO.

7.2.1 Supervision and Investigative Works

Investigative works include mainly non-ground disturbing activities such as geological mapping, flora/fauna and heritage surveys and general site visits to support planning work. Activities may include minor ground disturbance such as collecting soil samples by hand.

Activities during this stage are considered to be a low risk and air monitoring results expected to be less than the corresponding shift-adjusted WES (see Section 8.2). Standard PPE (see Section 9.17) should be used at this time.

7.3 At-Risk Work Activities

The extent to which respirable fibres are released into the atmosphere has a large impact on the risk to health. Some ground disturbance activities are more likely to cause the release of respirable fibres than other activities. For example, excavation will result in a greater release of dust (potentially containing asbestiform minerals) than installation of fencing. The following activities have been identified as likely to cause the release of respirable fibres to the air include:

- exploration and other drilling activities including ground conditioning and preparation
- heavy vehicle operations in the DA including earthworks for drill pads and access tracks
- maintenance activities in the DA
- Other activities not listed in this plan will be risk assessed and classified by the Exploration Manager.

8 Air Sampling

8.1 Air Monitoring to Quantify Risk

Air monitoring is to be conducted to assess personnel identified to be at potential risk of exposure to asbestiform minerals from site activities within a DA. Monitoring provides an insight into fibre concentrations and the relationship to the activities undertaken to help assess the level of risk. Air monitoring can be carried out two ways:

- personal monitoring, a sample taken within the breathing zone of a person
- static (positional) monitoring, a sample taken at a fixed location to assess the effectiveness of a control or identify a potential hazard.

Air monitoring shall only be undertaken by qualified persons holding at a minimum a surface ventilation technician qualification. Monitoring and analysis of samples will be carried out in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres,* 2nd Edition NOHSC: 3003(2005).

The personal air monitoring results are compared against the workplace exposure standard (WES) to evaluate the level of risk and, effectiveness of the controls regarding the exposure.

Static (positional) monitoring results should not be compared against the WES as the result does not represent the exposure of an individual however, they may sometimes be use for context. For example, measuring the level of airborne fibres in an area and to assess the effectiveness of implemented control measures.

8.2 Workplace Exposure Standard

The WES for asbestos fibres over a normal eight-hour working shift and forty hours per week is 0.1 fibres per millilitre (f/mL) for air breathed.

For asbestos, the WES is 0.1 fibres/mL, and Indiana uses an action limit (AL) which is 50% of the WES for investigation purposes. The intent of investigating is to determine the source of exposure, assess the effectiveness of controls and mitigate as required. With this as a guiding principle, the IRSST adjustment categories (I, II, III and IV) are used for all the substances as per:

- I, no adjustment
- II daily adjustment (8/hours worked)
- III weekly adjustment (40/average hours worked)
- IV weekly or daily adjustment (whichever is more conservative).

Asbestos fibres are a category III adjustment.

Personal monitoring results above the adjusted WES will be entered in the Ventilation Logbook.

8.3 Investigation and Recording Monitoring Results

A risk-based approach to managing potential exposure to asbestiform minerals is recommended, and these recommendations are used as the basis for the Project trigger criteria. The trigger criteria are set to initiate an investigation that assesses the effectiveness of controls and determine the source of exposure. Trigger Criteria are provided in Table 8-1. Detailed actions are provided in Section 14.

Table 8-1: Investigation Criteria and actions

Result Type	Trigger Criteria	Risk	Action
Individual results	1 sample is ≥ adjusted WES	**Medium**	• Investigate the source of the exposure. • Re-assess controls and determine if there is a failure. • Where failure in existing control is identified, implement action, and rectify. • Where no failure is identified assess the inclusion of additional controls, implement actions determined and review improvement.
	2 or more samples ≥ adjusted AL but < WES	**Medium**	
	1 sample is ≥ adjusted AL but < WES	**Low**	• Investigate the source of the exposure. • Re-assess controls and determine if there is a failure. • Where failure determined implement action and rectify. • Where no failure is identified assess the inclusion of additional controls, implement actions determined and review improvement
	All samples < adjusted AL	**Low**	• Continue as normal

9 Designated Area Controls

The hierarchy of control shall be considered when choosing the appropriate control measures when working in a DA, namely:

- elimination (remove the risk of asbestiform minerals by not conducting earthworks in at-risk areas);
- substitute;
- engineering - dust suppression, extraction, and ventilation systems;
- administrative – use of standard work practice, housekeeping, signage, and labelling;
- PPE – respiratory protection and disposable coveralls.

The objective of a control strategy should be to minimise fibre and related dust release as far as is practicable in the workplace when performing activities.

These controls cover activities identified during exploration activities. Specific procedures are developed to detail the requirements to mitigate worker exposure to asbestiform minerals.

A risk assessment will be conducted to ensure all hazards associated with contaminant asbestiform minerals are identified, risk assessed, and adequate management controls developed and implemented prior to undertaking the following:

- determining the boundary of DAs
- undertaking operations in DAs
- performing maintenance on vehicles that have worked in DAs.

General control measures to be used to reduce the possibility of exposure to fibre. include:

- wetting of exposed areas
- examination by trained geologists of drill holes, drill pads and access tracks
- removal under controlled conditions of any identified asbestiform material
- monitoring of airborne fibre concentrations.

9.1 In Designated Areas

A specific risk assessment and work plan shall be prepared and authorised by the Exploration Manager before any further work commences in the DA. The plan shall include:

- maps and description of work area
- job hazard analysis specific to the work area and tasks
- relevant work permits and associated job hazard analysis (JHA's) signed by the Exploration Manager and all personnel entering the area
- identification of all equipment used within the DA and including details of equipment decontamination and filter changes
- details of any hazardous waste – location, quantity and description
- a review by the Exploration Manager.

The personnel shall be authorised to enter the DA and shall be trained and deemed competent (Section 12.3). Before commencing any work in a DA, all personnel shall review the work plan, any specific work instructions, and job hazard analysis (JHA).

The following mandatory requirements shall be always followed while working in a DA:

- Do not create any unnecessary dust or spread spillage
- Do not handle or remove any asbestos material without permission from the Exploration Manager (or representative)
- Do not smoke or eat in the area
- Do not tamper with the dust suppression system
- Do not tamper with any dust sampling equipment
- The minimum PPE requirements for a DA (Section 9.17)
- Windows of all mobile plant must be closed
- At the completion of the shift, the equipment cabin shall be wet wiped to remove visible dust
- Put all disposable items of protective equipment in the correct containers for disposal
- Dispose of any clothing that has been exposed in the area in accordance with Section 11.1.2, e.g. disposable coveralls.

When a person is to remain in the cabin of the mobile mechanical equipment (ME) or light vehicle (LV) for the entire duration inside the DA they do not have to wear all required PPE, however, they shall ensure they have the above PPE readily available inside the cab in case they are required to exit the cab inside the DA (e.g. equipment breakdown, emergency).

9.1.1 Buffer Zones

A buffer zone shall be established at the entry/exit point of DAs, such that contamination will not be taken out of the DA and recontamination shall not occur. This zone shall be equipped with facilities for vehicle parking and dressing on each side, an equipment wash-down bay, and personnel washing area on the controlled side.

9.2 Authorised Personnel

DA access will only be for authorised personnel. Authorised personnel training is provided in Section 12.3. Workers required to work within a DA shall complete a Record of Entry and Work form and submit to their Supervisor. Completed forms shall be compiled into the Designated Area Access Register (Appendix A), Section 9.2.2.

9.2.1 Minimum Requirements

All personal entering a Designated Area shall have the following minimum requirements:

- respiratory protection device that is compliant with AS/NZS 1716 (i.e. a half face respirator with a P2 filter or a disposable P1/P2 for asbestos), be clean shaven or have a powered air purifying respirator (PAPR)
- have completed a quantitative fit test in the preceding 12 months for a disposable or negative pressure respirator (re-usable half face respirator)
- completed all the appropriate training
- a risk assessment conducted to ensure all hazards associated with contaminant asbestiform minerals are identified, risk assessed, and adequate controls developed prior to any work activities undertaken. Disposable coveralls shall also be worn where routine work processes change and the potential for direct and or unavoidable contact with asbestiform minerals associated with drill cuttings or spoil is identified.

9.2.2 Designated Area Access Register

The Exploration Manager shall maintain a Designated Area Access Register (Appendix A)containing the following information for each person required to work in a designated area for more than 10 shifts in a 12-month period:

- Full name
- Date of training and retraining sessions
- Approximate time spent in the designated area during each shift.

The register shall be kept for 30 years (Section 15).

9.3 Onsite Geology Review

Any supervising geologist must have sufficient knowledge of asbestos to correctly identify asbestiform minerals in the field. Geologists will be available on Site and one of their responsibilities is to be available to inspect activities for the presence of hazardous asbestiform minerals. The Site geologist will:

- provide geological advice on, and document, the as-encountered ground conditions, as they are progressively uncovered
- undertake ongoing geological mapping/logging to identify geo-hazards and provide analysis and recommendations of works required to manage any such hazards.

All these activities require inspection of the ground either in-situ or during excavation and subsequent placement.

If at any stage potential asbestiform minerals are identified, Section 14 would be implemented until the potential was confirmed or cleared.

9.4 Drilling

- No drill pad is to be approved within 25 metres of a previously laboratory confirmed asbestos intersection if the planned depth would also intersect the same interval. If the drilling program is likely to intersect asbestiform areas, or potentially asbestiform areas, a further risk assessment shall occur that outlines the risk and controls for the intersection of asbestiform minerals.
- Exploration drilling equipment shall be fitted with dust control devices which effectively control the emissions. If a surface drill rig has a cab, the cab shall be fully enclosed with air conditioner and prestart checks completed to ensure cab seals and filters are in appropriate operational condition.
- The Indiana site Supervisor is to continually monitor Normal Areas and DAs to ensure classifications remain relevant. Areas with the potential to contain Asbestiform material will then be modelled during the ore-blocking stage and delineated correctly for mining.
- The Indiana site Supervisor shall conduct regular inspections of drill core and/or RC/aircore chips to determine whether asbestiform material has been intersected in normal areas.
- Drill materials with asbestiform minerals identified within them should be double-bagged in heavy-duty plastic and sealed with cable ties.

9.5 Surveying of Areas to be Cleared

During any clearing work, the person marking out the area shall peg the clearing boundary in a manner that does not require walking in front of the dozer, which shall be equipped with GPS control. The cleared vegetation shall be pushed to the boundary of the clearing footprint and wetted down as and if required.

9.6 Earth Moving

9.6.1 General Dust Suppression

To prevent dust from becoming airborne, wet sprays of material are used to control dust:

- to suppress dust from excavations
- for treating access tracks and drill pads
- on a small scale to keep material samples damp to reduce airborne dust
- as high-pressure water sprays for vehicle and equipment decontamination.

In addition, any ground disturbance work in DAs shall be scheduled such that any potential dust emission has no impact on other scheduled works in adjoining areas. The work Supervisor together with the Indiana Site Supervisor shall assess the ground conditions, local weather forecast and prevailing winds to ensure that planned work does not generate excessive dust plumes. If needed, this work shall be stopped until conditions are acceptable.

All plant and equipment used for ground disturbing work shall be washed down on completion of the work as per Section 10, prior to moving to other work areas.

9.6.2 Binders or Surfactants

Indiana will evaluate the effectiveness of dust suppression additives to reduce dust generation in heavily-trafficked areas.

9.6.3 Minor Ground Disturbance in a DA

Ground disturbing activities at depths where asbestiform materials have been located in DAs such as soil sampling, surveying, clearing, ripping and trenching shall only be completed by mechanical means using equipment with approved, positively pressurised cabins (Section 9.7).

Water carts shall be used for dust suppression for the duration of the works. Other personnel required to be within the vicinity of this work during its progress shall remain within light vehicles. When this cannot be achieved, ground-disturbing work shall cease for the period persons remain on the ground in the vicinity of the dust source.

9.6.4 Excavations

Water is used for wetting surfaces prior to excavation to mitigate the generation of dust from earth movement. Water carts shall be used for dust suppression for the duration of excavations to mitigate the generation of dust. Once earth movement is complete the surface will be covered with clean material (Section **Error! Reference source not found.**) or construction will continue as required. There will not be spotters out of cabins in DAs if digging is below the level where asbestiform materials have been located.

9.6.5 Roads

Water shall be used to suppress dust for areas at risk of being exposed to dust in general, such as access tracks. Dust suppression will be required as the risk assessment dictates. Water carts are used when ground disturbance activities (i.e. clearing/excavation work) on an as needed basis. Dust suppression on roads will be carried out on an as needed basis.

Surface ground disturbance will be minimised to reduce the creation of dust in general, travel to and from the work fronts will be via restricted and well-used (unsealed) access roads wherever possible.

9.7 Mobile Equipment Use

Vehicle entry into a DA shall be kept to a minimum and no mobile equipment shall be used within a DA unless it is able to be visually identified as being approved to enter the DA.

Personnel who operate mobile equipment and vehicles in a designated area shall ensure:

- the windows and doors remain closed at all times
- air conditioner is on the recirculation setting
- fitted with a positive pressure air filtration system, the system should maintain 20 Pa (Section 9.7.2)
- wear respiratory protective equipment if an air filtration system is not fitted to the machinery or vehicles.

9.7.1 Before Entering a DA

The Pre-start Check List for the equipment shall be used to ensure all vehicles are in good working order, to minimise the likelihood of breakdown of the mining equipment in the DA.

Only vehicles that meet the following requirements shall be permitted entry into a DA:

- Heavy mobile equipment shall have HEPA (high efficiency particulate air) filters fitted in the cabin air supply system
- The in-cabin pressure shall be checked to ensure it is not less than 20 Pa
- Vehicles shall only be operated with the windows up and air-conditioning system set to re-circulate
- Vehicles shall be maintained only by authorised persons mechanics with appropriate/validated knowledge of working in asbestiform minerals, prior to entering the DA.
- Vehicles shall be decontaminated as per Section 10 prior to exiting the DA, and undertaking servicing and maintenance work
- If maintenance is required within the DA, a risk assessment with input from an occupational hygienist shall be undertaken to determine the additional controls required.

Stickers on designated vehicles for use in a DA shall include the date of the last service.

9.7.2 Cabin Pressuriser System

The cabins of mobile equipment shall be dust tight and weatherproof when the door and windows are closed. The cabin shall pressurise to a minimum of 20 Pa, a pressure monitoring system shall be installed and be visible to the operator which advises when the pressure drops below 20 Pa (ISO 10263-3). The cabin pressurisation system shall operate off the ignition system. If there is no monitoring system, then the cabin pressure shall be maintained at 50 Pa and a hand-held device shall be available to confirm pressure during pre-start checks.

9.7.3 Filter Requirements for Filtration System

A H13 grade or greater HEPA filter is required as it captures and retains 99.97% of particles of 0.3 microns in diameter. The HEPA filter shall comply with AS 4260 or an equivalent.

9.8 Maintenance on DA Mobile Equipment

Authorised persons only are to maintain vehicles. A risk assessment shall be undertaken to determine the appropriate control measures before any maintenance is carried out on equipment that is working or has been working in a DA. The risk assessment must consider:

- type of task and the potential for dust exposure
- cleanliness of machine/component to be worked on
- cleanliness of the maintainer whilst carrying out the work
- prevailing wind and other atmospheric conditions
- proximity to dust generating activities
- suitability for washing down.

Prior to any maintenance activities being performed within a workshop environment the equipment is to be decontaminated. HEPA filtered vacuum cleaner can also be used to clean components or equipment prior to servicing.

After maintenance, the equipment must pass the vehicle cabin integrity inspection. Criteria to be checked when assessing the effectiveness of a seal include the:

- presence of any gaps in cabin
- condition of hinges & latching assemblies on doors
- condition of window & door seals
- condition of linkage control seal
- effectiveness of the air conditioning system (cooling/heating)
- effectiveness of cab-seals and the air-intake filter's 'pressure drop', using a (differential) manometer at service intervals.

Vehicles shall undergo testing to validate the integrity of the seals, ensuring that the smoke bombs used are of the respirable fraction and mimic the potential movement of fibres through the vehicle. If a test indicates a cabin is not effectively sealed the relevant supervisor shall ensure the cabin is effectively sealed before returning to service.

The maintenance inspection regime for fibre and dust controls will be developed and documented in SAP or equivalent maintenance system

9.9 Environmental Dust

Any amenities buildings shall have door and window seals to prevent dust entry and windows and doors are generally to be kept closed. There are no requirements for these areas to be operating under positive pressure.

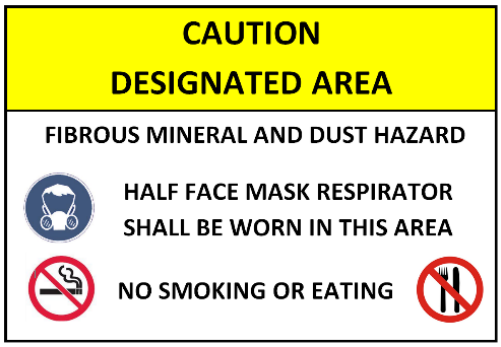
9.10 Waste

Asbestiform mineral wastes and asbestiform minerals contaminated material are managed according to Section 11.

9.11 Signage and Demarcation Requirements

Entrances to designated areas shall be demarcated with appropriate signage (Figure 9-1) and barricading with danger tape (where applicable). Demarcation and signage shall be placed a minimum of 50 metres around the area. Below are some examples of signage.

Figure 9-1: Examples of entry signage for a DA (DMIRS, 2015)



9.12 Consultation and Communication

All workplace hazards associated with asbestiform minerals shall be managed using this AMP to ensure an effective and compliant process is always followed. Conformance with this plan ensures potential exposures are adequately managed.

Daily pre-start and periodic team meetings shall provide a conduit for communicating changes, improvements and worker feedback on work plans and effectiveness of controls being used.

9.13 Supervision

It is the responsibility of the Indiana site Supervisor to assess relevant conditions to ensure that planned work does not generate excessive dust. If needed, work may be stopped until conditions are acceptable.

9.14 Inspections

Regular inspections shall be performed by the Exploration Manager (EM) or by a person nominated by the EM to ensure that the requirements of this AMP and relevant procedures are being adhered to. The Surface Ventilation Officer will complete regular as-required ventilation inspections of the Site to ascertain the efficacy of the dust controls.

Additional inspections will be carried out by all staff working on the Project to inspect and check equipment and personnel for potential signs of asbestiform minerals (i.e. visible dust on clothing or mud on vehicles).

9.15 Crib Rooms and Offices

The cleaning of crib rooms and office floors shall be done using a wet mop. Brooms are not to be utilised as this liberates dust and potentially asbestiform minerals in the crib room or office.

9.16 Procedures

All work performed in a DA is done under a work permit and will be subjected to a risk assessment and involve a JHA(S).

9.17 Personal Protective Equipment (PPE)

Working on site, personnel may experience high ambient temperatures leading to increase sweats and potential to dehydrate. During the wearing of additional PPE (i.e., Respiratory Protection or Disposable coveralls), care must be taken to reduce the potential for heat strain given the environmental conditions (i.e., summer months), workload, and the additional PPE which can increase heat load on the body.

9.17.1 Respiratory Protection Equipment (RPE)

Persons should carry the appropriate respiratory protection that complies with AS/NZ 1716 and be clean shaven. The appropriate respiratory protection can be either a disposable or negative pressure respirator (re-usable half face respirator fitted with P3 or P2 filter(s) or a disposable P2 respirator for asbestos.

Note: the respiratory protection worn must be the RPE the individual has been quantitively fit tested for in the last 12 months.

Exception to wearing RPE can be made where personnel who are working in equipment with a sealed, positive pressure cabin, which has been fitted with appropriate filtration units as describe in sections 9.7 and 9.8.

9.17.2 Boot Covers and Boot wash

Boot covers should be worn inside buildings to reduce the transfer of asbestiform minerals into a non-designated area. A “Step N Go” boot cover dispenser should be placed outside the entrance of a building or control room and the boot covers are disposed as asbestiform minerals waste.

Boot washes can be used to thoroughly wash and scrub off residual asbestiform minerals on the work boots. Boot washes should be located at entry/exit points of designated areas, decontamination units, crib rooms and buildings. Personnel who work within a designated area shall use boot washes when exiting a designated area and prior to entering a building.

9.17.3 Disposable Coveralls

Disposable coveralls can be used to protect personnel’s clothing becoming dust laden and to protect from fibre penetration. Coveralls used on site should be at a minimum, breathable, have fitted hoods, cuffs and meet the EN ISO - 13982-1 (CE Type 5/6) coveralls or equivalent would meet this standard and shall be used.

The wearing of disposable coveralls should be as follows.

- One size larger (as this helps to reduce ripping at the seams)
- Elastic cuffs at the wrist and ankles.
- Ankles cuffs are to be over the footwear.
- The hood to be fitted over the respirator straps.

Disposable Coveralls shall be disposed of as asbestos hazardous waste.

9.18 Controls for Specific Activities

9.18.1 Exploration Drilling Activities

Conventional drilling methods increase dust exposures when the ore body is dry and above the water table. The following controls shall be used.

- Erect signage at drill pattern entrance, refer to section 9.11
- Wet drill methods to ensure drill cuttings are contained on return to surface.
- Personnel working in immediate area of drilled holes must wear appropriate respiratory protection at all times.
- All personnel working outside of a protected environment (i.e., enclosed cabin) shall wear adequate respiratory protection.
- Geologist to regularly inspect all spoil piles from drilled holes for asbestiform minerals

- Care should be taken during RC drilling to ensure that the drill collar is sealed.
- Servicing of the drill rig, including fuel and water, should only be conducted prior to starting a new hole.
- Drill rig sample system to be flushed out before moving off each drill hole.
- Clean up and personnel should undergo decontamination as per section 10.

10 Decontamination

Decontamination for personnel, vehicles, plant, tools, and equipment is an important process in reducing the exposure of personnel to asbestiform minerals and prevents spreading to areas outside a designated area.

10.1 Personal Decontamination

All personnel exiting a DA who have been wearing disposable coveralls shall undertake the following activities (as applicable):

- Immediately prior to exiting the DA or before entering the cabin of a light vehicle/machine remove the disposable coverall:
    - Remove the hood, but leave respiratory protective equipment on
    - Gently roll the disposable coverall downwards, so the inside layer of the suit becomes on the outside
    - Continue the process to the feet and carefully roll the coverall off the boot
    - This should result in a rolled up (inside out) coverall. This method is designed to seal fibre inside the rolled-up suit
- Place the coverall into a heavy-duty plastic bag or in the asbestiform minerals waste bin located at the entry/exit point
- Clean boots with a wet rag and place into the heavy-duty plastic bag and goose neck as per Section 11.1.2 or place in the asbestiform minerals waste bin located at the entry/exit point
- Faces and hands should be thorough washed and at the completion of shift
- Wash clothing as soon as reasonably practicable.

10.1.1 Decontamination Unit Facility

For ongoing activities within a Designated Area that have a high risk of asbestiform minerals exposure, then a decontamination unit may be installed for personnel.

A decontamination unit shall as a minimum be partitioned into three interconnecting, well-ventilated areas: “dirty area”, shower area and “clean area”. Periodic inspections and air flow measurements should be conducted at the facilities.

10.2 Mobile Plant, Mobile Equipment and Vehicle Decontamination

Any mobile plant, equipment and vehicles that operate in a DA shall be decontaminated when leaving the DA, prior to entering a workshop or being sent off site.

Decontamination should occur at dedicated wash down or cleaning facility and shall be as follows.

- Wash external surfaces including underside of any floor panels, wheels, stands or bucket teeth and remove any covers where applicable for access
- Internal surfaces using an appropriate industrial vacuum cleaner complying with Australian Standards AS/NZS 60335.2.69 and AS 4260:

- If vacuuming is not suitable then the interior can be wet wiped using a cloth and general-purpose spray. Use a damp cloth to wipe down contaminated areas.
- Cloth surface should only be used once. The cloths should be used flat and not be wadded.
- Used cloths to be disposed of as asbestos waste.

- Any filters (i.e., AC HEPA/engine filters) shall be removed and appropriately bagged as asbestos waste.

Under no circumstances should compressed air be used to clean contaminated air filters.

The minimum PPE for decontamination activities shall be a P2 class respirator or powered air purifying respirator (PAPR), single-use close-weave gloves, and disposable coveralls.

10.3 Tool Decontamination

For tools use a wet cloth to wipe down contaminated areas. Cloth surface should only be used once. The cloths should be used flat and not be wadded. Cloths to be disposed of as asbestos waste. Under no circumstances should compressed air cleaners be used.

11 Waste Disposal

Asbestiform mineral waste includes unsampled drill core or drill cuttings and un-used geological samples. Asbestiform minerals contaminated material would include vehicle filters, HEPA filters and pre-filters, disposable coveralls, boot covers and respirator filters, etc.

11.1.1 Asbestiform Minerals Waste Disposal Location

The waste disposal location for the contaminated mineral waste must be an approved location for the disposal of this type of waste material.

The control strategy for waste streams shall ensure spills are minimised during transport and appropriate emergency response procedures are implemented when spills occur.

11.1.2 Small Quantities of Asbestiform Minerals Waste

Dedicated Asbestiform minerals waste bins (i.e., a wheelie bin) can be used for small waste and should be located at areas where asbestiform mineral waste is likely to be encountered (i.e. at entry/exit of designated areas or crib rooms for boot covers). The asbestiform minerals waste bins are to be lined with a heavy duty 200 µm (minimum thickness) polythene bags labelled with an appropriate warning (i.e., asbestos waste).

Examples of small quantities of asbestiform mineral waste items include but not include to disposable PPE (coveralls, gloves, boot covers), light vehicle filters and cleaning material.

The double bagging process is the twist-bend-tape method – ‘goose necking’. Disposal of waste shall be as follows:

- Place waste in a heavy-duty polyethylene bag to no more than 50% capacity
- The waste is required to be double bagged in plastic bags with the outer bag being heavy duty 0.2mm minimum thickness polythene bags
- Each bag is required to taped or cable-tied. Each bag shall be gathered at the top and taped by the twist-bend-tape method – ‘goose necking’
- Goose necking: twist the bag to create a tight long plastic rope, bend the plastic and use strong tape to tape the bend together

- Each bag must be labelled with a warning label.

Dedicated skip bins can also be used for asbestiform minerals waste that is too large for the dedicated asbestiform minerals waste bins. Waste is required to be double bagged in plastic bags with the outer plastic bag being heavy duty 200µm (minimum thickness) polythene bags. Follow the above process for the twist-bend-tape method – "goose necking".

12 Training

Employees and contractors shall be provided with the appropriate information regarding asbestiform minerals and the relevant controls. Persons undertaking activities in designated areas should receive the below training courses.

Refresher training should be given at least two-yearly.

12.1 General

Asbestiform Minerals Awareness training shall be provided to all personnel and contractors attending Site. The training shall comply with the relevant requirements of SafeWork SA "How to manage and control asbestos in the workplace" Code of Practice 2024.

- how to identify hazardous materials
- the type and likelihood of occurrence of asbestiform minerals at the Site
- the nature and scope of operations involving potential exposure to asbestiform minerals
- the potential health effects of exposure to asbestiform minerals, including the added risk of lung cancer due to the synergistic effect of cigarette smoking and asbestos exposure
- How to identify and control asbestiform minerals related hazard
- roles and responsibilities under this AMP
- required work practices which include control measures for "normal area" (Section 6.3.3) workers
- authorisation for entering designated areas
- good housekeeping practices
- air monitoring and relevant exposure limits
- involvement in risk-based monitoring programmes
- correct use of PPE as directed in designated hazardous areas
- respiratory protection fit testing requirements
- overview of decontamination facilities and procedures
- how to handle, transport and dispose of asbestiform minerals
- correct disposal of contaminated waste on site
- reporting requirements to ventilation officer and supervisor if asbestiform minerals are suspected/detected
- how to access and communicate information related to asbestiform minerals.

12.2 Respiratory Protection Equipment Training

RPE requirements and training shall comply with AS/NZS1715. This means that individuals must have medical approval as fit to wear RPE, and the be trained in RPE. The training must include:

- the selection, use, limitations, and maintenance of RPE

- the requirement for clean shaven for the wearing of negative pressure or close-fitting respirators
- the correct selection and use of PPE
- fit testing.

12.3 Authorised Personnel

Persons undertaking work within a DA will undergo additional, specific training that shall include:

- Asbestiform Minerals Awareness training (Section 12.1)
- the demonstration of all relevant standard operating procedures (see Section 17.1), e.g.:
  - personal hygiene and work practice specific procedures
  - operation of the required controls for minimising and avoiding dust exposure.
- the required health surveillance
- an introduction of the asbestos register (the Designated Area Access Register)
- the use of PPE (Section 9.17) and the Personal Protective Equipment (PPE) Procedure):
  - the correct selection and use of PPE
  - cleaning, maintenance, and disposal of PPE
  - the requirement for clean shaven for the wearing of negative pressure or close-fitting respirators
  - quantitative RPE face-fit test.
- decontamination requirements (Section 10)
- the purpose and significance of personal airborne exposure monitoring (Section 8).

13 Public Health

Public exposure to asbestiform minerals is limited by:

- the isolation of the site in terms of distance from populated areas
- security measures that prevent unauthorised access to the Site
- separation of public roads.

The potential for public exposure to asbestiform minerals outside of the lease area is limited to contact with potentially contaminated vehicles, plant, and equipment. The risk is mitigated by:

- a requirement to decontaminate contaminated vehicles, plant and equipment leaving Designated Areas or before leaving Site
- provision of decontamination procedure and facilities for personnel and equipment.

14 Contingency and Incident Procedures

14.1 Causes for Enacting Contingency Procedures

14.1.1 Unexpected Asbestiform Minerals Identified

If suspected asbestiform minerals are encountered outside of DAs, their location shall be noted and reported to the Exploration Manager. If asbestiform minerals are confirmed or encountered:

- this AMP is enacted
- stop work immediately

- notify work supervisor and the supervising geologist on Site
- the area will be deemed to be a restricted area until results confirm whether location is a DA or not
- essential equipment and personnel will be quarantined; no equipment can be removed until the area is designated or not
- team members shall not interact with the suspect asbestiform material and shall avoid the area until the material is safely dealt with
- Additional PPE recommended for asbestiform minerals (i.e., RPE)
- signage and demarcation erected
- if possible, the potentially contaminated area should be wet-down for dust suppression.

Representative samples from the specified location are collected. A laboratory certificate shall be produced confirming whether asbestiform minerals are present or not.

14.1.2 Laboratory Confirmation

If the certificate of analysis confirms the material is asbestiform then:

- the location is determined to be a DA
- prepare a risk assessment and plan of action, including resources and have assessment and plan approved by Exploration Manager
- implement the buffer zones and follow decontamination procedures
- presence of asbestiform minerals should be noted on the register
- the location of material will be logged and reviewed during exploration drilling
- the status and depth of material types present shall be documented and communicated back to the Exploration Manager
- all drill spoils containing asbestiform minerals must be contained in plastic bags, sealed with cable ties, and flagged with caution tape and visual labelling confirming presence of asbestiform minerals.

14.1.3 Trigger Criteria Reached

On reaching any of the trigger criteria specified in Section 8.3 the contingency actions listed against each criterion shall be implemented (see Table 14-1).

Table 14-1:Trigger criteria and contingency actions

Result Type	Trigger Criteria	Risk	Action
Individual Results	1 or more samples is ≥ adjusted OEL	**Medium**	• stop work to avoid exposure and contain airborne fibre concentration • Notify the Exploration Manager (in writing) • Conduct a thorough visual inspection of area, identify the source of fibres and associated equipment in consultation with all workers involved with the work • Clean-up and implement additional controls to eliminate and/or minimise exposure and mitigate further release on recommencement of operations • Monitor airborne fibre concentration (through static samples) and do not recommence work until fibre levels are at or below 0.05 fibres/mL

Result Type	Trigger Criteria	Risk	Action
	2 or more samples ≥ adjusted AL but < OEL	**Low**	• Stop work to avoid exposure and contain airborne fibre concentration • Conduct a thorough visual inspection of area / source of fibres and associated equipment in consultation with all workers involved with the work • Conduct a thorough visual inspection of area, identify the source of fibres and associated equipment in consultation with all workers involved with the work • Clean-up and implement additional controls to eliminate and/or minimise exposure and mitigate further release on recommencement of operations • Recommence work once additional controls implemented
Trends	≥ 5% exposures > adjusted OEL	**High**	• Investigate control measures and mitigate exposures
	< 5% exposures > adjusted OEL	**Medium**	• Maintenance monitoring
	100 % exposures < adjusted OEL	**Low**	• Routine re-assessment of risk if there are changes to the process

15 Reporting and Record Management

Documents relating to the risk management of asbestiform minerals shall be controlled in a manner which allows archiving and future access. Relevant documents requiring document control include:

- risk assessments and JHAs
- various registers (i.e., Designated area access registers)
- operating procedures
- hazard and incident reports
- monitoring results
- health surveillance records
- training and respirator face fit-testing records
- documents relevant to the ventilation officer (i.e., Ventilation Logbook).

15.1 Record of Entry to a DA

The Exploration Manager will maintain a Designated Area Access Register (Appendix A) of each person that is required to work in DA. This will include a Record of Entry and Work.

15.2 Exposed Person Register

The Exploration Manager will maintain an Exposed Person Register of each person required to work in a DA for more than 10 shifts in a 12-month period. Details shall include: their name, dates of training sessions and approximate time spent in the designated area each shift. The register shall be kept for 30 years.

15.3 Asbestiform Minerals Location Register

All asbestiform minerals intersections shall be reported on the asbestiform minerals register. The register shall clearly identify the location of where the intersections occurred and if they have been confirmed as asbestiform mineral samples.

15.4 Air Sampling Results

All air monitoring result above the corresponding shift-adjusted action limit will also be entered into document management system as an occupational exposure incident. The investigation will be conducted as per relevant procedures. Personnel who participate in air monitoring will receive a personal letter for their records and monitoring results will be communicated to the workforce by notice boards.

15.5 Record Management

Monitoring data and results are to be kept and maintained for 30 years from the date the record is made.

16 Health Surveillance

All personnel including those required to work at Site shall undergo the following health surveillance:

- a pre-employment medical, including an initial physical examination should place emphasis on the respiratory system, including baseline spirometry
- a recommendation for two-yearly medicals and should include administration of the standardised respiratory questionnaire (it does not ordinarily include respiratory function tests, chest X-ray or physical examination unless clinical indications are present, or they are recommended by the medical practitioner)
- the provision of a physical examination and pulmonary function testing if the results of air monitoring indicate exposure at or greater than half the time weight average (TWA) value.

The Safe Work Australia (SWA, 2020) stance on chest X-rays is:

"asbestos-related damage to the lungs takes years to develop and become visible on chest X-rays, and X-ray examinations cannot indicate whether or not asbestos fibres have been inhaled. Given this, and the long latency period, there is no reason to subject individuals with a suspected incidental exposure to even a small dose of ionising radiation."

The medical will include an assessment of fitness to wear RPE, as laid out in AS1715 if there is an identified need to wear RPE.

17 References

17.1 Internal Document References

Document Number	Document Title
	Designated Area Access Register
	Asbestos Management PowerPoint presentation – training resource
	Personal Protective Equipment (PPE) Procedure
	Pre-start Check List
	Fibrous Mineral Intersection via RC Drilling Procedure

17.2 External references

External Reference (Legislation, Guidelines, Standards and Codes of Practice)
AS/NZS 1715: 2009. Selection, use and maintenance of respiratory protective equipment

External Reference (Legislation, Guidelines, Standards and Codes of Practice)
AS/NZS 1716: 2012. Respiratory protective devices
AS 4260: 1997. High efficiency particulate air (HEPA) filters — Classification, construction and performance
AS/NZS 60335.2.69: 2017. Household and similar electrical appliances - Safety Particular requirements for wet and dry vacuum cleaners, including power brush, for commercial use
DMIRS 2019. Adjustment of Atmospheric Contaminant Exposure standards – Guide. Department of Mines, Industry Regulation and Safety.
SafeWork SA. How to manage and control asbestos in the workplace Code of Practice 2024
Safe work Australia. 'Workplace Exposure Standards for Airborne Contaminants'.
ISO 10263-3:2009. Earth-moving machinery — Operator enclosure environment — Part 3: Pressurization test method.
Work Health and Safety Act 2012
Work Health and Safety Regulations 2012.
Safe Work Australia 2005. Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition. NOHSC:3003.

Appendix A. Designated Area Access Register

Date	Name	DOB	Time in	Time out	Company	Location	RPE	Air sampling done	NOA	Observations for the day

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.