



Our Ref: EPR-04221

Regulation and Compliance
Division

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www.energymining.sa.gov.au

David Clarke
Chairman
Hamelin Gully Pty Ltd
194 Archer Street
NORTH ADELAIDE SA 5006

Via email: dclarke@curlybush.com

Dear Mr Clarke

Notification of Approved Exploration Program for Environment Protection and Rehabilitation (EPEPR) Review

In reference to your final submission dated 4 September 2026, the EPEPR has been approved pursuant to section 70C(5) of the [Mining Act 1971](#) (the Mining Act).

The approved EPEPR will be made publicly available on the Mining Register and the Department for Energy and Mining (DEM) website. Details of the approved EPEPR are listed below.

Approval Granted to	Hamelin Gully Pty Ltd
Tenement Type & Number	Exploration Licence EL 6009 and 6046
Program Number	EPR-04421 Review
EPEPR Description	To drill up to 30 x RC holes, 30 x AC/slimline RC and 6 DD holes across the Blue Rose, Golden Sophia, Anabama Hill and Netley Hill prospects.

You are reminded that you must always implement and comply with this approved EPEPR.

This approval does not constitute endorsement of the systems that you have in place to manage the mining operations in compliance with the Mining Act. Whilst your capability to undertake this activity has been considered in this approval, the responsibility for compliance with the Mining Act always remains with the tenement holder.

The legislative requirements associated with the EPEPR are outlined below, and certain requirements must be actioned prior to commencement of operations authorised by the EPEPR.

1	Rehabilitation Bond DEM has determined the rehabilitation liability estimate to be \$33,249 based on the information you have provided. Accordingly, a bond of \$10,000 be entered into with the Minister for Energy and Mining. This bond will be formally requested through separate correspondence. The bond must be entered into before authorised operations can commence.
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2	Public Liability Insurance Pursuant to Regulation 81 of the Mining Regulations 2020 (the Mining Regulations), you are required to provide a copy of a certificate evidencing the insurance coverage over the tenement(s).
3	Compliance Reporting You are required to submit an annual exploration compliance report. The report is required to be submitted within 2 months after the anniversary of the date the licence was granted, or in accordance with joint reporting requirements agreed to with the Minister. Please refer to the DEM website for more information on the reporting requirements. You are reminded that a separate compliance report is required 2 months after the expiry or surrender of the EL.
4	Work, Health and Safety Compliance In accordance with Chapter 10 of the <i>Work Health and Safety Regulations 2012</i> (SA), you must meet the requirements for mine operators in South Australia, which include a notification for mining operations, the establishment of a Safety Management System, the identification of Principal Mining Hazards and development of a Principal Mining Hazard Management Plan. Further information on your responsibilities, including a guide to Chapter 10, and the Mine Operator Notification Form, is available on the SafeWork SA website .
5	Water Licence Under the requirements of the <i>Landscape South Australia Act 2019</i> a water licence may be required. You are advised to consult with the Department for Environment and Water, Water Licensing Branch to seek further information regarding licensing requirements.
6	EPEPR Timeframe The EPEPR Review is approved for a period of twelve months from the date of this letter. A further 3 months after expiry of the 12-month period is provided to complete all rehabilitation.

Please note, proposed changes to exploration operations stated in the approved EPEPR may require a EPEPR review to be submitted for assessment. Where a EPEPR 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](#).

In addition to the requirements under the Mining Act, you are reminded that your operation will have other legislative requirements that you will need to comply with.

If you have any further queries, please contact DEM staff as below:

General enquiries	Sybille McPhail Team Leader, Exploration Regulation DEM.exploration@sa.gov.au
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Yours sincerely

A handwritten signature in black ink, appearing to be 'SC' or 'S. Constable', written in a cursive style.

Simon Constable

DIRECTOR, MINERALS REGULATION

In accordance with delegated powers and functions

09 / 09 / 2026

The Department's Regulatory Guidelines, Ministerial Determinations and Information Sheets are available at: <https://energymining.sa.gov.au/industry/minerals-and-mining/forms-legislation-and-guidance>

Exploration PEPR - EPEPR | 12 Month PEPR Review

Reference Number: EPR-04221 • Status: **Assessment**

Begin

PEPR Type

12 Month PEPR Review

Region

—



Select Applicable PEPR

Previous MERS EPEPR?

☐ No ☒ Yes

Previous PEPR ID

—

Search PEPRs

EPR-04127

Applicant and General Details

Applicant Details

Contact Person for Enquiries

Sarah Blieschke

Contact Details

Contact Details

Full Name *

Sarah Blieschke

Business Phone

0405 362 457

Mobile Phone

0405 362 457

Email *

sarah@teneman.com (<mailto:sarah@teneman.com>)

Project Supervisor

Rupert Verco, Managing Director, Manna Hill Mining Pty Ltd Mob: 0438 832 4060

A geology professional with 15+ years experience gained across exploration, resource definition and mining operations. Experienced in exploration regulatory approvals, exploration and project management in gold, rare earth elements and base metal projects.

General Details**Tenement Details**

Tenement Type	Tenement Name	Tenement Holder
Exploration Licence	EL 6046	Hamelin Gully Pty Ltd
Exploration Licence	EL 6009	Hamelin Gully Pty Ltd

Operating Company

Manna Hill Mining Pty Ltd (Operator)

If there is another Operating Company, please provide

Account Name	Entity Type	Registered Address	Registered Email
There are no records to display.			

Project/prospect name

Manna Hill Project - Blue Rose, Anabama Hill, Netley Hill and Golden Sophia prospects

Mineral Model

This program is focused on the progression of the oxide porphyry and skarn style copper gold style mineralisation at Blue Rose, and early exploration at Anabama Hill, Netley Hill and Golden Sophia.

Primary Commodities

Commodity Name ↑	Commodity Group
Copper	Exploration
Gold	Exploration

Secondary Commodities

Commodity Name ↑	Commodity Group
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There are no records to display.

Project Description

Initial Proposed Operations:
A drill program comprising up to 48 RC/ AC drillholes with a maximum depth of 300m for a total of up to 14,400m, 2 diamond tails (to RC drillholes) with a maximum depth of 750m for a total of 1500m) and 6 diamond holes with a maximum depth of 750m for a total of 4,500m. The drilling is based on the follow up of historic drill results and the re-interpretation of existing geophysical data. The program has been designed to verify the historic results, increase the depth of known skarn mineralisation and increase the confidence of the porphyry model at Blue Rose.
Start Date: 15/11/2025 - End Date 15/11/2026

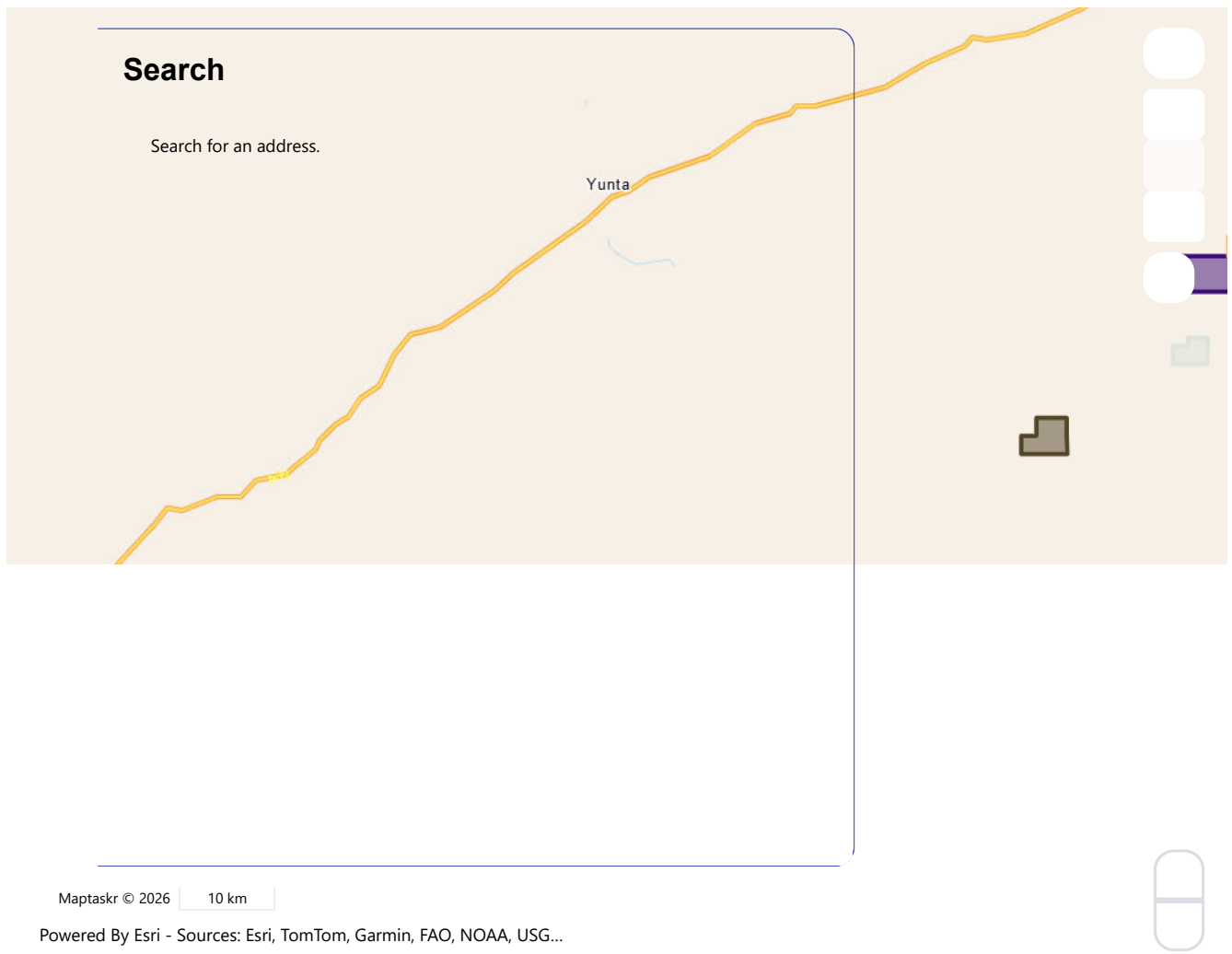
Completed work:
Cobra have completed 18 RC drill holes for 3,200m and 4 diamond drill holes totalling 1,465m. 17 x RC drill pads have been rehabilitated. Only remaining rehabilitation is drill pads for 1 x RC hole and 4 x diamond drill holes.

Additional planned program:
Cobra are planning a follow-up drill program, aiming to drill up to 30 x RC holes and 30 x AC/slimline RC holes across the Blue Rose, Golden Sophia, Anabama Hill and Netley Hill prospects. Drilling at Blue Rose is designed to assess the lateral extent of the skarn mineralisation and assess for potential repetitions. Drilling at Anabama Hill and Netley Hill will follow up on previous Cu-Mo mineralisation and provide valuable multi-element analytical data for geochemical vectoring towards mineralisation. Drilling at Golden Sophia will follow up previous shallow Au mineralisation. Drilling planned for September-October 2026, within the initial PEPR period. However, extension is requested to cover if program delayed due to drill rig availability.

Clearly describe why a PEPR review is required, summarise all content changes made to the approved PEPR, and provide appropriate justification where a time extension is required.

PEPR review requested to enable exploration activities to occur across a greater area over the current tenement holding. Additional areas have been added as well as an increase to the allocated number of drill holes. Drilling up to 30 x RC holes and 30 x AC/slimline RC holes required. Note, only RC holes (30) require sump construction. When assessing bond requirements please take into consideration that only 1 x RC drill pad and 4 x Diamond drill pads remain unrehabilitated. Due to the increased drilling planned, Cobra are requesting a slight extension to the proposed project schedule.

Identify Application Area



Search for an address.

Yunta

Maptaskr © 2026 | 10 km

10 km

Powered By Esri - Sources: Esri, TomTom, Garmin, FAO, NOAA, USG...

Map Layer Intersects

Location Description

Spatial Data Intersects - Summary Table

Search:

Spatial Layer Name	Category	Referral	Intersect Count
1:250K mapsheets	Other		5
Cadastral Parcels	Other		9
Determinations of Native Title	Other		5
Exploration licences (mineral/opal)	No-Go Area		7
Pastoral Lease Boundaries	Other		9
Registered Native Title Determination Applications	Other		5
Schedule of Native Title Claims	Other		5

Spatial Layer Name	Category	Referral	Intersect Count
Terrestrial - BOM Groundwater Dependant Atlas (GDE Atlas)	Other		19

Showing 1 to 8 of 8 entries

Previous1Next

Spatial Data Intersects - Details Table

Show10▼ entries

Search:

Spatial Layer Name	Shape	Primary Attribute	All Attributes	Category
1:250K mapsheets	Shape 1	OLARY	View attributes	Other
1:250K mapsheets	Shape 2	OLARY	View attributes	Other
1:250K mapsheets	Shape 3	OLARY	View attributes	Other
1:250K mapsheets	Shape 4	OLARY	View attributes	Other
1:250K mapsheets	Shape 5	OLARY	View attributes	Other
Cadastral Parcels	Shape 1	H835400BL912	View attributes	Other
Cadastral Parcels	Shape 1	H835400BL980	View attributes	Other
Cadastral Parcels	Shape 1	H835400BL994	View attributes	Other
Cadastral Parcels	Shape 2	H835400BL981	View attributes	Other
Cadastral Parcels	Shape 3	H835400BL994	View attributes	Other

Showing 1 to 10 of 64 entries

Previous1234567Next

Program Preparation

Work Undertaken in Preparing the Proposal

A desktop review of historic data was conducted through data available via the SARIG portal for geology and historic exploration undertaken. Additional data was collected in the field over the last 6 months via field surface sampling at Golden Sophia to verify the prospectivity of the areas.

Drilling contractors have been consulted in the preparation of the EPEPR proposal. Drill contractors, Bullion Drilling of Port Augusta and GMP Drilling of Mildura, Victoria, are experienced and well-regarded drill companies with experience in RC and diamond drilling respectively and have extensive experience conducting drill programs on pastoral leases within South Australia. Landholders have been contacted prior to the preparation of this EPEPR and for previous exploration programs, in addition, notices of entry have been served regarding the exploration not covered by the generic, low impact EPEPR. Landholders are familiar with mineral exploration on their pastoral leases with Hamelin Gully Pty Ltd.

The Outback Communities Authority was contacted regarding general details of the drill program, (services access, waste disposal etc.)

The use of the Naturemaps information portal, Water Connect and the BOM GDE atlas were used in the collation and interpretation of environmental data.

Native Title cadastral information was obtained from the National Native Titel Tribunal ARCGIS feature server.

Operator Capability

All staff and contractors receive an induction before commencing work on the site, including the proposed work areas. the induction addresses site specific OHS, environmental and heritage issues.

All staff receive more detailed training and induction on the operation of exploration activities, which includes familiarisation with safe work procedures, including:

- Principal Hazard Management
- Contractor Vehicle Inspections and operator inductions
- Program rehabilitation compliance reporting
- Safety and environmental incident reporting
- Work procedures and standards
- Fibrous Minerals Awareness Training

All documentation can be provided upon request.

A copy of the approved EPEPR is provided to all staff working on the exploration activity.

The operator maintains a vehicle inspection log in the safety culture app. And stores photographic digital evidence of the of vehicle inspections.

A drillhole rehabilitation register is maintained to document in a brief internal report containing details of work completed and before and after photos.

FORM 21B notices inform landholders of the operators planned exploration activities. The Exploration Manager provides updates to the station managers as exploration activities progress.

A complaints register will be maintained by the operator.

Compliance will be reported to the DEM in the annual Exploration Compliance Report

Lease Conditions

NA

Land Access

Identify the Owners of Land and authority to access land

Land Title Reference	Plan Parcel Reference	Type of Land	Owner of Land ↑	Land Access Authorisation Method	Date of Form 21 or Agreement Signed	Instrument or Uploaded Document Id	Uncheck land not applicable to your application ar
CL 6209/728	H83540 0BL980	Leasee	MERVYN GRAHAM COLLEY	Service of Notice of Entry	05/10/2023	n/a Provided to DEM 2023	Checked
CL 6184/461	H83540 0BL994	Leasee	OULNINA PASTORAL PTY. LTD	Land Access Agreement	22/01/2026	RI 56216	Checked
CL 6187/48	H83540 0BL981	Leasee	TIGMAS PASTORAL PTY. LTD.	Service of Notice of Entry	31/07/2026	RI 57457	Checked
CL 6184/316	H83540 0BL912	Leasee	WORTHINGTON PROPERTIES PTY. LTD	Service of Notice of Entry	14/09/2023	n/a Provided to DEM 2023	Checked
CL 6179/983	H83540 0BL114 5	Leasee	WORTHINGTON PROPERTIES PTY. LTD	Service of Notice of Entry	14/09/2023	n/a Provided to DEM 2023	Checked

Regulation 4 Consent – Exercise a right over a road, street or highway

No

Woomera Prohibited Area (WPA)

Will activities be conducted within the WPA?

No

In which zone will activities be conducted?

Name	Are you intending to undertake work?	Closure start date	Closure end date
There are no records to display.			

Do you have a resource exploration permit in place?

—

Permit No.

—

What is the expiry date of the exploration permit?

—

Does the Exploration Permit allow the operator to conduct exploration operations in the WPA?

—

Other Land Owned or Controlled by the Commonwealth Department of Defence

Indicate if you are intending to undertake exploration operations within the identified defence land?

No

Other Commonwealth Defence Land

Defence Land	Applicable
There are no records to display.	

Do you have a Deed of Access with Defence?

—

Expiry date of the Deed of Access

—

Enter the date the Range Control Officer granted permission to conduct the proposed exploration operations

—

Describe the results of consultation and how any concerns raised were addressed

—

Native Title

Does 'Native Title land' exist within the application area?

Yes

Using the table below, describe how you have complied with the requirements of Part 9B of the Mining Act for each tenement.

Name of Determined / Claimant Group	Agreement Type	Instrument Number	Applicable
Wilyakali			No

Provide any additional relevant information

NTMA between titleholder, Hamelin Gully Pty Ltd and Wilyakali Native Title Group over ELs 6009, 6046 and 6646 (RI 52056 Agreement – Endorsed 12/12/2022)

Exempt Land

Has Exempt land been identified?

No

Land Title	Plan Parcel	Owner of Land that has benefit of exemption ↑	Why is the land exempt land?	Waiver of exemption(s) been negotiated	Instrument Number or Uploaded Document Id
CL 6209/728	H835400 BL980	[REDACTED]			
CL 6184/461	H835400 BL994	[REDACTED]			
CL 6187/48	H835400 BL981	[REDACTED]			
CL 6184/316	H835400 BL912	[REDACTED]			
CL 6179/983	H835400 BL1145	[REDACTED]			

Consultation

Stakeholder ↑	Land Use	Matters raised	Stakeholder concerns raised and how addressed
[REDACTED]	Grazing	The Operator consulted [REDACTED] over its on-going program including over parts of [REDACTED] was happy to be consulted and directed the Operator to [REDACTED] (Operator of [REDACTED] for matters related to [REDACTED] se.	The Operator consults Dave Rosa of Wadnaminga for matters related to Canewood Pastoral Lease.
[REDACTED]	Grazing	The Operator maintains open communication with managers of [REDACTED]. Matters raised during on-going consultation include: • Impact to and maintenance of existing station tracks • Use of dam water for drilling • Conflict with pastoral activities	The Operator executed a Land Access and Compensation Agreement with Oulnina Pastoral covering matters including use of tracks, supply of water and notice periods. The Operator has applied for a water bore licence for installation at Blue Rose prospect for the extraction of water for exploration uses (to minimise the need for dam water). The Operator consults with Oulnina regarding the timing of exploration activities and adjusts its programs accordingly.
[REDACTED]	Grazing	The Operator consulted with [REDACTED] over its proposed program. [REDACTED] mentioned his preferred track for the Operator to access drillsites at Netley Hill and also that his sheep would be lambing until mid September and that he was keen to avoid disturbance to his mob.	The Operator consulted with [REDACTED] over its proposed program. [REDACTED] mentioned his preferred track for the Operator to access drill sites at [REDACTED] and also that his sheep would be lambing until mid September and that he was keen to avoid disturbance to his mob. The Operator will use the preferred station tracks to access [REDACTED] as instructed and has adjusted the timing of its work program to avoid conflict with lambing/disturbance to [REDACTED] mob.
[REDACTED]	Grazing	The Operator maintains communication with [REDACTED] regarding its exploration operations. Matters raised during recent conversations include regarding the timing of exploration activities and commercial opportunities for earthmoving and accommodation.	The Operator consults with [REDACTED] regarding the timing of exploration activities and adjusts its programs (to avoid conflict with station activities such as lambing) accordingly. The Operator has engaged [REDACTED] for earthmoving work and will accommodate its works at [REDACTED] shearer's quarters from time to time.
[REDACTED]			

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

NA

Describe any council policies (or out of council) or development plans that may impact the program area and a description of any known plans for future land use changes by other parties.

None found.

Provide any additional relevant information.

—

Description of Environment

Proximity to Infrastructure and Housing

Proximity to infrastructure and housing

See Figures 1 and 3

Access to Blue Rose is generally via Oulnina Station with access also possible via Wadnaminga Station and Devonborough Downs Station.

The closest locality to activities at Blue Rose is Manna Hill. Blue Rose is approximately 35km SE from Manna Hill on the Barrier Highway

Landform, Topography, Soil and Surface Cover

Describe the topography and soil and surface cover (e.g. gibber) of the general area affected by the exploration program. Include details on the susceptibility to compaction, erosion, dust, runoff and visual attributes (steep or undulating slopes, plains, rocky outcrops, dunes, saltpans, claypans etc) any other characteristics (e.g. acid sulphate soils) that may require control strategies to reduce environmental impacts during operations or rehabilitation.

The area is within the Olary Ranges region, characterised by north easterly trending low hogback ridges with intermediate, gentle sloping valleys. Annual rainfall is low and unreliable (~200mm annually). Erosion risk is limited due to the skeletal soils on steeper ridges and finer soils on the plains.

Soils include shallow loam, red duplex and shallow calcareous earth and vary from skeletal around ridges to more developed within plains. Vegetation includes low woodlands of black oak (*Casuarina cristata*), false sandalwood (*Myoporum platycarpum*), mallee eucalyptus and other trees, with bluebush (*Maireana* spp) and saltbush (*Atriplex* spp), with mulga (*Acacia aneura*), other acacia species, turpentine bush and broom (*Eremophila* spp), hopbush (*Dodonaea* spp) and *Cassia* species. The larger channels are bordered by red gums (*Eucalyptus camaldulensis*). Major ephemeral streams draining to the south are Manunda Creek and Olary Creek; to the north are Whey Whey and Mingary Creeks.

Surface Water

Will the proposed program interfere with surface water bodies and natural drainage (e.g. drainage lines, creeks, floodplains, wetlands)?

Yes

Describe the potential interference and surface water bodies and natural drainage on maps

Indicate how you will avoid disturbance

Is the program area located within water protection areas defined under the River Murray Act 2003?

No

Select the name(s) of protected water areas

Is the program area located within any prescribed watercourses or prescribed surface water areas under the Landscape South Australia Act 2019?

No

Select the name(s) of the prescribed watercourses or prescribed surface water areas under the Landscape South Australia Act 2019.

Name	Applicable
There are no records to display.	

Groundwater

Is groundwater likely to be intersected when conducting the exploration program?

Yes

Provide evidence or any supporting information why groundwater is unlikely to be intersected.

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

The water aquifer over which the target areas lie is described as weathered and fractured rock – Proterozoic sediments – siltstone, limestone, sandstone, dolomite, schist and chert. There are no Prescribed Water Resources Areas, Prescribed Wells Areas or Groundwater Networks within the boundary of the proposed exploration sites subject to this application.

Groundwater is sourced from the Neoproterozoic (Adelaidean) sediments of the Proterozoic formations associated with the Olary Ranges. Fractured rock, mostly siltstone is the likely source of the aquifers whether overlain by thin Quaternary sediments or not. The aquifer is unconfined and brackish, mostly utilised for stock water.

The project work areas are within the non-prescribed groundwater area within the Olary geological area. These areas have not been drilled by the holder with limited publicly available information regarding recent groundwater conditions. Information available is from a few water wells drilled in the area during 1977.

Blue Rose Area

It is expected that groundwater conditions will be greater than 20m with the minimum SWL in nearby Scotts Bore 09 recorded at 27.2m. Drillhole 104011 in the northern part of the prospect area was drilled to 85m and abandoned and dry in unconsolidated sediments. Turkey Nest Bore (Drillhole 104012), to the West of Drillhole 1014011 had an SWL of 23.1m and made 10.25 litres per hour.

From recorded wells in the general Olary geological area, the average depth of groundwater was found to be 13m with the majority having poor yields, averaging 0.5 L/s as reported in DEW Report, 2012/01 – “Technical Report, Non-prescribed groundwater resources assessment – South Australian arid lands natural resources management region, phase 1 – literature and data review”.

A discussion of management strategies for encountering groundwater during drilling operations is provided further below.

Add the different groundwater conditions for each localities/areas to the table below.

Name ↑	Formation age and/or stratigraphic unit	Stratigraphic intervals (depth range) (m)	Aquifer formation name	Aquifer Interval/thickness (from-to) (m)	Aquifer Type	Aquifer salinity (TDS)	Depth to groundwater (m)	Comments
Blue Rose Area	Saddleworth Formation	1000	Burra Group	6-17	Unconfined	5000mg/L	0	
Blue Rose Area	Unconsolidated clay, sand	1000	Pooraka Formation	N/A	Unconfined	5000mg/L	0	

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

Blue Rose Area

All recorded wells in the area have TDS values ranging from 1000 to 6200 (mg/L) when records were taken in 1977 and 2009. Per Schedule 1 – Environmental values of waters from the Environment Protection (Water Quality) policy 2016 – 1.7.2020 these background values indicate potential use for primary industries livestock drinking water.

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

Blue Rose Area

The GDE Atlas shows that there is a low to moderate potential for Terrestrial GDE being mostly associated with minor creek systems. There is nil potential for Aquatic GDE and there has been no subterranean ecosystem assessment in the area.

Is the proposed program located within a prescribed wells area?

No

Select the prescribed wells

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

No

Select the prescribed water resource areas

Provide any additional information

N/A

Native Vegetation

Will you be working within areas of native vegetation?

Yes

Provide the following information:

Native vegetation at the proposed work areas is shown in Figure 5. It sits within the Benda Land system comprised of; hills of summer red mallee and white mallee woodland with lemon-scented grass, silvertails and rock sida; low hills of pearl bluebush low shrubland; plains with pearl bluebush low shrubland with bladder saltbush, blackbush and sugarwood; floodplains of blackbush low shrubland with river red gum creeks..

The Blue Rose Area is comprised of native vegetation within the pastoral land subject to exploration activities is predominately low tussock grassland in open areas with patches of Eucalyptus mallee forest and mallee woodland, low open shrubland along rocky ridges and Casuarina woodland in sandy loam to clay loam plains. Chenopod shrubland dominates water courses and associated alluvial flood plains.

Indicate why you will not be working within areas of native vegetation?

Fauna

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

Listed migratory and invasive species for the Blue Rose work area include:

Native Mammal Species
Macropus (Osphranter) robustus (Euro)
Macropus (Osphranter) rufus (Red Kangaroo)
Macropus fuliginosus (Western Grey Kangaroo)

Native Bird Species
Dromaius novaehollandiae (Emu)

Migratory Marine Birds
Apus pacificus (Fork-tailed Swift)

Migratory Terrestrial Species
Motacilla cinerea (Grey Wagtail)
Motacilla flava (Yellow Wagtail)

Migratory Wetlands Species
Gallinago hardwickii (Latham's Snipe, Japanese Snipe)
Actitis hypoleucos (Common Sandpiper)
Calidris ferruginea (Curlew Sandpiper)
Calidris melanotos (Pectoral Sandpiper)
Calidris acuminata (Sharp-tailed Sandpiper)

Invasive Mammal Species
Capra hircus (Goat (Feral Goat))

Please refer to the NatureMaps fauna species spreadsheets attached to this application for a full list of all species within each of the target areas and surrounds, and further information regarding occurrences and locations.

Significant Habitats, Flora and Fauna

Are there any significant habitats, flora and fauna within the project area?

Yes

Use the table below to list any significant habitats and any rare or endangered flora and 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 name/habitat	Common name	NPW Act Rating	EBPC Act Rating
Pedionomus torquatus	Plains-wanderer	Critically endangered (CR)	Critically endangered
Calidris ferruginea	Curlew Sandpiper	Critically endangered (CR)	Critically endangered
Galaxias rostratus	Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow	Critically endangered (CR)	Critically endangered
Pezoporus occidentalis	Night Parrot	Endangered (EN)	Endangered
Rostratula australis	Australian Painted Snipe	Endangered (EN)	Endangered
Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)	Endangered (EN)	Endangered
Lophochroa leadbeateri leadbeateri	Major Mitchell's Cockatoo (eastern), Eastern Major Mitchell's Cockatoo	Endangered (EN)	Endangered
Amytornis modestus	Thick-billed Grasswren	Vulnerable (VU)	Vulnerable
Stagonopleura guttata	Diamond Firetail	Vulnerable (VU)	Vulnerable
Neophema chrysostoma	Blue-winged Parrot	Vulnerable (VU)	Vulnerable
Falco hypoleucos	Grey Falcon	Vulnerable (VU)	Vulnerable
Aphelocephala leucopsis	Southern Whiteface	Vulnerable (VU)	Vulnerable
Petrogale xanthopus xanthopus	Yellow-footed Rock-wallaby (SA and NSW)	Vulnerable (VU)	Vulnerable
Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat	Vulnerable (VU)	Vulnerable
Corcorax melanorhamphos	White-winged Chough	Vulnerable (VU)	Vulnerable

Weeds and Pathogens

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

There were no significant invasive plant species listed in the EPBC Act Protected Matters Reports generated on 12th August 2023 for the proposed work areas. The NatureMaps Web App does list several sightings of the following invasive species if the search area is widened to include potential access tracks from the Barrier Highway to both the Blue Rose work area.

- Opuntia robusta (Wheel Pear) – Olary township
- Lycium ferocissimum (African Boxthorn) – Eringa Park Homestead
- Tamarix aphylla (Athel Pine)

Aboriginal Heritage

Describe the steps taken to identify Aboriginal heritage sites within the proposed area of exploration. Include a statement advising if an Aboriginal heritage survey has been conducted by the proponent and if so, the results of the survey.

A Native Title Mining Agreement is in place and two clearances with the Wilyakali (WNTAC) took place over 2023-2024 covering Blue Rose

Environmentally Sensitive Locations

Indicate if you are intending to undertake exploration operations within the environmentally sensitive locations listed.

No

Name	Applicable
There are no records to display.	

Are you likely to impact on the environmentally sensitive area?

—

Detail the likely effects the proposed program may have.

—

Exploration Operations

Exploration Scope

Describe all exploration methods to be covered by the PEPR

—

Describe the extent of exploration operations – e.g. drillhole spacing and drill line density.

—

Describe the 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.

—

Describe the specific environments where exploration operations will not be conducted – e.g. parks, reserves, salt lakes etc.

—

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.

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

Name	Owner/Operator	Description/capacity	Activity/purpose
2 x trayback utes	Manna Hill Mining Pty Ltd	Light vehicle for soil sampling/logging, management and rehabilitation	Soil sample/drill chip logging / sample management/ rehabilitation
1x tandem trailer	Manna Hill Mining Pty Ltd	Tandem Trailer	Sample transport and rehabilitation
1x RC Rig	Bullion Drilling	Schramm 450 truck-mounted drill rig	AC/RC drilling (refer photograph 1).
1x support truck	Bullion Drilling	Support Truck	Drill Rods and drilling consumables (refer photograph 1.)
1x compressor truck	Bullion Drilling	Truck mounted Compressor for RC drilling operations	Supplying compressed air for RC operations (refer photograph 1.)
1 trayback ute	Bullion Drilling	Support/ Crew vehicle	Transport for Bullion Drilling Crew
1x Diamond Rig	GMP Drilling	Track Mounted Diamond Drill Rig	Hanjin Multi D&B35 track mounted drill rig (refer photograph 2.)
1x support truck	GMP Drilling	Support Truck	Transporting drilling consumables (refer photograph 2.)
1x Support carrier	GMP Drilling	Track mounted support truck	Track mounted support truck for drill rods and additional drill supplies (refer photograph 2.)
1 trayback ute	GMP Drilling	Support/ Crew vehicle	Transport for GMP Drilling Crew
1x 4.5 tonne Bobcat (or similar)	Pastoral Leaseholders	Skidsteer loader (bobcat)	Construction and closure of residue disposal sump.
1x 3 tonne excavator	Pastoral Leaseholders	3-tonne excavator	Construction and closure of residue disposal sump.
1x water cart	Pastoral Leaseholders	Water cart for the storage of water	Used during drilling operations to transport and store water for drilling

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)?

No

Describe each type of low impact operations proposed.

Drilling Operations

Will exploration drilling operations be conducted?

Yes

Identify all the drilling methods that will be used.

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

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.

RC drill sites will need approximately 20m by 20m of working space for the drill rig and support vehicles (see photograph 1). The drill rig and support vehicles can be configured to accommodate the drill site where required. The support vehicles and rig can be up to 10m apart. Where necessary, the sparse vegetation of the heavily grazed land negates the need for any non-manual vegetation clearance. Where large trees or significant vegetation are present, drill holes will be moved to avoid these features. Sites are approached as a roll on, roll off style with no vegetation clearing or excavation taking place. The open nature of the vegetation allows for no clearing being required to allow for a safe work space. In areas of thicker blue bush coverage, a roller will be used to compress the vegetation to allow for a safe work space whilst minimising surface disturbance or enabling erosion in the location. No site surface excavation, excepting the drill sumps will be undertaken on the drill pads. Drill sumps will be approximately 2x2x1.2m for RC drill sites and 4x2x1.2m for diamond drill sites.

Landholders will be consulted on collar locations prior to any drilling. All drilling locations will be covered by (cultural heritage) work area clearances.

Drillhole Construction and Decommissioning

Drillhole construction and decommissioning

For RC drilling, casing will be constructed with a 200mm rotary mud blade and cased with 200mm PVC casing where necessary, to a maximum depth of 6m or more if necessary. casing will not be cemented (but A and B foam may be used) and will be removed at the completion of the drillhole by hand, or if required, with the drill rig head. All RC drillholes will be constructed with a 150mmmm RC drill bit holes will be installed with a drill plug at the completion of drilling to prevent the creation of a fauna trap prior to rehabilitation. Drilling in the prospect areas have been reported as being dry with no prospects of intersecting artesian aquifers.

Diamond drillholes will be constructed using HQ, NQ or PQ drill bits. Casing will be up to 6m (or more as necessary) of 200mm PVC class 12 pipe installed with a 200mm blade or hammer where necessary. Casing will not be cemented (but may use A and B foam) and will be fitted with a hole plug after completion to prevent the creation of a fauna trap. Drillholes will be backfilled with any pre-collar cutting upon receipt of sample assays. Casing (unable to be removed) will be capped at least 0.5m beneath the ground level during rehabilitation.

There is a low potential for low yielding fault bound aquifers at depth. No cementing of aquifers will be required. No confined aquifers will be intersected.

There is anecdotal references to fibrous minerals being present at the Blue Rose prospect. Drill hole construction will be completed with consideration to the Fibrous Minerals Management Plan whilst personal monitoring across a selection of representative holes are completed under the supervision and assessment of an occupational hygienist. Refer to the Fibrous Minerals Management Plan for details on the control measures put in place for the management of potential fibrous minerals.

Note, the proposed water bore will be installed in a drilled RC drillhole (approved by this E-PEPR) completed with an RC hammer up to 200mm diameter.

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

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.

For RC drilling, casing will be constructed with a 200mm rotary mud blade and cased with 200mm PVC casing where necessary, to a maximum depth of 6m or more if necessary. casing will not be cemented (but A and B foam may be used) and will be removed at the completion of the drillhole by hand, or if required, with the drill rig head. All RC drillholes will be constructed with a 150mmmm RC drill bit holes will be installed with a drill plug at the completion of drilling to prevent the creation of a fauna trap prior to rehabilitation. Drilling in the prospect areas have been reported as being dry with no prospects of intersecting artesian aquifers.

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RC drillholes with diamond tails will be cased as per RC drillholes (above). PQ or HQ drill rods will serve as casing to the bottom of the RC drillhole.

The proposed water bore will be installed by a licensed water bore driller. The bore will be constructed with a 200mm RC hammer to a maximum depth of up to 150m. The bore will be cased with 150mm PVC, including with a slotted production interval. The bore will be grouted with a minimum 5m depth and 15mm thickness. Bore construction will be in accordance with the minimum construction standard detailed in Minimum Construction Requirements for Water Bores in Australia, Fourth Edition. Please refer to the attached diagram for nominal bore design.

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.

Holes will be temporarily plugged at completion to prevent the creation of a fauna trap. Holes will be backfilled with cuttings after downhole logging and the return of assays. Holes will be rehabilitated in accordance with Earth Resources Sheet M21.

No confined aquifers are expected to be intercepted during the drilling. Casing will be removed at the completion of drilling each hole.

Excess cuttings will be disposed of in a central pit in line with landholder directions and in accordance to the fibrous minerals management plan.

Ownership of the water bore is planned to be transferred to the landholder when no longer required by the Operator (or at the expiry or surrender of the Exploration Licence). The Operator commits to rehabilitating the water bore by backfilling the bore and burying the casing >400mm below ground level, in the case that the landholder does not wish to have the borehole ownership transferred.

Costeans and Bulk Sample Disposal Pits

Will costeans/bulk sample disposal pits be required for the proposed program?

Yes

Indicate the maximum dimensions and size of pits and costeans.

60.00

Describe site preparation methods, vegetation clearance, and safety and maintenance requirements

Bulk Sample disposal pits will be prepared for drilling. Topsoil, where present will be stockpiled prior to the sumps being dug. Sumps will be dug and backfilled in a single work period where; sumps will be dug, excess sample residues are transported to the sump and disposed of. All sample material will be backfilled with at least 60cm of cover with stockpiled topsoil spread across the top at the completion of backfilling. Sump locations will be selected in areas of low erosion risk to minimise the risk of later exposure and will be in accordance with landholder and native title requests. The sumps will be opened and closed for less than one week to limit safety risks to the public and fauna. Egress ramps will be incorporated into the sump digging for safety to people and other fauna whilst open. Sumps will be located in areas where future disturbance risk is minimal, in accordance with the Fibrous Minerals Management Plan. Multiple disposal pits are proposed to allow for pits to be dug and backfilled in a single work period.

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).

RC samples (green bags) each of approximately 25kg size will be collected from a cyclone off the sample delivery hose for every metre of drilling and contained in UV-stable plastic bags adjacent to the drill site. A calico bag of approximately 2-3 kg will be collected off the cyclone cone splitter for submission to the Lab.

Approximately 100g of sample will be washed and retained in a chip tray as a representative sample for geological logging. Remaining cuttings are stored in green bags and will be stored adjacent to the drillhole until assay results are returned. Once holes are logged and assay results are returned, cuttings will be used to backfill the drillhole. Cuttings not able to be put down the drillhole will be disposed of in the bulk sample disposal pits for each drill area.

Green bags will be disposed of at a registered waste disposal facility. Any sample bags assessed by the geologist on site to be potentially fibrous through logging will be placed in a contaminated waste container and disposed of in accordance with the Fibrous Minerals Management Plan at a waste facility licensed by the EPA.

Diamond drill samples are expected to be 3-5kg/m for NQ core. Pre-collar material will be collected in bags and stored at the drill site. Diamond core will be placed into core trays on site before being transferred off site. Any core identified as potentially fibrous will be cut on site using a brick saw while irrigated to prevent dust generation in line with the Fibrous Minerals Management Plan any core without fibrous minerals will be sent off site for cutting.

Chip trays and core trays with potential fibrous minerals will be labelled with warning stickers and prepared in line with the Fibrous Minerals Management Plan to identify the fibrous minerals and minimise potential exposure.

Access Routes to Work Areas

Will existing tracks require upgrading and/or maintenance?

Yes

Detail the work required to upgrade/maintain existing tracks.

Station tracks will exhibit wear and tear from the repeated use during the proposed drilling program. The Operator proposes to use a water cart on existing station tracks to maintain moisture in the tracks and prevent degradation into bull dust. Water will be sourced from the proposed water bore, detailed elsewhere in this application. Additionally, the Operator proposes to add roading material to station tracks where required and in consultation with the leaseholder. Roading material will be sourced from a local supplier (outside the exploration licences) and on commercial terms and in consultation with the landholder. Material brought in to maintain tracks will be weed free to ensure compliance with PEPR outcomes.

Will access off existing tracks be required?

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.

Any travel off existing tracks will be undertaken in conjunction with landholder and native title requirements and will be kept to a minimum. Off track travel will be single vehicle file for all staff and contractors. No vegetation clearance will be required but incidental rolling of vegetation will occur during the transport of the roller to the drill sites where required. New access routes to the work areas will be overland without excavation and avoiding the initiation of erosion.

At Blue Rose a total of up to 6km of 3m wide overland tracks will be required for 0.18ha of impacted ground. See Figure 4.

Additional total of 29km of 3m wide tracks will be required for 0.87ha of impacted ground. See figure 'PEPR additional tracks'

Campsites and Equipment Laydown Areas

Indicate where staff and contractors will be accommodated during the exploration program.

Workers will be lodged at the Oulnina Station Shearer's Quarters and in caravans/camper trailers at a campsite to be established at Blue Rose Prospect.

What is the maximum number of personnel requiring accommodation?

8

Is a campsite required to be established?

Yes

Provide a description and justification of the camp location (e.g. previously cleared areas etc.), and any other relevant information.

The campsite will be located in a clear and level area at Blue Rose Prospect in consultation with the Oulnina (Benda) station landholders and compliant with the NTMA with the Wilyakali Native Title Group.

What will be the total area (ha) of the campsite(s)?

0.20

Will native vegetation clearance required?

No

What will be the total area (ha) of vegetation clearance for the campsite?

0.00

Describe the methods used to prepare the campsite including vegetation requirements and site levelling.

No site levelling will be undertaken for the campsite location. The open nature of the vegetation allows for no clearing being required to allow for a camp site.

Will any excavations be required?

Yes

Describe the purpose of the excavation

After each campaign all caravans, tents and generators are removed from site and the toilet facilities are backfilled and rehabilitated. Shower Facilities are provided in caravans brought to site for the program, with grey water allowed to drain into a small hand dug sump and allowed to seep freely into sandy soil within 5m of the campsite, with the sump rehabilitated after each program. Toilet facilities for each campaign consist of a ~6m deep drillhole with privacy tent and field toilet seat placed above it. A new hole will be drilled and used as a toilet facility for each drill program. Due to the short duration (2-3 weeks) of individual field campaigns and the small number of people involved (max 5 persons at the campsite).

If the frequency of site activities increases, leading to more permanent camp requirements advice from Health SA will be sought, regarding the need for upgraded sewage and grey water treatment.

Describe the maximum volume (m3) of material to be excavated.

3.00

Provide confirmation that the proposed ablution facilities have been endorsed for use by the Department of Health or local council, where applicable.

Yes

Indicate why endorsement approval is not required by the Department of Health or local council.

Proposed Infrastructure (includes caravans, tents, offices, hydrocarbon and water storage requirements etc)

Proposed infrastructure	Quantity	Description / capacity
Caravans/Camper trailers	4	2-4 Caravans/Camper Trailers (as required)
Tents/Swags	3	Fly camping - tent/swags 1 to 3 personnel in tents/swags as required

Will laydown areas be required?

Yes

Will the laydown area(s) be located at the same location as the campsite?

Yes

Provide a description and justification of the laydown area location (e.g. previously cleared areas etc.), and any other relevant information.

The location of the laydown has been selected as a vegetation free area, out of the way from pastoral activities nearby the drill area. The sparse vegetation of the heavily grazed land negates the need for any non-manual vegetation clearance.

What will be the maximum area (ha) required for the laydown area(s)?

0.25

Will native vegetation clearance be required?

No

What will be the total area (ha) of vegetation clearance for the laydown area?

0.00

Describe the methods used to prepare the laydown area including vegetation requirements and site levelling.

No site levelling or vegetaion clearing will be required for a laydown area. A clear level area will be selected in consultation with the landowner. The sparse vegetation of the heavily grazed land negates the need for any non-manual vegetation clearance.

Will any excavations be required?

No

Describe the purpose of the excavation.

What will be the volume (m3) of material to be excavated.

Proposed infrastructure (includes hydrocarbon and water storage requirements)

Proposed infrastructure	Quantity	Description / capacity
Trailer mounted diesel tank	2	Self-bunded storage tanks designed and built to AS1692 and AS1940 standards stored on a tandem trailer or support vehicle
5000l tank for water storage	1	Tank filled with fresh water procured from landholders or off site if necessary

Other Exploration Methods and/or Ancillary Operations

Are any other proposed exploration methods (e.g. seismic) and/or ancillary exploration operations required?

No

Describe the activity(s), site preparation, vegetation clearance, and safety and maintenance requirements.

Water Supply and Management

Will camp and/or drilling water be required?

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.

A licensed water bore is proposed to be installed at Blue Rose Prospect. An application is currently being prepared. This will be used for drilling, track maintenance and camping purposes. Until the water bore is installed, alternative water sources include potable water sourced from the Landholders/leaseholders on commercial terms. There are a number of bores in close proximity to Blue Rose which could be utilised with permission of the landholders for drilling. These bore produce stock quality water. Up to 1,000l per RC hole may be used for dust suppression 10,000l of water per drillhole may be required for diamond drilling. The Operator commits to securing permission and commercial terms for water supply prior to accessing water from existing bores.

Will surface water and/or mineral drillholes be used as a water source/supply?

No

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.

Yes

Attach a copy of the licence or include a statement confirming that a licence will be obtained before the extraction and/or usage of water.

A water bore licence application is being prepared and a permit will be secured prior to the installation of the water bore. See the attached statement confirming that a licence will be obtained before the extraction and/or usage of water.

Groundwater Investigation and Water Affecting Activities

Will any water investigation (e.g. pump testing, water monitoring sites, water storage, turkey nests/dams) and/or water affecting activities, be undertaken (refer to s. 127 of the Landscape South Australia Act 2019)?

Yes

Describe the water investigation and/or water affecting activities, including site preparation, vegetation clearance, and safety and maintenance requirements.

The proposed water bore will be constructed within an RC drillhole approved under this E-PEPR. Drill site preparation and site clearance will be as per those for the RC drillholes. The sparse vegetation of the heavily grazed land negates the need for any non-manual vegetation clearance.

The proposed water bore will be installed by a licensed water bore driller. The bore will be constructed with a 200mm RC hammer to a maximum depth of up to 150m. The bore will be cased with 150mm PVC, including with a slotted production interval. The bore will be grouted with a minimum 5m depth and 15mm thickness. Bore construction will be in accordance with the minimum construction standard detailed in Minimum Construction Requirements for Water Bores in Australia, Fourth Edition. Please refer to the attached diagram for nominal bore design.

Indicate if water affecting activities permits (eg well and water extraction/discharge permits) have been obtained and in accordance with the Landscape South Australia Act 2019.

Yes

Attach a copy of the permit(s) or include a statement confirming that permits will be obtained prior to the commencement of the water investigation activities.

Management of Hazardous Materials

Will activities be conducted in areas of known uranium and thorium mineralisation?

No

Will any other hazardous material be encountered when exploring in the area?

Yes

List the types of hazardous materials and provide a management plan on how these materials will be managed.

There is a potential for natural fibrous minerals to be encountered during drilling at Blue Rose. A Fibrous Minerals Management Plan has been prepared for the drill programs. The first drill program will be conducted over a geologically representative area under the supervision of an occupational hygienist in conjunction with the Fibrous Minerals Management Plan.

Personal monitoring will be conducted during this part of the program by all people who enter the designated work areas for analysis. Work up to this point will be completed under full coveralls, and fit tested P2 respiratory protection with all staff trained in their use. Ongoing controls will be determined based on the outcomes of the monitoring program samples and the geological assessment of the drill samples in line with the Fibrous Minerals Management Plan and the feedback of the occupational hygienist.

Samples will be assessed by the geologist on site for fibrous minerals potential in line with the Fibrous Minerals Management Plan during all drilling.

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.

Drill rehabilitation will be completed progressively during drill programs, unnecessary overland tracks and redundant drill pads will be rehabbed at the completion of each stage of drilling and prior to the commencement of the next stage of drilling. Plastic ground sheeting will be placed underneath the cyclone area to contain any RC drill spoil not captured in the green bags. A maximum of 30 RC holes (previously 20) would be open at any one time. A maximum of 6 DD holes (including diamond-tailed RC drillholes) would be open at any one time.

The exploration campsite and laydown will be rehabilitated including the back filling of any excavations within three months of the approved E-PEPR period.

RC Drilling

RC Drill Casing will be pulled out at the completion of the hole by the rig head where possible where casing cannot be removed, it will be cut at least 0.5m below surface in accordance with Earth Resources Information Sheet M21: Mineral Exploration Drillholes – General specifications for construction and backfilling. A mound of backfill covered in topsoil will be left over the drill collar location to allow for natural settling of cuttings downhole. Prior to rehabilitation of drillholes, a temporary hole plug will be put over the hole to prevent the creation of a fauna trap. Grouting of holes will not be required as there are no confined aquifer present.

Excess cuttings will be disposed of downhole if fibrous minerals are identified, a designated fibrous minerals waste disposal sump will be used to dispose of this material in line with the Fibrous Minerals Management Plan. Where no fibrous minerals are present, drill cuttings not able to be disposed of downhole will be disposed of in the drill sump in with at least 0.3m of cover.

RC drill sumps will be backfilled with the sump material. The topsoil will be stockpiled separately and be replaced at the end to encourage germination. Drill pads will have all rubbish removed, be raked and a blower used to distribute organic matter across the pad to encourage re-vegetation. No ripping of the surface is intended to mitigate the risk of erosion.

Rehabilitation of RC drillholes will be completed upon the receipt of assays.

Samples of ~20kg (3x 20kg green bags) will be collected from a cyclone off the sample delivery hose for every metre of drilling and contained in UV stable green bags and stored adjacent to the drill site. Samples will be split on site with approximately 2-3kg retained in pre-numbered calico bags and submitted for analysis. Remaining cuttings will be stored on site in the green bags until samples are received.

If fibrous minerals are not identified either geologically or through the representative personal monitoring, one 30kg green bag will be collected with residual drill cuttings captured on the plastic under the cyclone for disposal in the drill sump this approach is taken as a safe work practice to prevent unnecessary heavy lifting.

Diamond Drilling

Diamond drill casing will be cut at least 0.5m below surface at the completion of drilling.

Pre-collar samples will be captured in green bags and be kept at the drill site for use in rehabilitation. Drillholes will be temporarily plugged between completion and rehabilitation to prevent the creation of a fauna trap, plastic sheeting and any rubbish will be removed from site at the completion of drillholes and disposed at a registered waste facility (EPA registered for fibrous minerals for sheeting and rubbish with potential fibrous minerals contamination). Pre-collar cuttings will be disposed of downhole upon the receipt of assay results. A mound of topsoils will be kept over the top of the drillhole to allow for the natural settling of drill cuttings.

The drill sumps used for the circulation of drill fluids and the capture of groundwater will capture any drill cutting in water without the generation of dust, allowing for the safe backfilling of the sumps and isolation of the material under at least 0.3m of cover. Topsoil from the sumps will be stockpiled separately during preparation and will be placed on top and the end of backfilling to encourage re-vegetation

No confined aquifers will be intersected so no grouting will be required in accordance with Earth Resources Information Sheet M21: Mineral Exploration Drillholes – General specifications for construction and backfilling.

Drill pads will have all rubbish removed, be raked and a blower used to distribute organic matter across the pad to encourage revegetation. No ripping of the surface is intended to mitigate the risk of erosion.

Holes will be rehabilitated in accordance with Earth Resources Sheet M21.

Sample Disposal Pits

Sample disposal pits will be installed in the event that fibrous minerals are identified by the geologist on site or during personal monitoring for fibrous minerals. Pits will be dug with the topsoil stockpile separately to the remainder of the sump

material. Sumps will be backfilled with drill cuttings allowing for at least 0.6m of backfill to be returned over the top to minimise the risk of exposure to the fibrous minerals in line with the Fibrous Minerals Management Plan. The disposal pit is to be installed in an area where it is unlikely to be disturbed. Topsoil will be placed over the top of the sump once it has been backfilled to encourage re-vegetation. Multiple sumps have been planned to minimise the period of time they are in use for backfilling.

Tracks

Overland access tracks will be raked to protect the middle section of the tracks and fill in any wheel ruts generated during access. A blower will be used to blow organic matter and seed across the track to encourage revegetation. Where erosion risk is identified related to the overland access tracks, water diversion mounds will be put in place with hand tools to prevent water channels forming down the track lines. These are generally installed ~ 30cm high across the tracks in areas of increased slope.

If any roading material is brought in to create/maintain exploration tracks (not station tracks), the material and tracks will be rehabilitated in line with PEPR outcomes.

Ownership of the water bore is planned to be transferred to the landholder when no longer required by the Operator (or at the expiry or surrender of the Exploration Licence). The Operator commits to rehabilitating the water bore by backfilling the bore and burying the casing >400mm below ground level, in the case that the landholder does not wish to have the borehole ownership transferred.

State the estimated budget required to rehabilitate all impacted sites. Include a breakdown of the cost associated with each rehabilitation component.

Indicative cost estimates are:

\$25,000 for 8 days of drillhole backfilling, bag collection and residue transport to the bulk sample disposal sump.

\$4,000 for the digging and backfilling of the sample disposal sumps

Vegetation Clearance

Will any area of cleared native vegetation be unrehabilitated after the authorised period?

No

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.

—

Management of Environmental Impacts

Applicable environmental aspects and potential impacts

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Groundwater users	Groundwater users	Interference to existing water users when extracting water from existing dams, water bores or mineral drillholes.	• Water may be collected from water bores only with the permission of the pastoral lease holders. • Nearby bores hold water suitable for stock consumption. • Where bore water access is not appropriate to the pastoral leaseholders, potable water will be brought in from off site via a water truck. • No mineral drillholes will be used to extract groundwater from during drilling (outside that converted to a licensed water bore) • The landholder was consulted regrading the planned installation of a licensed water bore at Blue Rose. • Installation of and extraction from the planned licence water bore will occur only after the required permit is granted and in accordance with permit conditions, including completion by a licensed water bore driller.	Low	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Surface Water	Surface Water	Alteration to surface water – interference to surface drainage.	Driving across ephemeral creeks will be limited to existing station tracks and be kept to a minimum. Where drainage lines are to be crossed, flatter, rocky crossing areas have been scouted where avoiding the drainage lines is not possible.	Low	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.
Third party access	Soil/vegetation/fauna	Degradation of rehabilitated access tracks caused by third party access (includes previously closed and rehabilitated access tracks).	• Any access tracks will be directed in consultation with the landholder and be covered as a part of the Work Area Clearance. • No rehabilitation of access tracks is anticipated. If required, tyre tracks will be scarified.	Low	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. Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Fire	Community/landowners	Damage to infrastructure and loss of income through fire.	• CFS bans and ratings will be monitored throughout the planned exploration. • No works will be undertaken on a Total Fire Ban. • Only diesel vehicles will be allowed on exploration/drill sites. • All vehicles will carry fire extinguishers • Local ABC radio will be monitored for fire warnings/ weather conditions updates. • Particular fire risks and existing practices will be discussed with the relevant landowners prior to undertaking exploration activities. • No fires will be lit for any reason in association with the program.	Low	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Fauna	All fauna	Entrapment of fauna through open drillholes and excavations.	• Bulk sample disposal pits will be opened and closed in a single work period to limit the exposure risk to fauna. • Sumps will have an egress slope on one side to allow wildlife to exit in the event they enter the sump • Uncased holes will be temporarily plugged to prevent the creation of a fauna trap and be fully rehabilitated after assay data and wireline logging has been completed in accordance with Earth Resources Information Sheet M21. This will be completed as soon as possible after the program. • The landholder will be provided with detailed information regarding the area of the proposed activities prior to commencement so that stock and other domestic animals are kept away from the proposed sites. • Pre- during and post drilling photos will be taken and will be included in the annual compliance report	Low	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Groundwater	Soil/vegetation/fauna	Discharge of groundwater into the surrounding environment.	- Any groundwater intersected during the AC/ slimline RC drilling will be captured by plastic ground sheeting and half cut IBC tub. And returned down the hole at the completion of drilling. - Water is not considered likely to be encountered, however, where water is encountered, all ground water will be contained on the drill pad and captured in the drill sumps	Low	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Groundwater	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).	• No hydrocarbons will be discharged down drillholes • All cleaning compounds and hydrocarbons will be contained on support vehicles on fuel and chemical bunds. • Light vehicles will be re-fuelled at the accommodation only. • The drill rig will be re-fuelled with standard operating practices designed to minimise the chances of hydrocarbon spills. • Fuel will be contained in self-bunded storage tanks designed and built to AS1692 and AS1940 standards • Spill kits will be kept on the drill rig and/or drill contractor support vehicles. • Green sample bags used for the collection of drill cuttings will be kept on the vehicles for the disposal of rubbish and any contaminated material. • Any contaminated soil will be removed and disposed of at an approved EPA facility. • Plastic ground sheeting will be used beneath sampling areas to contain drill spoil and prevent chemicals making their way into groundwater. • Drillholes will be temporarily capped/plugged following the completion of drilling and rehabilitated (backfilled with cuttings) once assay results for drill samples have	Low	Drillholes restored to 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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
			been received. This will be completed as soon as possible following the completion of the drill program.			
Other (Hazardous Materials)	Employees, Contractors	Exposure to Fibrous Minerals	• Implementation of Fibrous Minerals Management Plan • Maiden drill program to be completed in full coveralls and fit tested P2 respiratory protection • Implementation of a designated work area • Supervision of initial drill program by an occupational hygienist • Personal fibrous minerals monitoring on first drill program over representative geology to assess exposure risk • Fibrous minerals awareness training for all site staff prior to site access • Maintenance of a fibrous minerals location register within the safety culture app • Maintenance of a fibrous minerals disposal register in the safety culture app • Health monitoring records stored in the safety culture app • Hygiene testing records maintained in the safety culture app	Moderate	No increase in the exposure to fibrous minerals at the drill site during or after the drill program. All personnel and the public are protected from an exposure to an unsafe level of natural fibrous minerals	Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that: • Fibrous Minerals 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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Other	Employees, Contractors	Exposure to Fibrous Minerals	• Implementation of Fibrous Minerals Management Plan • Maiden drill program to be completed in full coveralls and fit tested P2 respiratory protection • Implementation of a designated work area • Supervision of initial drill program by an occupational hygienist • Personal fibrous minerals monitoring on first drill program over representative geology to assess exposure risk • Fibrous minerals awareness training for all site staff prior to site access • Maintenance of a fibrous minerals location register within the safety culture app • Maintenance of a fibrous minerals disposal register in the safety culture app • Health monitoring records stored in the safety culture app • Hygiene testing records maintained in the safety culture app	Moderate	No increase in the exposure to fibrous minerals at the drill site during or after the drill program. All personnel and the public are protected from an exposure to an unsafe level of natural fibrous minerals	Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that: • Fibrous Minerals 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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Contamination	Soil/vegetation/fauna	Soil/vegetation contamination (e.g. hydrocarbons, rubbish, drill samples/cuttings, ablutions, other sources)	• Light Vehicles will be refuelled at the accommodation area only, • Drill rigs will be refuelled with standard operating practices designed to minimise the chances of hydrocarbon spills. • Plastic ground sheeting will be used beneath sampling areas to contain drill cuttings and ground water to prevent surface contamination. • All cleaning compounds and hydrocarbons will be contained on support vehicles on hydrocarbon bunding • Fuel will be contained in self-bunded storage tanks designed and built to AS1692 and AS1940 standards • Spill kits will be kept on the drill rig and support vehicles • Green Bags, used for the collection of drill samples will be kept in the vehicles for the disposal of rubbish and any contaminated material. All rubbish will be removed from the drill sites daily. • Green bags used for sampling will be collected and caged centrally on site prior to disposal • On completion of the program, all rubbish associated with the drilling will be disposed of at the Hallett Waste Transfer Station, North Terrace, Hallett SA, 0438884340, a licensed waste facility • If fibrous minerals are identified during drilling, any	Low	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
			potentially contaminated waste will be disposed of at an EPA licensed facility in accordance with the Fibrous Minerals Management Plan			

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Native Vegetation	Flora and fauna and their habitats; includes Common wealth and state scheduled species.	Loss/modification of native vegetation and associated habitats through the clearance of vegetation.	- Proposed drill collars are pegged ahead of time and shifted to accommodate the input of land holders and Native Title holders - Where vegetation is present, observed fauna nests/habitats will be avoided in favour of alternative routes and documented for future reference and training. Any known fauna nests/habitats will be discussed with the landholder prior to commencing the activities. - The risk of loss of native vegetation through fire will be controlled via the use of diesel vehicles only on exploration/ drill sites. Fire risks will also be discussed with the landholder prior to commencing the activities. - All vehicles will carry fire extinguishers and work will cease on total fire ban days. - Local ABC radio will be monitored for updates on fire danger - Fire risks will also be discussed with the respective landholders - Existing farm tracks will be used wherever possible. Any driving off track will be undertaken in the most direct and practicable route possible and the same route will be used where possible to prevent additional disturbance. - Access to	Low	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
			vegetated land will be avoided these areas will be demarcated and communicated to staff and contractors to be avoided. • Relevant GIS databases will be reviewed by staff and contractors in closer detail so that the location or any significant flora and fauna in the areas are familiar • No vegetation will be cleared during access or drilling.			
Stakeholders	Stakeholders	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.	Native Title Holders, the Wilyakali will be advised of the location, commencement and culmination of exploration activities, with respect to Work Area Clearances. Cultural Exclusion Zones will be identified in induction material and all parties will be forbidden to encroach on these areas	Low	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Weeds and Pathogens	All flora and fauna, especially listed species.	Loss/modification of the environment (biological, social and economic) through the introduction of weeds and pathogens.	• Site inspections will be undertaken and observations will be made of the presence of any weed species in the area. • All equipment will be cleaned and inspected for weeds prior to entry • Vehicle and other equipment washdown and inspection will be undertaken on site to ensure no weeds or pathogens are introduced through our activities • Vehicle and other equipment will be checked for transported weeds daily and tyres, undercarriage and wheel arches inspected and brushed down when moving between properties. • Sites where brushing down has occurred will be located on maps with inspections and management of any weed species that germinate • Landholders will be consulted prior to the carrying out of any exploration activities to identify any concerns regarding weeds or pathogens and to discuss standard protocols for washing down vehicles and other equipment and preventing contamination to the land. • Sites of activities will be inspected for weeds or other invasive species following completion if the program and will be reported to the relevant landholder.	Low	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
			Removal of any identified weed species will be undertaken in consultation with the landholder to avoid further impacts to surrounding vegetation or livestock. • Photographs will be taken prior, and following completion and rehabilitation of the activities at the relevant sites so that any unintended modification of the environment is clearly identifiable and progress is documented.			

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Aboriginal heritage	Aboriginal heritage sites	Disturbance to Aboriginal heritage	• The register of Aboriginal Sites and Objects indicated that there are no known historic sites or cultural sites in the proposed work areas. • Staff and contractors will be instructed to keep a close eye out for any potential sites of significance and if any are through to be found, the office of the Minister for Aboriginal Affairs will be notified, per section 20 of the Aboriginal Heritage Act, 1988. • Landholders will be consulted prior to entering the land to discuss any known or potential Aboriginal sites or objects. • Multiple Work Area Clearances have been completed in over the planned drilling area. Only areas cleared for drilling will be used for drill programs. • Any exclusion zones identified during the Work Area Clearances will be included in site and visitor inductions with all workers prohibited from visiting the sites.	Low	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
General Public	General Public	Injury or death to members of the public as a result of exploration activities.	• Induction will be mandatory for the landholders to be able to visit specific drill site areas. • Signage will be placed away from the drill rig advising no entry and the mandatory PPE for the site. • Drilling will be undertaken in areas where there will be no interference with landholder activities of the landholders and this will be discussed with landholders prior to commencement particularly with respect to stock movement. • Vehicle speeds will be minimised to minimise dust generation and any risks to nearby fauna, livestock or persons. • The operator will maintain ongoing communications with the landholders to keep them informed of the landholder's grazing activities in nearby areas.	Mod erate	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Soil	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).	• Areas that require traversing will be discussed with the landholder prior to commencing the activities. Fence lines and existing access tracks will be used where possible. • Using only one track to access the drill site, all vehicles will follow the first vehicles wheel tracks. No clearing of vegetation digging/ grading of tracks will be required. Tracks will be kept to the minimum needs of the largest exploration vehicle. • Tracks will be checked after drilling is completed to determine if any unexpected rehabilitation (such as sheet mesh levelling, raking or sheeting) is required. • Vehicle movements will be minimised to limit surface disturbance. • Work will cease in the case of significant rain. Work will not continue until the landholder and exploration supervisor have given the all clear to re-commence work. • ISM33 guidelines will be followed with regards to "Constructing an Access Track". - ISM33 will be included in site induction material for staff and contractors. Soil stockpiling will be limited to the bulk sample disposal pits and drill sumps where it will be set aside and returned	Low	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.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
			to replace the original soil profile. • Sites will be inspected and monitored following completion of rehabilitation to identify any environmental risks such as k compaction or erosion. Rehabilitation will be completed to the landholders satisfaction.			

Supporting Information

Photos

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (DGA94)	Zone	Details and comments	Document ID
NA	01/01/2025	Additional Information	NA	NA	53	Picture of Bullion Drilling Site Setup	NA
NA	01/01/2025	Additional Information	NA	NA	53	GMP Drilling Multi D and B Multi 35 track mounted drill rig and support carrier	NA

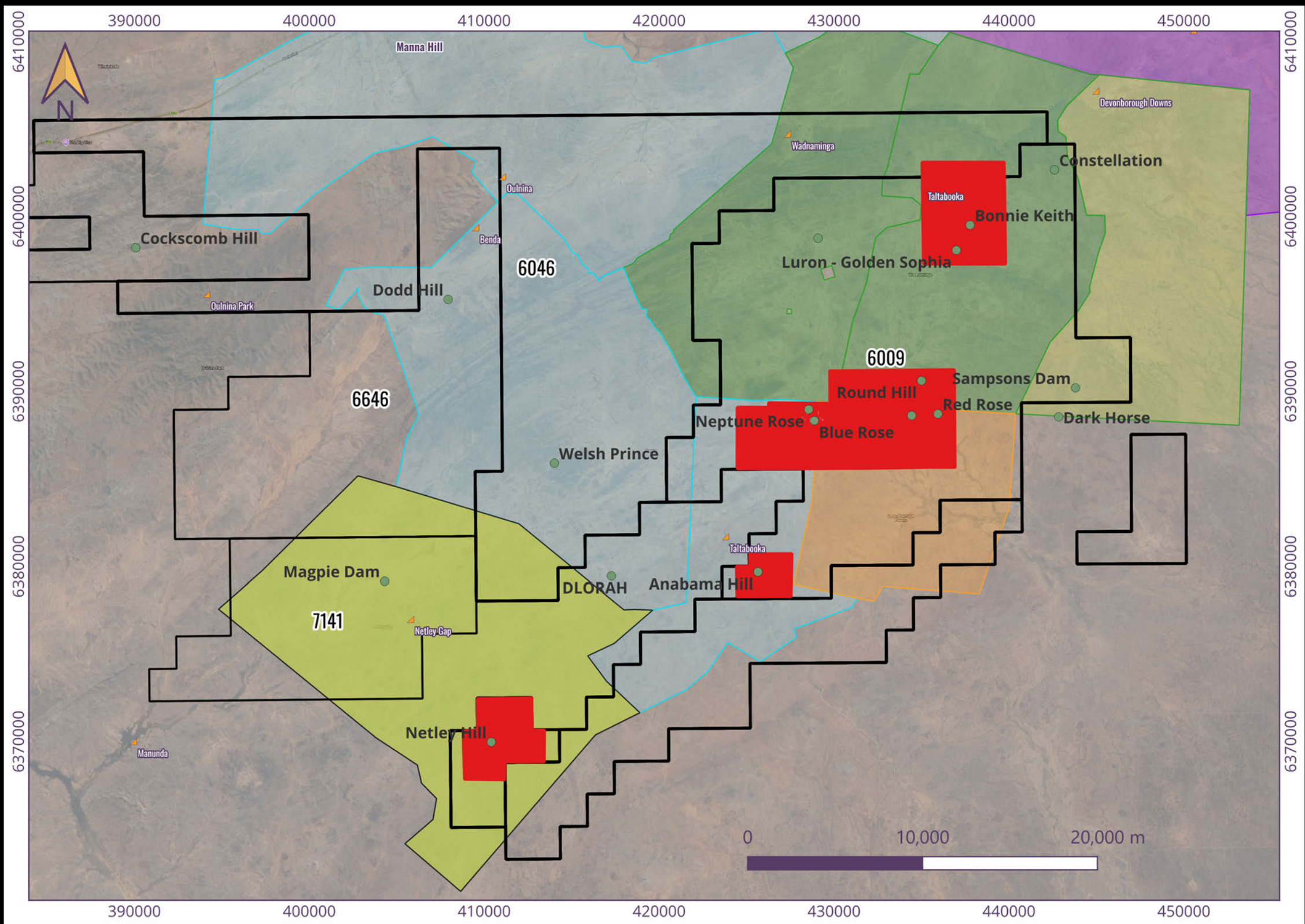
Supporting Maps

Figure Description	Document ID
Figure 1 - 6 - All Maps associated with this EPEPR	NA

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.

NA



SAL_2021_AUST_GDA94  EL 6009_Boundary

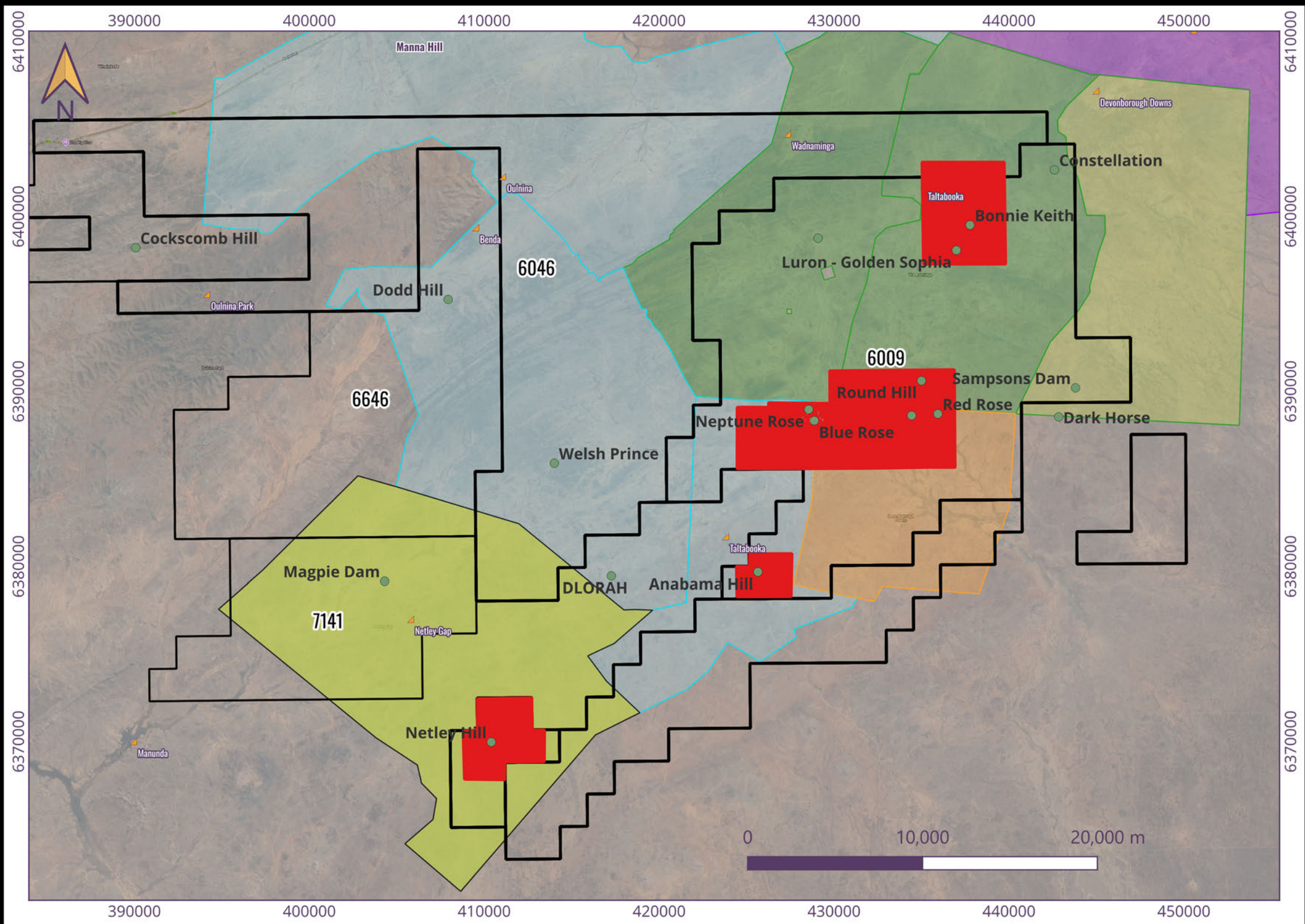
 Manna Hill

 homesteads

 6046

 6646

 7141



SAL_2021_AUST_GDA94  EL 6009_Boundary

 Manna Hill

 homesteads

 6046

 6646

 7141

Manna Hill - Anabama Hill

RC Drilling
Sep-Oct 26

COBRA
RESOURCES

Legend

Proposed Drilling
▲ RC Drilling (Sep-Oct 2026)

Tracks
— Existing
— To be cleared

Fences
—



0 200 400 m

SDA94 / MGA zone 54

EL 6009

EL 6046

ANH-26-003

ANH-26-002

ANH-26-001

ANH-26-004

ANHDRC26003

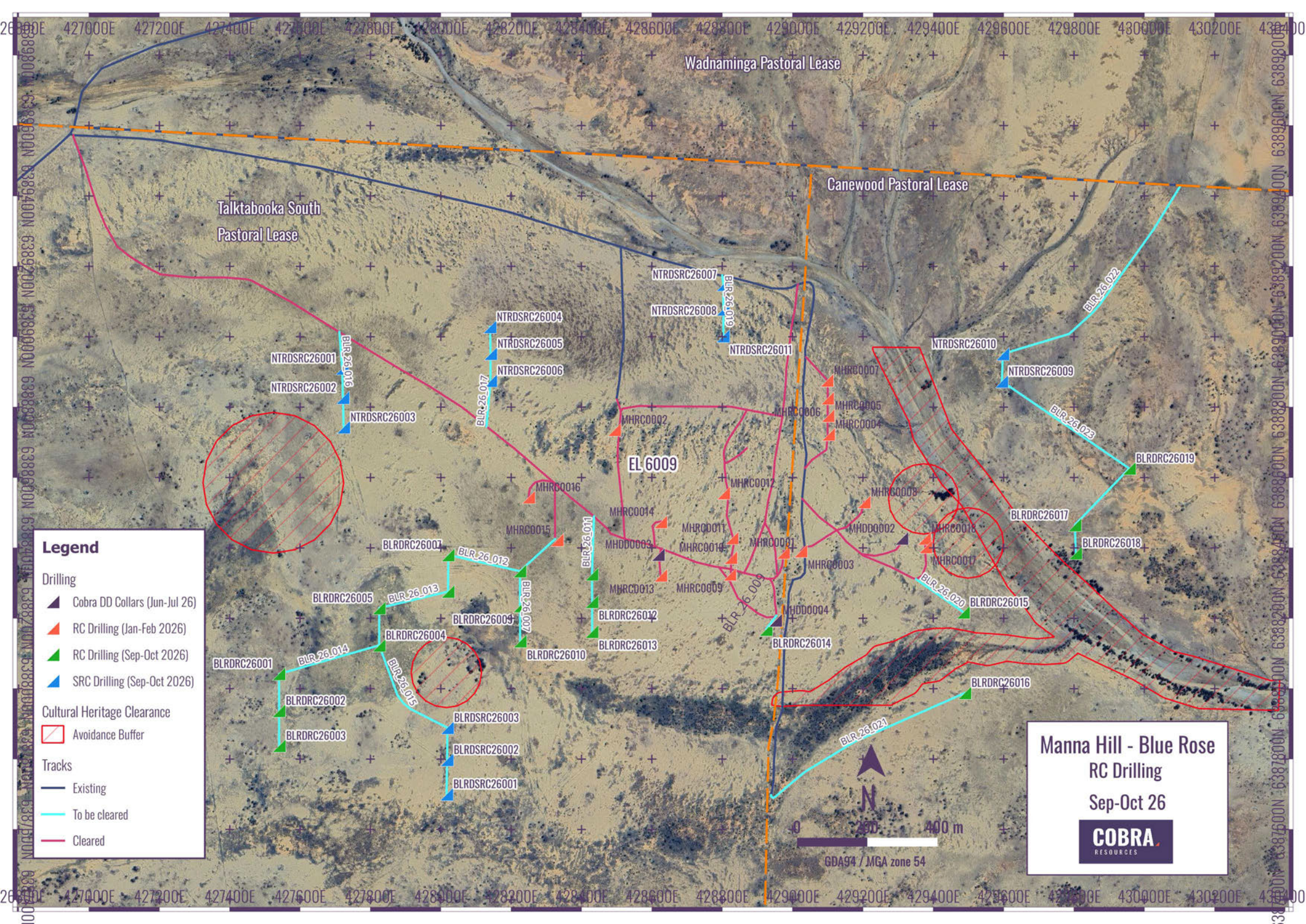
ANHDRC26004

ANHDRC26014

ANHDRC26010

ANHDRC26012

ANHDRC26007



Wadnaminga Pastoral Lease

Canewood Pastoral Lease

Talktabooka South
Pastoral Lease

EL 6009

Legend

Drilling

Cobra DD Collars (Jun-Jul 26)

RC Drilling (Jan-Feb 2026)

RC Drilling (Sep-Oct 2026)

SRC Drilling (Sep-Oct 2026)

Cultural Heritage Clearance

Avoidance Buffer

Tracks

Existing

To be cleared

Cleared

Manna Hill - Blue Rose
RC Drilling
Sep-Oct 26

GDA94 / MGA zone 54

Manna Hill - Taltabooka
RC Drilling
Sep-Oct 26

COBRA
RESOURCES

Legend

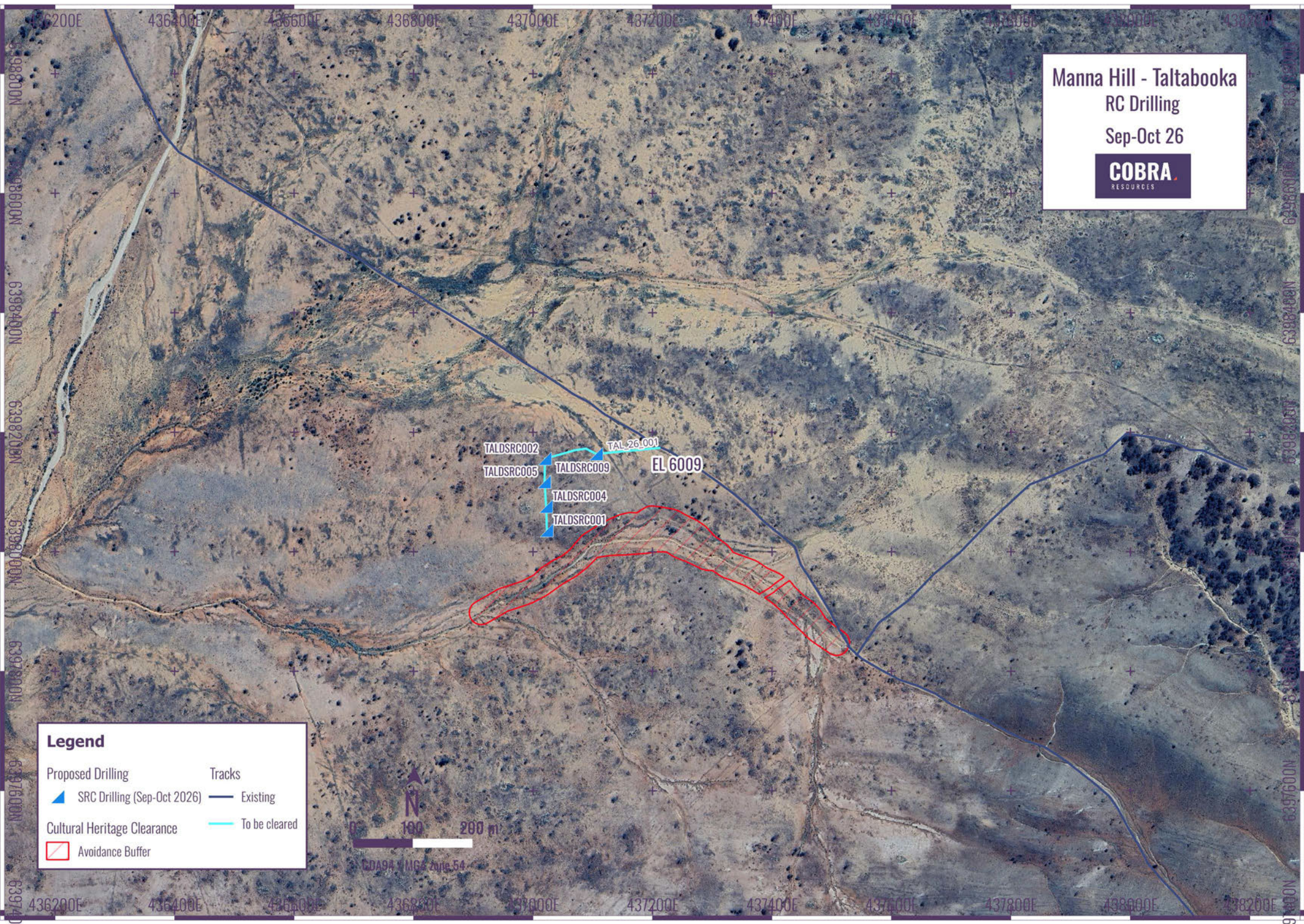
Proposed Drilling	Tracks
 SRC Drilling (Sep-Oct 2026)	 Existing
 Cultural Heritage Clearance	 To be cleared
 Avoidance Buffer	



TALDSRC002
TALDSRC005
TALDSRC009
TALDSRC004
TALDSRC001

TAL-26.001

EL 6009



Manna Hill - Netley Hill

RC Drilling

Sep-Oct 26

COBRA
RESOURCES

EL 6009

Legend

Proposed Drilling

▲ SRC Drilling (Sep-Oct 2026)

Tracks

— Existing

— To be cleared

— Fences



0 200 400 m

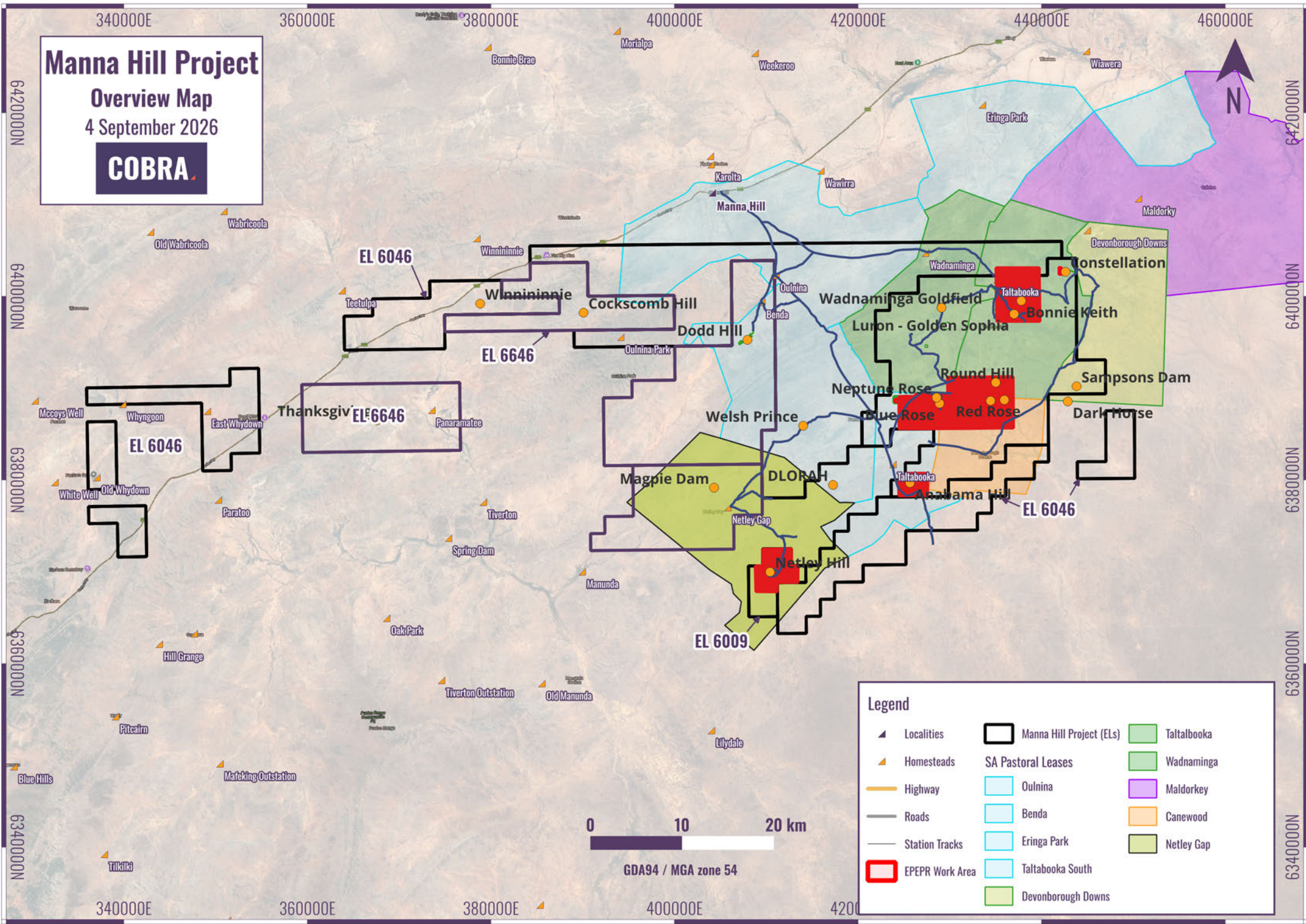
CRMA SW / MGA zone 54

Manna Hill Project

Overview Map

4 September 2026

COBRA

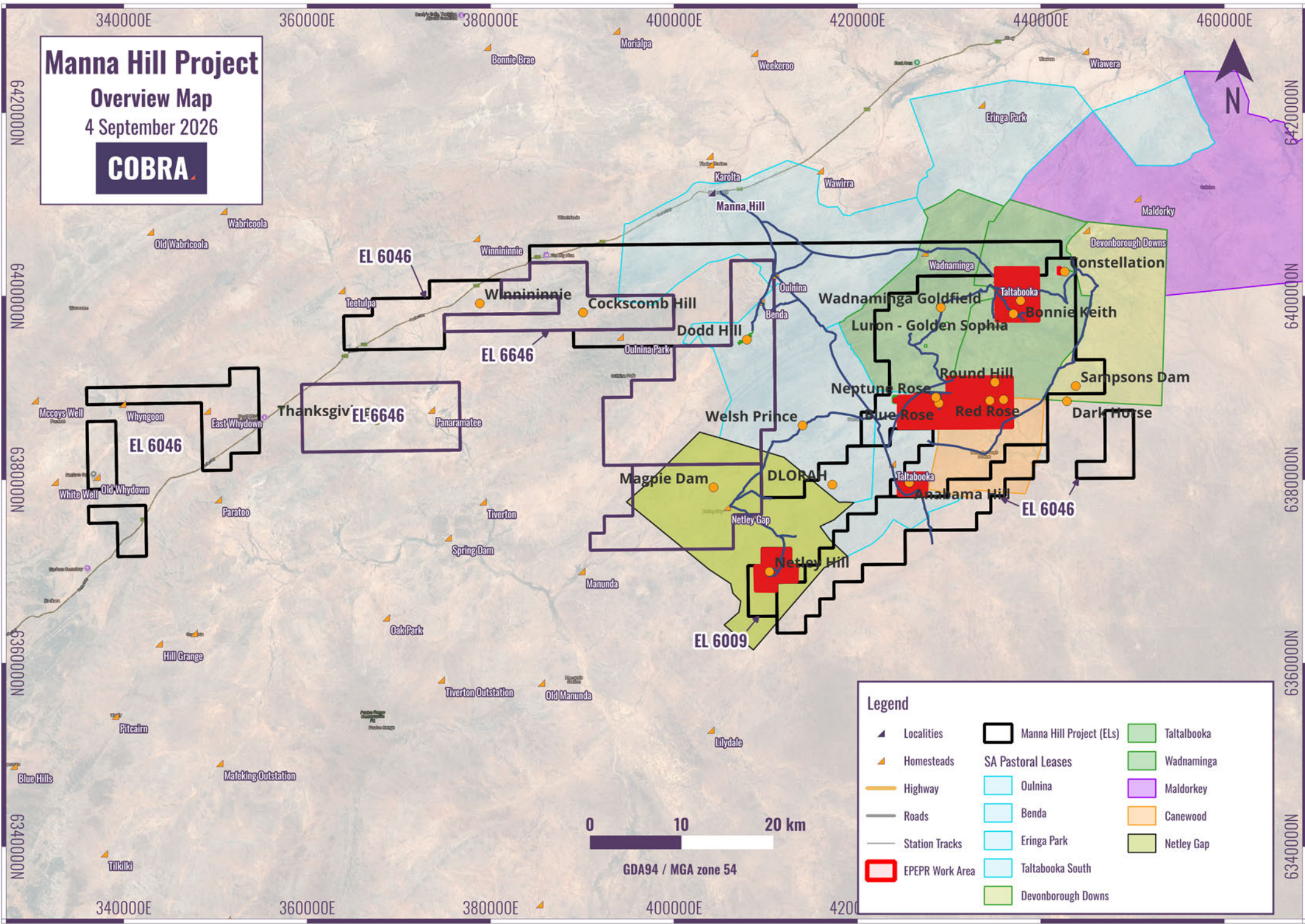


Manna Hill Project

Overview Map

4 September 2026

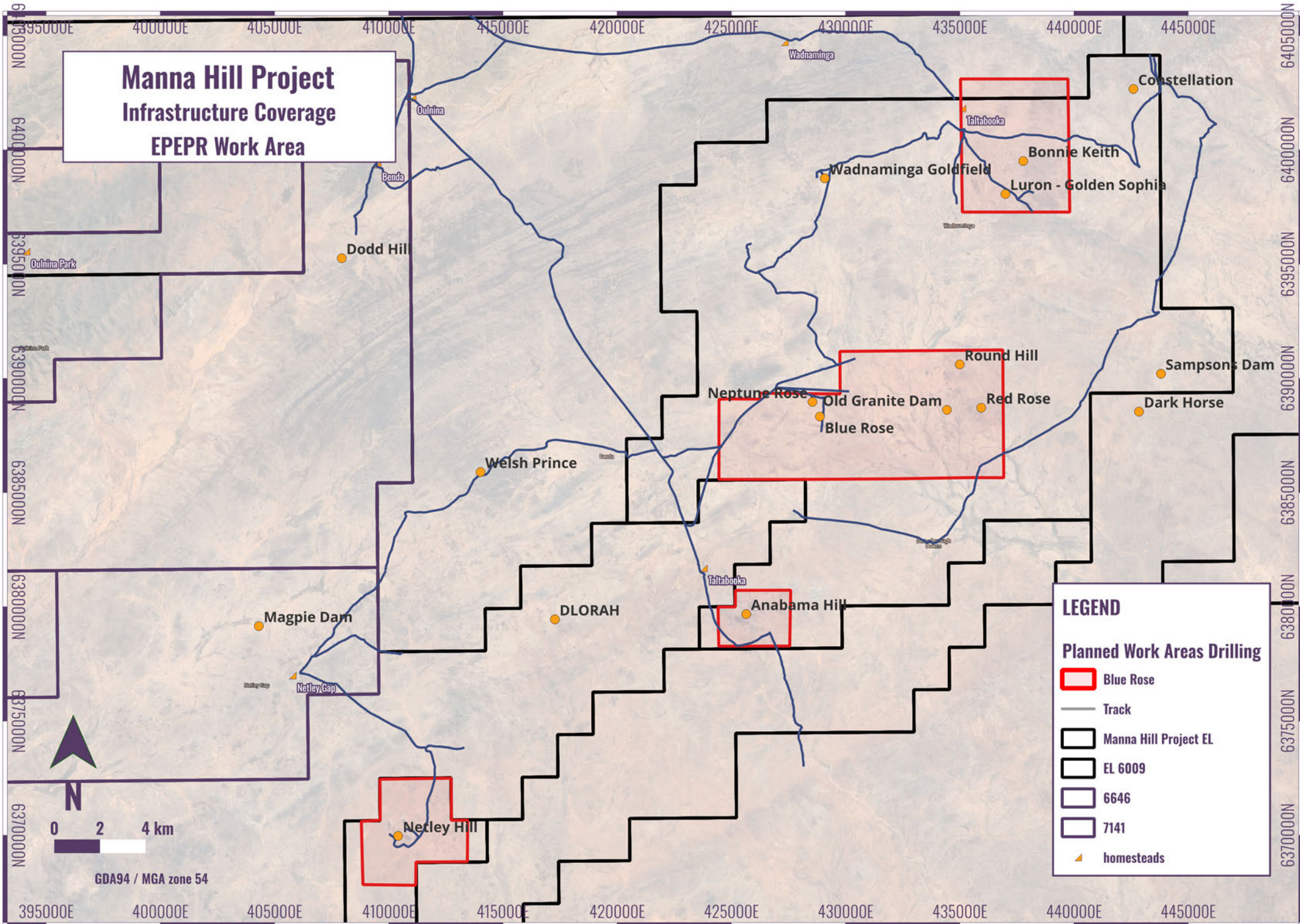
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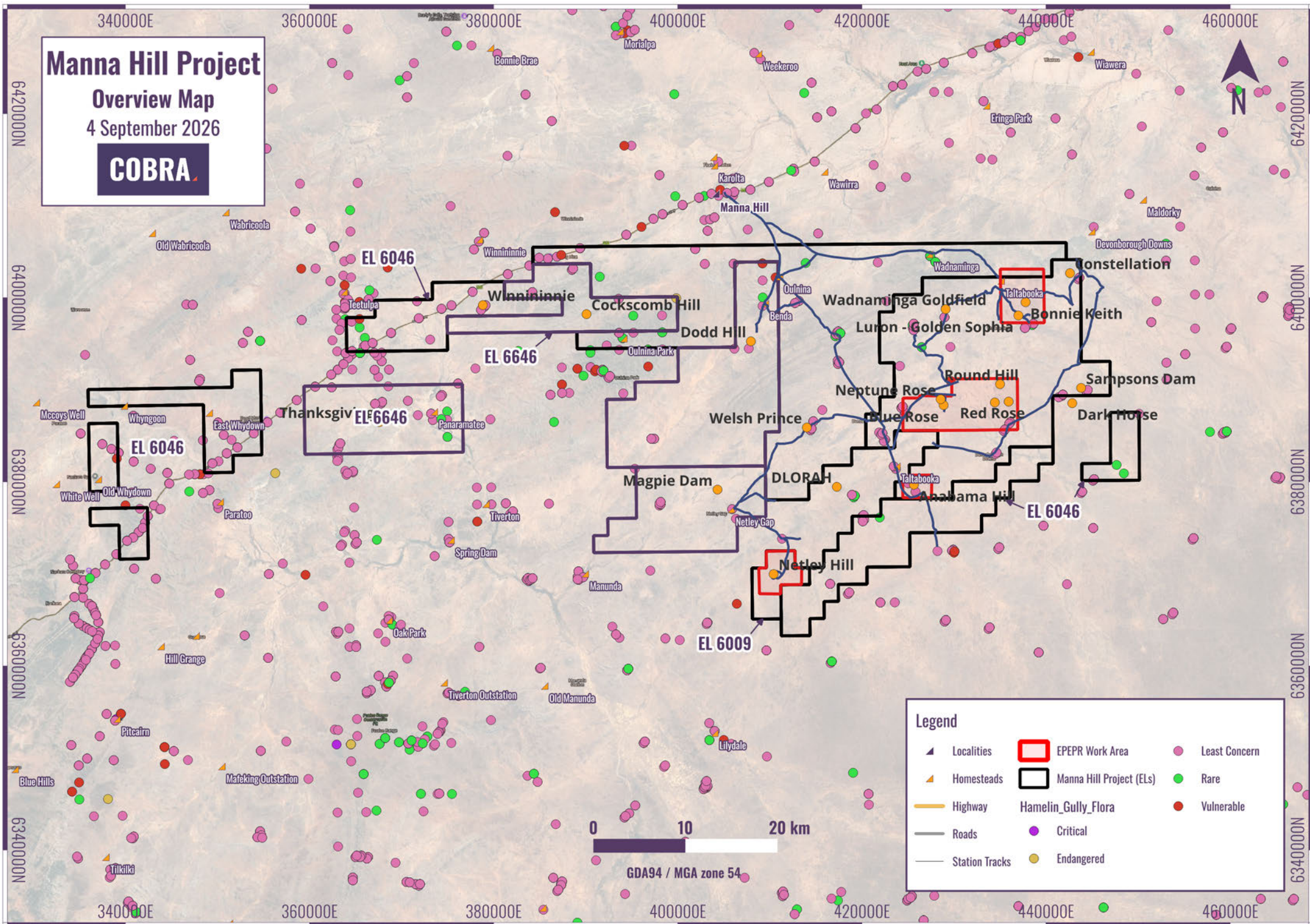
Legend

- | | | |
|-------------------|----------------------------|--------------|
| ▲ Localities | ▭ Manna Hill Project (ELs) | ▭ Taltabooka |
| ▲ Homesteads | ▭ SA Pastoral Leases | ▭ Wadnaminga |
| — Highway | ▭ Oulnina | ▭ Maldorky |
| — Roads | ▭ Benda | ▭ Canewood |
| — Station Tracks | ▭ Eringa Park | ▭ Netley Gap |
| ▭ EPEPR Work Area | ▭ Taltabooka South | |
| | ▭ Devonborough Downs | |

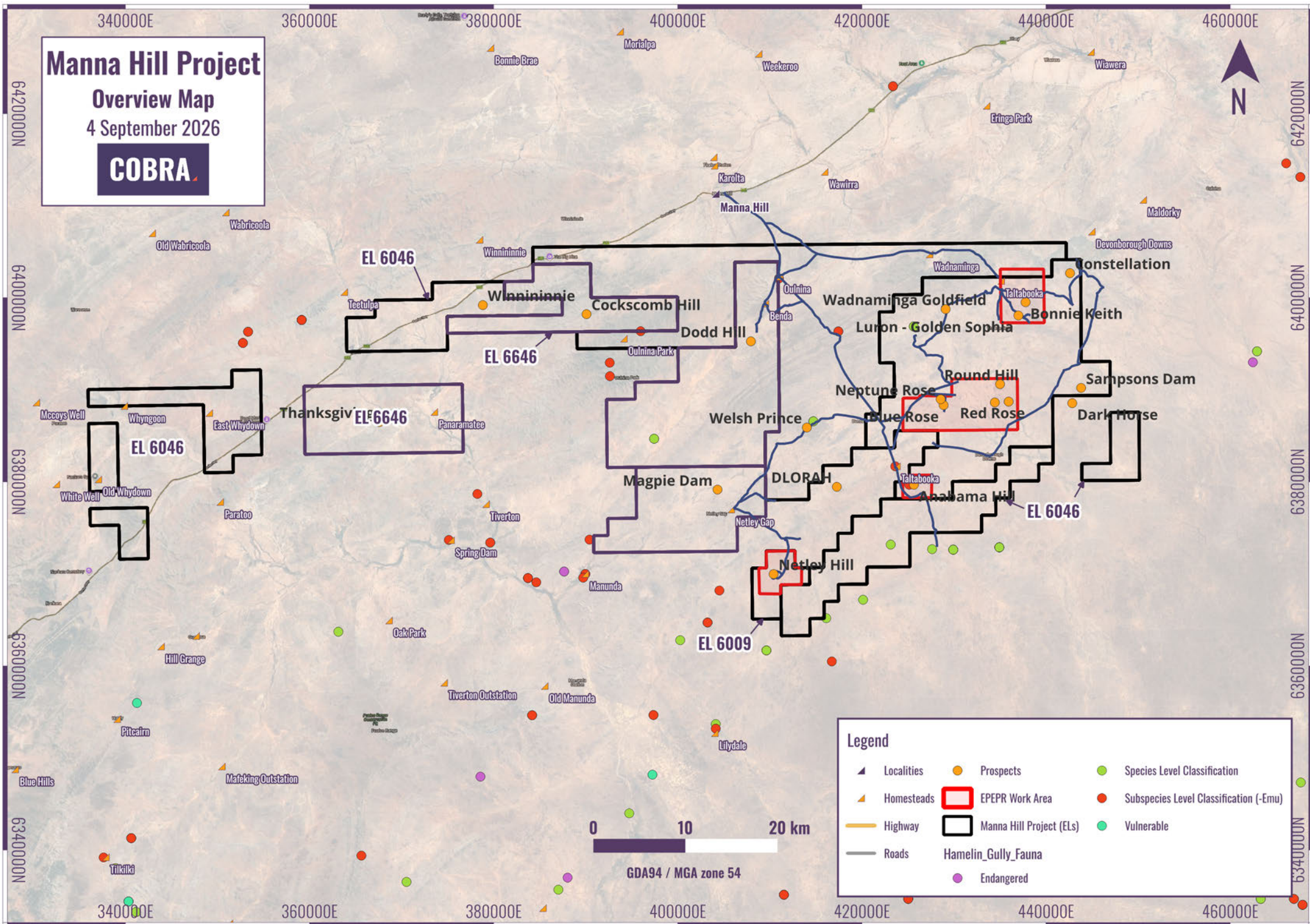
Manna Hill Project Infrastructure Coverage EPEPR Work Area

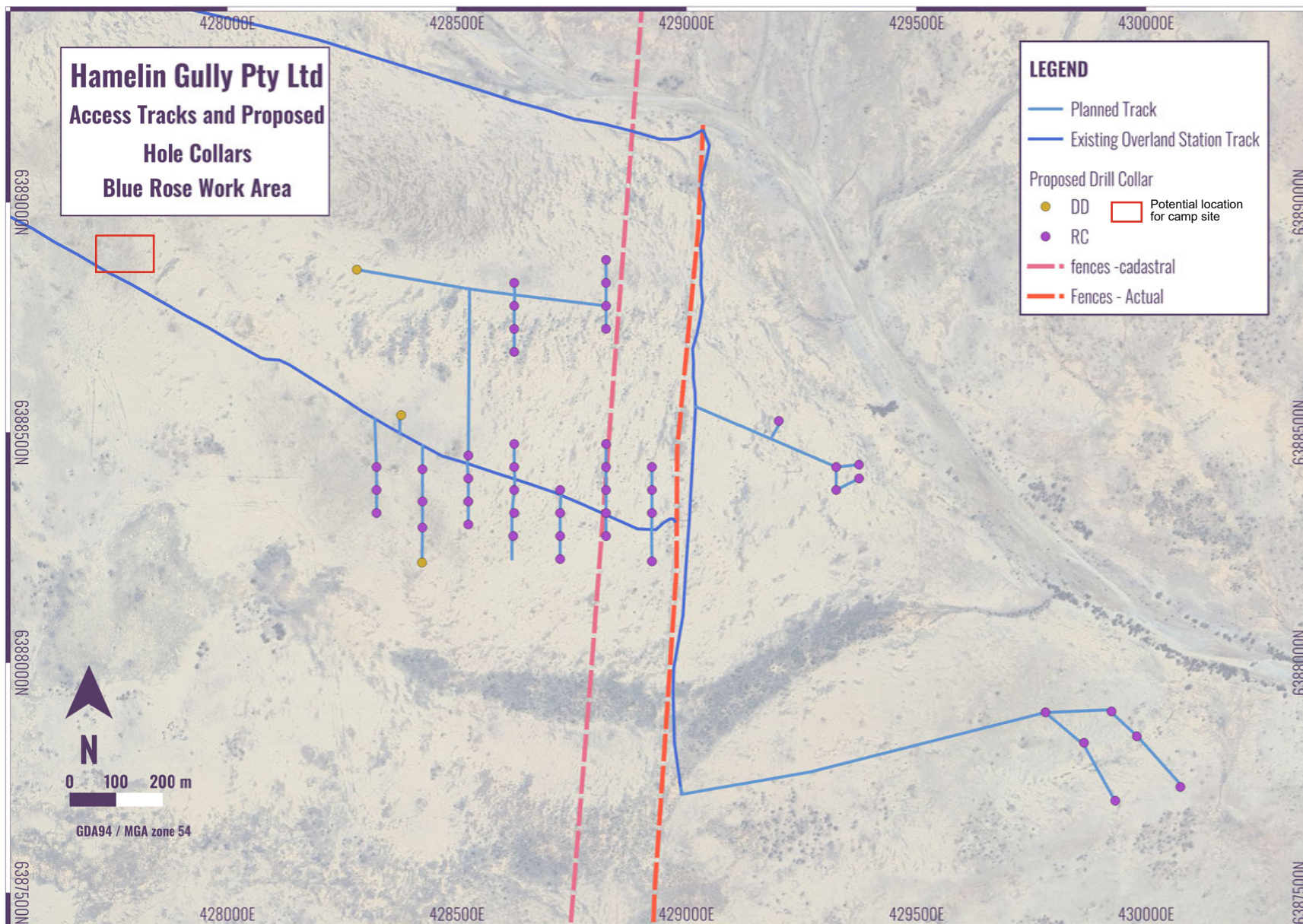


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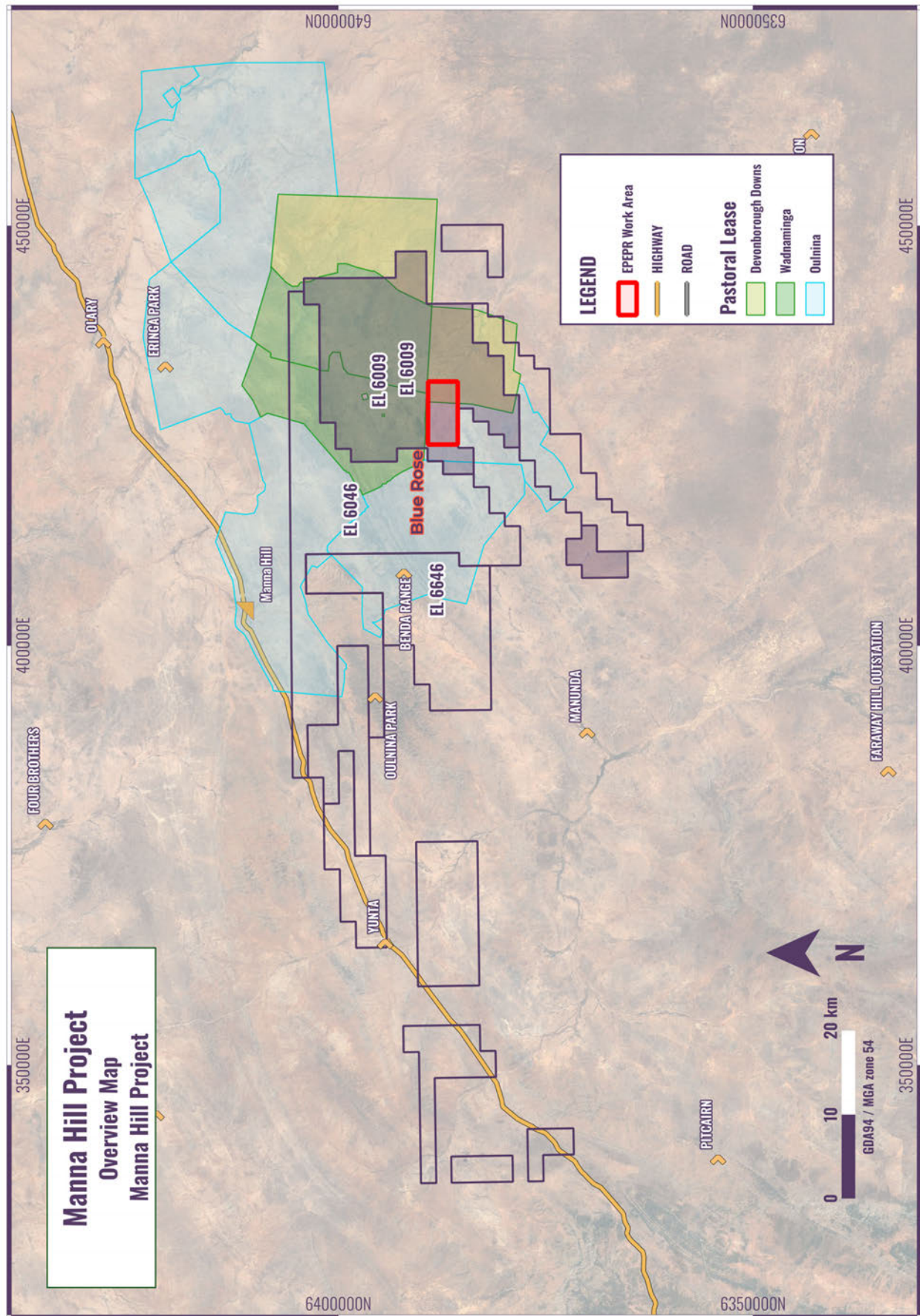


Figure 1. Locality Map of EPEPR Coverage Areas and Pastoral Lease Coverage
12-month Exploration PEPR template – January 2021

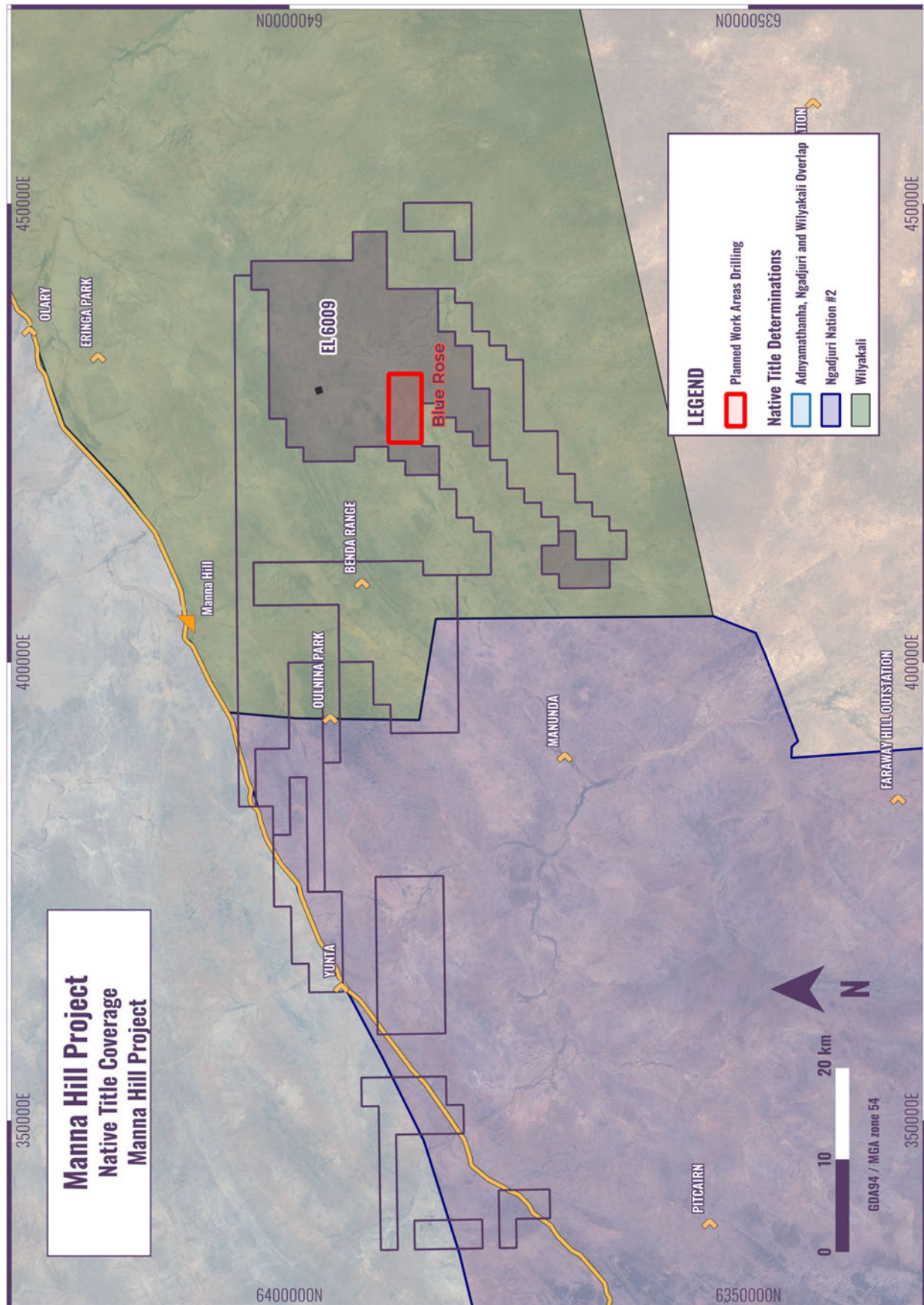


Figure 2. Native Title Coverage

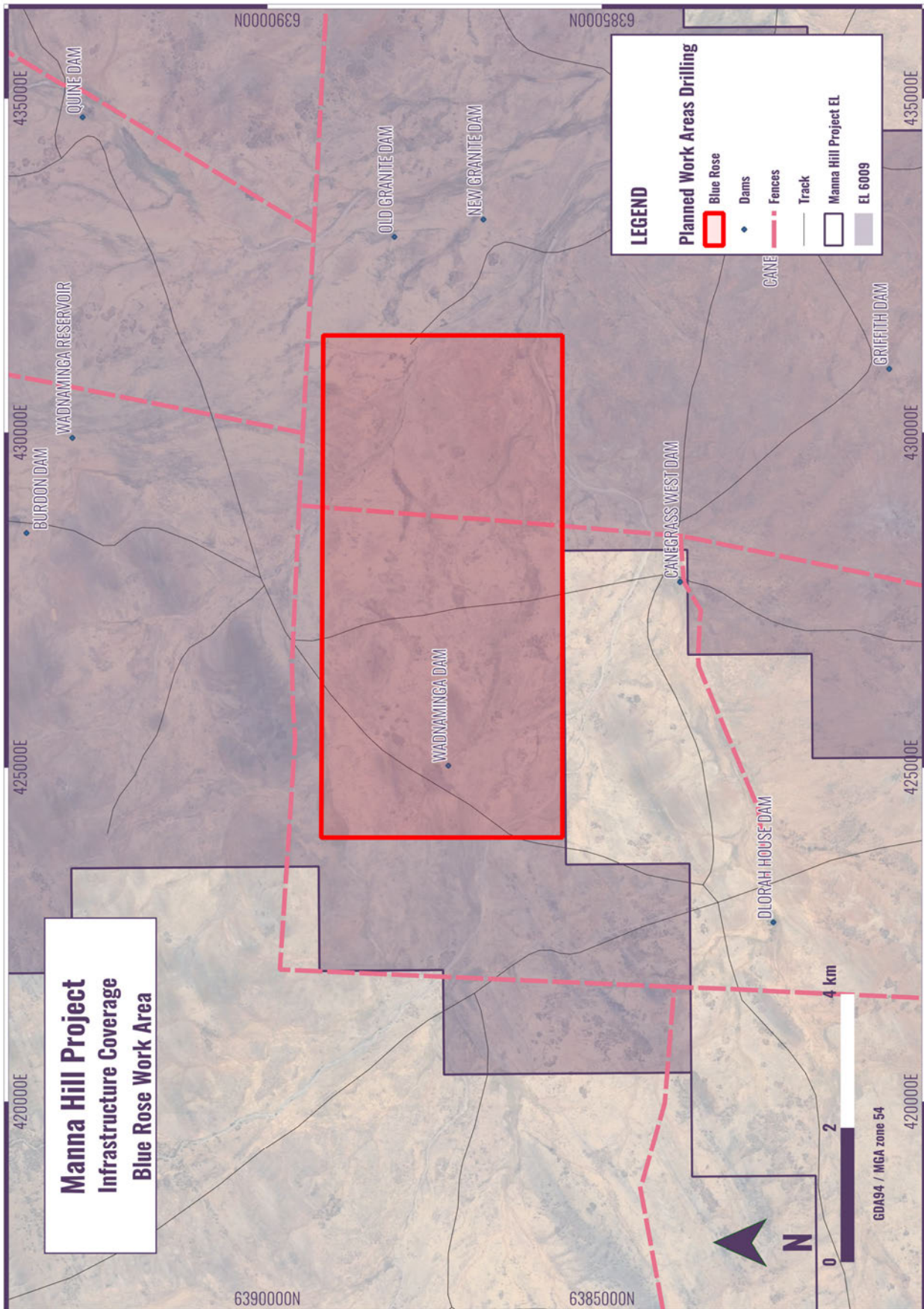


Figure 3. Blue Rose Infrastructure Coverage
12-month Exploration PEPR template – January 2021

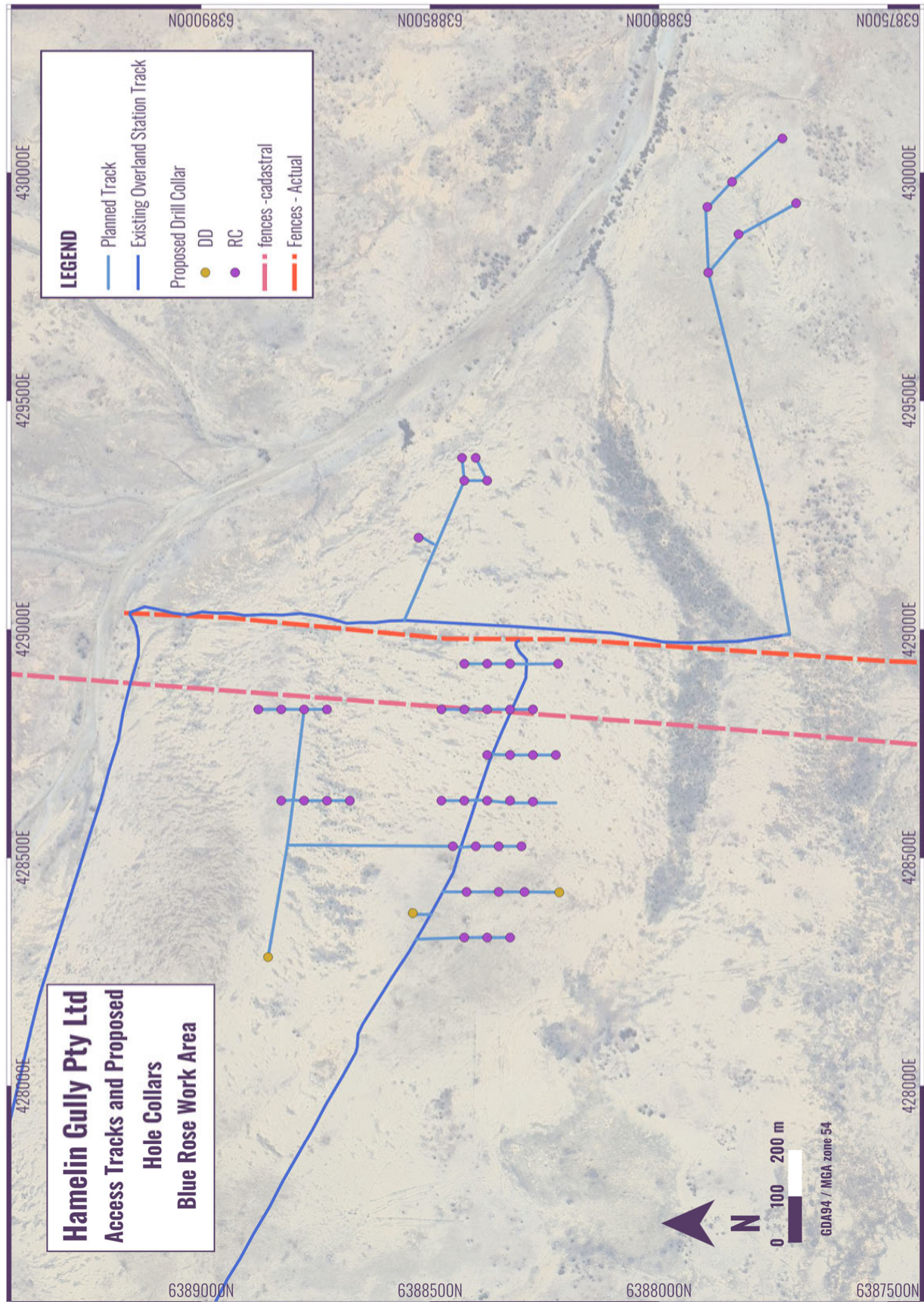


Figure 4. Blue Rose Planned Drill holes and Access Tracks

Page 32 of 34

12-month Exploration PEPR template – January 2021

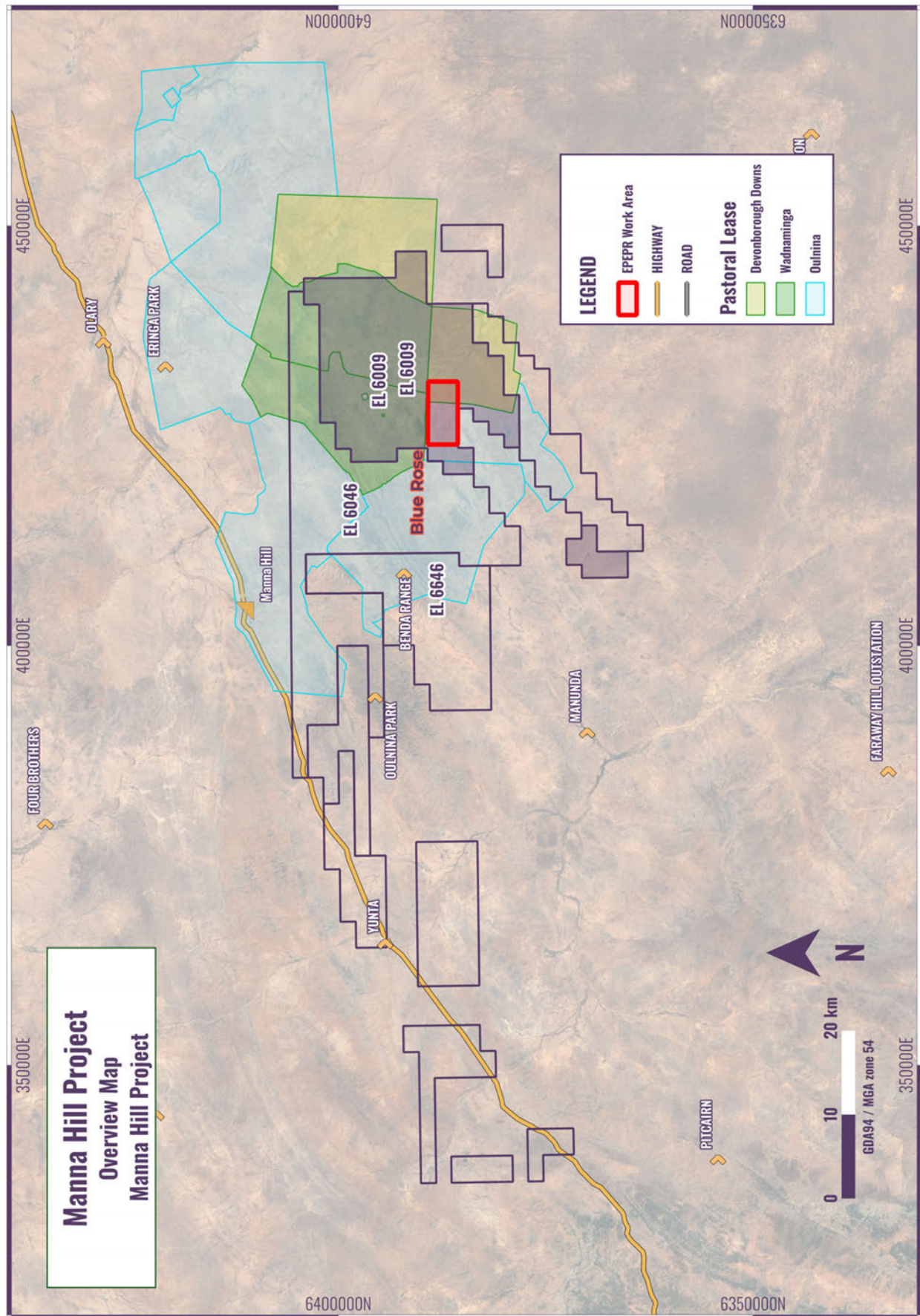


Figure 1. Locality Map of EPEPR Coverage Areas and Pastoral Lease Coverage
12-month Exploration PEPR template – January 2021

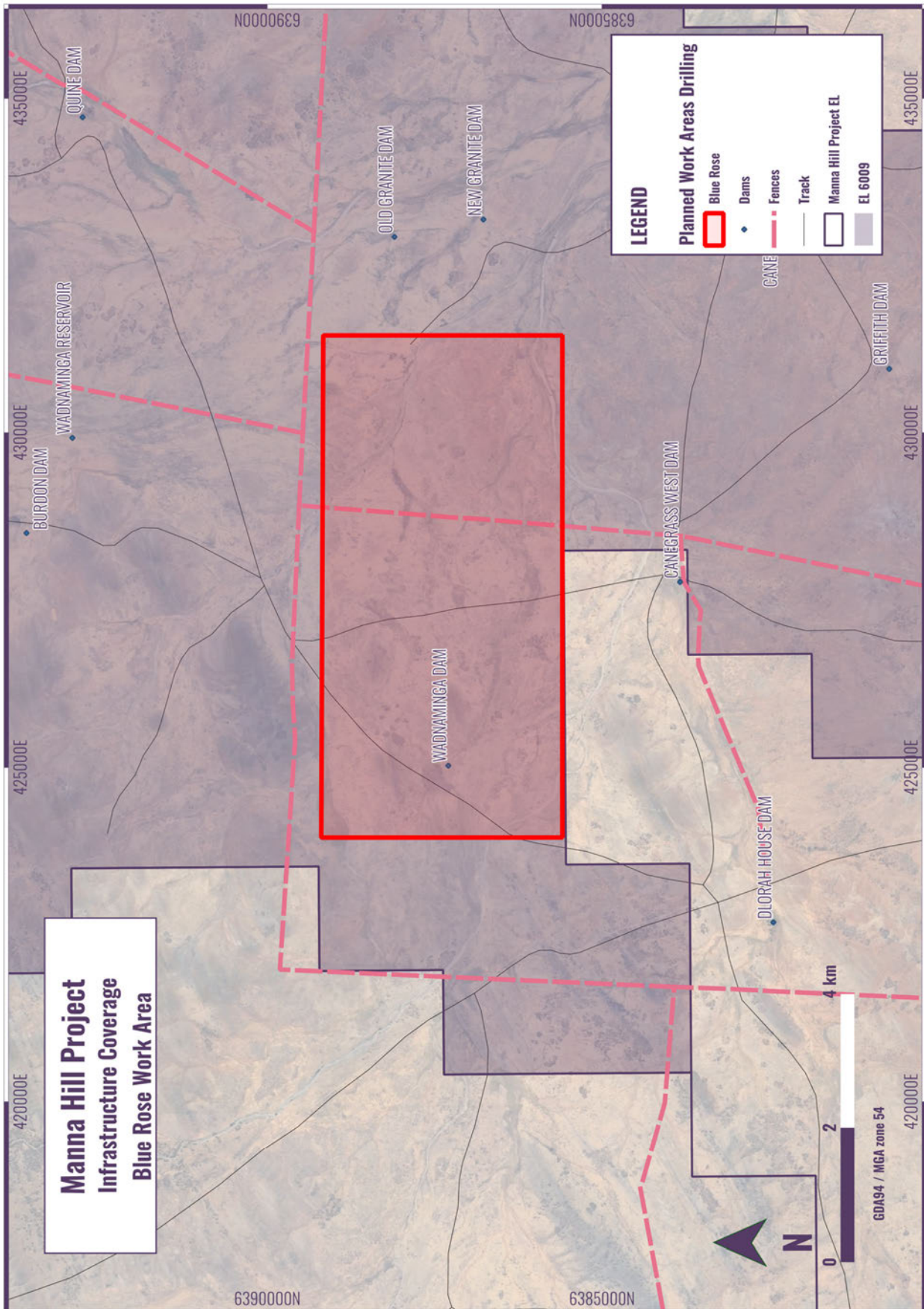
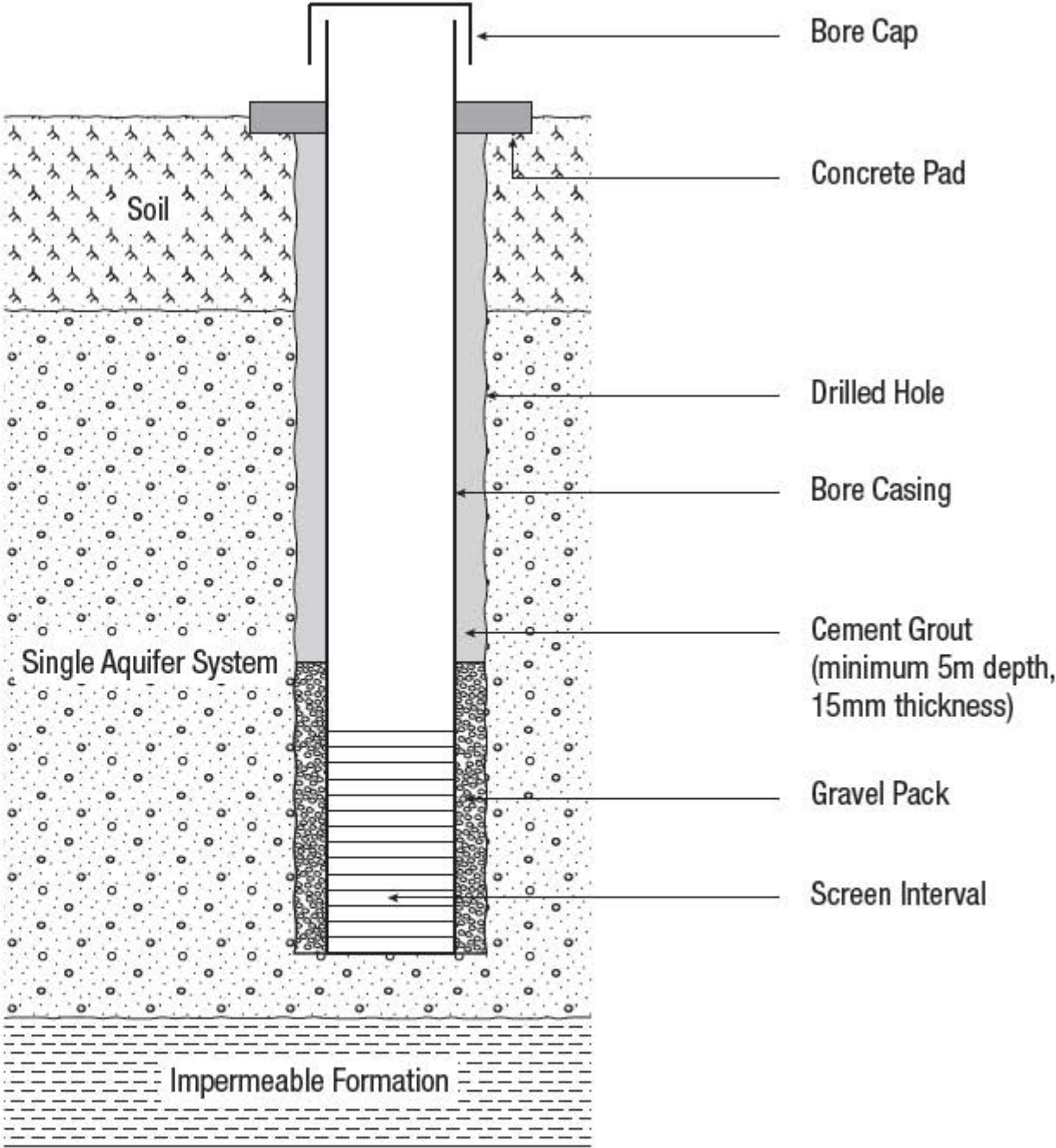


Figure 3. Blue Rose Infrastructure Coverage
12-month Exploration PEPR template – January 2021

Figure 3.1 Single aquifer bore



PRE-ABANDONMENT

Surface

**Unsaturated
zone**

*Standing water
level*

**Unconfined
aquifer**

Basement

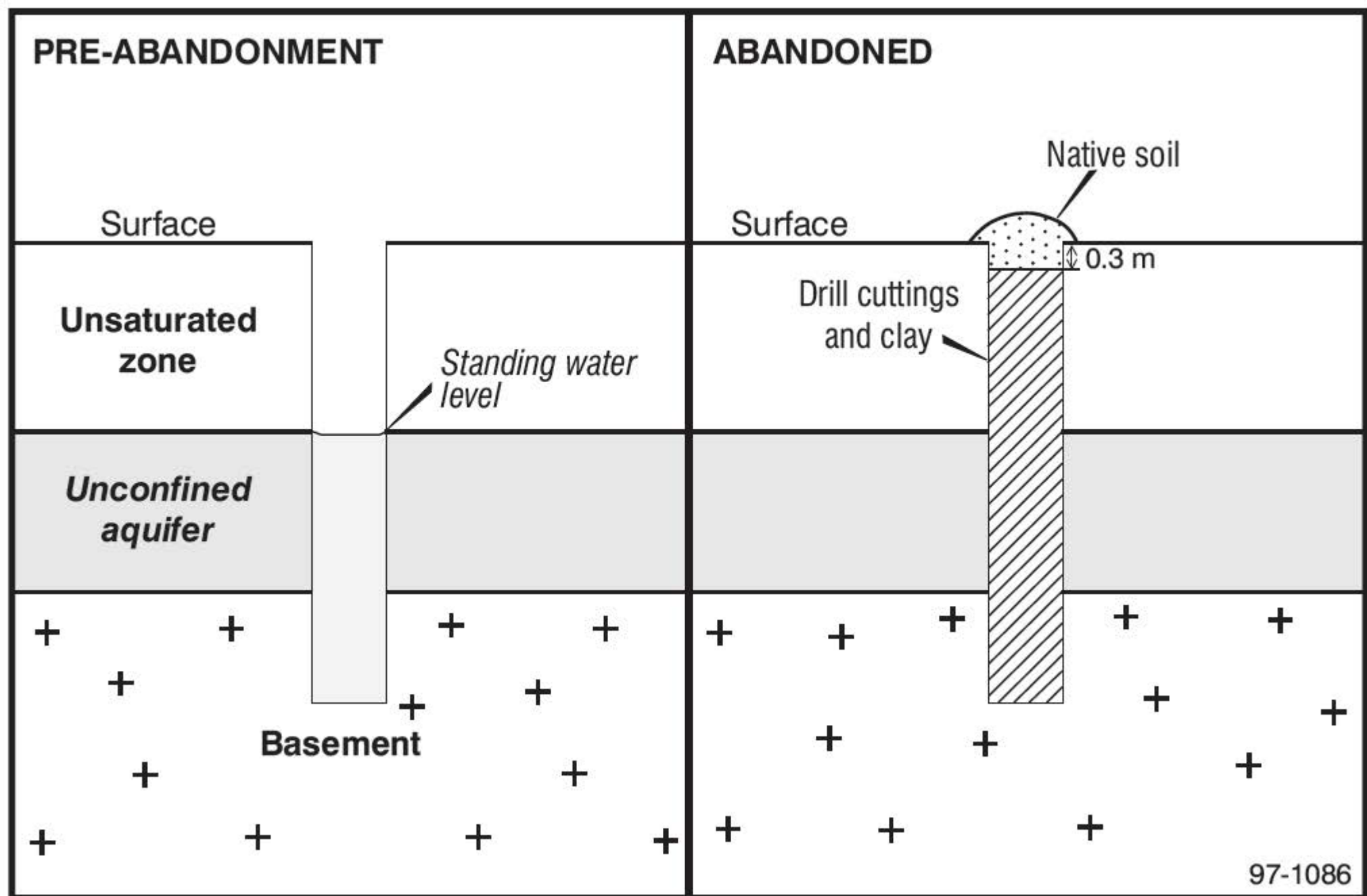
ABANDONED

Surface

Native soil

0.3 m

Drill cuttings
and clay



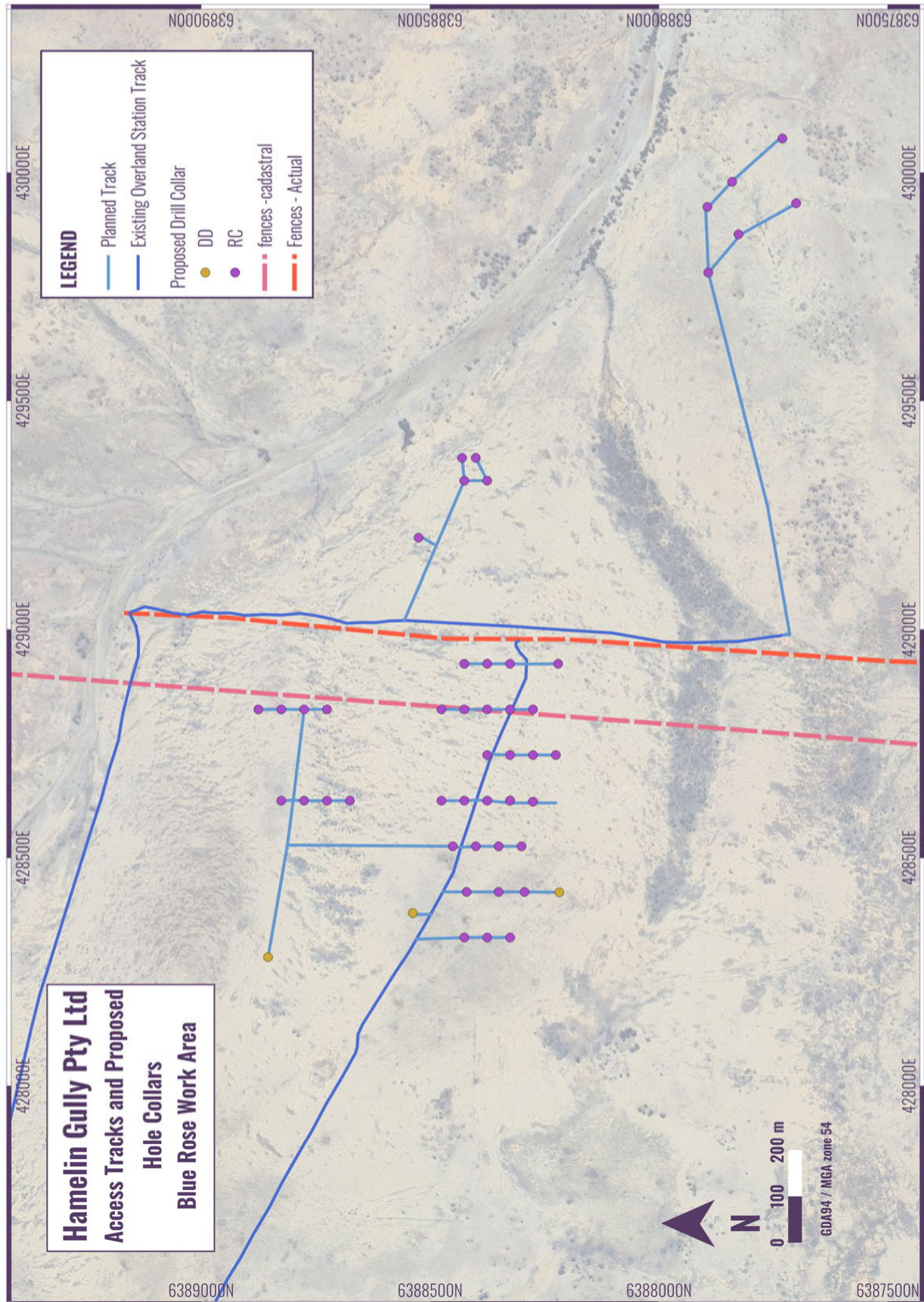


Figure 4. Blue Rose Planned Drill holes and Access Tracks

Page 32 of 34

12-month Exploration PEPR template – January 2021







Fibrous Mineral Management Plan

Revision	Reason for Change	Issue Date	Prepared By	Approved By
1	Document Development	08/09/2025	S. Traeger	R. Blythman

Contents

1	Background to Fibrous Mineral Management	3
2	Scope	3
3	Definitions	3
4	Roles, Accountabilities and Authority	4
5	Fibrous Minerals	4
6	Health Effects and Monitoring	6
6.1	Health Effects	6
6.2	Exposure Monitoring	7
6.3	Sampling Methodology	7
6.4	Training	8
7	Classification and Delineation of Fibrous Areas	8
7.1	Designated Work Area	9
7.2	Signage	10
8	Working in Fibrous Areas	12
8.1	Personal Protective Equipment	12
8.1.1	Minimum Requirements for a Delineated Area	12
8.1.2	Drilling or Sampling Activities	12
8.2	Entry Procedures	12
8.3	Exit Procedures	12
8.4	Minimum Plant Requirements	13
8.5	Drilling	13
8.5.1	Reverse Circulation (RC) and Percussion (PC) Drilling	13
8.5.2	Diamond Drilling	14
9	Logging and Sampling	14
10	Disposal of Material	15
11	Record Keeping Responsibilities and Storage Locations	15
12	Audit and Review	16
13	References	16
	Appendix 1 – Asbestos Occurrence Register	17
	Appendix 2 – Regulatory Guidelines	18

1 Background to Fibrous Mineral Management

Review of historical core and rock chips at the South Australia Core Library suggests there exists a potential for fibrous minerals including asbestiform minerals (naturally occurring asbestos, herein to be referred to as NOA) to be present at the Blue Rose Prospect (Blue Rose). The current occurrence has not been delineated but noted where the host unit is a Skarn replacement of a Limestone unit.

The Fibrous Mineral Management Plan (FMMP) establishes Cobra Resources' approach to identifying, assessing, and controlling the risks associated with fibrous minerals, including naturally occurring asbestos (NOA), across all tenements. Its purpose is to minimise the risk of exposure to potentially harmful mineral fibres for employees, contractors, and visitors. This is achieved through the implementation of safe work systems that ensure mineral fibre occurrences are promptly identified, their risks regularly evaluated, and that appropriate procedures are in place to mitigate potential exposure.

2 Scope

This management plan applies to all Cobra Resources employees and contractors where there is the potential for encountering naturally occurring fibrous minerals during exploration activities. This document is designed to be an overarching document in which all site procedures and documents reference when referring to fibrous minerals.

3 Definitions

Fibrous Minerals – A natural occurring mineral that is fibrous in nature and according to the ratio of the fibres width/length maybe classified as asbestiform. Refer 5 Fibrous Minerals.

Asbestiform – implies the fibrosity of fibres that have high tensile strength and flexibility.

NOA – Naturally Occurring Asbestos.

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.

Personal Monitoring - means sampling of an individual's breathing zone, to quantify exposure to hazardous substances which can be compared to occupational exposure standards

Atmospheric Monitoring - The sampling of the atmosphere at a workplace and deriving a quantitative reading of the levels of hazardous substances in the air.

Occupational Exposure Limit (OEL) – OELs are levels of agents in workplace air, which it is believed are low enough to protect nearly all workers from adverse health effects over a series of eight-hour (8h) shifts for a working lifetime.

PPE – Personal Protective Equipment

4 Roles, Accountabilities and Authority

Cobra Management are responsible for:

- Ensuring compliance with WHS Regulations 2012 – 1.7.2025; Chapter 8, Part 4, Regulation 432 Asbestos Management Plan; and Chapter 8, Part 5, Division 2, Regulation 445 Duty to train workers about asbestos, Part 1 – 4. Refer Appendix 2.
- Shall ensure that this document is reviewed and revised as necessary and the application of control measures detailed in this document are implemented and utilised to the extent that they meet site and statutory requirements.
- To develop, maintain and update fibrous mineral training and awareness material and ensure employees and contractors receive the relevant training and information.
- The development and maintenance of the necessary mineral fibre registers as detailed in this Management Plan.
- The management and application of static atmospheric monitoring programmes that are compliant with legislative requirements are performed on a basis that is considered adequate and that the data is statistically valid.
- The management and application of personal monitoring programmes that are compliant with legislative requirements are performed on a basis that is considered adequate and that the data is statistically valid.
- To communicate monitoring results to all relevant personnel.

Employees and Contractors are responsible for:

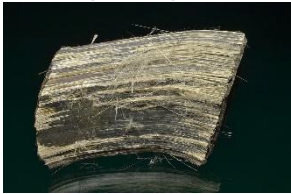
- Ensuring that the correct PPE is utilised.
- Developing their SOP's or JHA's to reflect the requirements detailed in this document for working in area where fibrous minerals are suspected.
- Following guidelines detailed in this document.
- Reporting incidences regarding mineral fibres, or suspected mineral fibres when encountered on the exploration lease.

5 Fibrous Minerals

Asbestos is a commercial term applied to a group of six types of naturally occurring silicate minerals belonging to the serpentine and amphibole mineral groups. These minerals include the serpentine mineral chrysotile (white asbestos) and the amphibole minerals crocidolite (blue asbestos), amosite (brown asbestos), and the fibrous forms of anthophyllite, tremolite and actinolite. Three of the six minerals have been given a different name for each of their two forms. Chrysotile is the asbestiform variety of the serpentine minerals group. In this group antigorite is a common non asbestiform mineral. In the amphibole group, crocidolite is the asbestiform variety of riebeckite; amosite is the asbestiform variety of "cummingtonite"-grunerite.

In the instance where limited delineation of fibrous or potentially fibrous minerals may have occurred; reference should be made to the common occurrences of each as listed in Table 1.

Table 1: Details and Description of Asbestiform Fibrous Minerals

Mineral Name	Mineral Group	Characteristics
Chrysotile 	Serpentine	White, grey, green, yellowish Fibrous, commonly silky Typical occurrences: Veins and veinlets and stockworks in serpentinite
Actinolite 	Amphibole	Green Long-bladed crystals, fibrous or thick columnar aggregates Typical occurrences: Contact and regional metamorphosed dolomite, magnesian limestone, low-grade ultrabasic rocks
Amosite <i>cummingtonite-grunerite</i> 	Amphibole	Brown, grey, greenish Variable fibre length and a coarse texture Typical occurrences: Contact and regional metamorphosed iron-rich rock
Anthophyllite 	Amphibole	Grey, white, brown-grey, green Massive fibrous or lamellar; short harsh poorly flexible fibres Typical occurrences: Metamorphosed schists and gneisses or metasomatic rock
Crocidolite <i>Riebeckite</i> 	Amphibole	Lavender, blue green Short to long flexible fibres Typical occurrences: In granite, syenite, rhyolite, trachyte, banded ironstone, regionally metamorphosed schists
Tremolite 	Amphibole	White to pale green Long-bladed crystals and short and stout crystals, fibrous or thick columnar aggregates Typical occurrences: Contact and regional metamorphosed dolomite, magnesian limestone, low-grade ultrabasic rocks

6 Health Effects and Monitoring

6.1 Health Effects

Like silica, exposure to asbestos fibres causes diseases directly in the respiratory system. While some fibrous minerals have little effect on human health, exposure to asbestiform fibrous minerals present a hazard if fibres are of respirable size (usually less than 3 microns in diameter and greater than 5 microns in length) and become airborne and inhaled. Long-term or repeated exposure to respirable asbestiform fibres increases the risk of developing an asbestos disease. The likelihood of illness depends on fibre concentration, exposure duration, and type of asbestos.

The following diseases are associated with fibre exposure:

Pleural plaques – Benign plural effusion and fibrosis. Presence of plaques can indicate occupational exposure to asbestos without causing significant disability.

Asbestosis – This is a form of fibrosis (scarring) of the lungs, which results in breathlessness. Onset of asbestosis typically occurs only after 5 to 15 years of heavy asbestos exposure. With increasing shortness of breath following fibrosis of the lung, the oxygen exchange capacity can decrease drastically, leading to associated heart failure.

Lung cancer – A cancer of the larger and medium sized airways that occurs 20 or more years after the first exposure and is normally always associated with heavy exposure to asbestos. The combination of asbestos exposure and smoking has a synergistic effect, which greatly increases the risk of lung cancer. Asbestos workers who also smoked cigarettes had a 50 to 90 times increase in lung cancer deaths when compared to people who neither smoked nor were exposed to asbestos. For non-smokers, the rate of lung cancer deaths was 5 times greater than the general population.

Mesothelioma – Rare cancer of the pleura and peritoneum and is invariably fatal, usually within 1 to 3 years of diagnosis. It occurs 20 to 50 years after first exposure and is generally associated with amphibole (blue and brown) asbestos exposure.

The risk of contracting an asbestos-related disease depends on a number of factors:

- the concentration of respirable fibres in the air.
- the length of time exposed.
- the type of fibre (amphibole or chrysotile).
- the morphology of the fibres (fibre size and shape).
- influence of other factors, especially cigarette smoke.

All of the asbestos-related diseases discussed above are dose related. The greater the inhaled dose of asbestos fibre the greater the risk of developing the disease. Dose is represented by the amount of asbestos in the air (in fibres per millilitre) multiplied by the duration of exposure in years.

$$\text{Dose} = \text{average airborne concentration of inhaled fibre} \times \text{years of work}$$

The risk of developing an asbestos related disease in the Australian mining industry, provided compliance with present mining industry and national standards are met is considered low. If workers are exposed to asbestiform minerals for only short periods, the risk will be much lower than to those workers who are continually exposed.

In the context of Cobra Resources Prospects, the exposure risk for personnel is raised in areas identified to contain or potentially contain fibrous mineralisation during activities such as ground disturbance (vegetation clearing, track and site preparation) or drilling and sampling activities.

6.2 Exposure Monitoring

In areas with geological characteristics favourable to the formation of fibrous minerals, or for work tasks potentially exposing personnel to mineral fibres, or when it can be reasonably expected that fibrous minerals will be uncovered during work; indicative levels of potential exposure shall be periodically determined by air monitoring and personal dust monitoring. This shall be conducted in consultation with a Certified Occupational Hygienist (COH).

The National Occupational Health and Safety Commission (1995) specified that the occupational exposure standard (OES) should:

- be defined as the time-weighted average (TWA) asbestos fibre concentration of the air breathed by a worker during a working shift; and
- not exceed 0.1 fibres per millilitre (f/mL) for all forms or mixtures of asbestos.

The TWA is defined as the average concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

Where the shift length is greater than eight hours, the occupational exposure standard should be adjusted in accordance with the 1999 guideline on adjusting exposure standards for extended work shifts (Department of Minerals and Energy, 1999). For example, a 12-hour shift has an adjusted exposure standard of 0.07 f/mL

Controls to minimise exposure shall be implemented when the 'Action Level', which is 50% of the TWA Occupational Exposure Standard is achieved. It is important that this sampling data is representative of the typical exposure for personnel working in and around the Designated Fibrous Mineral Areas.

Where the TWA Occupational Exposure Standard is exceeded, a health surveillance programme shall be implemented in accordance with relevant standards and codes of practice.

6.3 Sampling Methodology

In the instance where potentially fibrous minerals have been identified prior to any site works commencing, sampling shall be undertaken and results received before any works commence. Where they are identified during site works, or geological conditions are favourable for the formation of fibrous minerals then the area shall be treated as if it contains fibrous minerals until confirmation of results or otherwise is received. In the latter this management plan shall be activated.

All sampling is to be conducted by suitably trained geological personnel and sent to a National Association of Testing Authorities, Australia (NATA) registered laboratory for testing. The expected turnaround time for analysis is five to ten days. by

Results received, either confirmatory or non-confirmatory, shall be assessed and communicated to employees and contractors working on the prospect.

Initial air sampling shall be conducted based on planned activities for the prospect whereby the number of samples collected will reflect a statistically adequate portion of the work area.

This initial air sampling will be used to ascertain information on airborne fibre concentration in areas of operation. This will be followed up by regular, secondary sampling and personal dust monitoring. This secondary testing will be used to ensure that control measures are effective in mitigating airborne fibres.

Employees involved in the air sampling and personal dust monitoring will be notified of their individual results – aggregated results will be communicated to the workforce without specifying individual details.

6.4 Training

Fibrous Minerals Awareness training package shall be developed by Cobra Management and provided to all employees, contractors and visitors conducting work on prospects where fibrous minerals have been identified or the area flagged to have geological characteristics favourable to the formation of fibrous minerals. Training shall be completed before arriving on site.

Cobra Management shall be responsible for the ongoing education of personnel in Fibrous Mineral Awareness and updates to the training material. Registers of attendance for this training shall be kept as outlined in 11 Record Keeping Responsibilities and Storage Locations.

7 Classification and Delineation of Fibrous Areas

In the initial stages of drilling programmes, geological information regarding the presence of fibrous minerals is often limited. Consequently, appropriate controls must be implemented to safeguard the health of employees and contractors. During the planning phase, the geology team is required to review all available data to assess the likelihood of encountering fibrous minerals in proposed drill holes. If there is potential for such exposure, all personnel involved in the project must be notified accordingly with additional control measures to include:

- Conducting wet drilling wherever feasible. Where wet drilling is impracticable, water or dust-suppression systems should be employed to minimise dust emissions.
- Sealing drill collars effectively.
- Ensuring that sample logging is conducted by a qualified geologist.

Where the presence of fibrous minerals is known, a risk assessment procedure will be conducted prior to each work program commencing. The documented risk assessment shall be developed

in consultation with workers and a copy filed and made available upon request to any worker. Specific controls shall be documented and implemented to reduce the risk as far as reasonably practicable as per guidelines in this FMMP. These controls shall be selected and implemented using the hierarchy of controls and guided by best industry practice. The risk assessment must include a designated work area be established whereby a minimum exclusion zone of 20 m be demarcated.

In the instance fibrous minerals are suspected during work activities, work shall cease, and Cobra Management notified immediately. Any other work within 50m of the suspected occurrence shall cease immediately; and no personnel or vehicles already within the 50m exclusion zone shall be permitted to leave. A qualified geologist shall inspect the material and determine if fibrous minerals are/are not present.

- If no fibrous minerals are found or observed, work may recommence.
- If fibrous minerals are observed all work in the area shall remain ceased until a definitive determination is made. In the event sampling is required (as per 6.3) for determination, work may recommence once risk assessed. In both cases, entry and exit procedures shall be enforced and a designated work area established. Appropriate decontamination procedures shall be enacted to remove plant and equipment from the area if necessary. The site must be recorded in the relevant register.

7.1 Designated Work Area

A designated work area is to be established for activities inside an area flagged to contain Fibrous or Potentially Fibrous minerals to warn workers and visitors of the potential presence of fibrous minerals within the workplace. Signage shall be installed and maintained at any point of access and egress to the area during works, or for a waste disposal area that remains uncovered. For the purpose of the FMMP the area is referred to as the 'designated work area'.

The designated work area is to be segregated into 'clean' and 'dirty' sections to allow for a decontamination process to occur as personnel leave site. The 'dirty' area must have an area for washing hands and face as well as disposal points for contaminated PPE. Items which may be contaminated with NOA are to remain on the 'dirty' side of the site until decontaminated or contained. In some instances, an area designated for change of clothes may be required if risk assessed. Vehicles used to transport personnel to and from the work location should remain on the 'clean' side of the site.

Upon completion of work in the area, signage must remain erected at the site to warn personnel for the potential for fibrous minerals.

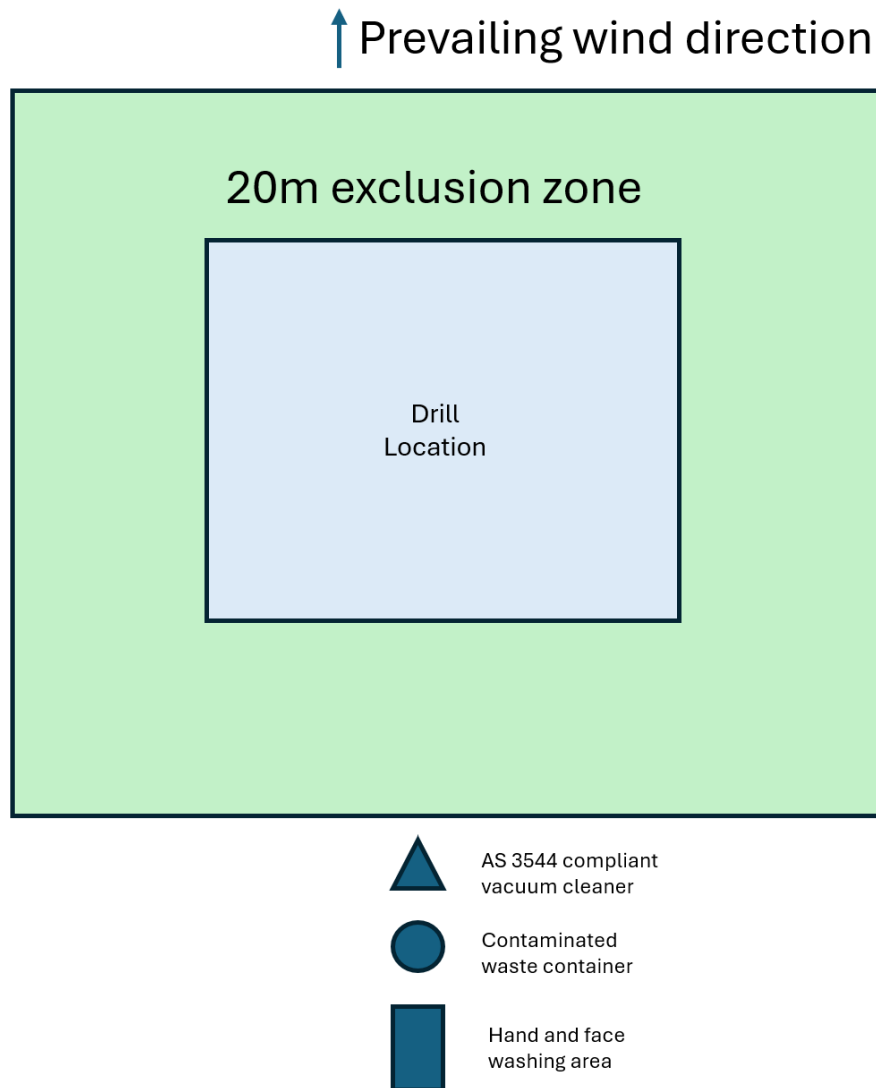


Figure 1 General Minimum Standard Drill Site Layout (Dirty Side) for Potential Fibrous Minerals Drillhole.

7.2 Signage

Entrances to a delineated area shall be sign posted and clearly demarcated with signage like that in 2. All areas of Fibrous Mineral Waste Disposal shall be demarcated with signage like 3. Upon completion of work, the area shall still be marked with signage like that in 4. All signage shall be erected and managed by the contracting supervisor.



Figure 2: Signage to delineate active work areas in the presence of fibrous or potentially fibrous minerals.



Figure 3: Signage to delineate areas of fibrous waste disposal.

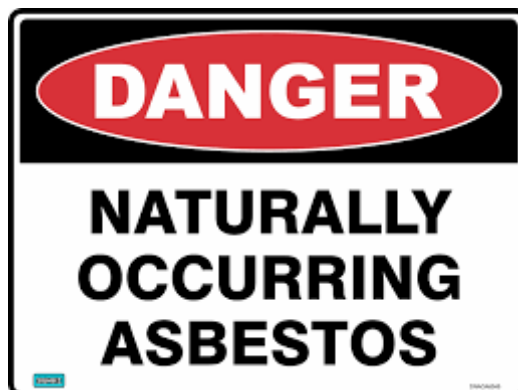


Figure 4: Signage to delineate areas of naturally occurring fibrous minerals.

8 Working in Fibrous Areas

8.1 Personal Protective Equipment

Those entering a delineated area on foot shall wear PPE appropriate to the area, and work being conducted as outlined below. When entering an area in a vehicle, the vehicle shall have the air-conditioning unit on recirculation and all windows sealed. PPE shall be carried and available in the instance where personnel need to exit the vehicle. In all instances, disposable PPE is not to be reused. All staff required to wear respirators must be trained in their use and must be fit-tested.

8.1.1 Minimum Requirements for a Delineated Area

Respiratory protection (P2 rated respiratory protective equipment), fit tested to the individual shall be worn when not in a pressurised cab (i.e. on foot). If deemed necessary based on risk assessment, disposable overalls can be worn within a Delineated Area.

8.1.2 Drilling or Sampling Activities

In addition to the minimum requirements (8.1.1) the following controls must be adhered to when conducting drilling activities whereby personnel are out of a pressurised cabin or logging and sampling of drill cuttings and core.

- Disposable overalls to prevent contamination of clothing and
- Gloves

8.2 Entry Procedures

Entry to a delineated area shall only be permitted to site personnel who have been trained and inducted in Fibrous Mineral Management.

All personnel will be required to sign on to the Fibrous Mineral Exposure Register (detailing full name, date, type of work and approximate time working within the designated area) and don appropriate PPE to the task as per 8.1.

A single document will be held by the site supervisor for the duration of site works. Cobra Management are to ensure documents are copied electronically or stored as per 11 Record Keeping Responsibilities and Storage Locations.

8.3 Exit Procedures

Exit procedures shall be designed to ensure there is no exposure to mineral fibre after leaving the designated area. Personnel shall carry out personal decontamination immediately after working within a designated area whereby the following recommendations should be considered.

- Disposable PPE disposed of in designated contaminated waste containers. Refer 10 Disposal of Material.

- Prior to a meal breaks, all personnel should vacuum clean work clothing and protective equipment to remove any asbestos fibres. Footwear should be wet wiped. Hands and face should be thoroughly washed.
- All work clothing worn in a designated work area should be stored and laundered at an agreed facility. Alternatively, disposable coveralls may be used and disposed of appropriately (Refer 10 Disposal of Material).

Any equipment or machinery used within the designated work area are to be hosed down before being used for other activities, leaving the site, or before maintenance work is performed. Washing down is to be done so within the designated work area to minimise contamination potential. Cabins shall be cleaned using vacuum cleaners that comply with AS 3544 requirements for hazardous particulates.

Asbestos vacuum cleaners should comply with the requirements of AS 3544-1988 *Industrial Vacuum Cleaners for Particulates Hazardous to Health* and AS 4260-1997 *High Efficiency Particulate Air Filters (HEPA) – Classification, Construction and Performance*. Domestic vacuum cleaners are unsuitable and should never be used, even if they have a HEPA filter. Vacuum collection bags and filters must be disposed of the same as disposable PPE with appropriate procedures to do so.

8.4 Minimum Plant Requirements

Regular maintenance shall ensure the effectiveness and cleanliness of cabin seals and air conditioning systems. Contaminated air filters and air conditioning filters shall be double bagged, or wrapped and disposed of as outlined in 10 Disposal of Material. Where practicable, air conditioning and engine filters may be cleaned by wet scrubbing. Compressed air shall not be used.

8.5 Drilling

In areas where Fibrous Minerals have been classified, all drilling activities must be conducted with procedures that minimise the risk of generating airborne fibrous minerals. Wet drilling techniques are mandatory where there is potential for fibrous material to be encountered.

8.5.1 Reverse Circulation (RC) and Percussion (PC) Drilling

The following recommendations should be considered for RC and PC drilling.

- Wet drilling should be used wherever practicable. In the event wet drilling is not practicable, a risk assessment must be conducted and drilling rig fitted with an effective device that collects and contains the dust produced.
- For percussion drilling, the return air hose should be fed through a water sump.
- Water or dust suppression systems should be used to reduce dust emerging from the cyclone and drill collar.
- Flexible ducting should be used to direct dust emissions from the T-piece and cyclone away from drilling staff.
- Upon completion of drilling, collars shall be sealed and surveyed.

- Personnel not working inside a protected environment such as an air-conditioned drilling cab require respiratory protection. The minimum protection recommended is a Class P1 or P2 respiratory protective device. Powered air-purifying respirators are recommended for bearded people.
- Drilling residue and material removed during equipment wash-down should be transferred to a dedicated sump. Refer 10 Disposal of Material.
- All bulk samples with fibrous or potentially fibrous material shall be collected in plastic bags by the drilling contractor. Each interval must then be logged by a qualified geologist with sampling occurring at the same time.
- Any chip trays collected are to be filled with washed material, sealed, washed down and marked with “Caution Asbestos” stickers.
- Where bulk samples are logged to contain fibrous or potentially fibrous material, they are to be disposed of in a designated area as per 10 Disposal of Material.

8.5.2 Diamond Drilling

To control dust and fibres, diamond drilling is preferred over other methods. A major advantage is that it generates slurry waste, which is collected in a sump. Providing the slurry is kept wet, the risk of exposure to airborne fibrous minerals during drilling is minimized. The following recommendations for diamond drilling should be considered.

- Personnel should wear respiratory protection when removing cores from core barrels. The minimum respiratory requirement is a P1 or P2 disposable mask. Gloves and disposable overalls are also recommended in addition to standard PPE requirements (helmet and eye protection).
- Core to be carefully cleaned using water only (no scrubber) without disturbing the formation.
- Core to be sprayed with clear lacquer, or in the absence of lacquer wrapped in plastic with “Caution Asbestos” stickers.
- Core trays are then to be sealed, washed down and clearly marked with “Caution Asbestos” stickers.
- Core barrels and associated equipment should be washed and wiped down into a container, and the contents disposed of in a dedicated waste sump.

9 Logging and Sampling

Where samples are to be taken from Designated Fibrous Mineral Areas, Drill Cuttings or Core, samples are to be double bagged and clearly labelled with a warning statement that highlights that the samples may contain hazardous fibres i.e.

CAUTION – HAZARDOUS FIBROUS MINERALS

DO NOT DAMAGE OR OPEN BAG

DO NOT INHALE DUST

Where samples from Designated Fibrous Mineral Areas are sent for analysis the laboratory and courier shall be notified prior to samples being despatched.

Core samples must be wet cut using a tile saw and appropriate guarding used to reduce or contain spray generated by the saw. Once samples have been taken, trays shall be sealed, washed down and marked with “Caution Asbestos” stickers and stacked appropriately in long term storage.

Any accumulated dust should be removed with either an approved industrial vacuum cleaner or rag moistened with water. Compressed air or dry brushing should not be used for cleaning.

10 Disposal of Material

All material suspected or confirmed to contain fibrous minerals must be disposed of in accordance with SA WHS Regulations, Environment Protection Authority (EPA) requirements and site procedures. Disposal methods include:

For disposal of small quantities of contaminated waste (for example PPE), the following guidelines should be followed:

- Collected in heavy duty polythene bags, about 0.2 mm thick, or in other approved containers and labelled as asbestos waste.
- Bags must be taped shut once filled, before placing into a second plastic disposable bag.
- The bags should be filled to no more than 50 per cent capacity. This minimises the potential for bag rupture and allows the bag to be adequately sealed.
- Fibrous material that is too large for the standard polythene bags should be placed in large double lined bins or drums.
- Disposed of at a waste facility licensed by the EPA. It must never be disposed of in the general waste system.

For disposal of drill cuttings, drilling muds, rock samples or similar the following guidelines should be followed:

- Encapsulated either in a buried sump or as backfill into the borehole. Where a pit is specifically dug for waste disposal, ensure it is in a location that will not be disturbed by future activities.
- Ensure hazardous and contaminated waste is covered by clean fill as soon as practicable to a depth of sixty centimetres.
- Disposal location to be surveyed and recorded with details of approximate content in the Fibrous Mineral Disposal Register.
- Signage erected to clearly identify and advise future workers of possible fibrous waste contamination

11 Record Keeping Responsibilities and Storage Locations

Fibrous Mineral Exposure Register - detailing full name, date, type of work and approximate time working within the designated area). – stored and accessible via “safety culture” app

Fibrous Minerals Location Register - Mineral type, location, amount, condition, date of identification and date of removal. Include sample #, type and results. – stored and accessible via “safety culture” app

Fibrous Mineral Disposal Register – date, approx volume, material type, coordinates. – stored and accessible via “safety culture” app

Fibrous Minerals Awareness Training Register– stored and accessible via “safety culture” app

Health Monitoring Records– stored and accessible via “safety culture” app

Hygiene Testing Records– stored and accessible via “safety culture” app

12 Audit and Review

This management plan will be subject to revision as necessary to ensure it remains current for the hazards and site processes. To facilitate this, Cobra Management will review the plan:

- If additional fibrous material is discovered (eg chrysotile),
- If operational parameters for mineral fibre work change,
- If current controls fail to prevent exposure to mineral fibre,
- If an incident occurs involving exposure to mineral fibre, or

Audits shall be carried out by Cobra Management to ensure compliance.

13 References

AS3544-1988 – Industrial vacuum cleaners for particulates hazardous to health. Standards Australia.

AS4260-1997 – High efficiency particulate air (HEPA) filters - Classification, construction and performance. Standards Australia.

Guidance note on the Membrane Filter Method for estimating airborne mineral fibre dust [3003 (2005)], 2nd Edition. NOHSC

Adopted National Exposure Standards For Atmospheric Contaminants In The Occupational Environment [NOHSC: 1003 (1995)]

Respiratory protective devices. Standards Australia

AS/NZS 1716:2012 Respiratory protective devices

South Australian Work Health and Safety Regulations 2012

Code of Practice for the Management and Control of Mineral fibre in Workplaces [NOHSC: 2018 (2005)] NOHSC

Code of Practice for the Safe Removal of Mineral fibre – 2nd Edition [NOHSC: 2002 (2005)] NOHSC

AS/NZS 1715-2009 – Selection use and maintenance of respiratory protective equipment
Standards Australia

Hazardous Substance Information System (hsis.ascc.gov.au) Safework Australia

Appendix 1 – Asbestos Occurrence Register

Appendix 2 – Regulatory Guidelines

In accordance with South Australian [Work Health and Safety Regulations 2012 - 1.7.2025](#), summary of relevant regulations relating to this Fibrous Material Management Plan is as follows:

- Regulation 431 requires that risks to health and safety associated with naturally occurring asbestos are managed in accordance with Chapter 3 Part 1.
- Regulation 432 requires preparation and maintenance of an asbestos management plan where naturally occurring asbestos is identified or likely to be present.
- Regulation 445 requires workers who may be involved in asbestos-related work to be trained in identification, safe handling, and suitable control measures.

Chapter 8—Asbestos

Part 4—Management of naturally occurring asbestos

431—Naturally occurring asbestos

The person with management or control of a workplace must manage, in accordance with Chapter 3 Part 1, risks to health and safety associated with naturally occurring asbestos at the workplace.

Note—

WHS Act—section 20 (see regulation 9).

432—Asbestos management plan

- (1) *This regulation applies if naturally occurring asbestos is—*
- (a) *identified at a workplace; or*
 - (b) *likely to be present at a workplace.*
- (2) *A person with management or control of the workplace must ensure that a written plan (an **asbestos management plan**) for the workplace is prepared in relation to the naturally occurring asbestos.*

Maximum penalty:

- (a) *In the case of an individual—\$6 000.*
 - (b) *In the case of a body corporate—\$30 000.*
- (3) *A person with management or control of the workplace must ensure that the asbestos management plan is maintained to ensure the information in the plan is up to date.*

Maximum penalty:

- (a) *In the case of an individual—\$6 000.*
- (b) *In the case of a body corporate—\$30 000.*

(4) *An asbestos management plan must include information about the following:*

- (a) *the identification of naturally occurring asbestos;*
- (b) *decisions, and reasons for decisions, about the management of naturally occurring asbestos at the workplace;*

Example—

Safe work procedures and control measures.

- (c) *procedures for detailing incidents or emergencies involving naturally occurring asbestos at the workplace;*
- (d) *workers carrying out work involving naturally occurring asbestos.*

Example—

Consultation, responsibilities, information and training.

(5) *A person with management or control of a workplace must ensure that a copy of the asbestos management plan for naturally occurring asbestos at the workplace is readily accessible to—*

- (a) *a worker who has carried out, carries out or intends to carry out, work at the workplace; and*
- (b) *a health and safety representative who represents a worker referred to in paragraph (a); and*
- (c) *a person conducting a business or undertaking who has carried out, carries out or intends to carry out, work at the workplace; and*
- (d) *a person conducting a business or undertaking who has required, requires, or intends to require work to be carried out at the workplace.*

Maximum penalty:

- (a) *In the case of an individual—\$3 600.*
- (b) *In the case of a body corporate—\$18 000.*

Expiation fee:

- (a) *In the case of an individual—\$432.*
- (b) *In the case of a body corporate—\$2 160.*

433—Review of asbestos management plan

A person with management or control of a workplace that has an asbestos management plan for naturally occurring asbestos must ensure that the plan is reviewed and as necessary revised if the plan is no longer adequate for managing naturally occurring asbestos at the workplace.

Maximum penalty:

- (a) *In the case of an individual—\$3 600.*
- (b) *In the case of a body corporate—\$18 000.*

Example—

A control measure is revised under regulation 38.

Part 5—Asbestos at the workplace

Division 2—Training

445—Duty to train workers about asbestos

- (1) *In addition to the training required by Division 1 of Chapter 3 Part 2, a person conducting a business or undertaking must ensure that workers engaged by the person, whom the person reasonably believes may be involved in asbestos removal work or in the carrying out of asbestos-related work, are trained in the identification and safe handling of, and suitable control measures for, asbestos and ACM.*

Maximum penalty:

- (a) *In the case of an individual—\$6 000.*
- (b) *In the case of a body corporate—\$30 000.*
- (2) *This regulation does not apply in relation to a worker referred to in regulation 460.*
- (3) *The person must ensure that a record is kept of the training undertaken by the worker—*
- (a) *while the worker is carrying out the work; and*
- (b) *for 5 years after the day the worker ceases working for the person.*

Maximum penalty:

- (a) *In the case of an individual—\$1 250.*
- (b) *In the case of a body corporate—\$6 000.*

Expiation fee:

- (a) *In the case of an individual—\$144.*
- (b) *In the case of a body corporate—\$720.*
- (4) *The person must keep the record available for inspection under the Act.*

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