



22 October 2024

Mr Greg Swain
Manager Exploration
FMG Resources Pty Ltd
Hyatt Centre
Level 2, 87 Adelaide Terrace
EAST PERTH WA 6004

greg.swain@fortescue.com.au

Dear Mr Swain,

Approval Notification - Exploration Program for Environment Protection and Rehabilitation (EPEPR2023-035) Review EL6044

The program review for EL 6044 final version submitted on 15 October 2024 to conduct RC and Diamond Drilling for IOCG-style mineral systems at Moonlight Dam, has been approved in accordance with Section 70C of the *Mining Act, 1971* (the Act).

You are reminded that:

1. You must at all times implement and comply with the approved EPEPR.
2. The approved EPEPR will be made publicly available on the Mining Register.
3. Exploration operations on “native title land” (as defined in the *Native Title (South Australia) Act, 1994*) must be conducted in accordance with Part 9B of the Act.
4. In accordance with Section 70C of the Act, the licensee/lessee must review the EPEPR on request of the Minister’s Delegate within a time specified in the request and submit the revised EPEPR for approval.
5. As the operator for the approved EPEPR you must take all reasonable and practical measures to avoid undue damage to the environment and meet all the approved outcomes (when measured against the approved criteria) listed within the EPEPR.
6. In accordance with regulation 78 of the *Mining Regulations 2020* and Terms of Reference 012 (TOR 012), the licensee/lessee must submit an Exploration Compliance Report to the Mineral Exploration Branch each year, within 60 days after the anniversary of the date the licence was granted, and 60 days after the expiry or surrender of the EL, or in accordance with joint reporting requirements agreed to with the Minister.
7. In accordance with regulation 16(4) of the *Mining Regulations 2020*, drillhole and geological samples must be kept in accordance with guidelines issued by the Department for the term of the relevant tenement and for 7 years after the expiry, surrender, cancellation or forfeiture of the tenement to which the sample relates. Furthermore, samples must be retained by the tenement holder, or provided to the Director, in accordance with those guidelines (unless the Minister has authorised, on application by the tenement holder in a manner and form set out in the guidelines, the destruction or disposal of the samples).
8. The EPEPR Review is approved for an additional twelve months and will expire on 1 November 2025.

MINERALS REGULATION

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

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

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

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

If you require any further information, please contact Cobus Martins on 0437252134 or Shelley Rasmussen 0409 797 670 or email DEM.exploration@sa.gov.au.

Yours sincerely



Simon Constable
**GENERAL MANAGER MINERAL EXPLORATION
REGULATION & COMPLIANCE**

In accordance with delegated
Ministerial powers and functions

The Department’s Regulatory Guidelines, Ministerial Determinations and Information Sheets are available at: http://energymining.sa.gov.au/minerals/knowledge_centre

APPLICATION

Mining Act 1971 and Mining Regulations 2020



Government of South Australia

Department for Energy and Mining

EXPLORATION PROGRAM FOR ENVIRONMENT PROTECTION AND REHABILITATION (PEPR)

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

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

SECTION A – GENERAL DETAILS

Operational approval period	12-month approval period, with an additional 3 months to complete all rehabilitation		
Tenement details	EL6044		
Tenement holder(s) (for each tenement)	FMG Resources Pty Ltd (Fortescue)		
Operating company	FMG Resources Pty Ltd (Fortescue) Level 2, 87 Adelaide Terrace East Perth, WA, 6004		
Agency agreement (if applicable)	N/A		
PEPR prepared by	Melissa Roberts – Project Geologist	melissa.roberts@fortescue.com	
Project supervisor/contact person(s)	Greg Swain Peter Hill	greg.swain@fortescue.com peter.hill@fortescue.com	
Project/prospect name	Moonlight Dam Prospect		
Location details	The Moonlight Dam Prospect is located on Exploration Licence EL6044 which is located approximately 27km NW of Port Augusta, South Australia. Access is via the Stuart Highway. Native Title is held by the Bangarla Determination Aboriginal Corporation.		
Project description, commodity type and mineralisation model	The Moonlight Dam Prospect is located at the southern end of the Olympic Iron-Oxide Copper-Gold (IOCG) Province on the eastern margin of the Gawler Craton. The primary commodities sought by Fortescue are copper and gold as part of the IOCG-style mineral system akin to Olympic Dam, Prominent Hill, Carrapateena and Oak Dam West.		
Proposed project schedule	Start date	1/11/2024 Seeking a 12 month extension for EPEPR 2023-035	End date 31/10/2025

DECLARATION

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

Name	Greg Swain	Signature (digital allowed)	
Position	Manager Exploration – South Australia	Date	15/10/2024

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

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

SECTION B – PROGRAM PREPARATION AND ACCESS TO LAND

Work undertaken in preparing the proposal

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

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

In summary, work completed to prepare this proposal includes:

1. Desktop review of Open File historical drill exploration of the region, including 3D geological modelling
2. Assessment and modelling of Open File gravity and magnetic data
3. Acquisition of ground gravity under the terms of the Generic PEPR. Fortescue completed a detailed ground gravity survey at 250m x 250m spacing over the entire EL6044 tenement (131km²).
4. Geophysical modelling of potential field data
5. Pastoralist and other stakeholder engagement and reconnaissance trips for environmental assessment and drill rig access
6. Notice of Entry to Carriewerloo Pastoral Lease
7. Consultation with the Barnjarla Determination Aboriginal Corporation (Barnjarla) (holders of Native Title) under the terms of a Native Title Mining Agreement. A Heritage Survey is pending.
8. Consultation with drill rig contractor for rig depth, capacity, mobility over variable surfaces, sustainability for the type of program
9. Desktop GIS review of environment and groundwater, easements, dams, 'improved land', exempt land, locations of water pipelines, above ground and buried telecommunications, railways, power lines and other infrastructure.
10. Planning to drill a vertical hole to approximately 1500m at the Moonlight Dam prospect, 741175mE, 6421707mN GDA94 Zone 53, with option for a wedge from the parent hole. Up to two RC holes drilled within 20m of the planned RC/Diamond core hole will be drilled on the same pad for a temporary source of water for drilling activities.

Consultation (r. 64)

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

Tenement	Stakeholder	Land tenure	Land use	Date and type of NOE served	Type of exempt land	Date waiver obtained	Date consultation/access agreement and/or permits signed/authorised	Stakeholder concerns raised and how addressed
EL6044	David and Jill Michael (Pastoralist, Carriewerloo Station, Corraberra Station)	Carriewerloo Pastoral Lease, Hundred 540100 Section 1	Stock grazing	23/8/2023	N/A	N/A		<i>Pastoralist was contacted by email with follow up phone calls. They have no concerns or issues with the proposed drilling. Fortescue have also been in contact with the resident at the Corraberra house</i>
EL6044	Volt Geothermal Pty Ltd (operated by Cradle)	GEL 692	Geothermal Exploration Licence	11/9/2023	N/A	N/A		

Exploration PEPR application – 12-month period

Tenement	Stakeholder	Land tenure	Land use	Date and type of NOE served	Type of exempt land	Date waiver obtained	Date consultation/access agreement and/or permits signed/authorised	Stakeholder concerns raised and how addressed
	Resources Limited)							

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

During a site reconnaissance in August 2023 Greg Swain, Peter Hill and Mel Stinear (Fortescue geologists) met Dean, the resident at the Corraberra Homestead and Fortescue raised the issue of vehicle access past the house. Fortescue agreed to call Dean prior to trucks or vehicles mobilising past his house so he could restrain his domestic dogs.

Provide any additional relevant information.

N/A

SECTION C – DESCRIPTION OF THE ENVIRONMENT

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

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

Proximity to infrastructure and housing

Provide the following information:

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

Provide this information on a locality plan/map.

The location of the Moonlight Dam target area is shown in **Maps 1&2** and the planned drill hole to be sited at 741175mE, 6421707mN GDA94 Zone 53. The prospect is approximately 27km NW of Port Augusta. Moonlight Dam is ~ 3km north of the Corraberra Homestead (which comprises the nearest existing infrastructure). Access is via the Stuart Highway and unsealed station tracks (see Figure 1 – in Landform and Topography). The Stuart Highway and the railway are 2.2 km to the east of the planned drill site. The house at Corraberra is connected to the SA Power Network by an overhead power line that goes due east to the powerline along the Stuart Highway. The powerline is well above the maximum height of the drill rigs (during mobilisation/demob).

There are no features that constitute Exempt Land under the Mining Act 1971.

There is clear visibility up and down the Stuart Highway when entering or exiting the station.



Photo 1. Clear visibility at the entry/exit from Corraberra Station to the Stuart Highway.

Exploration PEPR application – 12-month period

Land use and tenure

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

Land tenure/type	Applicable	Land use	Applicable
Freehold	<input type="checkbox"/>	Grazing	<input checked="" type="checkbox"/>
Pastoral lease	<input checked="" type="checkbox"/>	Cultivated land	<input type="checkbox"/>
Perpetual lease	<input type="checkbox"/>	Residential	<input type="checkbox"/>
Crown land	<input type="checkbox"/>	Township	<input type="checkbox"/>
Mining reserve	<input type="checkbox"/>	Industrial	<input type="checkbox"/>
Aboriginal freehold/leasehold land (e.g. Anangu Pitjantjatjara Yankunytjatjara and Maralinga Tjarutja lands)	<input type="checkbox"/>	Tourism	<input type="checkbox"/>
Forestry reserve	<input type="checkbox"/>	Conservation	<input type="checkbox"/>
Marine parks	<input type="checkbox"/>	Defence activity	<input type="checkbox"/>
National parks, conservation parks, conservation reserves, regional reserves*	<input type="checkbox"/>	Road reserve	<input type="checkbox"/>
Adelaide Dolphin Sanctuary	<input type="checkbox"/>	Sites of scientific significance (geological monuments, fossil reserves etc.)	<input type="checkbox"/>
Murray Darling Basin	<input type="checkbox"/>	Orchard/vineyard	<input type="checkbox"/>
<If park/reserve is selected, please provide the name of the park>		*Native vegetation heritage agreements	<input type="checkbox"/>
Other*	<input type="checkbox"/>	<Provide the name of the area>	
<If other is selected, describe the land tenure here.>		*European heritage sites	<input type="checkbox"/>
		<Provide the name of the site>	
		*Other (e.g. historic mining)	
		<Provide the name of the site>	

* Indicates more information required in field immediately below.

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

N/A – out of Council (Pastoral unincorporated area)

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

none

Provide any additional relevant information.

none

Woomera Prohibited Area (WPA)

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

Exploration PEPR application – 12-month period

Other land owned or controlled by the Commonwealth Department of Defence

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

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

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

Native title

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

Native title			
Is the proposed area of exploration located on native title land?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, no further information in this section required.)		
Are there registered native title party/parties in the area of proposed exploration?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Barnjarla Determination Aboriginal Corporation	If no, an Environment, Resources and Development (ERD) Court determination is required.
Have you negotiated a native title mining agreement?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the agreement registered?*	EL 5825, EL 6042, EL 6043, EL 6044, EL 6049, EL 6088, EL 6106, EL 6108 & EL 6130, registered on 01/08/2018
Have you accepted an Indigenous land use agreement (ILUA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the ILUA registered?*	N/A
Have you obtained ERD Court determination?†	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the determination registered?*	N/A

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

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

Provide any additional relevant information.

<p>At the time of submission of this PEPR Fortescue had initiated requests for an Aboriginal Cultural Heritage Survey (ACHS) with the Barnjarla Determination Aboriginal Corporation (BDAC) and plans for conducting a survey under the terms of the NTMA are anticipated to result in an ACHS at some time in the next three months (by December 2023). It's possible that this timeframe can extend to April 2024 or later.</p> <p>No ground disturbing work relating to this PEPR will be conducted prior to receiving full clearance approval and an executed AHCS Report by BDAC.</p>
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Landform and topography

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

<p>The area is in the "South Australian Arid Lands" Landscape Management Region (Naturemaps online GIS by Environment SA). It is also classified as the 'Hesso' land system in the Pastoral Land System GIS layer in Naturemaps and is described as: "Extensive sand sheets with calcareous soils. Plains of myall, sugarwood woodland over pearl bluebush +/- bladder saltbush; plains and rises of mulga and myall woodland with pinbush wattle, pearl bluebush and spiny fan flower."</p> <p>The topography around the proposed drill site is very flat plain and there are no hills or creeks/drainage courses. The nearest drainage course is 3km to the southwest of the planned drill site. 'Moonlight Dam' (after which the prospect is named) is over 1.4 km from the planned drill site and is a non-functioning abandoned dam. The 100K scale topography map shows a 60m elevation contour outlining a very low rise 1km in</p>
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Exploration PEPR application – 12-month period

diameter centred 800m southeast of the planned drill site (see Figure 1 below). The nearest hill is South Tent Hill (317m AHD) approximately 7km to the south.

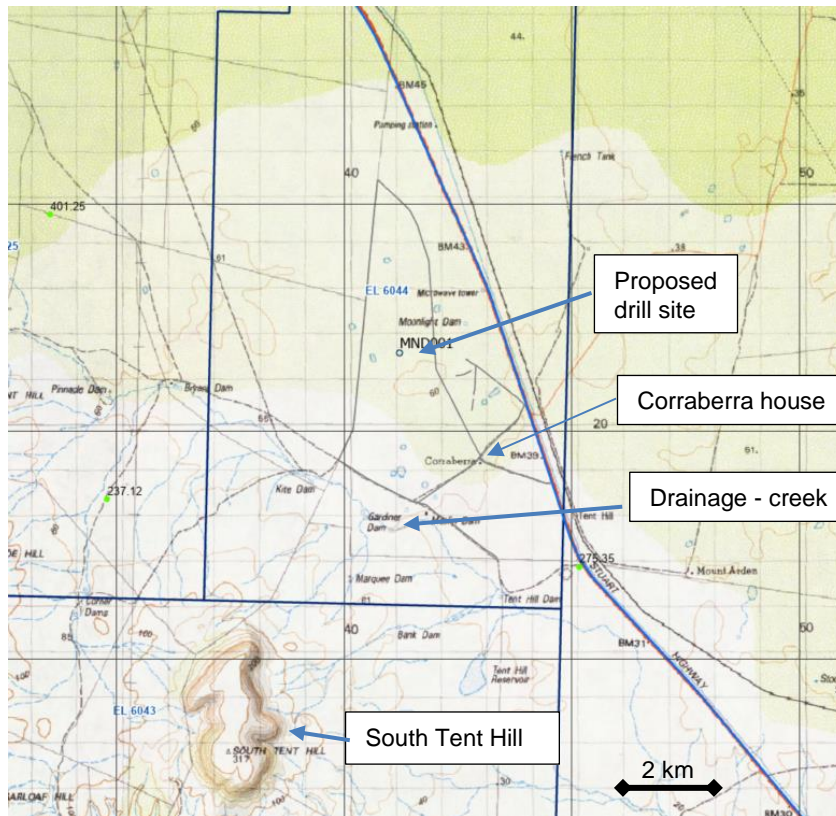


Figure 1. Landform and Topography of the district.

Soil and surface cover

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

The area is in the “Gawler Ranges” Soil Conservation District (Naturemaps online GIS by Environment SA).

In the area of the planned drill site the ground surface and soil comprise red clayey silt (see photos 2 and 3). The surface soil/silt may be susceptible to water erosion if disturbed or if the bluebush is cleared for the drill pad worksite. Fortunately, the surface slope is very minimal, and water run-off is slow and low energy so erosion or gullyng would be minimal to nil. There is no evidence of gullyng on the surrounding station tracks except for a short 80m section (see photo 5) with 20cm deep drain and exposed calcrete base. It is evident by the vegetation overgrowth that the station tracks pond water after heavy or extended rains rather than erosional flowing.

Exploration PEPR application – 12-month period



Photo 2. Typical topography and soil cover, at the area for the planned laydown and campsite. This is 150m away from the drill pad and the proposed temporary drill access track will go across this photo (741127mE, 6421502mN GDA94 Zone53, looking northwest). Vegetation comprises sparse and low shrubland of chenopod (bluebush and saltbush).

Surface water

Will the proposed program interfere with surface water bodies and natural drainage (e.g. drainage lines, creeks, floodplains, wetlands)? If yes, describe the potential interference and surface water bodies and natural drainage on maps. If no, indicate why.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
No, the drilling is in a flat plain (see Figure 1 and Photo 2 above) and several kms away for the nearest creek.		
Is the program area located within water protection areas defined under the <i>River Murray Act 2003</i> ? If yes, provide the name(s).	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<If yes, provide the name(s)>		
Is the program area located within any prescribed watercourses or prescribed surface water areas under the <i>Landscape South Australia Act 2019</i> ? If yes, provide the name(s).	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<If yes, provide the name(s)>		

Exploration PEPR application – 12-month period

Groundwater

Is groundwater likely to be intersected when conducting the exploration program? If yes, use the table below to describe the expected groundwater (hydrogeological) conditions, and identify groundwater aquifers in the exploration area(s) that may be affected. Indicate the approximate depth of drillholes in each area. Copy and paste a new table for each area where different groundwater conditions are expected. If no, provide evidence or any supporting information demonstrating this.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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There is no artesian or sub artesian water in the area or the district. The groundwater aquifer at the proposed drill site is classified as "Fractured Rock" i.e., fractured basement (fractured Neoproterozoic).

In general, the bore data in the "Water Connect SA" online GIS of water bore data shows there is a low flow of salty water.

Many water bores have been drilled to 20-50m depth e.g., bore PU10, unit number 6433-457 to 27m depth or hole EX112, unit number 6433-464 drilled to 51m depth, roughly indicating the depth to groundwater. The Whyalla Sandstone is the aquifer.

Bore 6433-35 to 60m depth in 1974 (mineral hole Mt Gunson Mines 111, located 2.5km to the SE of the proposed drilling) has a recorded yield rate of 0.65 l/sec and TDS 25,232 mg/L. This is a low yield and very salty water. The site of the proposed drillhole is about 15km west from the southern reaches of Salt Lake, Lake Torrens, and its connection to the Spencer Gulf and that may play a part in producing strongly saline groundwater. A water bore (PUB 03/SAU1) located 6km to the south-south-west has a TDS of 23,888 mg/L which is similarly very salty. See Map 4.

There is only very little geological information from historic drilling, but a regional and district scale interpretation of the subsurface geology by a Fortescue geologist suggests that the stratigraphy at the site of the planned drilling could be:

0-120m Whyalla Sandstone (unconfined fracture rock aquifer for low yield salty water)

120-280m Tapley Hill Formation

280-750m Beda Basalt and Backy Point Formation

750m – top of Mesoproterozoic, (800m top of Fortescue modelled dense body).

Based on SARIG interpreted stratigraphy for drillholes PUB03-SAU1, PUB49-SAU30, PU10, Pacminex EX112, Mt Gunson Mines 111.

SA Geodata Database - Drillhole Details

Drillhole: 24926 Drillhole Name: MT. GUNSON MINES 111

Metres From	Metres To	Map Symbol	Major Lithology	Minor Lithology	Description
0	3	Q	CLAY (UNDIFF. ORIGIN)	SOIL	Clay, soil
Strat Unit Name		Quaternary rocks			
Strat Unit Description		Undifferentiated Quaternary rocks.			
GIS Code		IH			
3	25.5	? Nhueh	SANDSTONE	CLAY (UNDIFF. ORIGIN)	Quartzose & lithic sandstone, clayey in part; coarser grains rounded
Strat Unit Name		Whyalla Sandstone			
Strat Unit Description		Sandstone, coarse-grained, bimodal, with large-scale crossbedding, sand grains very well rounded, spherical.			
GIS Code		N-hueh			
25.5	52	? Nhu2	SILTSTONE	Red-grey-green calcareous siltstone	
Strat Unit Name		Umberatana Group unit 2			
Strat Unit Description		Undifferentiated Upalinna and Yerelina Subgroups; includes the superseded Willochra Subgroup.			
GIS Code		N-hu----02			
52	60	Nhunt	SHALE	DOLOMITE ROCK	Grey dolomitic shale & pyritic dolomite
Strat Unit Name		Tapley Hill Formation			
Strat Unit Description		Siltstone, grey to black, dolomitic and pyritic grading upwards to calcareous, thinly laminated, locally cross-bedded; dolomite, grey, flaggy to massive; limestone conglomerate, intraformational; greywacke.			
GIS Code		N-hunt			

Stratigraphy of Water Bore unit 6433-35 (Mt Gunson Mines 111). Fractured rock aquifer with low yield and high salt (yield rate of 0.65 l/sec and TDS 25,232 mg/L).

Exploration PEPR application – 12-month period

Description of the locality/area where different groundwater conditions may be encountered					
<Provide description here.>					
Formation age and/or stratigraphic unit	Stratigraphic intervals (depth range) (m)	Aquifer formation name	Aquifer interval/thickness (from-to) (m)	Type of aquifer(s) intersected (e.g. unconfined, confined, artesian)	Provide aquifer salinity, depth to water level and any other relevant comments
Neoproterozoic	0-60m (unrecorded)	Fractured rock	0-60m (unrecorded)	Fractured rock, unconfined	<i>0.65 l/sec and TDS 25232 mg/L (the nearest bore with recorded yield and salinity Bore 6433-35)</i>

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


From the EPA website : "Clauses 10 and 11 of the Water Quality Policy states that a person must not discharge pollutants listed in [Schedules 2 and 3](#) of the Policy into any waters. Furthermore, those pollutants known as [Class 1 and listed in Schedule 2](#) must not be deposited onto land where they are likely to enter waters. The definition of waters includes the stormwater systems, groundwater, surface water and marine. This means that [listed pollutants](#) cannot be placed in a water system or on land where they may enter the water body or the stormwater system. [Advice & assistance | EPA.](#)"

The planned drilling will not emit any listed pollutants into any waters, including the Fractured Rock Aquifer. None of the additives that are mixed with drilling water are toxic or hazardous or classed as pollutants by the EPA.

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

A search of the GDE Atlas showed there are no aquatic or terrestrial ecosystems such as springs, mound springs, wetlands, caves, rivers, or forests (nor anything else that comes under the definition of Groundwater Dependent Ecosystems) at the site of the planned drilling and not within 5km of the planned drilling. See below screen shot of search results of the [GDE Atlas Home: Water Information: Bureau of Meteorology \(bom.gov.au\)](#).

Exploration PEPR application – 12-month period



Australian Government
Bureau of Meteorology

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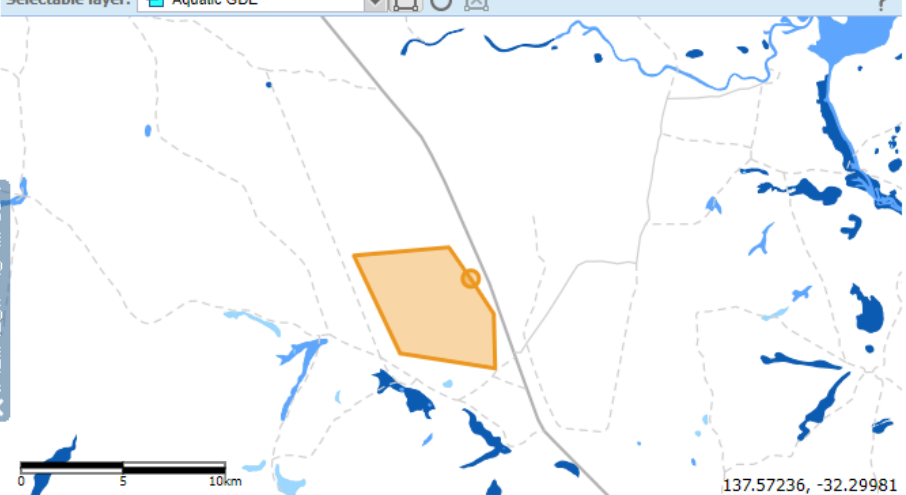
Groundwater Dependent Ecosystems Atlas

Quick Search

Layers

- Groundwater Dependent Ecosystems
 - Aquatic GDE
 - Terrestrial GDE
 - Subterranean GDE
- Areas of update
- Inflow Dependent Ecosystems
- Water management
- Hydrology
- Hydrogeology
- Environment
- Base maps
 - Topographic overlays
 - Places
 - State and Territory borders
 - Roads
 - Hillshade

Selectable layer: Aquatic GDE



137.57236, -32.29981

Current Scale: Selection Size: 0

Search Results (0)

Name	State	Ecosystem type	Supplied ecosystem type	GDE Potential	IDE likelihoo
No results found.					

Page of 1
Items per page:

Is the proposed program located within a prescribed wells area or prescribed water resource area? If yes, provide the name of the area.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<Insert the name of the area>		

Provide any additional information, if required.

<Include text here.>

Native vegetation

12-month Exploration PEPR template – January 2021

Page 11 of 43

Exploration PEPR application – 12-month period

<p>Will you be working within areas of native vegetation? If yes, provide the following information:</p> <ul style="list-style-type: none">• description of the formation and structure of vegetation in the area (e.g. woodland, shrubland, grassland)• list of the dominant species. <p>If no, indicate why you will not be working within areas of native vegetation?</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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Exploration PEPR application – 12-month period

At the site of the planned drill hole and within 2km, the cover is described in Nature Maps "SA Land Cover" layer as a mixture of Non-woody Native Vegetation (e.g. grasslands including herbs and low shrubs such as chenopods) and isolated stands of Woody Native Vegetation (Woody native vegetation generally > 1 m tall including casuarina woodlands, wattle shrublands, hop-bush shrublands). See photos 2, 3, 6 and 7.

NatureMaps shows there are no native vegetation Heritage Agreements or Significant Environmental Benefit Areas at the site or within 5km of the planned drill site. Site visits by Fortescue staff record the area at the planned drill site and surrounds to comprise low sparse shrubland dominated by bluebush (*Maireana spp.*) and Bladder Saltbush (*Atriplex vesicaria*) with isolated overstorey of acacia ('Western Myall' - *A. papyrocarpa*, 'Mulga' *A. aneura*) to 4m in height (see photo below taken looking south from the area of planned drill site). Two *Pittosporum angustifolium* ('weeping pittosporum') were observed in the area (but well away from drilling).

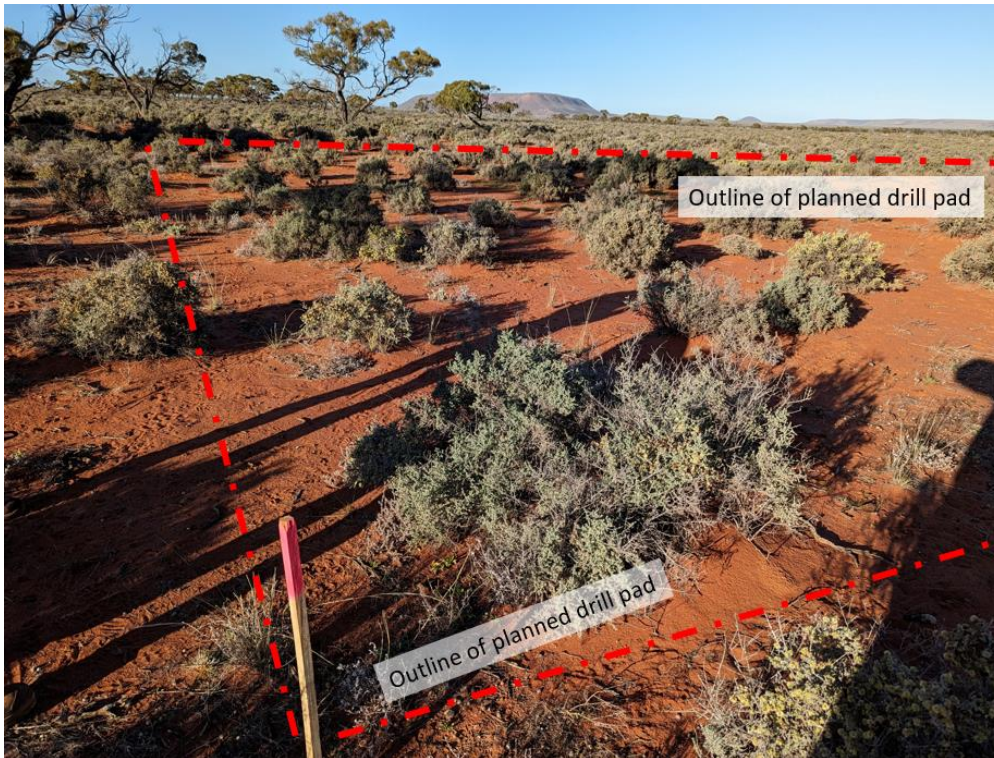


Photo 3. Vegetation and topography of planned "First Priority" drill pad, looking south from northeastern corner. Bluebush and Western Myall trees can be seen in the distance

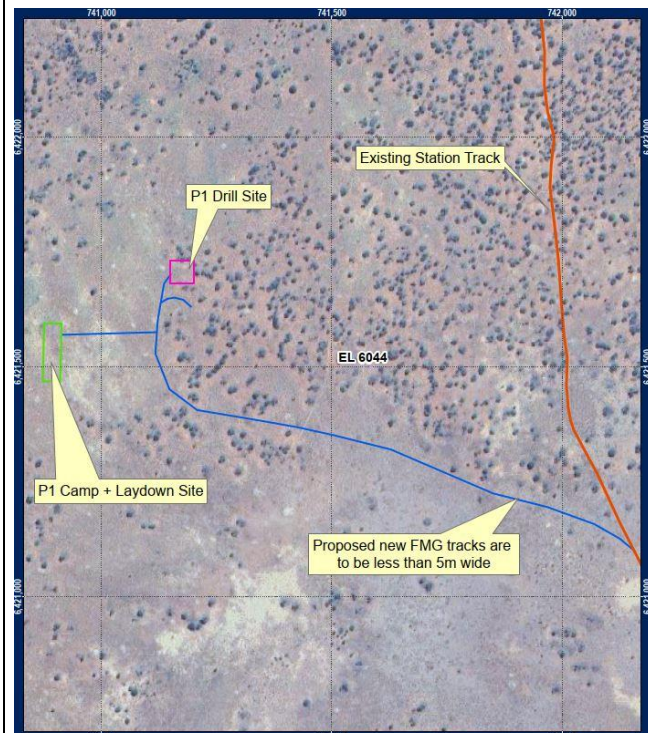


Figure 2. Satellite view, blue line is path of planned drill access track and pink + blue squares are proposed drill pads and green + blue boxes are the camp + laydown areas (to be cleared by Heritage surveying). The satellite imagery clearly shows the mature Western Myall trees as green dots.

Exploration PEPR application – 12-month period

Significant habitats and flora

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

Species/habitat	Common name	NPW Act rating*	EPBC Act rating†
No significant habitats	<Common name>	<NPW Act rating>	<EPBC Act rating>
			<Tab to add rows.>

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

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

Weeds and pathogens

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

The average annual rainfall for the project area is too low for Phytophthora to exist and there are no occurrences within 100km.

Buffel Grass (*Cenchrus ciliaris*) has been identified as a major threat and it occurs across most of South Australia, particularly along major roads. This grass is known along the edges of Stuart Highway located 2 km to the east.

Procedures will be taken to avoid the spread of Buffel Grass by the proposed exploration activities. The major dispersal mechanism is by the accidental transportation of seeds via seed bearing mud carried on and under dirty vehicles.

To prevent the spread of Buffel grass, all vehicles, trailers, equipment, and the boots of field staff will be checked and cleaned of any mud or organic matter when entering and leaving the project area. All vehicles (both Fortescue and drill contractor) will be washed down off-site with a record of this in the attached document: FMG - Exploration Weed Hygiene - Vehicle Inspection Checklist - June 2020.

Information from The South Australian Buffel Grass Strategic Plan 2019-2024 and Weed Control Handbook will be included in the Fortescue Site Induction process.

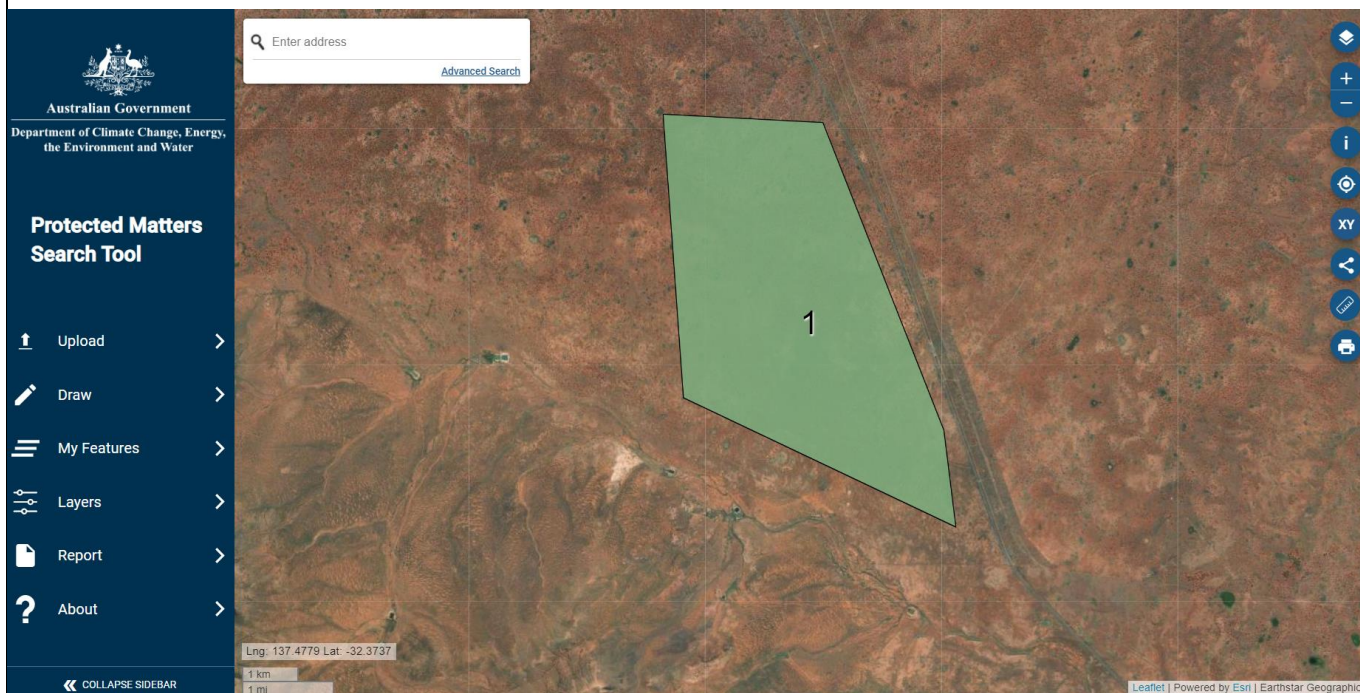
Fauna

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

The predominant native fauna within the area are kangaroos, emus, bird species and reptiles. Feral fauna includes foxes, dingoes, goats, cats, and rabbits. Other fauna from pastoral activities includes sheep and cattle. Naturemaps shows that a Major Mitchell Cockatoo (*Lophochroa leadbeateri*) has been observed 30km to the west at Carriewerloo Homestead and at 25km to the north near Hesso Outstation. These are the only two observations of Threatened species in the area.

Exploration PEPR application – 12-month period

EPBC Protected Matters report (generated online via <https://www.dcceew.gov.au/environment/epbc/protected-matters-search-tool>) for Threatened and Migratory species listed below in Significant Fauna Table, and refers to a Report extracted by a spatial search area centred over the planned drill site as shown in inserted screen shot below. The presence or not, of the species being in the exact search area is expressed as a probability and most of the species classify as 'may' or 'likely'. Of the three groupings of species, only the Southern Whiteface bird is described as 'known' in the search area.



Screenshot of the search area for the EPBC Protected Matters Report for Threatened and Migratory species listed below in Significant Fauna Table below.

Significant fauna

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

Species	Common name	NPW Act rating	EPBC Act rating
<i>Lophochroa leadbeateri mollis</i>	Major Mitchell's Cockatoo (EP, GR, NW)	SP	<EPBC Act rating>
			<Tab to add rows.>
EPBC Protected Matters Threatened Species 'Likely' and 'May' and 'Known' presence ranking			
<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew		Critically Endangered
<i>Calidris ferruginea</i>	Curlew Sandpiper		Critically Endangered
<i>Rostratula australis</i>	Australian Painted Snipe		Endangered
<i>Pezoporus occidentalis</i>	Night Parrot		Endangered
<i>Frankenia plicata</i>	null		Endangered
<i>Neophema chrysostoma</i>	Blue-winged Parrot		Vulnerable
<i>Falco hypoleucos</i>	Grey Falcon		Vulnerable
<i>Pterostylis xerophila</i>	Desert Greenhood		Vulnerable
<i>Amytornis textilis myall</i>	Western Grasswren (Gawler Ranges)		Vulnerable
<i>Leipoa ocellata</i>	Malleefowl		Vulnerable
<i>Aphelocephala leucopsis</i>	Southern Whiteface	Vulnerable	Vulnerable

Exploration PEPR application – 12-month period

EPBC Protected Matters Migratory species, 'Likely' and 'May' presence ranking			
<i>Motacilla cinerea</i>	Grey Wagtail		Critically Endangered
<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew		
<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe		
<i>Motacilla flava</i>	Yellow Wagtail		
<i>Actitis hypoleucos</i>	Common Sandpiper		Critically Endangered
<i>Calidris ferruginea</i>	Curlew Sandpiper		
<i>Apus pacificus</i>	Fork-tailed Swift		
<i>Charadrius veredus</i>	Oriental Plover, Oriental Dotterel		
<i>Calidris melanotos</i>	Pectoral Sandpiper		
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper		
EPBC Protected Matters Marine species, 'Likely' and 'May' presence ranking			
<i>Motacilla cinerea</i>	Grey Wagtail		
<i>Neophema chrysostoma</i>	Blue-winged Parrot		Vulnerable
<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew		Critically Endangered
<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe		
<i>Rostratula australis</i>	Australian Painted Snipe		Endangered
<i>Merops ornatus</i>	Rainbow Bee-eater		
<i>Bubulcus ibis</i>	Cattle Egret		
<i>Motacilla flava</i>	Yellow Wagtail		
<i>Actitis hypoleucos</i>	Common Sandpiper		
<i>Calidris ferruginea</i>	Curlew Sandpiper		Critically Endangered
<i>Apus pacificus</i>	Fork-tailed Swift		
<i>Charadrius veredus</i>	Oriental Plover, Oriental Dotterel		
<i>Calidris melanotos</i>	Pectoral Sandpiper		
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper		
<i>Chalcites osculans</i>	Black-eared Cuckoo		

Note: NPW Act conservation status includes extinct, endangered, vulnerable, threatened and rare.
 EPBC Act listings include extinct, extinct in the wild, critically endangered, endangered, vulnerable and conservation dependent.

Environmentally sensitive locations

Are there any environmentally sensitive locations within or close to the proposed exploration area (e.g. areas having particular ecological, cultural, scientific, aesthetic or conservation value)? If yes, provide a description of identified environmentally sensitive location(s). Mark these areas on a locality plan to identify any areas of conflict so that access roads or other activities can be planned and located effectively.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<If yes, include text>		
Are you likely to impact on the environmentally sensitive area? If yes, detail the likely effects the proposed program may have.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<If yes, include text>		
Include a statement concerning whether or not an Aboriginal heritage survey has been conducted by the proponent and if so, the results of the survey.		

Exploration PEPR application – 12-month period

Are there any environmentally sensitive locations within or close to the proposed exploration area (e.g. areas having particular ecological, cultural, scientific, aesthetic or conservation value)? If yes, provide a description of identified environmentally sensitive location(s). Mark these areas on a locality plan to identify any areas of conflict so that access roads or other activities can be planned and located effectively.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<If yes, include text>		
Are you likely to impact on the environmentally sensitive area? If yes, detail the likely effects the proposed program may have.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<If yes, include text>		
A heritage survey has not yet been completed with the Barngarla. The results of the survey will be used to avoid Aboriginal Heritage sites and sensitive locations.		

SECTION D – DESCRIPTION OF PROPOSED EXPLORATION OPERATIONS

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

Equipment and personnel requirements

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

Type of personnel	Number	Name of contractor company (if applicable)	
Geologists	2	Fortescue	
Land access/environmental	1	Fortescue	
Field assistants/technicians	2	Fortescue	
Drilling crew	6	DDH 1	
Site preparation and rehabilitation	1	Remote Civil and Construction, or other (under supervision by Fortescue)	
Other (provide details)		<Include name and contact details here.>	
Shifts worked per day	Hours worked per day	Days worked per week	
2	24	7	
Equipment type	Owner/operator	Description/capacity	Activity/purpose
Drill Rig	DDH1	20-30 tonne 8x8	<i>RC/RAB Pre-collar, Diamond Tail</i>
Booster truck	DDH1	20 tonne flatbed 8x8 support truck with mounted Air Compressor Booster	<i>For RC pre-collar and drilling</i>
Support trucks for drilling	DDH1	Up to three 10-20 tonne flatbed trucks including 8x8 support truck to transport drill rod sloops and 20,000L water tank on a hydraulic jack up platform.	<i>Transporting drilling parts, consumables and supplies, drill rod sloop, water tank to drill site.</i>
'telehandler' all terrain forklift	DDH1	5 to 7 tonnes total weight	<i>For moving heavy equipment at site (drill rods, water pumps, generators, unloading pallets of supplies from flatbed)</i>
Toyota Utes	DDH1 and Fortescue	Up to three 3 tonne utes	<i>Personnel transport to site from accommodation, replenishing drilling consumables and supplies.</i>
Front end loader	Earthmoving contractor	15-20 tonne front end loader	<i>Digging drill fluid sumps, levelling drill pad and drillers workspace, and rehabilitating sumps and drill pad, clearing vegetation for tracks, rehabilitating tyre tracks, rehabilitating pastoral station tracks after de-mobilisation of drill trucks</i>

Provide any additional information, if required.

Exploration PEPR application – 12-month period

Other ancillary equipment for the drilling activities will include:

Up to three lighting plants on 5 ft trailers and powers generators.

Drill site supply humpy and drillers' office caravan next to drill rig

Trailer with RC drilling dust suppression unit and sample cyclone for RC precollar.

Submersible pump attached to polypipe and small 5kva generator for pumping water from the RC Mineral hole (temporary water supply)

Enclosed trailer for assorted gear

Two 5000 polycarb above ground water tanks for management and mixing drill fluids

Campsite: Up to three caravans (sleeping quarters for up to 6, kitchen and shower), a generator on a trailer and two 500l polycarb water tanks,

Photo 4 below shows a typical drill site setup of the above listed equipment but is subject to change based on requirements however a planned setup that was employed in previous drill campaigns by Fortescue.



Photo 4. Example of drill site set up and equipment. The photograph of typical drill site showing (L to R) rod rack/sloop (on a hydraulic powered flatbed truck platform), driller office caravan drill rig, support truck, core presentation and processing area.

Low impact exploration activities

Will low impact exploration operations be conducted that are not covered by the [Generic program for environment protection and rehabilitation – low impact mineral exploration in South Australia](#), (generic PEPR)? If yes, describe each type of low impact operations proposed.

Yes

No

<Include text here.>

Exploration PEPR application – 12-month period

Drilling activities

Will exploration drilling activities be conducted? If yes, fill out the below table Yes No

Tenement	Drilling type	Maximum number of drillholes	Maximum drillhole depth (m)	Maximum number of sumps required at each site	Maximum size of sumps (length x depth x width) (m ³)	Average size of each drill pad* (m ²) (no excavation required)	Number of sites requiring pad excavation	Average volume (m ³) of material to be excavated (excluding sumps)
EL6044	RC/DD	1	1500	3	6x3x1.5m (27 m ³)	50x50m (2500m ²)	0	0
EL6044	RC	2	250					
TOTAL		3	2000	3	81 m³	2500 m²	0	0

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

Drillsite preparation

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

Fortescue will demarcate the boundary of the Aboriginal heritage approved 50 x 50m drill pad areas with stakes and flagging prior to any drill site preparation.

The final positioning of drill pads will be optimised to minimise disturbance to existing soil and vegetation by using available tracks and natural clearings for parking of rig and support vehicles, sump excavation and RC sample work area. Vehicle access around drill sites will be delineated with wooden survey stakes and flagging tape to restrict vehicle movements to proposed drill pad and to proposed off-track access routes. Site visits (see site photos above) show that there is plenty of open ground or sparse low shrubland so clearing of shrubland will be minimised and no trees will be cleared.

For the work area of the drill rig, clearing of lower storey (chenopod shrubland e.g., bluebush, saltbush etc) for the drill work area, care will be taken to leave roots in place and to not cut into the soil, i.e. The loader bucket/blade will skim over the ground surface to cut the vegetation and leave the soil in place. Any pruned or cut vegetation will be temporarily stockpiled for later redistribution over the ground to act as natural seed bank, soil windbreak and mulch.

Up to three 6m x 3m x 1.5m deep sumps will be excavated to contain drilling fluids. Sumps will have a ramp at one end to enable the exit of any potentially straying fauna and stock after the drill rig has left the site and before final rehabilitation can be completed. Bunting will be erected around the excavated sumps and will remain in place until site rehabilitation is completed. During the excavation of the sumps, the top 10-20cm layer of topsoil will be scraped aside and temporarily stockpiled adjacent to the sumps for later re-distribution over the backfilled sumps and re-contoured ground. Where the sump is lined with plastic, the plastic will be removed for final rehabilitation and disposed at the EPA approved Waste Management facility at the Port Augusta Resource Recovery Centre.

With the level topography there will be no need for excavating level drill pads.

Exploration PEPR application – 12-month period

Drillhole construction and decommissioning

Have the personnel responsible for implementing the proposed program read and understood the Earth Resources Information Sheet M21, Mineral exploration drillholes – general specifications for construction and backfilling?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Describe how drillholes will be constructed, including the casing material to be used, depth of casing, if the casing will be cemented, cementing intervals and the class of driller that will install the casing.		
Construction of drillholes will be compliant with Information Sheet M21. Step 1: Open hole 8 inch face-sampling RC drilling up to 18m which is cased with joined 6m lengths of six inch PVC collar casing. This collar is suitable as there is no artesian water at the Moonlight Dam region. Step 2. 5.5" Reverse Circulation Percussion 'pre-collar' to approximately 100-300m depth (depending on sample recovery and the rig's capacity to hold back groundwater from the sample). (Step 1 and 2 will be for the RC-only mineral exploration water hole and for the RC precollar to the diamond tail hole. The diamond tail for the mineral hole will continue with Steps 3-5 below). Step 3: Insert HWT steel casing to base of RC precollar Step 4: HQ Diamond core drilling to 500-700m depth, or possibly to NQ2 diamond core drilling at base of RC precollar (with HQ casing inside the HWT casing) to planned target depth of 1500m. Step 5. Optional wedge to parent hole: insert vanruth plugs 10m below wedge off depth (roughly 700m), navidrill to desired dip and azimuth, then commence NQ2 coring to the end of the hole (up to 1500m). Casing will not need cementing in place to prevent leakage as there are no pressurised aquifers than could leak around the casing. The nearest other holes that were drilled into basement intersected Tapley Hill Formation that doesn't host aquifers. Note: Drilling will be directly into Neoproterozoic unconfined fractured rock aquifer and confined pressurised aquifers have not historically occurred in these geological conditions in this region. There are no Tertiary or Permian basins in the vicinity of Moonlight Dam that usually host aquifers in other parts of the state. If, in the unlikely event a pressurised aquifer is encountered, a Class 3 licenced water driller can be sourced by DDH1 Drilling (drill contractor) to supervise required grouting operations. Salt and barium will be kept on site should the drilling fluid density require increasing to hold back any excessive confined aquifer flow.		
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.		
Upon completion of the hole (and after any downhole geophysics), the steel casing will be removed, and the hole will be abandoned in accordance with requirements outlined in M21. If more than one aquifer is encountered, cement grout plugs will be used to isolate aquifers, followed by drill cuttings or clay (alternatively, the entire hole will be grouted). On departure of the rig from the site the PVC collar casing will be securely capped until the drill assay results of the drill core can be assessed, in case of the need to return to the drill site to re-enter the hole to continue diamond core drilling deeper, by wedging or for downhole geophysics or wireline logging. For final rehabilitation, the 6m PVC drill collar casing will be cut off below ground level (approx. 30cm). The RC drill cuttings will be used to backfill the hole as much as possible and then the hole will be capped and buried. The sumps, drill collar and drill site ground surface will be smoothed and contoured to resemble the ground's pre-drilling surface form. The temporarily stockpiled topsoil will be redistributed over the drill collar and cleared areas of the drill pad. The timing of final rehabilitation may be dependent on the results obtained from the drilling. Final rehabilitation will be completed within 3 months after the expiry of the 12-Month PEPR. If it seems unlikely the rehabilitation can be completed by this date, an application for a 12-month extension to the PEPR will be submitted prior to its expiry.		

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

Costeans and bulk sample disposal pits

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

Total number of costeans/pits (add each row to calculate the total).

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

Total area of disturbance (number of costeans/pits x area of disturbance for each row, then add each row to calculate the total).

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

Costeans and bulk sample disposal pit preparation

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

N/A

Sample management

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

Reverse Circulation Percussion (RC) Drilling:

For the RC pre-collar, a hessian groundsheet will be spread over the ground to contain the drill chips and dust. One to two kgs of representative drill chips will be collected every 1 m by the driller offside who will place it on the hessian covered ground, in rows of 30, for geological logging and magnetic susceptibility measurements.

The drill chips from the mineral hole for temporary groundwater supply will be temporarily stockpiled next to the sumps ready for backfilling the hole and burial in the sumps on final rehabilitation.

Rehabilitation of drill cuttings will be completed as soon as practicable following completion of drilling and receipt of sample analysis results, with drill cuttings used to back-fill drill holes where possible. Excess drill cuttings will be buried in the drill sumps when they are sufficiently depleted of water and any spilt drill chips shovelled into the sump to leave the original red clayey silty soil at the surface.

No green sample bags will be used for the RC drilling and hence there will be no need for bag farms.

HQ & NQ Diamond Drilling:

All diamond core will be placed in core trays as the core is retrieved. Drill core will be orientated, metre marked and logged (both geological interpretation and petrophysical analysis) on site. Following this, the core will then be transported back to Fortescue's office/warehouse storage facility in Pt Augusta or Adelaide, and depending on intersected lithologies, selected core will be transported to Challenger Services in Adelaide for cutting, bagging and despatch to the assay laboratory. This ensures all drill sample will be removed from the drill site and from pastoralists property.

In accordance with MG18 Guidelines, all drilled diamond core will be retained by Fortescue for the term of the tenement and 7 years after expiry, surrender or forfeiture, primarily in the Port Augusta yard, and will be offered to the South Australian core library if it is deemed unrequired by senior Fortescue geologists.

Exploration PEPR application – 12-month period

Access routes to work areas

Will existing tracks require upgrading and/or maintenance? If yes, detail the work required to upgrade/maintain existing tracks.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Access to the Moonlight Dam prospect will be via the Stuart Highway. From the highway, access will be via approximately 4km of existing station tracks. After a site inspection in August 2023, most of the existing station tracks do not require maintaining or upgrading. However, once the drilling program is completed, some parts of the station tracks may require some remedial work, with bulldust being the most likely issue to address which can be controlled by watering down with a water truck supplied and operated by a Pt Augusta contractor. An 80m section of the station track north of Corraberra Homestead has some ruts and rough calcrete outcrop (see Photo 5 below) and will require smoothing with a front-end loader.		
		
Photo 5. Existing station track (looking south towards Cooraberra HS) with the rutted 80m section that will need improving		
Will access be required across adjoining tenements? If yes, detail the method(s) for gaining access, and if an agreement is in place with all stakeholders. Include the total area of disturbance required (i.e. length (km) and width (m) of tracks) and provide on a locality map.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
N/A		
Will access off existing tracks be required? If yes, detail the method(s) for gaining access and if vegetation clearance is required. Include the total area of disturbance (includes drill traverses and seismic lines) required off existing tracks (i.e. length (km) and width (m) of new tracks).	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
A 1.3km long (x 5m width) new access track will be required to access the proposed drill site from nearest existing station track. The access routes / tracks have been tentatively planned in preparation for a Heritage Clearance survey with the Barnagarla. The planned drill site is close to existing station tracks which minimises the extent of new tracks. The route of the proposed new track has been optimised to use the least vegetated chenopod shrubland, to avoid the Western Myall trees and to avoid sharp bends that can cause deep rutting by trucks. In clearing the lower storey (chenopod shrubland e.g. bluebush, saltbush etc) for the temporary access track, care will be taken to leave roots in place and to not cut into the soil, i.e. The loader bucket/blade will skim over the ground surface to cut the vegetation and leave the soil in place. Any pruned or cut vegetation will be temporarily stockpiled for later redistribution over the ground to act as natural seed bank, soil windbreak and mulch. For final rehabilitation of the drill site, campsite and access track, the track will be blocked from any vehicle use.		

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

Campsites, storage, and equipment laydown areas

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

Exploration PEPR application – 12-month period

Campsite details		
Indicate where staff and contractors will be accommodated during the exploration program.		
All Fortescue staff will stay in accommodation at Port Augusta. The DDH1 drill crew will camp in an area about 300m SW of the drill pad in a cleared area for the caravans, generator, and vehicles.		
What is the maximum number of personnel requiring accommodation?	6	
Is a campsite required to be established? If no, no further information is required.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Provide a description and justification of the camp location (e.g. previously cleared areas etc.), and any other relevant information. The DDH1 drill crew will camp in an area about 300m southwest of the drill pad in a cleared area for the caravans, generator, and vehicles. The cleared area for the temporary camp will be 50 m x 50m and will adjoin an area up to 50m x 50m set aside for the laydown (see below). The campsite and laydown area will use the temporary drill site access track. The area for the camp location is nearly flat lying (1 degree slope to the west) and is vegetated by low chenopod shrubland.		
What will be the total area (ha) of the campsite(s)? 50m x 50m	0.25ha	
What will be the total area (ha) of vegetation clearance for the campsite? 50m x 50m	0.25ha	
If vegetation clearance is required, describe the methods used to prepare the site.		
A 50m x 50m area will be used for the campsite. The camp pad will be prepared at the same time and in the same manner as the drill pad preparation, whilst maximising the use of naturally clear ground, avoiding all trees. Up to 0.25ha of lower storey (chenopod shrubland e.g., bluebush, saltbush etc) may be affected and care will be taken to leave roots in place and to not cut into the soil, i.e. The front-end loader bucket/blade will skim over the ground surface to cut the vegetation and leave the soil in place. Any pruned or cut vegetation will be temporarily stockpiled around the margin of the camp area for later redistribution over the ground to act as natural seed bank, soil windbreak and mulch. For the grey water soakage pit the ground will be trimmed of chenopod scrub, 10-20cm of topsoil temporarily moved and stockpiled close to the sump (for later redistribution over the backfilled sump), as per the camp site areas.		
Will any excavations be required?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
If yes, describe the purpose of the excavation and the maximum volume (m ³) of material to be excavated.		
A fenced 3m x 3m x 1.5m soakage pit will be excavated for grey water (shower and kitchen). Beneath the surficial clayey silt is calcrete which will be a suitably porous substrate for the greywater to soak into.		
Are the proposed ablution facilities endorsed/approved for use by the Department of Health or local council, where applicable? If no, indicate why.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
There will be a portable Chemical Toilet on site which will be emptied once a week by a contractor from Port Augusta. The greywater from the campsite soakage pit will soak through limestone (calcrete) and Whyalla Sandstone and will not measurably affect the quality of the salty unconfined aquifer or percolate more than several metres beyond the greywater pit. The greywater will comprise potable water, shampoo, soaps, domestic dishwashing detergents and clothes washing detergents. Over the duration of the drilling program at Moonlight Dam there will be between 15,000 to 30,000 L of greywater generated (between 500 litres and 1000 litres per day). Fortescue will have the option of utilising a Pt Augusta based contract 'sump sucker' for removal of greywater if the volumes become excessive compared to the rate of soakage. The Corraberra Station is Out of Councils and there are no available Community Waste Management Systems (CWMS i.e. public sewerage infrastructure). Pursuant to the provisions of the South Australian Public Health Act 2011 (SAPH Act) and the Regulations, greywater is dealt with in the 'On-Site Wastewater Systems Code April 2013' under the Wastewater Regulations. This usually deals with grey water, septic tanks, overflows and soakage pits for permanent buildings. There are no regulations preventing short term grey water soakage pits and longdrops in remote areas such as Moonlight Dam. In 2020 a phone enquiry with the Department of Health (by one of the authors of this PEPR in preparation for an older PEPR for another similar prospect) confirmed that the Department has no application or approval procedure for allowing or denying temporary grey water sumps or longdrops, but its construction should not be a potential hazard to health, not emit odours, not attract flies or mosquitoes, is for a short period only in a remote low rainfall environment, and is rehabilitated by backfilling. The homestead at Corraberra uses septic tanks with a soakage pit overflow.		
Proposed infrastructure (includes caravans, tents, offices, hydrocarbon and water storage requirements etc)	Quantity	Description/capacity
Explorex self-contained caravans	3	<i>4-6 people with beds, shower, and kitchen.</i>
Water Tank	1	
Portable Chemical Toilet.	2	
Deisel generator on bunded skid.	1	
Laydown area details		
Will laydown areas be required? If no, no further information is required.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Will the laydown area(s) be located at the same location as the campsite? If no, has the location(s) been discussed with the landowner?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Exploration PEPR application – 12-month period

The proposed laydown area will join the campsite area.	
What will be the maximum area (ha) required for the laydown area(s)? 50m x 50m	0.25ha
What will be the total area (ha) of vegetation clearance for the site?	0.25ha

If vegetation clearance is required, describe the methods used to prepare the site.

Methods for preparation and rehabilitation of the laydown area will be the same as for the campsite and drill pad.

An area up to 50m x 50m will be used for the laydown (see Figure 3). The actual individual campsite and the individual laydown area will likely only be 20m x 50m, but a larger area will be cleared during an Aboriginal Heritage survey as a buffer for turning circles or the need for Fortescue employees to camp on the same site as the drill crew. The laydown will be prepared at the same time and in the same manner as the drill pad preparation, whilst maximising the use of naturally clear ground, avoiding all trees. Up to 0.25ha of lower storey (chenopod shrubland e.g., bluebush, saltbush etc) may be affected, and care will be taken to leave roots in place and to not cut into the soil, i.e. The front-end loader bucket/blade will skim over the ground surface to cut the vegetation and leave the soil in place. Any pruned or cut vegetation will be temporarily stockpiled around the margin of the camp area for later redistribution over the ground to act as natural seed bank, soil windbreak and mulch.

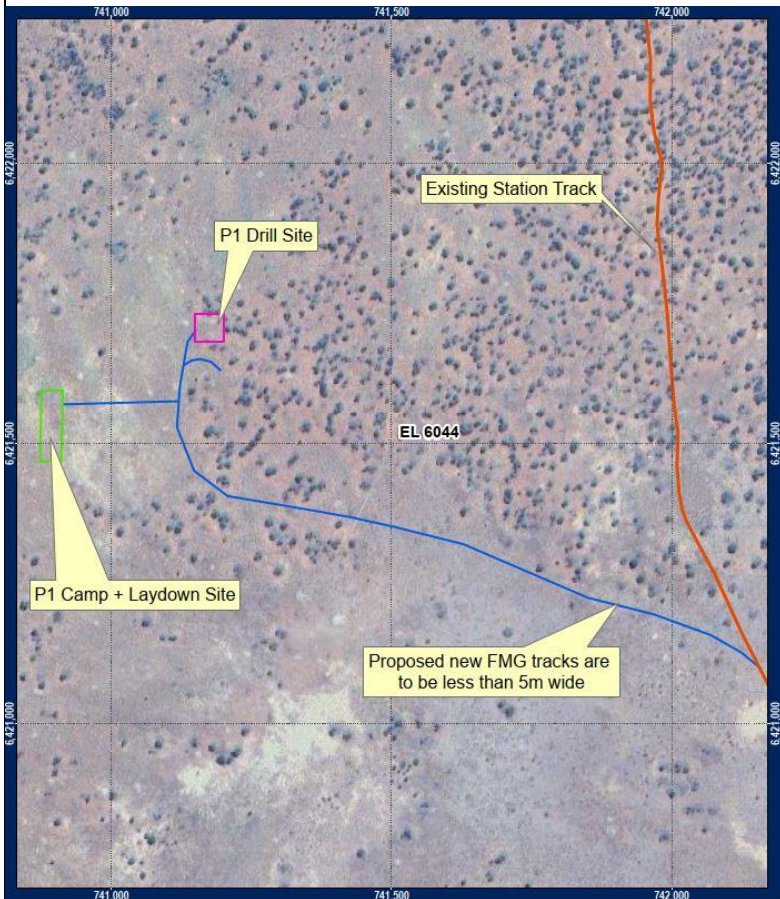


Figure 3. Planned location of drill pad, campsite and laydown and access track.

Will any excavations be required? If yes, describe the purpose of the excavation and volume (m ³) of material to be excavated.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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N/A (excavation of drill site sumps and campsite grey water sumps were described in the earlier relevant section)

Proposed infrastructure (includes hydrocarbon and water storage requirements)	Quantity	Description/capacity
		<Tab to add rows.>

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

All essential on-site drilling equipment will be contained within the cleared drill pad area. All non-essential drilling equipment will be located at Fortescue's storage yard in Port Augusta.

Other exploration methods and/or ancillary operations

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

Exploration PEPR application – 12-month period

Water supply and management

Will camp and/or drilling water be required? If yes, describe how and where water will be sourced for drilling, track maintenance and camping purposes (e.g. groundwater, surface water, mains). Provide details on the volume of water required and how wastewater or runoff water will be managed.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
A separate mineral drillhole drilled within 20 metres of the main percussion-diamond core hole (within the proposed drill pad) will be used as a water source for the diamond drilling activities. Water from the hole will be pumped directly into the sumps or into the mixing polycarb tanks. An extra 10,000 to 15,000L water tank will be kept at the drill site either in polycarb tanks or in a 20,000L tank on a hydraulic powered flatbed truck platform. In case of temporary water supply problems, there will be the option for carting water into the drill site by the driller's water truck or by a separate water carting contractor and placed directly into the drill sumps and mixing polycarb tanks. The drillers' campsite will require approximately 1000 litres per day and will be carted to the campsite and stored in polycarb tanks or on a tank on a hydraulic powered flatbed truck platform. The water can be purchased from Pt Augusta Council, or from a water carting contractor or obtained from Fortescue's yard in Pt Augusta.		
Will surface water and/or mineral drillholes be used as a water source/supply? If yes, indicate if a licence for water extraction/usage is required (refer to relevant Natural Resources Management water allocation plan available on the Department for Environment and Water (DEW) website. If a licence is required and has been obtained, please attach a copy. Where a licence has not been obtained, include a statement confirming that a licence will be obtained before the extraction and/or usage of water.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
A separate mineral drillhole drilled within 20 metres of the main percussion-diamond core hole (within the proposed drill pad) will be used as a water source for the diamond drilling activities. Using the salty water from the unconfined fracture rock aquifer mitigates against having to source water from pastoral dams, bores, or other existing fresh water that the pastoral station uses for their own purposes. This process also mitigates against the need for water carting and subsequent track degradation. The hole will be drilled on the corner of the proposed drill pad and will be rehabilitated at the end of the program in accordance with M21, as per the proposed drillhole.		

Groundwater and drilling investigation activities

Will any water bores be required and/or water investigation activities (e.g. pump testing, water monitoring sites, water storage, turkey nests/dams) be conducted? If yes, describe the water drilling and investigation activities, including site preparation, vegetation clearance, and safety and maintenance requirements.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<If yes, include text here.>		
Indicate if well permits have been obtained and whether a water extraction licence is required in accordance with the Landscape South Australia Act 2019. If yes, attach a copy of the permit(s)/licences. If no, provide a statement confirming that permits/licences will be obtained prior to commencement of water investigation activities.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
The area of the planned hole is not a prescribed water well area and is not covered by the Landscape South Australia Act 2019. A mineral hole will be drilled specifically for a proximal supply of groundwater for the deeper percussion-diamond core hole. The mineral hole will be rehabilitated at the end of the program in accordance with M21, as per the proposed drillhole.		

Water affecting activities.

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

Management of hazardous materials

Will activities be conducted in areas of known uranium and thorium mineralisation? If yes, attach a Radiation Management Plan and confirmation of endorsement of the plan by the Environment Protection Authority South Australia (EPA).	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Will any other hazardous material be encountered when exploring in the area? If yes, list the types of hazardous materials and provide a management plan on how these materials will be managed.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Fortescue scans the drill core every metre with a Portable X-ray Fluorescence analyser (pXRF) that can detect uranium and thorium to very low levels (to 20ppm) which is well below levels at which they could be hazardous due to radiation. Fortescue also scans the core with a portable radiation dosimeter to monitor and record gamma radiation emitted by the drill core. Additionally, Fortescue ensures workers wash their hands after handling rock samples and before eating. An approved radiation management plan for the use of the pXRF devices is included in the attached appendices.		

Exploration PEPR application – 12-month period

Rehabilitation

Detail all the activities and strategies relating to the remediation of impacts associated with the proposed exploration operations.

Completion of rehabilitation must be achieved within 3 months after the expiry of this PEPR.

Fortescue is committed to ensuring proactive rehabilitation practises are maintained to meet Department for Energy and Mining (DEM) requirements, and associated tenement conditions, under the Mining Act 1971 (SA). The method of rehabilitation for the exploration works proposed in this EPEPR are detailed in the Drill Hole Stabilisation and Site Rehabilitation Procedure attached in the appendix.

Specific to the works at the Moonlight Dam Prospect, the following rehabilitation procedures will be met:

Immediately Post Drilling when the rig leaves the site:

- Insert a PVC Collar into drillhole that protrudes a maximum of 0.3m above ground level (if collar PVC casing stops below surface level) and backfill any collar blow-outs or collar perimeter cavities.
- Place (glue or teck screwed) a temporary cap on PVC collars. Plugging drillholes is crucial to prevent animals falling into the hole and to stop potential surface water (from heavy rains) draining into it and causing collar collapse and widening of the hole at the surface.
- After each drillhole is collared and capped, collect, and remove all rubbish and drillers' equipment from the site.
- Ensure capped drill collar cannot act as a pitfall trap to animals.

Upon completion of the Drilling Program, where no further downhole geophysics, wireline logging or re-entering of holes is required:

- Cut and remove the PVC collar to approximately 30cm below the ground surface level, as described in Information Sheet M21.
- Backfill the hole with RC chips as much as possible.
- Securely block the cut PVC with a pvc cap and backfill the hole.
- Mound over the backfilled hole with soil.
- Remove all casing foam and rubbish from around the collar.
- Relocate RC chips to a heap next to the sumps in preparation for dumping in the sumps when they've dried.
- Remove the hessian tarp for the RC chips and scoop up any drill chips or dust to the heap next to the sump.
- Dispose of rubbish, including PVC collar, in the Pt Augusta Resource Recovery Centre waste facility.

Final Rehabilitation - once the target area site is no longer required for future works or access, final rehabilitation of drill site, temporary access track and campsite:

- Remove temporary fencing from around drill sumps and grey water sump at the campsite.
- Remove plastic liners from drill sumps. Backfill to the surface with stockpiled RC chips and stockpiled excavated material and backfill greywater campsite sump.
- Dispose of sump liner at the Pt Augusta Resource Recovery Centre waste facility.
- For final rehabilitation of the sumps, drill collar, drill site and campsite, the ground surface will be smoothed and contoured to resemble the ground's pre-drilling surface form, is consistent with the surrounding natural landscape and provides for successful revegetation and reduces the potential for excessive erosion.
- Scarify compacted areas (e.g., drill pads and tracks and campsite) to loosen compacted soil, promote vegetation regrowth and ensure draining and contours are adequate. Scarify on the contour where the compacted area are in a sloping landscape to avoid erosion gullying. Where contour scarification is not possible, scarify against the contour but periodically raise the tynes of the machinery to provide some resistance to downhill surface water flow.
- The temporarily stockpiled topsoil will be redistributed over the drill collar and cleared parts of the drill pad and campsite.
- Flatten windrows, lightly scarify compacted temporary access tracks, and redistribute cleared vegetation over track to act as natural seed bank, soil windbreak and mulch. For final rehabilitation of the drill site, campsite and access track, the track will be blocked from any vehicle use. Block access to rehabilitated tracks to prevent vehicle use and to allow vegetation to establish.

Post exploration drilling activities, Fortescue will continue to monitor the rehabilitation.

State the estimated budget required to rehabilitate impacted sites.

Proposed budget for rehabilitation works is approximately \$12,500 and includes salaries for Fortescue personnel required to monitor and report on rehabilitation works as well as payments to the pastoral lease station or contractor for earthworks on behalf of Fortescue.

Vegetation Clearance

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

SECTION E – LEASE CONDITIONS

Retention leases

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

N/A

SECTION F – MANAGEMENT OF ENVIRONMENTAL IMPACTS

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

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

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

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

How to fill out the table

- Based on the description of the environment and exploration operations, indicate which potential impacts are applicable to the proposed program. Note that some potential impacts are applicable to all programs.
- For each applicable potential impact (and corresponding receptor), describe control strategies that will reduce the risk of the potential impact to an acceptable level, and achieve the corresponding environmental outcomes.
- Conduct an impact assessment to determine if the control strategies address the potential impact (i.e. reduce the risk to an acceptable level). Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level.
- For each applicable potential impact, the corresponding outcome and outcome measurement criteria are required.
- Based on the description of the environment and proposed exploration activities, determine if any other potential impacts are applicable. For each new potential impact, describe proposed control and rehabilitation strategies, conduct an impact assessment, and develop corresponding outcomes and outcome measurement criteria.

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

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor	Potential impacts	Is the potential impact applicable (Yes/No)	Control strategies	Risk assessment				
Lists are not exhaustive.	Lists are not exhaustive.	Some potential impacts are applicable to all programs.	Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	LH	CQ	Risk		
Stakeholders: <ul style="list-style-type: none"> pastoral lease holders (Corraberra Station) Aboriginal land (Barnjarla) state government departments. federal government 	Interference to: <ul style="list-style-type: none"> Activities relating to running a pastoral station (livestock rearing, sheep grazing, cattle grazing). Infrastructure for the use of pastoralists (tracks, fences, waterbore, dams, buildings). existing or permissible land use (includes loss of income, noise, dust, light and other emissions). buildings, structures, existing tracks or other infrastructure. aesthetic values of an area. Aboriginal Heritage Noncompliance with legislative requirements.	Yes (Applicable to all programs.)	The proposed exploration area for drilling activities is over areas located on the Corraberra Pastoral Lease. Small area of the drill pad laydown and camp site will have negligible impact on existing land use such as stock grazing. Form 21A: Notice of Entry and Form 21B: Notice of Entry on land – advanced exploration operations have been served to the appropriate stakeholders. Commence early consultation (phone and face to face discussions) with Pastoral Lease holder and Barnjarla to explain scope of program, and to ascertain areas of concern. Conduct Heritage Surveys over planned drill pad, campsite, and temporary access routes. Meet with or telephone pastoralists at an agreed frequency, to discuss drill program, progress/issues. Have one designated landholder liaison officer for resolution of any issues. Drill holes will be situated well away from infrastructure and stock watering points (i.e. >500m). Drill hole located well away (over 2km) from residence at Corraberra homestead. Use existing track networks wherever possible. Vehicle speed limits will be imposed to reflect local road conditions and the proximity to any infrastructure or stock. Put out signs warning station personnel of proximity to exploration vehicles Planning and coordination will be used to minimize the number of individual vehicle movements. Rehabilitation of tracks and pads at the end of the program. There is a clear view at the junction of the Corraberra Station track with the Stuart Highway, so the traffic hazard of entering/exiting vehicles is significantly reduced.	1	A	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.

Exploration PEPR application – 12-month period

Impact assessment						Outcomes	Outcome measurement criteria (inc. monitoring plan)	
Receptor	Potential impacts	Is the potential impact applicable (Yes/No)	Control strategies	Risk assessment				
Lists are not exhaustive.	Lists are not exhaustive.	Some potential impacts are applicable to all programs.	Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	LH	CQ			Risk
Stakeholder: DEW	Interference to: <ul style="list-style-type: none"> existing or permissible land use. buildings, structures, existing tracks or other infrastructure. aesthetic values of an area. Noncompliance with legislative requirements.	No	Proposed drilling is on Pastoral Lease and there are no Parks or Reserves or native vegetation Heritage Agreement areas in the planned drill area.	1	A	Low	<p>For activities located within or adjacent to regional reserves, national, conservation and marine parks only:</p> <ul style="list-style-type: none"> no unauthorised interference with park management activities. 	<p>Provide confirmation that:</p> <ul style="list-style-type: none"> Park access notification forms were submitted to DEW and DEM at least 10 days prior to entry into regional reserves, national, conservation and marine parks, or Program notifications for PEPRs approved for an ongoing period of time, were submitted to DEW and the DEM at least 21 days prior to entry into regional reserves, national, conservation and marine parks.
Flora and fauna and their habitats; includes Commonwealth and state scheduled species.	Loss/modification of native vegetation and associated habitats through the clearance of vegetation.	Yes	<p>Existing station roads and tracks will be used to minimise impact and disturbance to native vegetation. Drill pads and any new access tracks will be prioritised through naturally clear ground where possible to eliminate the need to disturb or clear existing vegetation. All trees will be avoided from the route of the access track and the drill pad. The location of these tracks will avoid natural drainage courses. The length of temporary drill site access tracks will be minimised as much as possible.</p> <p>Minimise the shrubland clearance for the temporary drill site access tracks and minimise the drill pad size to below 50m x 50m if possible.</p> <p>All new tracks and pads are to be rehabilitated as described in the Rehabilitation section of this PEPR. Site access, preparation and rehabilitation will be completed in line with the objectives and guidelines outlined in Information Sheet M33 and in this PEPR.</p> <p>To avoid the potential ignition of wildfires, no spark generating activities (e.g., angle grinding or welding) will be conducted at the drill site.</p>	1	B	Low	<p>No permanent loss/modification of native flora and fauna populations and their habitats through:</p> <ul style="list-style-type: none"> clearance fire other <p>unless prior approval under the relevant legislation is obtained.</p>	<p>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:</p> <ul style="list-style-type: none"> The area and method of disturbance is consistent with that described in the PEPR. No uncontrolled fires* occurred as a result of exploration activities. <p>Representative photos to be included within the annual exploration compliance report.</p>
All flora and fauna, especially listed species.	Loss/modification of the environment (biological, social and economic) through the introduction of weeds and pathogens.	Yes	<p>A table of key environmental considerations encompassing flora and fauna (including weeds and pathogens) has been generated according to information provided in the regulatory feedback from DEW coupled with information identified from site specific searches (20km radius) conducted for EPBC Act Protected Matters Report. This information will be included in the Fortescue site/project specific Inductions.</p> <p>Buffel Grass has been identified as a major threat. The grass is known along the Stuart Highway. Steps will be taken to avoid the introduction and/or establishment of Buffel Grass due to the proposed exploration activities. The major dispersal vector is machinery. All vehicles, trailers, equipment, and the boots of field staff will be checked for any mud or organic matter when entering the project area. Where possible, any earthworks machinery will be sources from the pastoral station to minimise contamination risks. Key components of the South Australian Buffel Grass Strategic Plan (2019-2024) including impacts and mitigation of spread and infestation will be addressed in the Fortescue site induction process.</p>	2	B	Low	<p>No introduction of new species of weeds and plant pathogens, nor increase in abundance of existing weeds species.</p>	<p>Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report, confirming that:</p> <ul style="list-style-type: none"> 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.
All fauna	Entrapment of fauna through open drillholes and excavations.	Yes	<p>Three (3) 6m x 3m x 1.5m deep sumps will be constructed at the drill site to contain diamond drilling fluids, and one unlined greywater sump will be excavated at the driller's campsite.</p> <p>The sumps will be barricaded with bunting or fenced immediately after construction. The sumps will have a ramp at one end to permit exit of native fauna and stock in the event of breaching the erected bunting/fencing. Bunting or temporary fencing will remain around the sumps until the sumps have dried out sufficiently to allow rehabilitation (removal of sump liner and backfilling).</p> <p>Upon completion of the drillholes, abandonment procedures will be compliant with specifications documented within Information Sheet M21. Initially, PVC collar casing and/or cemented casing will remain in the hole and collars initially capped, pending assay results to allow for later geophysical logging or further drilling. Upon final hole abandonment, holes will have any casing cut off below ground level, backfilled and then capped to prevent cave in. Sumps will be backfilled with excavated material and then original topsoil and vegetation matter will be spread across the site to reduce visual impact and encourage regeneration.</p>	1	A	Low	<p>No fauna traps created as a result of exploration activities.</p>	<p>Maintain before, during and after photographic evidence of all drillholes and/or excavations demonstrating that:</p> <ul style="list-style-type: none"> 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. <p>Representative photos are to be included within the annual exploration compliance report.</p> <p>Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.</p>

Exploration PEPR application – 12-month period

Impact assessment						Outcomes	Outcome measurement criteria (inc. monitoring plan)	
Receptor	Potential impacts	Is the potential impact applicable (Yes/No)	Control strategies	Risk assessment				
Lists are not exhaustive.	Lists are not exhaustive.	Some potential impacts are applicable to all programs.	Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	LH = likelihood of consequence CQ = severity of consequence	LH			CQ
Aboriginal heritage sites	Disturbance to Aboriginal heritage.	Yes (Applicable to all programs.)	<p>Fortescue is aware of its obligations under the Aboriginal Heritage Act 1988 which protects all Aboriginal sites, objects, and remains. The Company acknowledges that under this Act, it is an offence to damage, disturb or interfere with an Aboriginal site, object, or remains.</p> <p>The Native Title Mining Agreement for Exploration includes the requirement for heritage survey clearances prior to ground disturbing work. A heritage clearance survey with the Barngarla will demarcate areas to be avoided.</p> <p>Heritage sites identified during the clearance survey process will be flagged in the field and avoided. Personnel will be notified of any heritage sites during the induction process, on maps, and at toolbox meetings, etc. All vehicle movements will be limited to existing station tracks and Barngarla approved site access routes.</p> <p>Fortescue has consulted with Barngarla for an Aboriginal Heritage approval for the proposed exploration drilling program.</p>	1	B	Mod	<p>No disturbance to Aboriginal artefacts or sites of significance unless prior approval under the relevant legislation is obtained.</p> <p>Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that:</p> <ul style="list-style-type: none"> Heritage sites were not impacted during the conduct of the exploration program, unless prior approval was obtained under the appropriate legislation. Work ceased on discovery of a significant site and recommenced only after authorisation. Aboriginal heritage sites identified during the exploration program were appropriately recorded and reported to authorities, if not previously known. 	
European heritage sites and sites of scientific and environmental significance	Disturbance to European heritage sites and sites of scientific and environmental significance (e.g. geological monuments, fossil reserves).	No	N/A. There are no non-Aboriginal heritage sites or sites of scientific and environmental significance in the area.				<p>No disturbance to European heritage sites and to sites of scientific and environmental significance unless prior approval under the relevant legislation is obtained.</p> <p>Demonstrate no impact to heritage sites and sites of scientific and environmental significance by:</p> <ul style="list-style-type: none"> Maintaining evidence, including detailed maps showing sites compared to the location of exploration activities, and photographic evidence of sites before and after the conduct of the exploration program. Providing a statement within the annual exploration compliance report confirming sites were not impacted during the conduct of the exploration program. 	
Soil/vegetation/fauna	Soil/vegetation contamination (e.g. hydrocarbons, rubbish, drill samples/cuttings, ablutions, other sources).	Yes (Applicable to all programs.)	<p>All general and non-degradable waste generated by the drilling program will be removed from site and disposed of at the EPA approved Waste Management facility at the Port Augusta Resource Recovery Centre.</p> <p>Hydrocarbon and chemical wastes (including oily water) will be segregated from the general waste and removed offsite to be disposed of at the EPA approved Waste Management facility at the Port Augusta Resource Recovery Centre.</p> <p>To mitigate against higher risk sources of hydrocarbon contamination and spills, plastic bunding will be placed under major drilling equipment such as the drill rig, rod handling equipment and generators. Any fuel/oil supply stations will be located on containment spill bunds. Spill kits will be on site. All waste will be managed and disposed of in accordance with Fortescue's EMP (EX-PL-EN-0006).</p> <p>Ablutions will be managed by having a portable Chemical Toilet on site which will be emptied once a week by a contractor from Pt Augusta.</p> <p>The greywater soakage pits for the campsite will be constructed and maintained in a manner that will not be a potential hazard to health, not emit odours, not attract flies or mosquitoes, is for a short period only in a remote low rainfall environment and is rehabilitated by backfilling.</p> <p>If the greywater soakage pits become excessively full compared to the rate of soakage, a Pt Augusta based contract 'sump sucker' will be engaged for the removal of greywater.</p>	2	B	Low	<p>No contamination of soil and vegetation as a result of exploration activities.</p> <p>Demonstrate that all domestic or industrial waste (includes general rubbish and hydrocarbons) is disposed of in accordance with the <i>Environment Protection Act 1993</i> 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:</p> <ul style="list-style-type: none"> 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. <p>Maintain photographs of all exploration sites and provide representative photos within the annual exploration compliance report demonstrating that drill cuttings are:</p> <ul style="list-style-type: none"> 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. <p>Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.</p>	

Exploration PEPR application – 12-month period

Impact assessment						Outcomes	Outcome measurement criteria (inc. monitoring plan)	
Receptor Lists are not exhaustive.	Potential impacts Lists are not exhaustive.	Is the potential impact applicable (Yes/No) Some potential impacts are applicable to all programs.	Control strategies Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	Risk assessment LH = likelihood of consequence CQ = severity of consequence				
				LH	CQ			Risk
Soil	Disturbance to the soil profile and topography, and accelerated soil erosion caused by exploration activities (e.g. construction of sumps, new tracks and drill pads; ground compaction at laydown areas and camps).	Yes (Applicable to all programs.)	<p>Other than the three sumps, there will be no excavations because the naturally flat terrain is acceptable for rig access and the drill pad.</p> <p>The sumps comprise three (3) 6m x 3m x 1.5m deep pits to contain drilling fluids. In the excavation of the sumps, the top 10-20cm layer of topsoil will be scraped aside and temporarily stockpiled adjacent to the sumps for later re-distribution over the backfilled sumps and re-contoured ground.</p> <p>For the work area of the drill rig, clearing of lower storey (chenopod shrubland e.g. bluebush, saltbush etc) for the drill work area, care will be taken to leave roots in place and to not cut into the soil, i.e. The loader bucket/blade will skim over the ground surface to cut the vegetation and leave the soil in place. Any pruned or cut vegetation will be temporarily stockpiled for later redistribution over the ground to act as natural seed bank, soil windbreak and mulch.</p> <p>There are no acid sulphate soils in the area, so no control strategies or management plans are required for that potential impact.</p> <p>Rehabilitation of topsoil and subsoil at drill sites and any new tracks will be undertaken as described earlier in the relevant sections of this PEPR, and in a manner which is compliant with the guidelines outlined in Information Sheet M33. In areas of soil compaction such as the drill site and short access track off the existing station track, light scarification will be conducted to promote natural vegetation regrowth and reduce risk of soil erosion.</p> <p>Fortescue will ensure rehabilitation is completed within 3 months of expiry of the PEPR approval or program notification unless written arrangements are approved.</p>	1	A	Low	<p>Where soil disturbance occurs as a result of exploration activities, ensure that:</p> <ul style="list-style-type: none"> topsoil quality and quantity is maintained the soil profile and topography is reinstated to original conditions there is no accelerated soil erosion. 	<p>Maintain before, during and after photographic evidence of all excavations, drillsites, camps, laydown areas and new tracks demonstrating that:</p> <ul style="list-style-type: none"> 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. <p>Representative photos to be included within the annual exploration compliance report.</p> <p>Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.</p>
Surface water	Alteration to surface water – interference to surface drainage.	No	Drill holes and new access tracks are not located within the vicinity of any natural ephemeral surface drainage, creeks and claypans. The topography at the planned drill site and planned temporary access track is very flat.	1	A	Low	<p>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).</p>	<p>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).</p> <p>Alternatively, provide copies of water affecting permits within the annual exploration compliance report.</p>
Groundwater/aquifer	Groundwater contamination: <ul style="list-style-type: none"> contamination of aquifers through entry of pollutants from the surface interconnection between aquifers degradation of natural hydrostatic conditions (maintain pre-drilling pressures). 	Yes (Applicable to all exploration programs that may intersect groundwater.)	<p>All exploration drill holes will be completed in accordance with Information Sheet M21: Mineral Exploration Drillholes - General specifications for construction and backfilling.</p> <p>In the region surrounding the drilling there are no confined aquifers or artesian water, so the likelihood and the consequences of groundwater contamination is very low. No confined fresh water or artesian aquifers are present in the area.</p> <p>The area is not under a Prescribed Wells Area.</p> <p>Waterconnect water bore records of previous drilling in the area shows that the Whyalla Sandstone is an unconfined low yield salty fractured rock aquifer.</p> <p>In construction of the initial percussion pre-collar, the drill hole will be cased with either PVC or removable steel drill pipe to prevent ingress of water, and to aid continued deeper percussion/diamond drilling.</p> <p>HQ casing to the bottom of the RC precollar will remain in the hole during NQ diamond core drilling, isolating the aquifer, until completion of the drill hole, followed by removal at the end of the hole.</p> <p>Upon completion of the hole (and after any downhole geophysics), the hole will be abandoned in accordance with requirements outlined in Information Sheet M21. If more than one aquifer is encountered, cement grout plugs will be used to isolate aquifers, followed by drill cuttings or clay (alternatively, the entire hole will be grouted).</p>	1	A	Low	<p>Drillholes restored to controlling geological conditions that existed before the hole was drilled or, where it is intended to re-enter the hole, the hole must be completed with casing of adequate strength and the casing cemented so that all aquifers are isolated to prevent the movement of any fluids behind the casing.</p>	<p>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.</p> <p>Provide the information requested within the 'Groundwater' section of the annual exploration compliance report.</p>

Exploration PEPR application – 12-month period

Impact assessment							Outcomes	Outcome measurement criteria (inc. monitoring plan)
Receptor	Potential impacts	Is the potential impact applicable (Yes/No)	Control strategies	Risk assessment				
Lists are not exhaustive.	Lists are not exhaustive.	Some potential impacts are applicable to all programs.	Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	LH = likelihood of consequence CQ = severity of consequence	LH	CQ		
			<p>For plugging the drillhole at Moonlight Dam, a 20m length of cementing ('cement grout') will be placed just below the base of the Whyalla Sandstone (the unconfined fractured rock aquifer) extending into the underlying Tapley Hill Formation shale.</p> <p>The RC hole that was used for a groundwater supply will be backfilled with the stockpiled RC drill chips as much as possible and the PVC collar rehabilitated in the same manner as the collar of the full diamond tail hole (described above).</p> <p>The greywater soakage pits for the campsite will be constructed and maintained in a manner that will not be a potential hazard to health, not emit odours, not attract flies or mosquitoes, is for a short period only in a remote low rainfall environment, and is rehabilitated by backfilling. The water will soak through limestone (calcrete) and Whyalla sandstone and will not measurably affect the quality of the salty unconfined aquifer or percolate more than several metres beyond the greywater pit.</p> <p>If the greywater soakage pits become excessively full compared to the rate of soakage, a Pt Augusta based contract 'sump sucker' will be engaged for the removal of greywater.</p>					
Soil/vegetation/fauna	Discharge of groundwater into the surrounding environment.	Yes	<p>Up to three (3) 6m x 3m x 1.5m deep sumps constructed on the drill pad will be utilised to contain drilling fluids for diamond drilling if above ground tanks are not used. These sumps will also be utilised to contain any discharge of groundwater during the percussion drilling of the pre-collar.</p> <p>Fortescue maintains regular practice to take north, east, south and west directional photographs of each site, prior to, during and after drilling activities and then post rehabilitation, for the annual exploration compliance report.</p>	1	A	Low	<p>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.</p>	<p>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.</p> <p>Representative photos and water affecting activity permits (where applicable) to be included within the annual exploration compliance report.</p>
Groundwater users	Interference to existing water users when extracting water from existing dams, water bores or mineral drillholes.	No	N/A				<p>No public nuisance impacts resulting from the extraction of water for exploration purposes, unless prior approval under the relevant legislation is obtained.</p>	<p>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.</p> <p>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.</p>
Soil/vegetation/fauna	Degradation of rehabilitated access tracks caused by third party access (includes previously closed and rehabilitated access tracks).	No	All new tracks will be rehabilitated and closed off from the existing station track at the end of the drilling program. The access track will be scarified, and all topsoil and vegetation piles will be spread evenly across the rehabilitated area.				<p>Rehabilitated access tracks remain permanently closed, unless prior approval under the relevant legislation is obtained.</p>	<p>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.</p> <p>Representative photos are to be included within the annual exploration compliance report.</p> <p>Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.</p>
Community/landowners	Damage to infrastructure and loss of income through fire.	Yes (Applicable to all programs.)	<p>The drilling will take place in the area classified by the CFS as the 'North West Pastoral' and Fire Danger Ratings are issued daily after 4.30pm the day prior during the fire season which starts 1st November to 31st March.</p> <p>On days of Total Fire Ban (declared for Extreme and Catastrophic Fire Danger Rating) Fortescue will comply with the Fire and Emergency Services Act 2005, specifically: 1. cease any activities that could be spark-generating (activities include the operation of Stationary Engines, generators; Internal combustion engines; vehicles; gas welding, soldering, metal cutting, grinding and abrasion); 2. Not drive a vehicle referred to in sub regulation (1) within 2 m of flammable bush or grass unless the vehicle is fitted with an exhaust system that complies with the Act.</p> <p>The sparse shrubland of bluebush and saltbush comprises very low fuel load in the project area and the drill pad will be cleared of vegetation.</p>	1	A	Low	<p>No loss of infrastructure or income through fire as a result of exploration activities.</p>	<p>Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report confirming that no uncontrolled fires* occurred.</p> <p>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.</p>

Exploration PEPR application – 12-month period

Impact assessment						Outcomes	Outcome measurement criteria (inc. monitoring plan)	
Receptor Lists are not exhaustive.	Potential impacts Lists are not exhaustive.	Is the potential impact applicable (Yes/No) Some potential impacts are applicable to all programs.	Control strategies Indicate where there is uncertainty pertaining to the likely effectiveness of the control strategies. Where the risk is not considered low, provide justification that the risk is acceptable, or consider additional strategies to reduce the risk to an acceptable level. – refer to Minerals Regulatory Guidelines MG22 for more information.	Risk assessment LH = likelihood of consequence CQ = severity of consequence				
				LH	CQ			Risk
			The underside of vehicles, especially light vehicles will be kept clear of grass. Vehicles will only park in the cleared drill pad or the tracks, away from vegetation.					
General public	Injury or death to members of the public as a result of exploration activities.	Yes (Applicable to all programs.)	The location of the proposed drill site is not frequented by the general public. The drill site will have safety and access permission signage to prevent undue entry of personnel who have not completed company and site-specific safety inductions.	1	A	Low	<p>No accidents involving the public that could have been reasonably prevented by the licensee.</p> <p>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.</p> <p>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.</p>	
General public, employees, contractors and the environment	Contamination of the environment when exploring for known uranium and thorium deposits. Public and employee/contractor exposure to low level radiation.	No	N/A				<p>No increase in background radiation levels, and employee/contractor exposure levels during the exploration program are within safe limits.</p> <p>Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that:</p> <ul style="list-style-type: none"> Radiation levels post exploration and rehabilitation are consistent with pre-existing background levels. Employee and contractors exposure levels were within safe limits during the exploration program. 	
Other (if applicable)								

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

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

SECTION G - OPERATOR CAPABILITY

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

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

As specified in this PEPR, Fortescue is committed to upholding its program in a manner that ensures achievement of all the environmental outcomes. Fortescue employs geologists and field staff in the Adelaide office who are dedicated to South Australian exploration, ensuring compliance, and achieving environmental outcomes of this PEPR.

To achieve this, Fortescue has numerous documented procedures including, but not limited to, Drillhole Stabilisation and Site Rehabilitation, Rehabilitation Safe Work Instructions, Stakeholder Management Plans and Environmental Management Plans. Constant internal auditing of these procedures and guidelines to ensure that they are followed is carried out at every level of exploration activities.

Fortescue integrates the PEPRs with its own 'Land Use Certificate' which is used to manage land use and associated activities, including access, ground disturbance, construction and compliance activities (e.g. rehabilitation).

SECTION H –ADDITIONAL INFORMATION

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

Fortescue has had ongoing relations and regular consultation with the relevant pastoralists, including face-to-face meetings, delivery of email updates and phone calls to update on planned activities and arranging site access.

Also see attached documents for reference:

- EX-PL-EN-0006_South Australia Exploration Activities – Environmental Management Plan
- FMG – Exploration Weed Hygiene – Vehicle Inspection Checklist – June 2020
- 100-PL-EX-0003_South Australia Radiation Management Plan

SECTION I – PHOTOS

Include photographs in this section:

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

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

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Moonlight Dam Land Cover	17/07/2023	Photo 6, Section C Soil and surface cover	741440	6421428	53	Example of land cover at Moonlight Dam



Exploration PEPR application – 12-month period

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (GDA94)	Zone	Details and Comments
Moonlight Dam P1 Pad	11/8/23	Photo 7, Section C Soil and surface cover	741199	6421737	53	Priority 1 Pad Location looking NW



SECTION J – MAPS

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

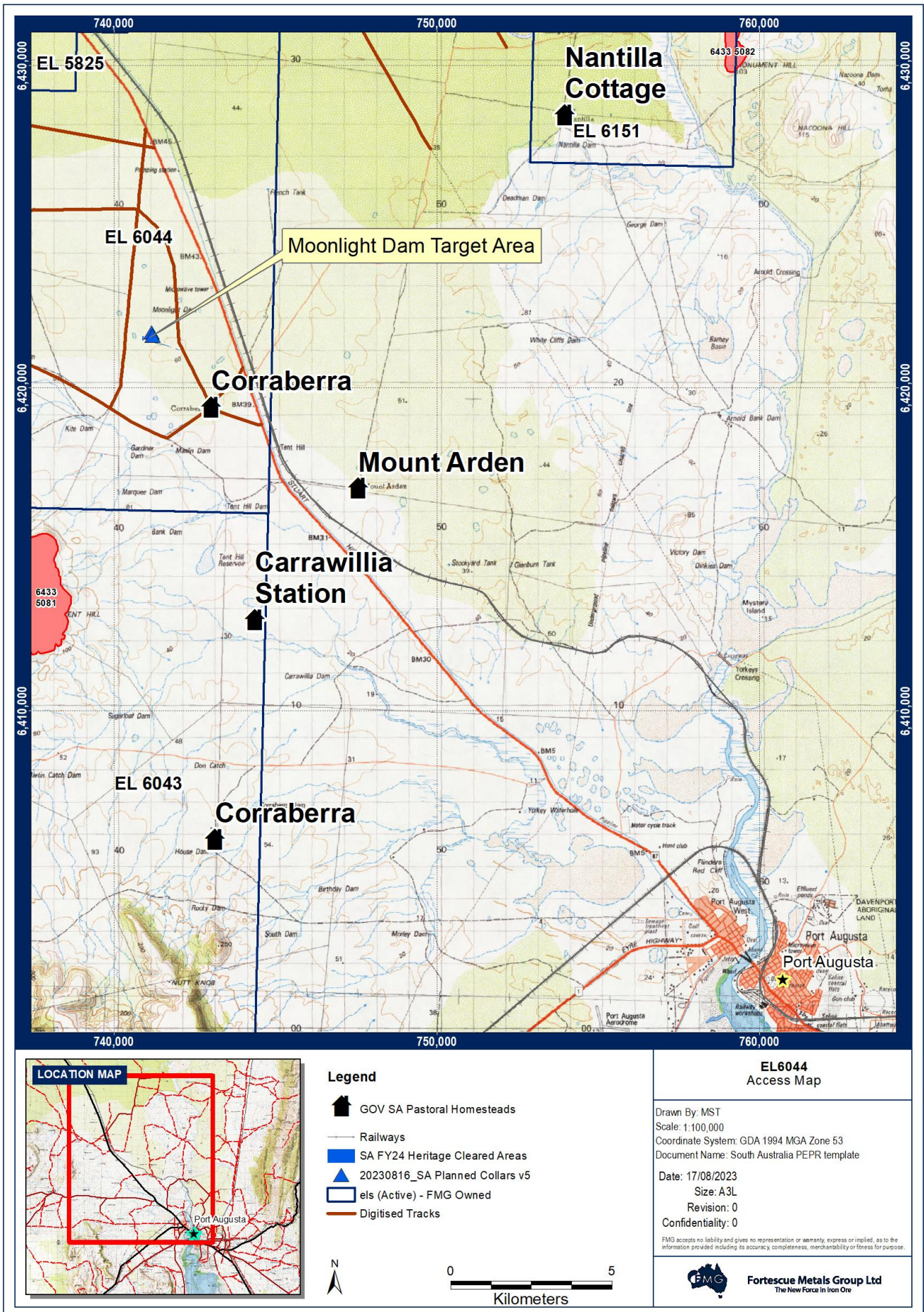
- tenement boundaries,
- cadastral information,
- existing surface contours,
- existing vegetation,
- location of the proposed exploration operations (includes drillholes, existing and new access tracks, drill traverses, campsites, laydown areas and other applicable information) and/or the target exploration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

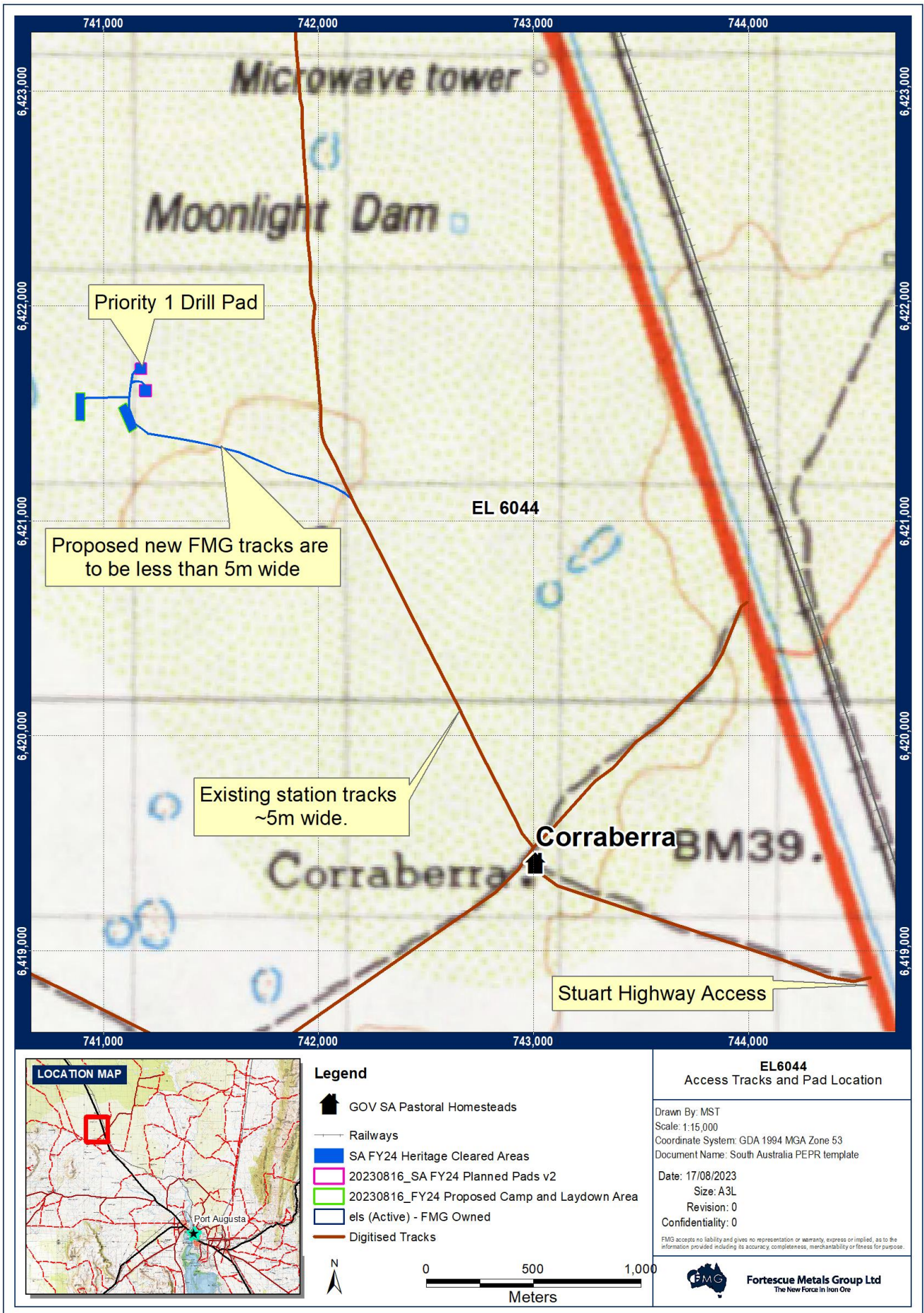
All maps and sections must conform to the standards outlined in the Exploration PEPR Terms of Reference.

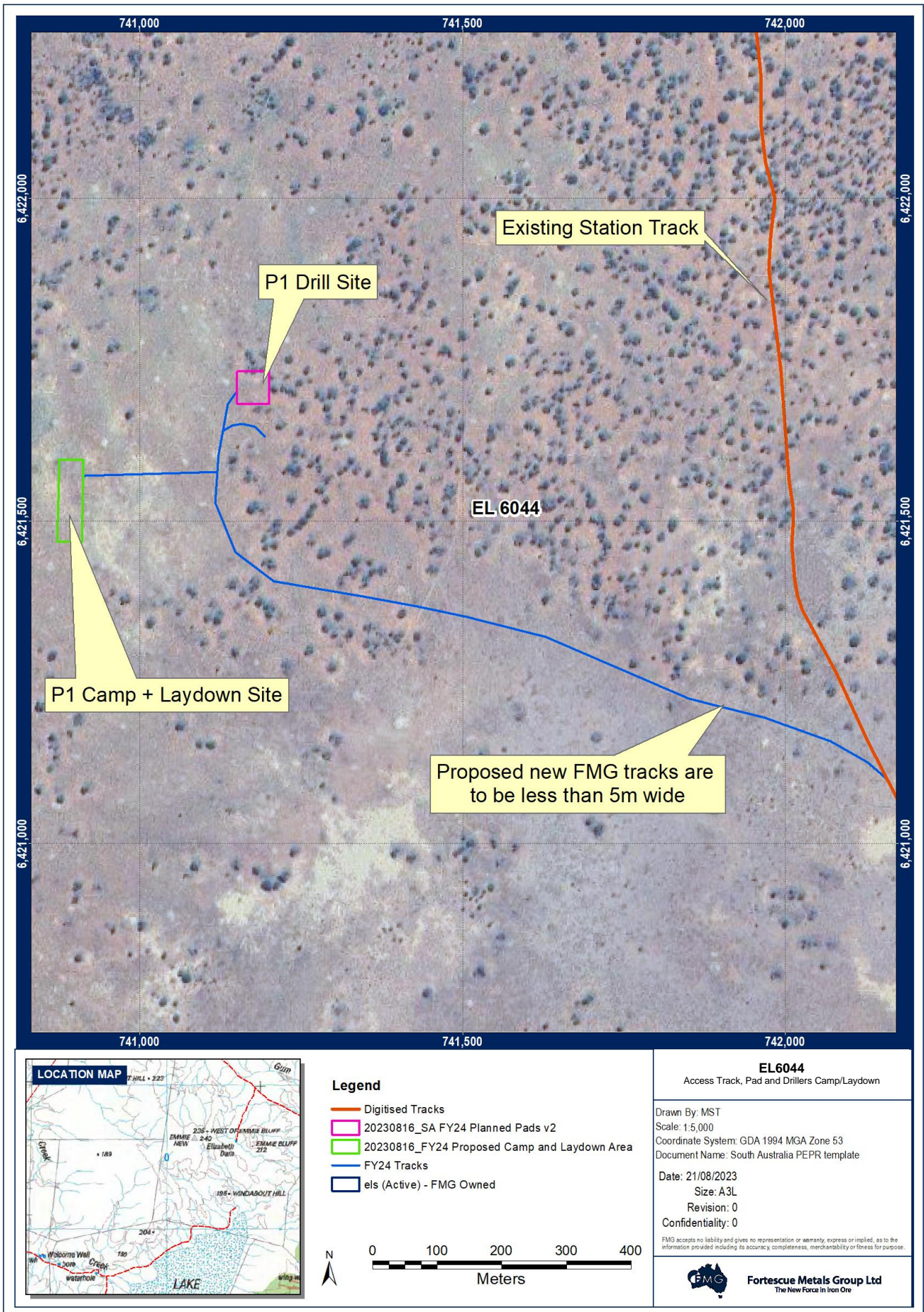
Maps included in this document are detailed below. Maps (pdf's) are also attached externally to this document.

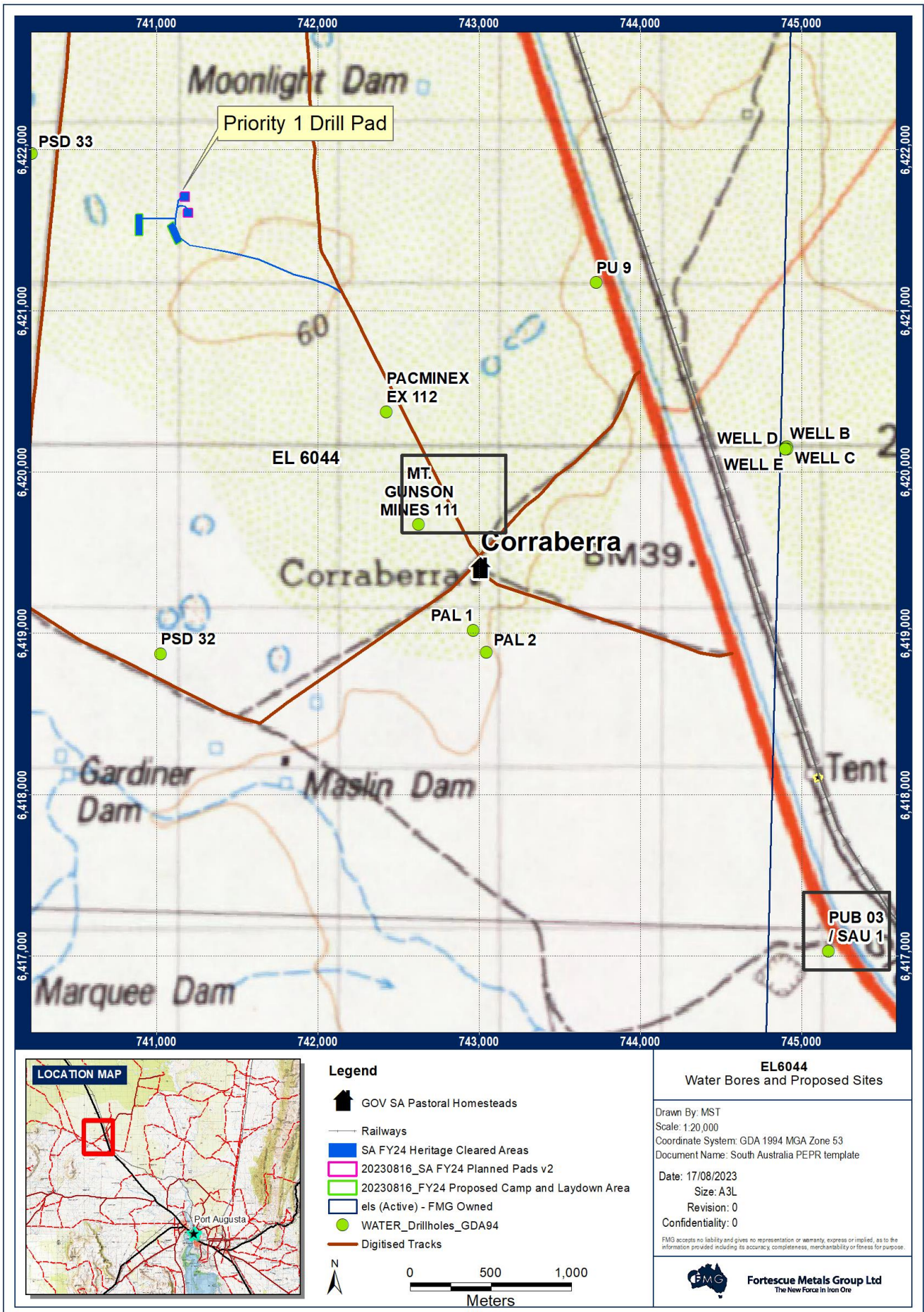
- Map 1 – EL6044_Target Location
- Map 2 – EL6044_Target Access
- Map 3 – EL6044_Access Tracks, Pads and Drillers Camp/Laydown
- Map 4 – EL6044_Groundwater Wells Areas
- Map 5 – EL6044_Native Title Determination

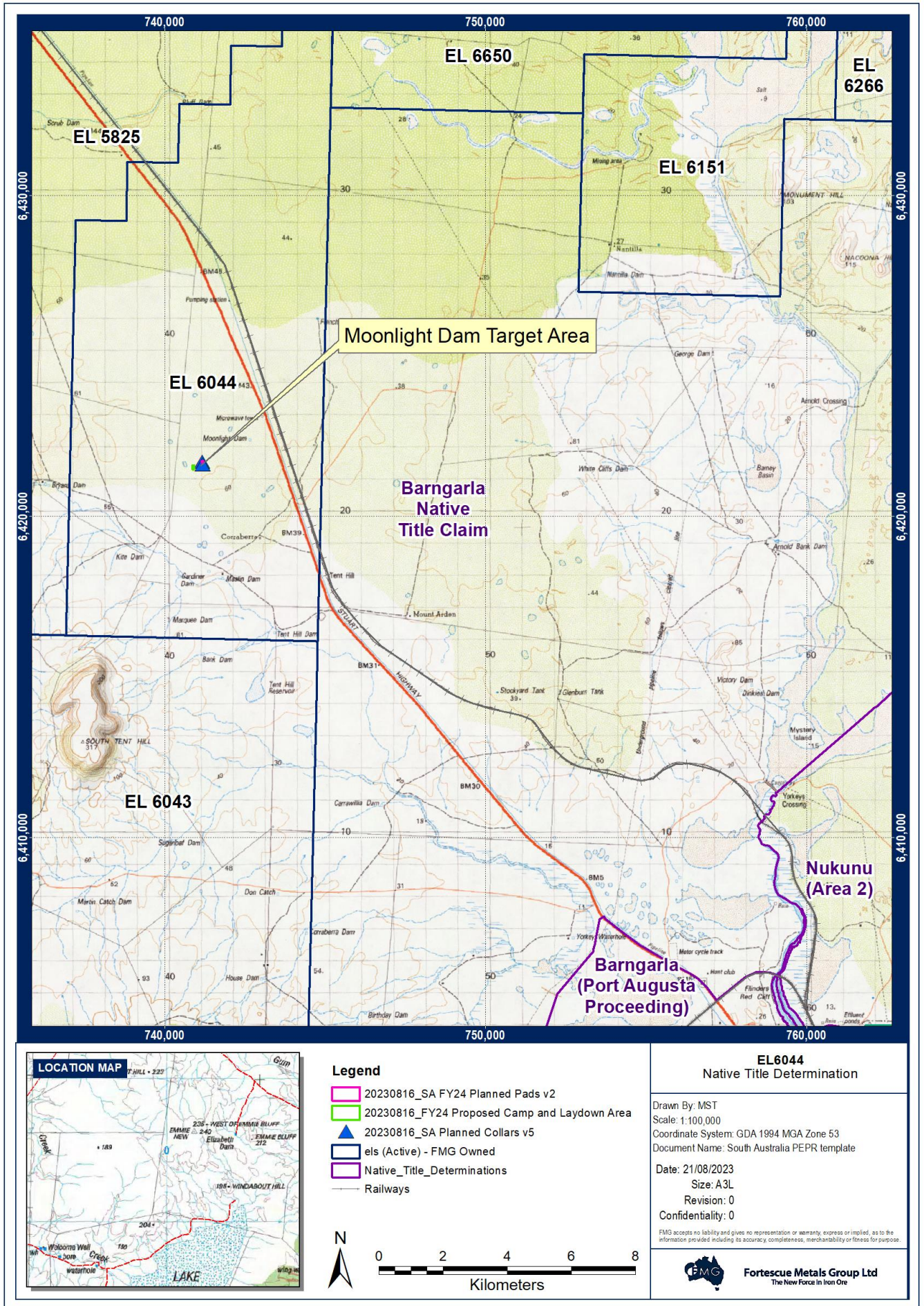
<Attach maps here.>











SECTION K – PUBLIC RELEASE

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

SECTION L – SUBMISSION OF THE APPLICATION

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

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