

Statement of Reasons

GROOTE EYLANDT MINING COMPANY PTY LTD (GEMCO) - SOUTHERN LEASE STAGE 2 EXPLORATION PROGRAM

PROPOSAL

Groote Eylandt Mining Company Pty Ltd (GEMCO) (the Proponent) submitted a Notice of Intent (NOI) for the Southern Lease Stage 2 Exploration Program (the Proposal) to the Northern Territory Environment Protection Authority (NT EPA) on 22 May 2020, for consideration under the *Environmental Assessment Act 1982* (EA Act).

The Proposal involves exploration activities over approximately 26 000 hectares (ha) within Exploration Licence 2455, and across the same location of Stage 1 exploration conducted in 2019. The Proposal is to inform potential future manganese resources on Groote Eylandt, approximately 650 km east of Darwin in the Gulf of Carpentaria, Northern Territory.

The Proposal aims to inform the continued extension of existing open cut and strip mining operations since 1964, and undeveloped resources in the previously assessed Eastern Leases¹ and previously notified Southern Leases Stage 1².

The Proposal includes:

- clearing of 40 ha of remnant native vegetation for access tracks and drill pads
- drilling of approximately 830 infill holes distributed in a grid pattern (drill pads required)
- drilling of 75 diamond drill holes (25 requiring drill pads, 50 located on cleared areas)
- avoidance of waterways and wetlands, sensitive vegetation (monsoon vine thickets) and culturally sensitive areas (sacred sites and white rock) through permanent excision from the drilling program of 7 500 ha of potential mineralised area, consistent with Stage 1
- pre-clearance surveys to ensure no clearing or drilling within sensitive habitats and vegetation, including 100 m buffer zones from these areas
- rehabilitation as per existing procedures, including to: plug and cap all drill holes, respread drill cuttings, replace surface materials such as logs, litter and vegetation cover, and allow natural revegetation from seedbank and adjacent vegetation
- a rehabilitation monitoring program to confirm that revegetation is occurring, to confirm rehabilitation has been undertaken to the satisfaction of the Traditional Owners and to identify corrective action if required.

The Proposal is planned to be undertaken over at least two drilling campaigns in successive dry seasons, from 2020 to 2022. Infill drilling is expected to be completed over two years and each diamond drilling campaign is expected to be completed in two months.

The peak workforce comprises four crews and up to 52 people operating simultaneously. As respective exploration activities are completed, the number of crews and workforce will reduce.

¹ NT EPA Assessment Report 77, February 2016, available at: <https://ntepa.nt.gov.au/environmental-assessments/register/gemco-eastern-leases>

² NT EPA Statement of Reasons, 25 July 2019, available at: <https://ntepa.nt.gov.au/environmental-assessments/projects-not-requiring-assessment/2019-projects-not-requiring-assessment>

CONSULTATION

The NOI has been reviewed as a notification under the EA Act in consultation with Northern Territory Government (NT Government) advisory bodies (see Attachment A) and the responsible Minister, in accordance with clause 8(1) of the Environmental Assessment Administrative Procedures 1984.

JUSTIFICATION

The NOI was assessed against the NT EPA's environmental factors and objectives. The NT EPA identified one environmental factor, Terrestrial flora and fauna that could be significantly impacted by the Proposal.

The NT EPA considered the importance of other environmental factors during the course of its assessment; however, the potential impact on those factors was not identified as significant.

The Proponent provided a self-assessment against the NT EPA's environmental factor for Social, Economic and Cultural Surroundings. The NT EPA considers that the potential for significant environmental impact on this factor is unlikely, based on demonstrated appropriate and ongoing consultation maintained by the Proponent on aspects of social, economic and cultural values.

1. Terrestrial flora and fauna

Objective: Protect the NT's flora and fauna so that biological diversity and ecological integrity are maintained.

The proposed exploration program occurs on land that is largely undeveloped and contains remnant vegetation of high conservation value. Groote Eylandt is recognised as an International Site of Conservation Significance for important populations of threatened terrestrial fauna species that have declined on the mainland, the absence of certain feral animals and maintaining its toad free status. The Groote Eylandt Archipelago is also a declared Indigenous Protected Area to promote conservation of biodiversity and cultural values.

The NOI draws on the Proponent's ongoing ecological research based on the: baseline terrestrial ecology of the Proposal area³, presence of small mammals within the Proposal area⁴ and environmental impact assessment of identified values⁵. The Proponent's research identifies flora, fauna and biodiversity values in the Proposal area. No Threatened Ecological Communities protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) occur within the Proposal area.

Flora

The Proponent identified that no listed threatened flora species have been recorded from, or are likely to occur in the Proposal area. The NOI identifies that coastal monsoon vine thicket habitat does not occur in the areas currently proposed for exploration, and therefore the coastal lantern tree (*Hernandia nymphaeifolia*), listed as Vulnerable under the *Territory Parks and Wildlife Conservation Act 1976* (TPWC Act), is not likely to occur within the Proposal area.

Fauna

The NOI considers six listed threatened, and one listed migratory fauna species that are present or likely to occur within the Proposal area.

³ Baseline Terrestrial Ecology Reports, by cumberland ecology, June 2019 and May 2020

⁴ GEMCO/South32 Southern Lease Small Mammal Research Project, by cumberland ecology, June 2019

⁵ Assessment of Impacts on Listed Species Reports, by cumberland ecology, June 2019 and May 2020

Exclusion of exploration from sensitive habitats and associated buffers reduces the potential for significant impact on threatened species like the Mertens' water monitor (*Varanus mertensi*) and saltwater crocodile (*Crocodylus porosus*). The Flora and Fauna Division of the NT Department of Environment and Natural Resources (DENR) has identified that five listed threatened fauna species occur in the region and may be impacted. (Table 1).

Table 1. Name and threatened status listings for fauna species with potential for significant impact from the Proposal.

Common name	Scientific name	TPWC Act	EPBC Act
Northern hopping mouse	<i>Notomys aquilo</i>	Vulnerable	Vulnerable
Brush-tailed rabbit-rat	<i>Conilurus penicillatus</i>	Vulnerable	Endangered
Northern quoll	<i>Dasyurus hallucatus</i>	Critically Endangered	Endangered
Ghost bat	<i>Macroderma gigas</i>	Not listed	Vulnerable
Masked owl	<i>Tyto novaehollandiae kimberli</i>	Vulnerable	Vulnerable

The NT EPA has assessed the potential for significant impact on these threatened fauna as follows:

Northern hopping mouse and brush-tailed rabbit-rat

The northern hopping mouse and the brush-tailed rabbit-rat are small rodents known to occur on Groote Eylandt. Neither species was detected in the Proposal area during a targeted small mammal research project. Therefore, the likelihood of occurrence of these species in the Proposal area is considered low and significant impact on species' populations is not expected.

Northern quoll

The NOI identifies northern quoll records widely distributed across Groote Eylandt including from rehabilitated areas, which the Proponent considers indicate that these species are tolerant of disturbance. The NOI indicates that the proposed clearing is a small proportion of available habitat on the island and significant impacts to the species from exploration activities are unlikely. The Flora and Fauna Division agreed with the Proponent's conclusion acknowledging that the relatively small scale of disturbance within the Proposal area and mitigation measures proposed would ensure minimal impact to the species.

Masked owl

The masked owl is likely to occur in the Proposal area and the risk posed to the regional population or nesting habitat has been appropriately considered in the NOI. While the amount of land clearing in the Proposal area is small, the Flora and Fauna Division advises that large hollow-bearing trees suitable for nesting are a limiting resource for the species in the area and the potential impact of the loss of hollow-bearing trees on the Groote Eylandt population of masked owl is currently unknown. The Proponent has committed to protect hollow-bearing trees (including a buffer to protect the integrity of these trees) by marking trees during pre-clearance surveys and avoiding these during exploration works so that significant impact on the regional masked owl population is unlikely.

Ghost bat

The NOI identifies ghost bat records from the existing mine and other areas on Groote Eylandt. The vegetation clearing represents a very small portion of potential foraging habitat for this species. The proposed 100 m exclusion buffer between exploration drilling and sandstone outcropping (white rock) is likely to minimise potential impacts from the Proposal on ghost bat roosting or breeding habitat. DENR's Flora and Fauna Division supports the Proponent's commitment to avoid exploration drilling near ghost bat habitat.

Biodiversity values

The Proponent has undertaken an extensive fieldwork program to inform site selection, in particular, avoidance of the following sensitive and significant habitats by committing to a minimum 100 m buffer from:

- waterways and wetlands (rivers, creeks, drainage areas and riparian vegetation)
- monsoon vine thicket (includes coastal vine thickets)
- sandstone outcropping (also referred to as culturally sensitive, white rock),
- occupied hollow-bearing trees (masked owl occupation confirmed by visual sighting, or by indirect evidence of white wash)

The Proponent has committed to avoiding all large tree greater than 50 cm diameter along proposed tracks and drill pads, and adjusting the location of these components, providing a 10 m buffer around unoccupied trees.

The NT EPA notes the Proponent's commitment to a Permit to Clear Process that includes pre-clearance surveys to mark no-go areas, including buffer zones for sensitive and significant environmental values, as well as, relocating any drill holes or access tracks identified within these areas. The pre-clearance surveys are considered particularly important to account for the sensitive vegetation type of hollow bearing trees, including large trees greater than 50 cm diameter at 1.3 m above ground level. Hollow bearing trees provide habitat for the brush-tailed rabbit-rat, and large trees greater than 50 cm diameter provide key habitat for the masked owl. Hollow bearing trees are considered sensitive vegetation under the DENR NT Land Clearing Guidelines 2019⁶ and no-go areas are based on buffer zones for sensitive vegetation and riparian areas, consistent with these guidelines.

The Proposal area is considered weed free. Based on advice from DENR's Weed Management Branch, the NT EPA is satisfied that the spread of known weeds from the existing mine site can be avoided by implementing the weed management plan in conjunction with the 100 m buffers around sensitive and significant vegetation specified in the Land Clearing Guidelines.

Cumulative impacts

This Proposal is additional to Stage 1 exploration referred to the NT EPA in 2019 including clearing of 29 ha of remnant native vegetation, drilling of approximately 500 infill holes and 4 diamond drill holes. The NT EPA determined that the Stage 1 exploration program did not require assessment.

The Proponent has identified the potential for short-term cumulative impacts with Stage 1 exploration works and proposes to mitigate cumulative impacts through the use of existing tracks where exploration activities overlap. The NT EPA considers that potential cumulative

⁶ DENR 2019. Land Clearing Guidelines https://nt.gov.au/_data/assets/pdf_file/0007/236815/land-clearing-guidelines-2019.pdf

impacts of the Proposal are not likely to result in long-term impact on vegetation and habitat for threatened species.

The NT EPA is satisfied that potential impacts and risks to sensitive habitats and threatened species are not significant with the implementation of environmental management measures presented in the NOI and that its objective for Terrestrial flora and fauna is likely to be met.

CONCLUSION

The NT EPA considers that the potential environmental impacts and risks associated with the Proposal are not significant due to the short term and small scale of the Proposal, and the implementation of mitigation measures committed to by the Proponent.

The Proponent has conducted extensive survey work to inform mitigation measures and avoid sensitive and significant environmental values. The Proponent has outlined commitments based on substantial and ongoing consultation with suitably qualified experts to develop appropriate management plans as presented in the NOI.

Comments from NT Government advisory bodies and recommendations from the NT EPA have been provided to the Proponent to ensure potential impacts on the environment can be minimised and the Proponent is aware of its responsibilities under legislation.

DECISION

The proposed action, which was referred to the NT EPA by Groote Eylandt Mining Company Pty Ltd has been examined by the NT EPA and preliminary investigations and inquiries conducted. The NT EPA has decided that the potential environmental impacts and risks of the proposed action are not so significant as to warrant environmental impact assessment by the NT EPA under the *Environmental Assessment Act 1982* at the level of a Public Environmental Report or Environmental Impact Statement. The proposed action will require authorisation under the *Mining Management Act 2001*, which includes provisions to ensure environmental issues associated with the proposed action are taken into account.

This decision is made in accordance with clause 8(2) of the Environmental Assessment Administrative Procedures 1984, and subject to clause 14A the administrative procedures are at an end with respect to the proposed action.



DR PAUL VOGEL AM MAICD
CHAIRPERSON
NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY

26 JUNE 2020

Attachment A: Northern Territory Government Advisory bodies consulted on the Notice of Intent

Department	Division
Department of Environment and Natural Resources	Flora and Fauna Water Resources Weeds Environment Bushfires NT Rangelands
Department of Infrastructure, Planning and Logistics	Planning Transport and Civil Services Infrastructure
Department of Primary Industry and Resources	Mining Compliance Petroleum Primary Industry
Department of Tourism, Sport and Culture	Parks and Wildlife Tourism NT Heritage
NT Police, Fire and Emergency Services	Business Improvement and Planning
Department of Health	Environmental Health Medical Entomology
Department of Trade, Business and Innovation	Economics and Policy Strategic Policy and Research
Department of Local Government, Housing and Community Development	Maintenance Planning Housing supply
Power and Water Corporation	
Aboriginal Areas Protection Authority	Technical
Department of the Attorney-General and Justice	Commercial Division NT Worksafe
Department of the Chief Minister	Economic and Environmental Policy Social Policy