

# Mining Management Exploration Activities

## Northern Territory of Australia – Mining Management Act 2001

It is recommended that the Mining Management Plan (MMP) is completed in conjunction with the user guide available on the [Northern Territory Government website](#).

### Section 1 – Project Details

<b>Project Name</b> Provide new or existing project name	North Barkly Project
<b>Authorisation Number</b> Insert existing authorisation number, where applicable	1155
<b>Operator Name</b> Use ASIC-ABR registered name (if a company), or name of the applicant	Green Critical Minerals Ltd
<b>Operator ABN and ACN numbers</b>	118 788 846
<b>Location and Access Details</b> Include brief description of the location, access details, and distance to nearest town or community	<p>Covers the western boundary of Mallapunyah Springs and adjacent northern portion of Wallhallow and freeholds to the west.</p> <p>Access is from the Tablelands Highway about 50 km south of the Mallapunyah turnoff.</p> <p>Cresswell Downs (Wallhallow) and Mallapunyah Springs are the nearest communities.</p>
<b>Target Commodity Details</b> Include target mineral commodities (i.e. gold, copper etc.)	Rare earths, vanadium, and copper gold.
<b>Mining Activities</b> Summarise the mining activities (exploration) to be the subject of the proposed Authorisation or Variation.  Drilling programs over a maximum of four years are supported and encouraged and can be staged. Please refer to the guidelines for further information.	<p>Potential deeper drilling of previously approved Exploration RC Drilling along the edges of existing tracks.</p> <p>All sites are on Mallapunyah Springs only.</p> <p>Additional two Percussion drill holes further north along the same station track on Mallapunyah.</p>

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<b>Proposed Schedule</b> Include start and finish dates of ground disturbing work	The drilling is expected to take place between July 1 and October 30 2023, over a two week period. The exact dates are dependent upon contractor availability and weather conditions.
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## Mining Interest and Land Ownership

List the mining interests (titles), the title holder name/s, the title expiry date and the Property name/Land holder (e.g. pastoralist or Aboriginal land trust) for each title.

<b>Title Number</b>	<b>Title Holder</b>	<b>Expiry Date</b>	<b>Underlying Property Name or Land Holder</b>
EL 33128	Green Critical Minerals	22/08/2028	Mallapunyah Springs and Wallhallow
EL 33129	Green Critical Minerals	22/08/2028	Mallapunyah Springs and Wallhallow
EL 33130	Green Critical Minerals	23/08/2028	Wampaya Association

A Land Access Agreement (LAA) attached at Appendix 10.

## Organisational Structure

<b>Position Title</b>	<b>Name</b>
Managing Director	<b>Leon Pretorius</b>
Landowner Contact Manager	<b>Dennis Bishop</b>
Exploration Manager Project	<b>Neil Wilkins</b>
Site Supervisor	<b>Stuart Hole</b>

## Section 2 – Operator Self-Assessment of the Environmental Risk

The purpose of this self-assessment is to ensure Operators complete a project risk assessment of potential environmental impacts and are aware of other legislative obligations from various Agencies. As a result of this self-assessment, further information may be required in the form of a management plan to enable full assessment of the MMP. If you have any queries please contact a Mining Officer prior to submitting the MMP. Useful resources to assist with this self-assessment are provided in the User Guide.

### Environmental considerations

ASSESSMENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION (e.g. evidence of consultation with DEPWS and/or management plan where required).
<p><b>Step 1:</b> Are there any threatened flora and fauna species or habitats of significance that may occur in the proposed work area?</p>	Yes	<p>Connect Environmental prepared a Desktop Biodiversity Assessment over the works area. It was found that one threatened flora and 12 threatened fauna species have been recorded within 200 km and 100 km, respectively, of the study area. One threatened flora and seven threatened fauna species were also assessed for their potential to occur within the study area.</p> <p>No clearing or earthworks involved. Drilling will only take place on flat existing tracks, no pads needed. Therefore, nil impact on vegetation will occur during this program.</p> <p>As recommended in the Desktop Biodiversity Assessment, Green Critical Minerals will avoid low rocky hills with Eucalyptus leucophloia trees to mitigate impact on the Gouldian Finch.</p>	Desktop Biodiversity Assessment at Appendix 9.

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<p><b>Step 2:</b> Are there any known declared weeds within the proposed work area?</p>	<p>No</p>	<p>19 weed species are recorded within 100 km of the study area that are declared under the NT Weed Management Act, of which six are Weeds of National Significance.</p> <p>Green Critical Minerals will implement the below Weed Management Plan, in addition to following the Mallapunyah Springs Weed Management Plan:</p> <ul style="list-style-type: none"> <li>- Talk to landholders about weed management before work commences.</li> <li>- Make sure that site operations staff can identify relevant weeds.</li> <li>- Inspect and clean weed seeds from all equipment before work commences.</li> <li>- If vehicles pass through weed infestations, ensure they are cleaned and inspected before moving to weed-free areas.</li> <li>- Clean machinery, vehicles and equipment before moving between sites or across property lines.</li> <li>- Clean down in areas that are flat, easy to access, and that don't drain into a waterway.</li> <li>- Record the location of clean down areas in a site diary.</li> <li>- Check for weed growth on corridors and clean down areas after the first rains and control weeds before they establish.</li> <li>- Minimise the disturbance to soils and native vegetation.</li> <li>- Work to control weeds with government agencies and landholders, particularly those with adjoining or overlapping corridors.</li> <li>- Don't drive through weeds. Don't import or export contaminated material including sand, gravel, rock and fill.</li> </ul> <p>All employees and contractors will be required to familiarise with the above weed management plan and the Mallapunyah Springs Weed Management Plan during a site induction and implement practical measures on site to prevent and manage weeds. An induction will be prepared once the Mallapunyah Springs Weed Management Plan is obtained and it will include pictures of weeds to recognise.</p>	<p>Desktop Biodiversity Assessment at Appendix 9.</p>
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ASSESSMENT ASPECT	YES or NO	ACTIONS REQUIRED (if answered YES)	APPENDED INFORMATION <small>(e.g. evidence of consultation with DEPWS and/or management plan where required).</small>
<b>Step 3:</b> Will you be using water from bores or other sources for the operation?	Yes	Less than 5ML/yr of water will be extracted from a bore or waterholes at Mullapunyah Springs Station. There is a current exemption from requiring an extraction licence extracting less than 5ML/yr within the Daly Roper Beetaloo Water Control District. Therefore, a Water Extraction Licence is not required.  Water may also be purchased from Mallapunyah Springs or Balbirini Roadhouse.	Confirmation email from Water Resources Division attached at Appendix 11.

## Environmental assessment and cultural considerations

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
<b>Step 4:</b> Is your project likely to have a significant impact on the environment?	NO	Drilling is on the edges of cleared tracks.
<b>Step 5:</b> Are there Aboriginal sacred sites in the Project area?	Yes	Abstract of Records were obtained by the AAPA in February 2022. Copies attached in Appendix 1.  This field season, drilling will only occur on EL33128. There is one Restricted Works Area and One Registered Sacred Site in the South of EL33128. Nil drilling will occur near the Restricted Works Area and One Registered Sacred Site on EL33128. All employees will be made aware of the location of these sites and will not enter this area.  If any suspected sites are found, works in the area will cease and the AAPA will be notified.

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ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
<b>Step 6:</b> Are there archaeological and heritage sites in the Project area?	NO	<p>A search of the Heritage Register was conducted, where nil heritage areas were found within the project area. Details located in Appendix 2.</p> <p>A search of the project area was conducted by the Heritage Branch from the Department of Territory Families, Housing and Communities, where it was confirmed that there are no known Aboriginal or Macassan archaeological places within the subject site. There are also no nominated, provisionally declared or declared heritage places or objects within the subject area. Results provided in Appendix 3.</p>

### Section 3 – Amendments

N/A- First MMP for this Project.

Section	Amendment
<b>Section 1 – Project Details</b>	Proposed new works added.
<b>Section 4 – Activities Proposed</b>	Proposed new works added.
<b>Section 5 – Previous Disturbance</b>	Note regarding Disturbance Tracking Spreadsheet.
<b>Appendix 5</b>	Maps updated to show 2 new proposed holes
<b>Appendix 6</b>	Digital Files and spreadsheet updated to show 2 new proposed holes
<b>Appendix 7</b>	Security calculation updated to account for 2 new proposed holes.

## Section 4 – Activities Proposed for this MMP only

Provide relevant EL numbers

Mining Interests (i.e. titles)	EL 33128	EL 33129	EL 33130
Number and type of proposed exploration drill holes	2 RC holes	None	None
Maximum depth of proposed holes (m)	The previously approved 13 RC holes may need to be drilled deeper to 200 m. Currently only planned to go 150m  2 new RC holes- 200m		
Number and size of drill pads to be cleared (Length: m x Width: m)	None, using Edges of tracks		
Total area of drill pads to be cleared (ha)	none		
Number of proposed water bores	none		
Is drilling likely to encounter groundwater in multiple or confined aquifers? (Y, N, unsure) If answering yes, please provide the number of exploration holes where this is likely to occur	No (From previous Drilling)		
Number of costeans	none		
Volume to backfill costeans (Length: m x Width: m x Depth: m)	N/A		
Number of bulk sample pits	N/A		
Volume to backfill bulk sample pits (Length: m x Width: m x Depth: m)	N/A		
Bulk sample pits approved under <i>Mineral Titles Act</i> ? (Y or N). If Yes provide approval	N/A		

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Mining Interests (i.e. titles)	EL 33128	EL 33129	EL 33130
Line/track clearing: (length m x width m)	none		
Area of proposed line/track clearing (ha)	none		
Camp area to be cleared (ha)	none		
Camp Infrastructure (i.e. demountable, tents) Please provide a complete list with measurements as required in the security calculation	Same camp as previously approved.		
Other	none		
Total proposed area of disturbance (ha)	none		

### Section 5 – Previous Disturbance (for existing Authorisations only)

Approved works have not commenced. The 'Disturbance Tracking' spreadsheet will be kept on file and will be completed and attached to subsequent MMP submissions.



## Section 6 – Environmental Management

By checking these shaded boxes, you are agreeing to implement the following minimum environmental management standards on the project area. Where boxes have been left unchecked, justification is required.

6.1	<b>X</b>	Blade-up approach for clearing will be used (i.e. no windrows, leave root stock and topsoil)
6.2	<b>X</b>	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)
6.3	<b>X</b>	Vegetation clearing during, and immediately after rainfall events, will be avoided
6.4	<b>X</b>	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads
6.5	<b>X</b>	Where blade-up techniques cannot be employed, topsoil and vegetation will be stockpiled appropriately for rehabilitation purposes
6.6	<b>X</b>	All employees and contractors will be trained and inducted in relation to the management of environmental risks in the work area, including weeds, waterways, threatened species, soil erosion, sacred sites and heritage areas
6.7	<b>X</b>	Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used
6.8	<b>X</b>	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses
6.9	<b>X</b>	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress
6.10	<b>X</b>	Drill holes will be securely capped immediately after drilling
6.11	<b>X</b>	Vehicle hygiene measures will be employed to prevent the introduction and spread of invasive species and pathogens when mobilising vehicles and equipment from one location to another
6.12	<b>X</b>	Hydrocarbon spills will be minimised using liners and drip trays under machinery, and appropriately sized spill-kits available in the event of a spill
6.13	<b>X</b>	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards
6.14	<b>X</b>	Hydrocarbons will be stored in lined and bunded areas
6.15	<b>X</b>	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals
6.16	<b>X</b>	Waste will be removed off-site and disposed of at an appropriate waste management facility
6.17	<b>X</b>	All environmental incidents will be reported to the Department in accordance with Section 29 of the <i>Mining Management Act</i> .
6.18	<b>X</b>	Acid and Metalliferous Drainage (AMD) and Potentially Acid Forming (PAF) material derived from drilling cuts will be managed to avoid AMD and PAF related issues on site.

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6.19	<b>X</b>	Radioactive/NORM drill cuttings will be managed to avoid radiation related issues on site.
6.20	<b>X</b>	Dust management will be implemented on site.

Justification and alternative management measures:

## Section 7 – Rehabilitation and Closure

By checking these shaded boxes, you are agreeing to implement the following minimum rehabilitation standards on the project area. Where boxes have been left unchecked, justification is required.

A refund of security related to completed rehabilitation on site requires the submission of a rehabilitation report including photographs, an updated security calculation and updated disturbance tracking spreadsheet to the Department.

7.1	<input checked="" type="checkbox"/>	Drill holes will be plugged below ground level at a minimum depth of 0.4 metres and soil mounded to prevent subsidence, within 6 months of completion of drilling.
7.2	<input checked="" type="checkbox"/>	Drill holes encountering multiple or confined aquifers will be grouted with concrete.
7.3	<input checked="" type="checkbox"/>	Drill samples/spoil will be returned down drill holes, buried in sumps, or removed from site.
7.4	<input checked="" type="checkbox"/>	All drill hole and access markers including flagging tape, wooden markers and star pickets will be removed from site.
7.5	<input checked="" type="checkbox"/>	Cut and fill drill pads will be re-contoured to be consistent with the surrounding terrain.
7.6	<input checked="" type="checkbox"/>	Drill pads and compacted areas along the contour (on sloping ground) will be ripped/scarified of and tracks will be cross-ripped (zig-zag).
7.7	<input checked="" type="checkbox"/>	Tracks will be rehabilitated, including pushing in all windrows, unless otherwise agreed in writing by the land holder or appropriate third party.
7.8	<input checked="" type="checkbox"/>	Appropriate erosion and sediment controls will be installed where erosion is evident or likely to occur.
7.10	<input checked="" type="checkbox"/>	Access through watercourses will be removed and banks restored.
7.11	<input checked="" type="checkbox"/>	All previously disturbed areas will be stable, with no evidence of active soil erosion.
7.12	<input checked="" type="checkbox"/>	All excavations will be backfilled within 6 months of their completion.
7.13	<input checked="" type="checkbox"/>	All water bores will be decommissioned unless otherwise agreed in writing by the land holder or appropriate third party.
7.14	<input checked="" type="checkbox"/>	All rubbish and infrastructure will be removed from site.
7.15	<input checked="" type="checkbox"/>	Topsoil will be replaced and vegetation re-established.
7.16	<input checked="" type="checkbox"/>	Contaminated soils (e.g. hydrocarbon or hazardous chemicals) will be rehabilitated or removed from site.
7.17	<input checked="" type="checkbox"/>	Monitoring will be undertaken following the wet season or a significant rainfall event.

Justification and alternative management measures:

## Section 8 – Required Attachments

8.1	<b>X</b>	Initial Application for Authorisation or variation of Authorisation (only if details on the form have subsequently changed).
8.2	<b>N/A</b>	Nomination of Operator Form, where required
8.3	<b>X</b>	Security Calculation Spreadsheet
8.4	<b>X</b>	Evidence of Land Access Agreement if operating on an Exploration Licence (EL) on Pastoral Lease (e.g. two-ways exchange of email)
8.5	<b>N/A</b>	Disturbance tracking spreadsheet (for existing Authorisations)
8.6	<b>X</b>	Spreadsheet with coordinates of proposed drill holes or polygons of target areas
8.7	<b>X</b>	KML/shape files/track logs of proposed tracks, camp sites and proposed drill holes or polygons of target areas
8.8	<b>X</b>	Map(s) of the work area(s) showing: <ol style="list-style-type: none"> <li>1. title boundaries and title numbers</li> <li>2. current and proposed drill holes, or polygons of target areas</li> <li>3. current and proposed tracks</li> <li>4. rehabilitated areas</li> <li>5. camp sites</li> <li>6. heritage sites or significant environmental areas</li> <li>7. environmental constraints</li> </ol>
8.10	<b>N/A</b>	Radiation Management Plan (if applicable)
8.12	<b>X</b>	Document(s) being appended in relation to Section 2 (if any): <ul style="list-style-type: none"> <li>- AAPA Abstract of Records at Appendix 1</li> <li>- Heritage Register Results at Appendix 2</li> <li>- Historical and Archaeological Results at Appendix 3</li> <li>- Desktop Biodiversity Assessment at Appendix 9</li> </ul>