

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

Project Name Provide the new or existing project name	Georgina Basin IOCG Project
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Authorisation Number Insert existing authorisation number, where applicable	A1089-01
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Operator Name Use ASIC-ABR registered name (if a company), or name of the applicant	Knox Resources Pty Ltd (a wholly-owned subsidiary of Greenvale Mining Limited)
Operator ABN and ACN numbers	91 623 480 286 623 480 286

Location and Access Details Include brief description of the location, access details, and distance to nearest town or community	<p>The Project is located in the East Tennant region approximately 215km east of Tennant Creek (following the Sturt Highway then the Barkly Highway) and 5km east of the Barkly Homestead Roadhouse.</p> <p>Access to the proposed drill sites are will follow the Barkly Highway approx. 11km east of the Barkly Homestead Roadhouse. Turn off to the south-east to follow formed access to Epenarra-Murray Downs (Purrukuwurru) to the proposed tracks to the drill sites, the access tracks are approx.. 10 to 14 km along the Epenarra-Murray Downs Rd.</p> <p>The proposed drill sites are up to 2.4 km (approx.) off the formed Epenarra-Murray Downs Rd.</p>
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Target Commodity Details Include target mineral commodities (i.e. gold, copper etc.)	Iron Oxide Copper Gold (IOCG) mineralisation. Primarily gold and copper + silver, bismuth, cobalt, tungsten, molybdenum and rare earth elements.
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<p>Mining Activities Summarise the mining activities (exploration) to be the subject of the proposed Authorisation or Variation.</p> <p>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>	<p>Stage 1: Construction of the internal tracks for site access, drill pads, and a water bore (with turkey's nest) to support drilling operations. Where the tracks are sandy road base may be laid to support truck-mounted drill rigs, floating the track-mounted drill rigs to or from the site, and support vehicles accessing the proposed drill sites.</p> <p>Stage 2: Drilling operations.</p> <p>Stage 3: Drill site and internal track rehabilitation.</p>
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<p>Proposed Schedule Include start and finish dates of ground disturbing work</p>	<p>Stage 1: As soon as approval is granted, work may progress in early 2022 (after approval of the MMP) dependent upon the onset of the wet season, stage 1 may continue into approx. March to May of 2022 is dependent on the cessation of the wet season and mobilisation back to the site.</p> <p>Stage 2: Dependent on the timing factors outlined in stage 1 above: March 2022 through to October 2022.</p> <p>Stage 3: Dependent timing factors outlined in stages 1 and 2 above: most likely October to November 2022, this may occur in early March to April 2023.</p>
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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.

Title Number	Title Holder	Expiry Date	Underlying Property Name or Land Holder
EL32281	Knox Resources Pty Ltd	22/09/2026	NT Portion 4469 Vacant Crown Land
EL32282	Knox Resources Pty Ltd	22/09/2026	NT Portion 4469 Vacant Crown Land
EL32283	Knox Resources Pty Ltd	22/09/2026	NT Portion 4469 Vacant Crown Land NT Portion 4030. Epenarra
EL32285	Knox Resources Pty Ltd	22/09/2026	NT Portion 1. North Australian Pastoral Company Pty Ltd
EL32286	Knox Resources Pty Ltd	22/09/2026	NT Portion 232. North Australian Pastoral Company Pty Ltd
EL32295	Knox Resources Pty Ltd	22/09/2026	NT Portion 773. Bronco Yard Pty Ltd.
EL32296	Knox Resources Pty Ltd	22/09/2026	NT Portion 4469 Vacant Crown Land

Delete or add rows as required

Please note a Land Access Agreement (LAA) is required for disturbance proposed on Pastoral Properties on Exploration Licence (EL).

Organisational Structure

Position Title	Name
Managing Director	Matthew Healy
General Manager	Neil Biddle
Exploration Manager	
Senior Project Geologist	Nicholas Ryan
Senior Field Manager	Rob Carlos
Environmental Manager	
Radiation Safety Officer	

Delete or add rows for various position titles as required

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 a 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>Step 1: Are there any threatened flora and fauna species or habitats of significance that may occur in the proposed work area?</p>	<p>YES</p>	<p>The Operator must assess the likelihood of threatened species or their habitats occurring at or near the site. If the likelihood is high, then a “Significant Impact Assessment” must be undertaken and appended to this document.</p> <p>Greenvale Mining Limited engaged Low Ecological Services P/L to complete environmental assessments on selected locations within the Georgina Basin IOCG tenures, this included EL32295.</p> <p>Low Ecological Services P/L compiled a ‘Georgina Project Baseline Landscape, Flora and Fauna Survey and Environmental Impact Assessment, NT, January 2022’ Report included the EPBC Act Protected Matters Report for EL32295 as an appendix.</p> <p>Low Ecological considered it unlikely that ten (10) of the ‘threatened and significant fauna and flora’ listed in the EPBC Act Protected Matters Report for EL32295 were ‘unlikely’ to have a likelihood of being found in EL32295. This assessment is based upon the 2021 field survey, prior regional surveys completed by Low Ecological, and flora and fauna maps published by the Northern Territory Government.</p> <p>Low Ecological considered that the <i>Grey Falcon</i>, <i>Falco hypoleucos</i>, to be ‘likely to be present in the area’ for EL32295 based upon the 2021 & 2022 field surveys, prior regional surveys completed by Low Ecological, and flora and fauna maps published by the Northern Territory Government.</p>	<p>Greenvale Mining Limited’s Environmental Management Guidelines (version 1.1) are attached as Appendix 1, forming a basis for the proposed work within tenure EL32295.</p> <p>Low Ecological have completed a Baseline Landscape, Flora and Fauna Survey and Environmental Impact Assessment for EL32295, this is included as an Appendix document (Appendix 3).</p> <p>The EPBC Protected Matters Search report for EL32295 is appended to the EIA document</p>

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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>Knox Resources have the following strategies to reduce the environmental impact of ground disturbance upon selected 'Listed Threatened Species'.</p> <p><u>Grey Falcon</u>: <i>Falco hypoleucus</i>. Vulnerable. The Grey Falcon has the potential to be present from the EPBC Protected Matters Search. The Grey Falcons when nesting are susceptible to disturbance from the presence of people or vehicles. If a nest or suspected nest is encountered then a 200 m buffer zone will be put in place to reduce potential impact.</p> <p>The drill sites and internal tracks are in close proximity to the already formed public road that crosses tenure EL32295: all are within approximately 2.4km of the formed road. Evidence of driven and wandering cattle herds in close proximity to the already formed road potentially reduces the chances of burrowing creatures habituating near the road.</p>	<p>and forms part of Appendix 3.</p>

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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>Step 2: Are there any known declared weeds within the proposed work area?</p>	<p>YES</p>	<p>Seek advice from DEPWS – Weed Management Branch to determine if weeds are present on-site and ensure management measures are appropriate for the level of activity proposed.</p> <p>The EPBC Act Protected Matters Report is appended to the Low Ecological Services P/L “Georgina Project Baseline Landscape, Flora and Fauna Survey and Environmental Impact Assessment”.</p> <p>Greenvale Mining Limited has developed “Environmental Management Guidelines” (version 1.1) for the Knox Resources Georgina IOCG project which is the baseline environmental management processes utilised. The baseline environmental management processes for the Georgina Basin project are superseded by any tenure specific environmental management controls for EL32295. Tenure specific environmental management controls are contained within the Low Ecological Services P/L ‘Georgina Project Baseline Landscape, Flora and Fauna Survey and Environmental Impact Assessment, NT, January 2022’ Report.</p> <p>The EPBC Act Protected Matters Report information had been assessed against the observations made in the 2021 field survey completed over proposed drill sites and proposed tracks within EL32295. Nine (9) species of weeds were considered to have an “unlikely” likelihood of being located in the tenure EL32295.</p> <p>The EPBC Protected Matters Search identified Buffel-grass, and/or Black Buffel-grass as an invasive flora species that could be present in the tenure area. The pastoralist will need to be consulted to determine any weed management strategy specific to the Buffel-grass, and/or Black Buffel-grass.</p>	<p>Tennant Creek Regional Weeds Strategy 2021 – 2026, Department of Environment, Parks and Water Security: lists Buffel grass as a ‘Weeds of concern’ (attached as Appendix 2).</p> <p>Greenvale Mining Limited’s Environmental Management Guidelines (version 1.1) are attached as Appendix 1. It forms a basis for the proposed work within tenure EL32295. Refer to section 2.15 Weed Management Procedures.</p> <p>The Low Ecological Services P/L ‘Georgina Project Baseline Landscape, Flora and Fauna Survey and Environmental Impact Assessment, NT, January 2022’ Report (attached as Appendix 3).</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>
Step 3: Will you be using water from bores or other sources for the operation?	YES	<p>The Pastoral Landholder whose parcel (NT Portion 773) is partially overlapped by minerals tenure (EL32295) has been consulted as the proposed location of the waterbore(s) to support drilling operations on EL32295.</p> <p>The Landholder has agreed to the locations of the two (2) waterbores that will be drilled to support drilling operations on EL32295.</p> <p>Knox Resources has an approved waterbore works permit (BCPNA06765) to install two (2) water bores near the minerals drill sites on EL32295. The water bores are primarily for drilling water to support exploration operations on EL32295.</p> <p>A Freehold Landholder on a nearby parcel has been consulted for water use for drilling from an existing waterbore, in the event of having to source additional water.</p>	<p>Knox Resources has an approved waterbore works permit (BCPNA06765) to install two (2) water bores on EL32295 appended (refer to appendices 5 & 6).</p> <p>Consultation with the Pastoral Landholder whose parcel (NT Portion 773) is partially overlapped by minerals tenure (EL32295) had agreed to the locations of the two (2) waterbores (refer to Appendix 6a & 6b).</p>

Environmental assessment and cultural considerations

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
Step 4: Is your project likely to have a significant impact on the environment?	No	Refer to the NTEPA Environmental Factors and Objectives Guideline.

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ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
<p>Step 5: Are there Aboriginal sacred sites in the Project area?</p>	No	<p>Sacred Sites are protected under the NT Aboriginal Sacred Sites Act 1989 and administered by the Aboriginal Areas Protection Authority (AAPA). It is recommended that advice be sought from AAPA in relation to sacred site protection.</p> <p>On the 18th of October 2021, Knox Resources Pty Ltd applied to AAPA with an application for an abstract of records of Aboriginal Sacred Sites on EL32295. There are currently no recorded aboriginal sacred sites on EL32295. Due to s38 of the act, the Abstract of Records cannot be appended to the MMP.</p>
<p>Step 6: Are there archaeological and heritage sites in the Project area?</p>	No	<p>Heritage and archaeology sites are protected in the NT. The NT Department of Territory Families, Housing and Communities (DTFHC) administers the <i>Heritage Act 2011</i>.</p> <p>The DTFHC completed a Heritage Place and Archaeological Site search over tenure EL32295 – there are currently no recorded Heritage Places or Archaeological Sites within tenure EL32295.</p> <p>Prior to disturbing the ground for access and/or the creation of drill pads Knox Resources will conduct an inspection of the ground and cease work if Heritage and Archaeological Site are identified.</p>

Section 3 – Amendments

As per Section 41(3) of the *Mining Management Act*, an MMP reviewed and amended under Section 41(1)(a) is to have amendments made since the previous MMP submission clearly identified.

Section	Amendment
41(2)	A1089-01 Variation Approved 21-Oct-2021 – Additional drill holes (mineral and water bores) for EL32282 & EL32296.

Section 4 – Activities Proposed for this MMP only

Provide relevant EL numbers

Mining Interests (i.e. titles)	EL32295
Number and type of proposed exploration drill holes	Mineral Exploration Holes: 11 RC or rotary mud pre-collars with diamond tail.
Maximum depth of proposed holes (m)	Up to 800m – average proposed total depths is 620m
Number and size of drill pads to be cleared (Length: m x Width: m)	11 pads 40m x 30m (each) – includes sump disturbance
Sumps – number and size included on the drill pad	6m x 2.4m x 1.5m (each – 2 per drill hole)
The total area of drill pads to be cleared (ha)	0.83 Ha Sump areas for mineral drill holes are contained within the drill pads
Number of proposed water bores	2x Waterbore pad 40m x 20m (each) The total area of water bore pads: 0.16 Ha
Sump/Turkey Nest to hold water (Length: m x Width: m x Depth below the ground surface: m)	Outer disturbance maximum: 40m x 25m x 3m Total area of Sump/Turkey Nest disturbance: 0.20 Ha
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	Ground water is anticipated to be approx. 90-130m depth based on the nearest water bores. Aquifers are anticipated to be in Georgina Basin limestone and limestone dominated units, multiple intersects in close downhole proximity.
Number of costeans	None

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Mining Interests (i.e. titles)	EL32295
Volume to backfill costeans (Length: m x Width: m x Depth: m)	None
Number of bulk sample pits	None
Volume to backfill bulk sample pits (Length: m x Width: m x Depth: m)	None
Bulk sample pits approved under <i>Mineral Titles Act?</i> (Y or N). If Yes provide approval	None
Line/track clearing: (length m x width m)	12.0 km x 3.5m – this includes additionally included disturbance to account for meandering tracks around trees and/or other vegetation.
Area of proposed line/track clearing (ha)	4.20 Ha
Camp area to be cleared (ha)	Not Applicable – accommodation at the Barkly Homestead & Roadhouse
Camp Infrastructure (i.e. demountable, tents) Please provide a complete list with measurements as required in the security calculation	Not Applicable – accommodation at the Barkly Homestead & Roadhouse
Other	None – access into tenure EL32295 is by formed public road Purrukuwurru Rd (Epenarra-Murray Downs Rd).
Total proposed area of disturbance (ha)	5.4 Ha

Staging approach based on disturbance can be proposed and will be considered by the Department.

Section 5 – Previous Disturbance (for existing Authorisations only)

The 'Disturbance Tracking' spreadsheet must be completed and attached to the MMP submission to complete this section. The spreadsheet is available on the departmental web page where this template is located.

No 'Previous Disturbance' has occurred for tenure EL32295 – 'Disturbance Tracking' spreadsheet attached to show calculations for the proposed disturbance for EL32295, and the disturbance status of EL32282 & EL32296. Attached as file ***“disturbance-tracking-for-exploration-projects_2022_03_04.xlsx”***

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	X	Blade-up approach for clearing will be used (i.e. no windrows, leave root stock and topsoil)
6.2	X	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)
6.3	X	Vegetation clearing during, and immediately after rainfall events, will be avoided
6.4	X	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads
6.5	X	Where blade-up techniques cannot be employed, topsoil and vegetation will be stockpiled appropriately for rehabilitation purposes
6.6	X	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	X	Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used
6.8	X	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses
6.9	X	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress
6.10	X	Drill holes will be securely capped immediately after drilling
6.11	X	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	X	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	X	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards
6.14	X	Hydrocarbons will be stored in lined and bunded areas
6.15	X	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals
6.16	X	Waste will be removed off-site and disposed of at an appropriate waste management facility
6.17	X	All environmental incidents will be reported to the Department in accordance with Section 29 of the <i>Mining Management Act</i> .
6.18	X	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	X	Radioactive/NORM drill cuttings will be managed to avoid radiation related issues on site.
6.20	X	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	N/A	Initial Application for Authorisation or variation of Authorisation (only if details on the form have subsequently changed).
8.2	N/A	Nomination of Operator Form, where required
8.3	X	Security Calculation Spreadsheet
8.4	X	Evidence of Land Access Agreement if operating on an Exploration Licence (EL) on Pastoral Lease (e.g. two-ways exchange of email)
8.5	X	Disturbance tracking spreadsheet (for existing Authorisations)
8.6	X	Spreadsheet with coordinates of proposed drill holes or polygons of target areas
8.7	X	KML/shape files/track logs of proposed tracks, camp sites and proposed drill holes or polygons of target areas
8.8	X	<p>Map(s) of the work area(s) showing:</p> <ol style="list-style-type: none"> 1. Map 1. Tenure Overview – Granted Tenures and Tenure Applications 2. Map 2. EL32295 MMP Overview - Proposed Drill Sites displayed with Muster Point, Barkly Homestead and Roadhouse, Barkly Airstrip, Current and Proposed Site Access Tracks 3. Map 3. EL32295 – Labelled Drill Sites (Minerals and Water Bores) and Proposed Site Access Tracks 4. Environmental constraints – appropriate maps are contained within the Low Ecological EIA
8.10	N/A	Radiation Management Plan (if applicable)
8.12	X	<p>Document(s) being appended in relation to Section 2 (if any):</p> <p>APPENDIX 1. Environmental Management Guidelines – Version 1.1</p> <p>APPENDIX 2. Tennant Creek Regional Weeds Strategy 2021-2026</p> <p>APPENDIX 3. Low Ecological Baseline Landscape, Flora and Fauna Survey and Environmental Impact Assessment (includes EPBC Protected Matters Report as an Appendix).</p> <p>APPENDIX 4. General Induction – Version 1.1</p> <p>APPENDIX 5. EL32295 – Tenure Specific Emergency Management Plan</p> <p>APPENDIX 6a. EL32295 Waterbore Works Permit Signed</p> <p>APPENDIX 6b. EL32295 Waterbore Works Permit Map</p> <p>APPENDIX 7. Landholder Land Access Consent Email (includes evidence of water bore consultation).</p>