

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 new or existing project name	Hatches Creek
Authorisation Number Insert existing authorisation number, where applicable	0890-01
Operator Name Use ASIC-ABR registered name (if a company), or name of the applicant	NT Tungsten Pty Ltd
Operator ABN and ACN numbers	ABN 82 603 699 252
Location and Access Details Include brief description of the location, access details, and distance to nearest town or community	<p>The Hatches Creek Project is located 325 km north-east of Alice Springs and 170 km south-east of Tennant Creek.</p> <p>The site is 125 km from the Stuart Highway and is accessed via Taylors Creek road or Kurundi road.</p>
Target Commodity Details Include target mineral commodities (i.e. gold, copper etc.)	Tungsten, Copper, Molybdenum gold
Mining Activities 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>NT Tungsten is planning to drill:</p> <ul style="list-style-type: none">- 60 RC drill holes at the Hit or Miss prospect in mostly already disturbed areas- 14 RC holes north and 14 south of the Hit or Miss prospect in ground partly disturbed by previous mining activities <p>A map with the proposed drill holes' location is included in the attachments.</p>

Mining Management Exploration Activities

Proposed Schedule Include start and finish dates of ground disturbing work	Proposed start December 2023 and finish in March 2024
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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
EL22912	NT Tungsten Pty Ltd (operator) Territory Tungsten Pty Ltd	24/07/2023 On 20/07/2023 renewal application	Aboriginal Freehold Land (Anurrete Aboriginal Land Trust)
EL23463	NT Tungsten Pty Ltd (operator) Territory Tungsten Pty Ltd	24/07/2023 On 20/07/2023 renewal application	Aboriginal Freehold Land (Anurrete Aboriginal Land Trust)

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
Executive Director	Teck Wong
Exploration Manager	Peter Bleakley
Senior Project Engineer	William Moore
Senior Geologist	TBA
Environmental Manager	TBA
Radiation Safety Officer	NA

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 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).
Step 1: Are there any threatened flora and fauna species or habitats of significance that may occur in the proposed work area?	No	<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>The area to be drilled has been previously disturbed by previous mining activities. Drilling has taken place in the past at the Hit or Miss prospect, which is where the proposed drilling is going to take place.</p> <p>The Hit or Miss location and areas for the proposed drilling have been inspected by EcOz and there is no evidence of habitat that would support threatened species' presence.</p> <p>Broadly, the main vegetation community consists of Spinifex (<i>Triodia bitextura</i> and <i>T. pungens</i>) hummock grasslands with low open woodland/shrubland of Eucalyptus (<i>E. leucophloia</i> and <i>E. pachyphylla</i>) and a variety of Acacia species (<i>A. spondylophylla</i>, <i>A. hilliana</i>, <i>A. monticola</i>, <i>A. dictyophleba</i> were common).</p> <p>Therefore, EcOz confirm previous environmental assessment done for this Project as still current.</p> <p>EcOz recommends the proponent to avoid <i>E. leucophloia</i> (Snappy Gum) when drilling, where they are present at the proposed location.</p>	<p>Previous environmental assessment, provided with previous MMPs, completed by EcOz for the Hatches Creek Project concluded that habitat for threatened species is not present on drill site locations.</p> <p>For more information about threatened flora and fauna species or habitats please refer to Exploration Mining Management Plan (EMMP) – Hatches Creek June 2018 and 2017 Environmental Inspection of completed and proposed work report.</p> <p>EcOz reviewed the 2018 EMMP and 2017 Environmental Inspection of completed and proposed work, submitted to the Department, and advised they are current in relation to threatened flora and fauna species or habitats.</p>

Mining Management Exploration Activities

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).
Step 2: Are there any known declared weeds within the proposed work area?	No	<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 and attach a Weed Management Plan (if required).</p> <p>No declared weed species (as listed under the <i>NT Weeds Management Act</i>) or Weeds of National Significance were identified within drill pads or associated access tracks.</p> <p>Some environmental weed species, such as Buffel Grass (<i>Cenchrus ciliaris</i>) and Ruby Dock (<i>Acetosa vesicaria</i>) were sighted around the disturbed mine areas and have been present before the beginning of the Project, as listed in the 2016 MMP.</p> <p>EcOz recommends weed hygiene, due to presence of environmental weed species at the mine site.</p>	<p>For more information about weeds, please refer to Exploration Mining Management Plan – Hatches Creek June 2018.</p> <p>Weed hygiene management actions stipulated in the Biodiversity EMP, included in Appendix B of the EMMP, will be in place during the drilling campaign.</p>
Step 3: Will you be using water from bores or other sources for the operation?	No	<p>Water related matters on mineral titles are no longer exempt from the <i>Water Act 1992</i>. Please consult with DEPWS Water Resources and/or familiarise yourself with the <i>Water Act</i> to ensure compliance under this Act when undertaking exploration activities.</p>	Water is not going to be sourced from site. It will be brought in.

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	<p>Refer to the NTEPA Environmental Factors and Objectives Guideline.</p> <p>Work will be completed mostly on, or adjacent to, already disturbed areas.</p> <p>Threatened species habitat is not present on any of the proposed drilling areas.</p>

Mining Management Exploration Activities

ASSESSMENT ASPECT	YES or NO	MANAGEMENT REQUIREMENTS
Step 5: Are there Aboriginal sacred sites in the Project area?	Yes	<p>Sacred Sites are protected under the NT <i>Aboriginal Sacred Sites Act 1989</i> 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>There is one protected sacred site on tenement EL22912. The site is not located near any proposed work.</p> <p>The proponent has been engaging with the local Traditional Owners and CLC since the start of the Project.</p>
Step 6: Are there archaeological and heritage sites in the Project area?	No	<p>Heritage and archaeology sites are protected in the NT. NT Department of Territory Families, Housing and Communities (DTFHC) administers the <i>Heritage Act 2011</i>.</p> <p>Seek advice in relation to protection of heritage and archaeological sites.</p> <p>Archaeological sites are not present on site, despite the presence of old mine sites. Communication with the NT heritage branch (Dianne Bensley) has previously taken place in relation to this.</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
All	This is a new template; therefore, all sections have been updated. However, the main changes are the update related to the proposed drilling and update on the tracking spreadsheet.

Delete or add rows as required

Section 4 – Activities Proposed for this MMP only

Provide relevant EL numbers

Mining Interests (i.e. titles)	EL22912	EL23463
Number and type of proposed exploration drill holes	88 RC holes	0
Maximum depth of proposed holes (m)	100 m	NA
Number and size of drill pads to be cleared (Length: m x Width: m)	88 drill pads 250m ²	NA
Total area of drill pads to be cleared (ha)	2.2 ha	NA
Number of proposed water bores	0	0
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. Should drilling encounter groundwater in multiple or confined aquifers, they will be grouted with concrete at rehabilitation.	NA
Number of costeans	0	0
Volume to backfill costeans (Length: m x Width: m x Depth: m)	0	0
Number of bulk sample pits	0	0
Volume to backfill bulk sample pits (Length: m x Width: m x Depth: m)	0	0
Bulk sample pits approved under <i>Mineral Titles Act</i> ? (Y or N). If Yes provide approval	NA	NA
Line/track clearing: (length m x width m)	2,779 m x 5 m = 13,895 m ² of proposed tracks	0

Mining Management Exploration Activities

Mining Interests (i.e. titles)	EL22912	EL23463
Area of proposed line/track clearing (ha)	1.39	0
Camp area to be cleared (ha)	No clearing required. The area is already disturbed.	0
Camp Infrastructure (i.e. demountable, tents) Please provide a complete list with measurements as required in the security calculation	Accommodation will be in caravans, which will be located in previously cleared ground at Hit or Miss EL23463). No disturbance will be created for accommodation.	NA
Other	NA	NA
Total proposed area of disturbance (ha)	3.59 ha	0

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.

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	√	Blade-up approach for clearing will be used (i.e. no windrows, leave root stock and topsoil)
6.2	√	Significant vegetation will be avoided during clearing (i.e. large trees, specimens providing habitat or food sources, riparian vegetation, and threatened species)
6.3	√	Vegetation clearing during, and immediately after rainfall events, will be avoided
6.4	√	Vegetation clearing will be kept to the minimum required to safely traverse vehicles and drill rigs along tracks and drill pads
6.5	√	Where blade-up techniques cannot be employed, topsoil and vegetation will be stockpiled appropriately for rehabilitation purposes
6.6	√	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	√	Sumps will be lined or tanks of appropriate size to contain water, sediment and drilling fluids encountered during drilling, will be used
6.8	√	Sumps, drill holes, and fuel stores will be located away from environmentally significant areas and water courses
6.9	√	Excavations (sumps, costeans and pits) will be appropriately ramped to allow fauna egress
6.10	√	Drill holes will be securely capped immediately after drilling
6.11	√	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	√	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	√	Hazardous substances (including hydrocarbons) will be stored and handled in accordance with relevant Australian Standards
6.14	√	Hydrocarbons will be stored in lined and bunded areas
6.15	√	Waste will be stored securely while on-site to minimise windblown rubbish and access by feral animals
6.16	√	Waste will be removed off-site and disposed of at an appropriate waste management facility
6.17	√	All environmental incidents will be reported to the Department in accordance with Section 29 of the Mining Management Act.
6.18	NA	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.

Mining Management Exploration Activities

6.19	NA	Radioactive/NORM drill cuttings will be managed to avoid radiation related issues on site.
6.20	√	Dust management will be implemented on site.

Justification and alternative management measures:

6.18

Acid and Metalliferous Drainage (AMD) and Potentially Acid Forming (PAF) material will not incur from drilling.

6.19

Drilling is not going to encounter radioactive material.

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	See justification below	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	√	Drill holes encountering multiple or confined aquifers will be grouted with concrete.
7.3	√	Drill samples/spoil will be returned down drill holes, buried in sumps, or removed from site.
7.4	√	All drill hole and access markers including flagging tape, wooden markers and star pickets will be removed from site.
7.5	√	Cut and fill drill pads will be re-contoured to be consistent with the surrounding terrain.
7.6	√	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	√	Tracks will be rehabilitated, including pushing in all windrows, unless otherwise agreed in writing by the land holder or appropriate third party.
7.8	√	Appropriate erosion and sediment controls will be installed where erosion is evident or likely to occur.
7.10	√	Access through watercourses will be removed and banks restored.
7.11	√	All previously disturbed areas will be stable, with no evidence of active soil erosion.
7.12	See justification below	All excavations will be backfilled within 6 months of their completion.
7.13	NA	All water bores will be decommissioned unless otherwise agreed in writing by the land holder or appropriate third party.
7.14	√	All rubbish and infrastructure will be removed from site.
7.15	√	Topsoil will be replaced and vegetation re-established.
7.16	√	Contaminated soils (e.g. hydrocarbon or hazardous chemicals) will be rehabilitated or removed from site.
7.17	√	Monitoring will be undertaken following the wet season or a significant rainfall event.

Justification and alternative management measures:

Mining Management Exploration Activities

7.1 and 7.12

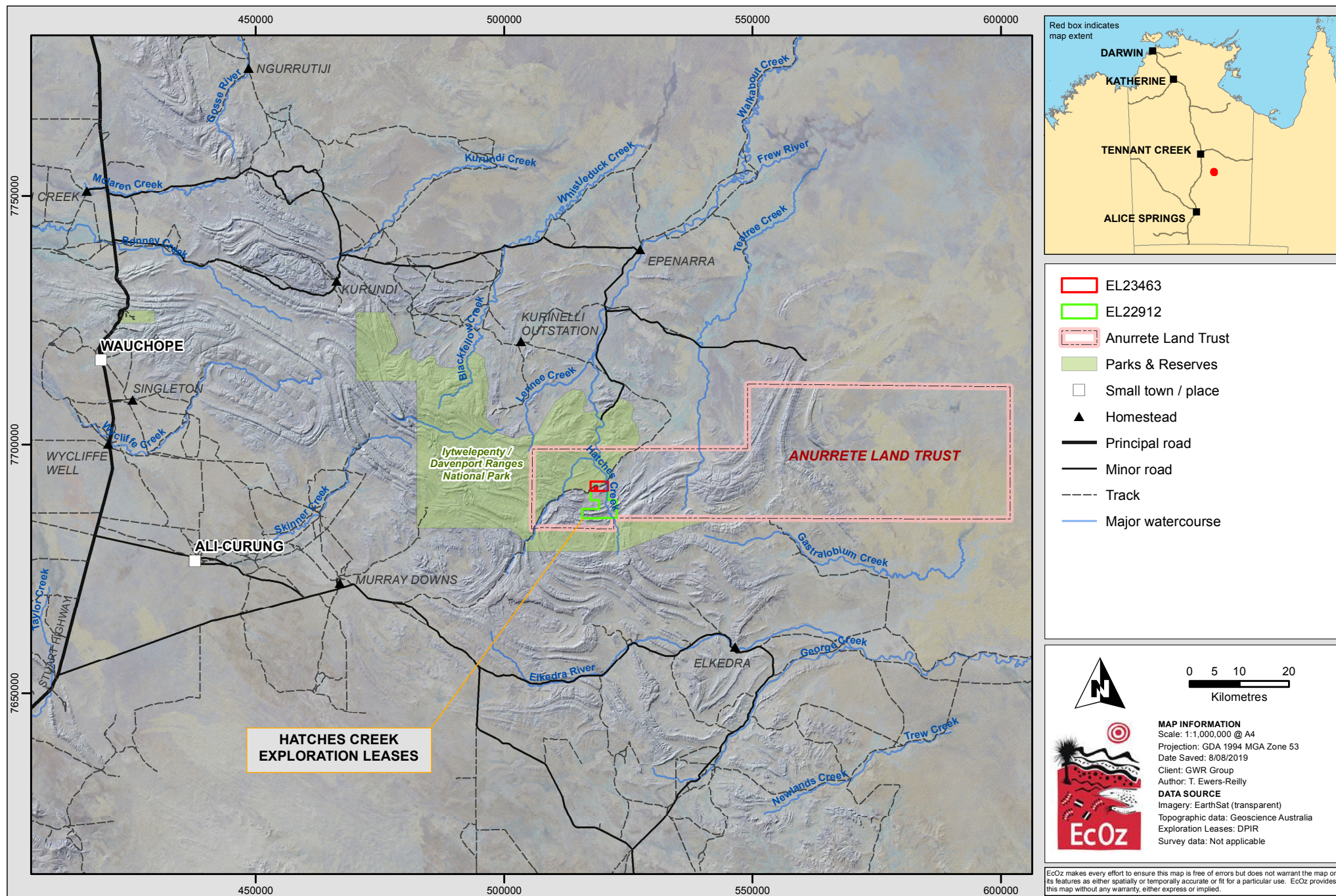
Drill holes and excavation may not be rehabilitated within 6 months of their completion as they may be left because of further exploration and possibly mining. Drill holes are cupped after completion.

7.7

Tracks will be rehabilitated when they are no longer required for further exploration or mining operations.

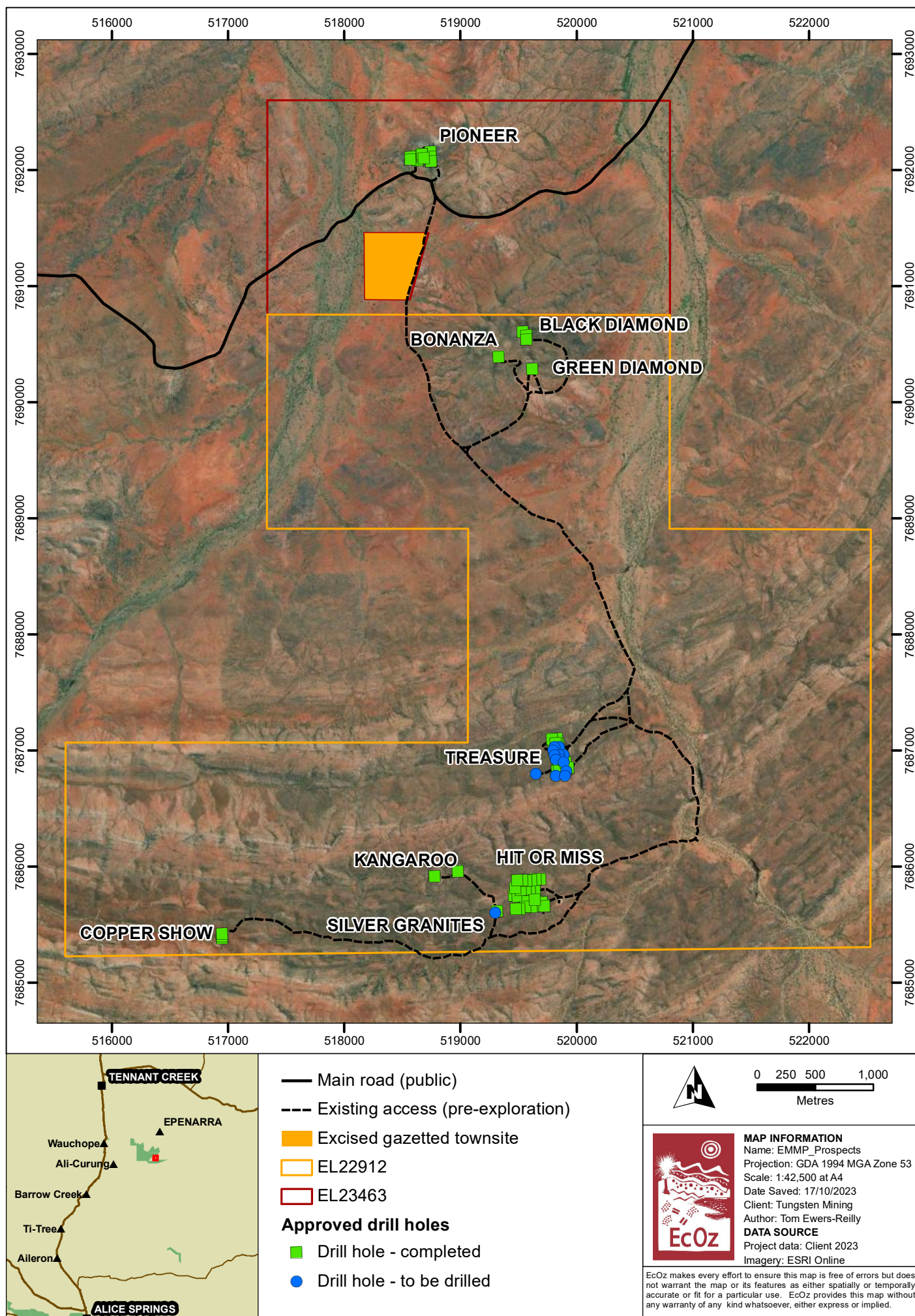
Section 8 – Required Attachments

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



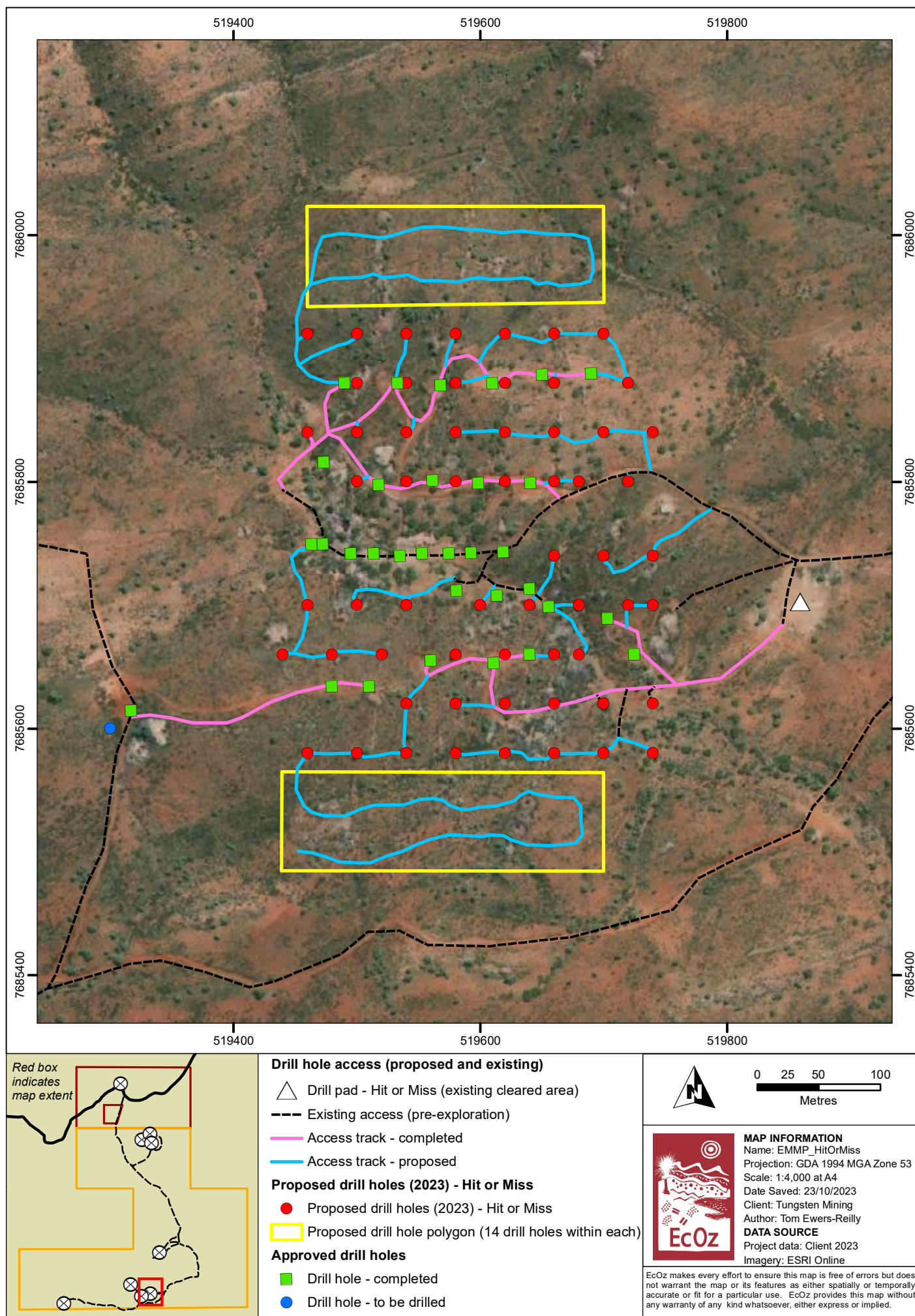
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FIGURE 1. Map showing the location of Hatches Creek Exploration Leases (EL22912 and EL23463)



Path: C:\Users\lrom.reilly\ECOZ\OneDrive - EcoZ\Documents\I01. EcOz GIS Projects (TR) - new\EZ23178 (Tom) - Hatches Ck EMMP 2023\I01 Project Files\EMMP_Prospects.mxd

Figure 2 - Existing drill holes and prospects at Hatches Creek Project



Path: C:\Users\tom.reilly\ECOZ\OneDrive - Ecoz\Documents\01. EcOz GIS Projects (TR) - new\EZ23178 (Tom) - Hatches Ck EMMP 2023\01 Project Files\EMMP_HitOrMiss.mxd

Figure 3 - Proposed and existing drill holes and tracks at Hit or Miss prospect