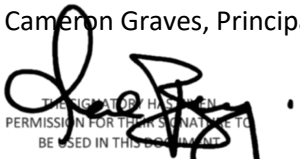
INDEPENDENT GEOLOGIST REPORT OF THE NORTHERN TERRITORY EXPLORATION ASSETS HELD BY LITCHFIELD MINERALS PTY LTD

Client:	Litchfield Minerals Pty Ltd
Project number:	P2324-01
Document status:	FINAL
Effective date:	31 October 2023
Document Date:	30 November 2023

Derisk Geomining Consultants Pty Ltd ABN 44 615 606 454
+61 4 0802 9549 +65 9084 4652 info@deriskgeomining.com **www.deriskgeomining.com**

DOCUMENT CONTROL AND INFORMATION

Project number:	P2324-01
Document title:	Independent Geologist Report of Northern Territory Exploration Assets
Client:	Litchfield Minerals Pty Ltd
Client contact:	Mr Matthew Pustahya, Director
Document file name:	P2324-01 Litchfield IGR FINAL.pdf
Document status:	Final Report
Effective date:	31 October 2023
Document date:	30 November 2023
Derisk project manager:	Mark Berry, Director – Principal Geologist
Derisk contributors:	Anitra Ross, Senior Geologist Michele Pilkington, Director – Business Manager
Derisk peer reviewer:	Cameron Graves, Principal Geologist
Authorised and signed on behalf of Derisk (for Final Documents):	
Derisk representative:	Mark Berry MAIG[1], MGSA[2], AAICD[3]

This document has been commissioned by the Client and has been prepared by Derisk Geomining Consultants Pty Ltd (Derisk) for the exclusive use of the Client. The contents of this document may not be published, disclosed, or copied without the prior written consent of Derisk. The contents of this document may not be published, disclosed, or copied without the prior written consent of Derisk. The Client requested Derisk to prepare this document for inclusion in the Client's prospectus (Prospectus) to support an initial public offering of shares in the Client to enable a listing of the Client on the Australian Securities Exchange.

Derisk accepts no liability for the accuracy or completeness of information provided to it by the Client, however, Derisk has used reasonable endeavours to verify information provided by the Client that has contributed to the preparation of this document, including any conclusions and recommendations. The commentary, statements and opinions included in this document are provided in good faith and in the belief that they are not misleading or false. The terms of the agreement between the Client and Derisk are such that Derisk has no obligation to update this document for events after the date of this document.

[1] Member, Australian Institute of Geoscientists
[2] Member, Geological Society of Australia
[3] Affiliate, Australian Institute of Company Directors

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 EXECUTIVE SUMMARY

1.1 Introduction

In July 2023, **De**risk Geomining Consultants Pty Ltd (Derisk) was engaged by Litchfield Minerals Pty Ltd (Litchfield or the Company) to prepare an Independent Geologist Report (IGR or the Report) of the Northern Territory (NT) exploration assets (the Assets) held by the Company, to support an Initial Public Offering (IPO) on the Australian Securities Exchange (ASX).

1.2 Report Details

Derisk has adopted the VALMIN Code [4] for the technical assessment of the Assets, and the JORC Code [5] as the public reporting standard. The effective date of this Report is 31 October 2023. All values in this report are in Australian dollars (AUD or $) unless otherwise stated.

This Report has been prepared by Mark Berry and Anitra Ross, and peer reviewed by Cameron Graves. Mark Berry is the Practitioner and Specialist (as defined by the VALMIN Code) for the IGR and was assisted by Anitra Ross, who is also a Specialist. A site visit to some of the tenement areas was undertaken by Anitra Ross in October 2023. Mark Berry is the Competent Person (as defined by the JORC Code) for compilation of the Exploration Results presented in the IGR.

Derisk confirms that its Directors, staff, contributors, and reviewers to this Report are independent of Litchfield and have no interest in the outcome of the work to be completed in this engagement. Fees paid to Derisk are on a fee-for-service basis plus reimbursement of project-related expenses. Our agreement with Litchfield excludes any provision for a success fee or related incentive.

1.3 Location and Ownership

Litchfield holds one Exploration Licence (EL) and one Exploration Licence Application (ELA) in NT, with a total area of approximately 1,180 km^2. The Mount Doreen project (EL 31305) is located approximately 350 km northwest of Alice Springs and the Lucy Creek project (ELA 33568) is located approximately 400 km east-northeast of Alice Springs.

Mount Doreen is an advanced exploration project (as defined by the VALMIN Code) and the Lucy Creek project is an early-stage exploration project (as defined by the VALMIN Code). There are no Exploration Targets, Mineral Resources or Ore Reserves as defined by the JORC Code at either project.

1.4 Geological Setting and Mineralisation Styles

Mount Doreen and Lucy Creek are located in central Australia within the North Australian Craton, which extends across much of northern Australia. The craton includes localised Archean inliers and orogenic domains overlain by widespread and locally thick sedimentary basins. Central Australia has a strong metallogeny and diverse mineral occurrences, with numerous historic mines and significant deposits that include gold, copper, uranium, rare earth elements (REE), tungsten, vanadium, phosphate, and garnet.

The Mount Doreen project lies within the Aileron Province of the Arunta Region. The Arunta Region is characterised by sedimentation in varied environments, episodic deformation, moderate to high grade metamorphism, and bimodal magmatism. The Aileron Province comprises metasedimentary successions including subordinate metavolcanic and volcaniclastic rocks. The province contains units that are considered to be direct stratigraphic correlatives of units in the Tanami and Tennant Regions.

The Aileron Province hosts a variety of orthomagmatic, syngenetic, and epigenetic mineralisation. Nickel-copper-cobalt mineralisation is associated with mantle-derived mafic-ultramafic intrusions. Syngenetic mineralisation forms with sedimentation and includes inferred volcanic associated massive sulphides (VMS, VAMS), Broken Hill-type deposits, and some vein-related carbonate replacement deposits. Epigenetic mineralisation is a variety of stratabound and cross-cutting mineralisation that postdate the formation of the host rock assemblage, including intrusion-related breccia, vein and skarn mineralisation.

The Lucy Creek project lies within the Georgina Basin, which is part of the Centralian Superbasin. The Georgina Basin is a polyphase intracratonic basin containing unmetamorphosed Cryogenian to Devonian

[4] Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets (The VALMIN Code), 2015
[5] Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code), 2012

sedimentary rocks. To the south, the contact with the Aileron Province is a steep southside-up thrust fault system.

The southern Georgina Basin contains several styles of copper and lead-zinc base metal mineralisation. These include Mississippi Valley-type (MVT), stratiform sediment-hosted and sandstone hosted types. Sedimentary or secondary manganese deposits are also present in the basin as well as large Cambrian sedimentary phosphate deposits in carbonates.

1.5 Historical Mining

A number of prospects at Mount Doreen including Silver King, Clark, Mount Irene, Wolfram Hill (also known as Mount Doreen), and Patmungala have been subject to limited historical mining, mostly from the 1930s to the 1970s as follows:

- Historical workings at Silver King include a surface trench, a 16 m deep timbered shaft and a 3 m deep pit.
- The workings at Clark consist of three sinuous open cuts up to 9 m deep and up to 500 m apart, and several pits that were briefly worked in the 1950s.
- At Wolfram Hill there are numerous timbered shafts, adits, and open cuts. Production has been estimated at up to 90 t of wolframite during the period from 1926 – 1956. The latest venture to mine alluvial material derived from Wolfram Hill was from 1972 – 1975.
- Workings at Mount Irene includes two shafts and three small pits.
- At Patmungala, copper occurrences include a 10 m trench, and a lead occurrence that consists of small pits within a 50 m zone.

There are no known historical workings at Lucy Creek.

1.6 Exploration

In the vicinity of Mount Doreen, previous exploration commenced in the late-1960s and has been undertaken by numerous companies targeting, base and precious metal mineralisation, speciality metals, diamonds, uranium, and industrial minerals. Regional exploration programs have included geological mapping, geochemical sampling, airborne and ground geophysical surveys, and several drilling programs. In addition, exploration was undertaken at the known mineralisation occurrences with historical mining activity.

Mount Doreen was granted to Litchfield in 2018 and the Company has completed the following exploration across the tenement:

- Literature reviews and desktop analysis.
- October 2019: 13 rock chip samples were collected from Wolfram Hill, Mount Irene, and Silver King that were geochemically assayed by ALS laboratory.
- May 2023:
  - A selection of rock chip samples were collected from Mount Irene, Silver King, and Wolfram Hill that were scanned by a portable X-ray fluorescence analyser (pXRF[6]).
  - Ground geophysics including Gradient Array Induced Polarisation (GAIP) and Pole-Dipole Induced Polarisation (PDIP) surveys were undertaken at Mount Irene and Silver King.
  - Soil samples were collected from the eastern side of Wolfram Hill and scanned by pXRF.
  - Processing of geophysical surveys and 3D inversion modelling of the induced polarisation (IP) data at Silver King.
  - Review of exploration results and target generation of drill targets at the Silver King and Mount Irene prospects.

In the vicinity of Lucy Creek, previous exploration commenced in the 1960s and was predominantly focused on the search for base metals within the Georgina Basin. In the 1980s and 2000s, two diamond exploration programs were completed in the district that identified some indications of diamonds but exploration also identified the presence of base metals, manganese, and REE mineralisation.

Litchfield applied for the Lucy Creek tenement in July 2023 and has not completed any work to date.

[6] pXRF measurements are used to evaluate the tenor but not the absolute value of the contained mineralisation. The readings are not verified by an independent laboratory.

1.7 Strategy and Proposed Work Program

Mount Doreen is Litchfield's primary exploration asset and the Company considers that the project is prospective for several exploration models as follows:

- Epigenetic intrusion-related breccia and vein mineralisation with potential polymetallic copper-lead-zinc-silver-molybdenite and tungsten.
- Iron-oxide copper-gold (IOCG) related mineralisation.
- Orogenic gold mineralisation.
- Syngenetic base metal and precious metal mineralisation.
- Sandstone-hosted uranium mineralisation.

Lucy Creek is Litchfield's secondary exploration asset and is an application at present. The Company considers that the project is prospective for several exploration models as follows:

- High-grade manganese-iron deposits, potentially associated with elevated REE ± cobalt mineralisation.
- REE mineralisation associated with Georgina Basin carbonate sediments, similar to known occurrences elsewhere in the basin.
- Kimberlitic diamond mineralisation.
- MVT base metal mineralisation hosted by Georgina Basin sediments.

Derisk considers that the exploration focus identified by Litchfield at each project is appropriate and applicable, although some of the mineralisation models proposed by Litchfield have not yet been demonstrated at the Assets. Derisk considers that planned exploration programs over the project areas are justified.

Litchfield plans to raise AUD 4.5 M as part of the IPO. Post-IPO, Litchfield has proposed a two-year work program across its two project areas, with the majority of funding directed at Mount Doreen. This translates to a direct exploration budget of AUD 3.38 M, which represents 75% of the public raise.

The majority of the proposed exploration expenditure is focused on geological mapping and geochemistry, geophysics, and drilling, with drilling comprising 71% of the exploration budget. The Year 1 budget will be focused at Silver King and Mount Irene whilst the Year 2 budget will be focused at Wolfram Hill, Clark and Patmungala.

Derisk considers that the work program prepared by Litchfield is reasonable and defensible. The key risk to the Company's objective is that more drilling than budgeted will be required at Silver King and Mount Irene to define a maiden Mineral Resource estimate at these prospects.

Litchfield has advised Derisk that the proposed budgets exceed the EL expenditure commitments for Mount Doreen and the proposed exploration budget submitted as part of the application for Lucy Creek. Derisk has reviewed the proposed exploration program/budget and considers it is reasonable, appropriate and matches the stated aims of the company.

1.8 Risks and Opportunities

Derisk considers the key risks for Litchfield are:

- **Exploration risk:** Litchfield may be unsuccessful in its aim of discovering an economic minerals deposit.
- **Tenure risk:** The Company will need to maintain its tenements in good standing and meet expenditure commitments to be sure of retaining tenure.

  At the effective date of this Report, ELA 33568 is pending. Whilst there is no reason to believe that ELA 33568 will not be granted to Litchfield in due course, the Company's interest is restricted to the application, there is no assurance the application will be accepted, and the Company's rights are conditional on the grant of the concession.
- **Funding risk:** Litchfield will need to raise further funds to finance exploration of its assets beyond the next two years. If exploration is successful, in the longer term, detailed drilling and technical studies to define Mineral Resources and Ore Reserves will require significant funds to be raised. Derisk makes no forecast of whether any Mineral Resources or Ore Reserves will be defined.

The key opportunity for Litchfield is exploration discovery success at one or more of its projects.

1.9 Conclusions

Litchfield holds one EL and one ELA in NT, with a total area of approximately 1,180 km^2. Mount Doreen is an advanced exploration project and Lucy Creek is an early-stage exploration project. The Company considers both projects are prospective for a range of different commodities including base metals, precious metals, speciality metals such as vanadium and REE, manganese and uranium. There are no Exploration Targets, Mineral Resources or Ore Reserves at either project.

At Mount Doreen, the Company has collated all readily available previous exploration data including geology, geochemistry, geophysics, and drilling data, and has completed its own exploration at several prospects to identify targets for drilling. At Lucy Creek, the Company has undertaken a brief review of previous exploration and identified several exploration opportunities.

Litchfield plans to raise AUD 4.5 M as part of the IPO. Post-IPO, Litchfield has proposed a two-year work program across its two project areas, with the majority of funding directed at Mount Doreen. Drill testing of geophysical targets in Year 1 is planned with further drilling scheduled in Year 2.

Sporadic historical mining activity has taken place at various locations within the Mount Doreen project. This, together with the exploration results achieved to date provides good support for Litchfield to apply a range of exploration models at this project. Whilst exploration at Lucy Creek has been minimal, there is some evidence to support the exploration models proposed for this project. Derisk considers that the mineralisation models put forward by Litchfield for each of its projects are reasonable and defensible, and the proposed exploration program and budget is reasonable and appropriate.

2 INTRODUCTION

2.1 Scope and Use of Report

In July 2023, Derisk was engaged by Litchfield to prepare an IGR of the NT exploration assets held by the Company, to support an IPO on the ASX.

2.2 Technical Assessment, Reporting Standard and Currency

For this report, Derisk has adopted the VALMIN Code for the technical assessment of the Project, and the JORC Code as the public reporting standard.

The effective date of this report is 31 October 2023. All values in this report are in AUD unless otherwise stated.

2.3 Report Authors and Contributors

This report has been prepared by Mark Berry and Anitra Ross, and has been peer reviewed by Cameron Graves. Table 2-1 presents details of the role and qualifications of each of the contributors.

Table 2-1. Report contributors.

Name	Title	Years of Experience	Professional Membership	Role and Responsibility
Mark Berry	Director/Principal Geologist	42	MAIG	Project Manager, Practitioner and Specialist, Competent Person
Anitra Ross	Senior Geologist	30	MAIG	Specialist
Cameron Graves	Principal Geologist	30	MAIG	Internal peer review

Refer to Section 13 Definitions and Glossary for explanation of professional memberships.

The VALMIN Code requires that a public report on a technical assessment and valuation for mineral assets or securities must be prepared by a Practitioner, who is an Expert as defined in the Australian Corporations Act 2001 (Cth). Practitioners may be Specialists and Securities Experts (as defined in the VALMIN Code).

The JORC Code requires that a public report describing a company's Exploration Results, Mineral Resources and Ore Reserves must be based on, and fairly reflect, the information and supporting documentation prepared by a Competent Person, as defined by the JORC Code.

Mark Berry is the Practitioner and Specialist for the IGR and was assisted by Anitra Ross, who is also a Specialist. Mark Berry is also the Competent Person (as defined by the JORC Code) for compilation of the Exploration Results reported in this Report.

A Practitioner/Competent Person statement and consent for Mark Berry and a Specialist statement and consent for Anitra Ross are provided in Section 11 of this Report.

2.4 Site Visit

A site visit to the Mount Doreen project was undertaken by Anitra Ross in October 2023. The Wolfram Hill, Silver King, and Mount Irene prospects were visited.

2.5 Statement of Independence

Derisk confirms that its Directors, staff, and all contributors to this Report are independent of Litchfield, and have no interest in the outcome of the work to be completed in this engagement. Fees paid to Derisk are on a fee-for-service basis plus reimbursement of project-related expenses if applicable. Our agreement with Litchfield excludes the provision for a success fee or related incentive. The fee for preparation of this Report is AUD 34 k and payment of this fee is in no way contingent on the results of this Report.

2.6 Methodology and Limitations

Derisk has independently analysed the data provided by Litchfield. The accuracy of the conclusions of this IGR relies on the accuracy of the supplied data. Derisk Specialists have made reasonable enquiries and exercised our judgement on the use of such data and information and have no cause to doubt the accuracy or reliability of the information provided, but we do not accept responsibility for any errors or omissions in

the information supplied, and do not accept any consequential liability arising from investment or other financial decisions or actions by others.

Derisk has not independently verified the legal status of the tenements described in this Report but has relied on information provided by Litchfield. A due diligence review of the status of the Mount Doreen tenement has been undertaken by the independent firm, Ward Keller Pty Ltd (Ward Keller), and as such, Ward Keller assumes no responsibility for any part of this Report.

2.7 Reliance

Derisk understands that this Report will form part of the Prospectus and will be made publicly available. Derisk requires that all public reports containing references to Derisk and/or Derisk advice, and all information provided by Derisk for the public report will be reviewed and approved by Derisk prior to publication – in the form and context that it will appear in the public report.

2.8 Consents

This document contains statements attributable to third parties that are made, or based upon statements made, in previous technical reports that are publicly available from either Australian government sources or ASX, but those reports are not incorporated by reference into the Prospectus. The authors of these reports have not consented to their statements being used in this document, and these statements are included in accordance with the Australian Securities and Investment Commission's Corporations (Consent and Statements) Instrument 2016/72.

2.9 Records and Indemnities

Litchfield has been provided with all digital data files produced by Derisk during this engagement. Derisk is entitled to retain a copy of all material information upon which our report is based.

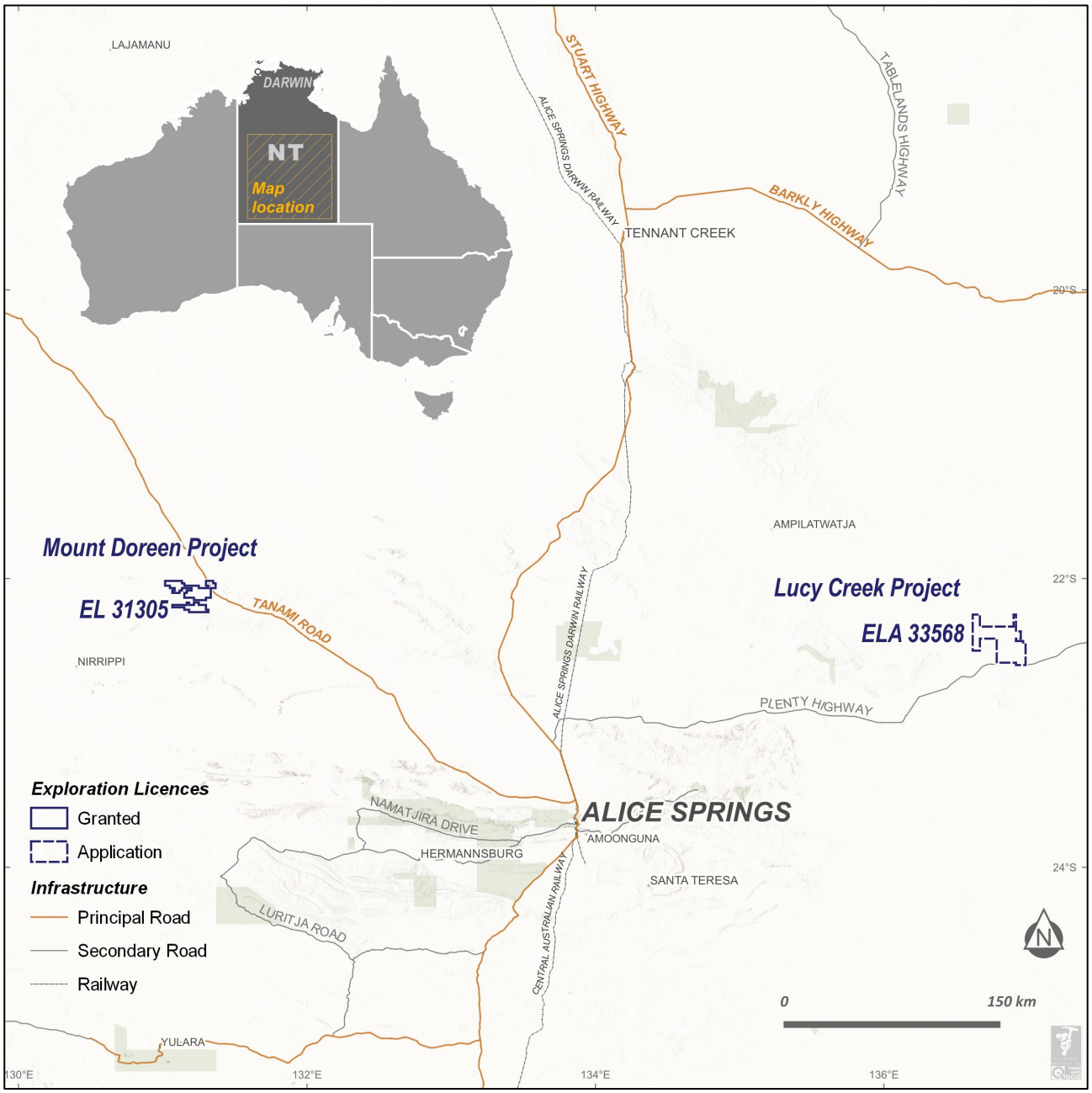
Litchfield has agreed to indemnify, defend, and hold Derisk harmless against any and all losses, claims, damages, costs, expenses, actions, demands, liabilities, or proceedings (including but not limited to third-party claims) howsoever arising, whether directly or indirectly out of this Agreement or the provision or non-provision of the services, other than losses, claims, damages, costs, expenses, actions, demands, liabilities, or proceedings that are determined by a final judgement of a court of competent jurisdiction to have resulted from actions taken or omitted to be taken by Derisk illegally or in bad faith or as a result of Derisk's gross negligence.

3 ASSETS SUMMARY

3.1 Ownership and Location

Litchfield holds one EL and one ELA in NT, with a total area of approximately 1,180 km^2 (Figure 3-1). EL 31305 is located approximately 350 km northwest of Alice Springs and ELA 33568 is located approximately 400 km east-northeast of Alice Springs.

Figure 3-1. Location of Litchfield exploration assets.



Prepared by Derisk using information sourced from https://geoscience.nt.gov.au/gemis/ntgsjspui

3.2 Project Status

The Mount Doreen project is an advanced exploration project (as defined by the VALMIN Code) and the Lucy Creek project is an early-stage exploration project (as defined by the VALMIN Code). There are no Exploration Targets, Mineral Resources or Ore Reserves as defined by the JORC Code at either project.

4 TENEMENT STATUS

In September 2023, Ward Keller prepared an independent tenement review of EL 31305 to fulfil VALMIN Code requirements for a recent independent assessment of tenement status. Ward Keller did not review the status of ELA 33568 given this is an application. The purpose of the review was to determine and identify:

- The interests held by the Company and its related entities in the tenement.
- Any third-party interests, including encumbrances, in relation to the tenement.
- Any material issues existing in respect of the tenement.
- The good standing, or otherwise, of the tenement.
- Any concurrent interests in the land the subject of the tenement, including other mining tenements, private land, pastoral leases, Native Title, and Aboriginal heritage.

4.1 Tenure

Tenement details for the Assets are summarised in Table 4-1 and shown in Figure 4-1 and Figure 4-2. Both tenements are held in the name of Litchfield.

Table 4-1. Tenement status.

Tenement	Holder	Grant Date	Expiry Date	Size (sub-blocks)	Size (km^2)
Mount Doreen					
EL 31305	Litchfield Minerals Pty Ltd	06-06-2018	05-06-2024	144	388.35
Lucy Creek					
ELA 33568	Litchfield Minerals Pty Ltd	Application lodged 06-07-2023		250	791.64
TOTAL SIZE				**394**	**1,179.99**

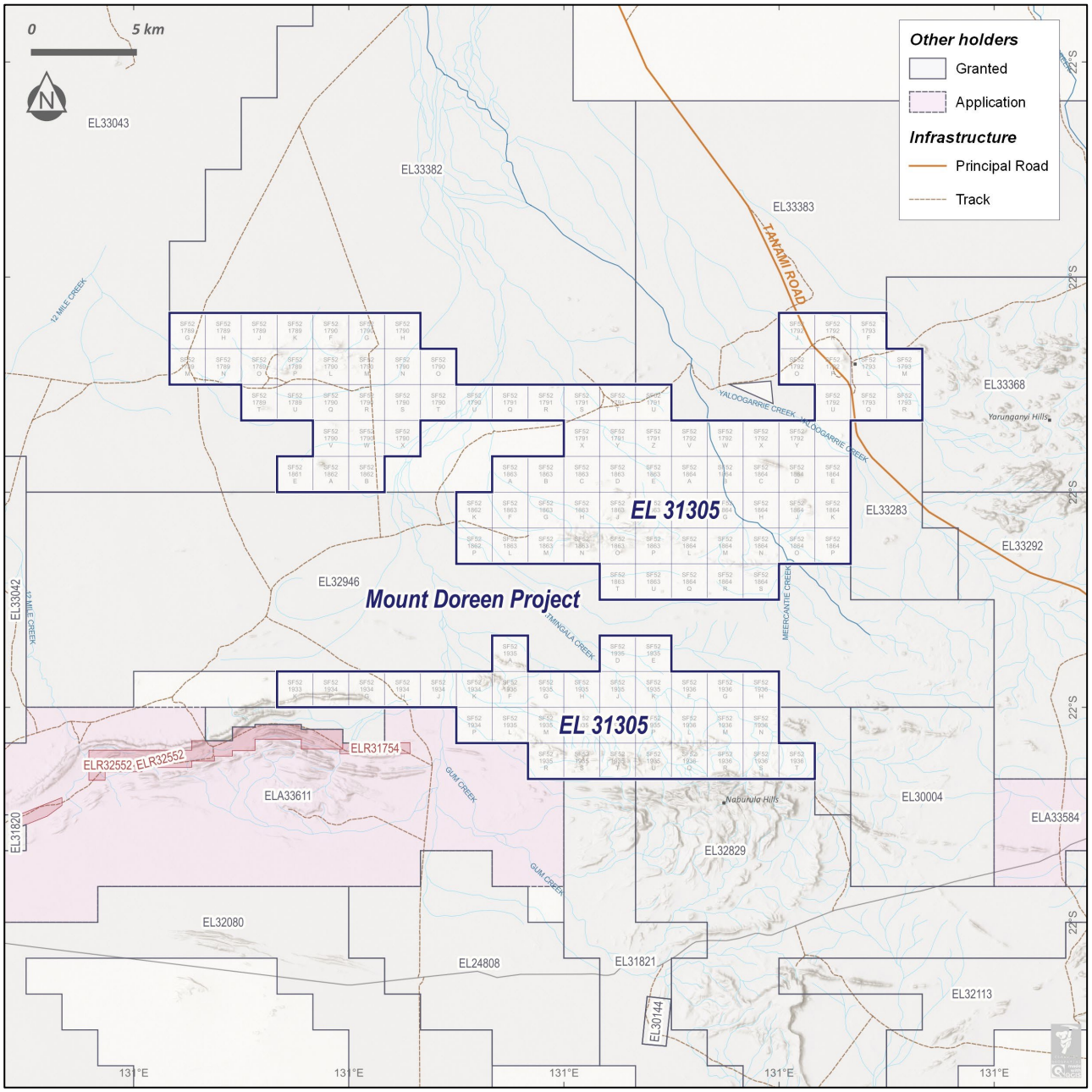
Prepared by Derisk using information compiled by Ward Keller, 2023

4.2 Tenement Standing – EL 31305

Ward Keller (2023) determined that:

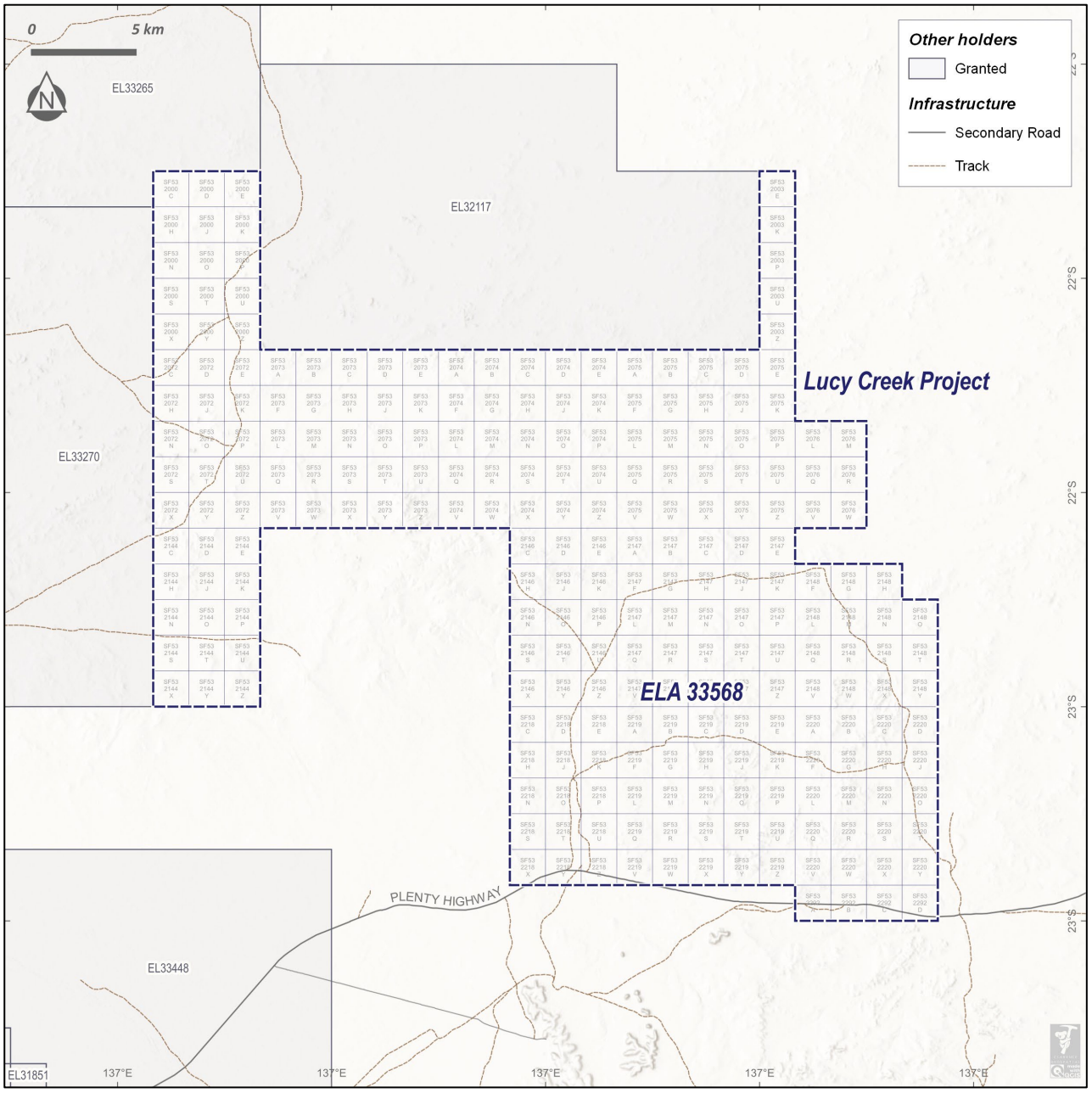
- EL 31305 is granted to Litchfield and held solely by Litchfield.
- EL 31305 is in good standing and all applicable application fees and rents have been paid.
- Native title has been determined over the area covered by EL 31305 but such native title does not represent an impediment to exploration by Litchfield on EL 31305.
- Aboriginal sacred sites exist in some of the areas covered by EL 31305 and Litchfield has undertaken actions in accordance with the Northern Territory Aboriginal Sacred Sites Act (NT) as well as with the Central Land Council (as the representative Aboriginal and Torres Strait Islander body) to undertake exploration while protecting and dealing in an appropriate way with sacred sites and cultural heritage.
- EL 31305 overlays NT Portion 1947 the subject of Perpetual Pastoral Lease 1035, known as Mount Doreen Station. Litchfield has both the right and obligation to explore for under the Mineral Titles Act (NT) and the landowner has no right to interfere with authorised exploration. The Minister responsible for the Mineral Titles Act (NT) and the Mining Management Act (NT) has implemented a policy of requiring either an acknowledgement or agreement by the landholder to exploration involving substantial disturbance before a Mining Management Plan is approved. Litchfield has entered into an agreement regarding exploration involving substantial disturbance with the landowner.
- EL 31305 is due to expire on 5 June 2024. Litchfield has the right to seek a renewal (for a term of 2 years) before the expire date in accordance with section 30 of the Mineral Titles Act (NT). There is no limit to the number of renewals (2 years a term) that can be applied for and granted. In Ward Keller's experience, renewals are generally approved by the Minister if the mineral title holder can demonstrate the need or potential for ongoing exploration.

Figure 4-1. Mount Doreen project tenement location.



Prepared by Derisk using information sourced from https://geoscience.nt.gov.au/gemis/ntgsjspui

Figure 4-2. Lucy Creek project tenement location.



Prepared by Derisk using information sourced from https://geoscience.nt.gov.au/gemis/ntgsjspui

4.3 Application Status – ELA 33568

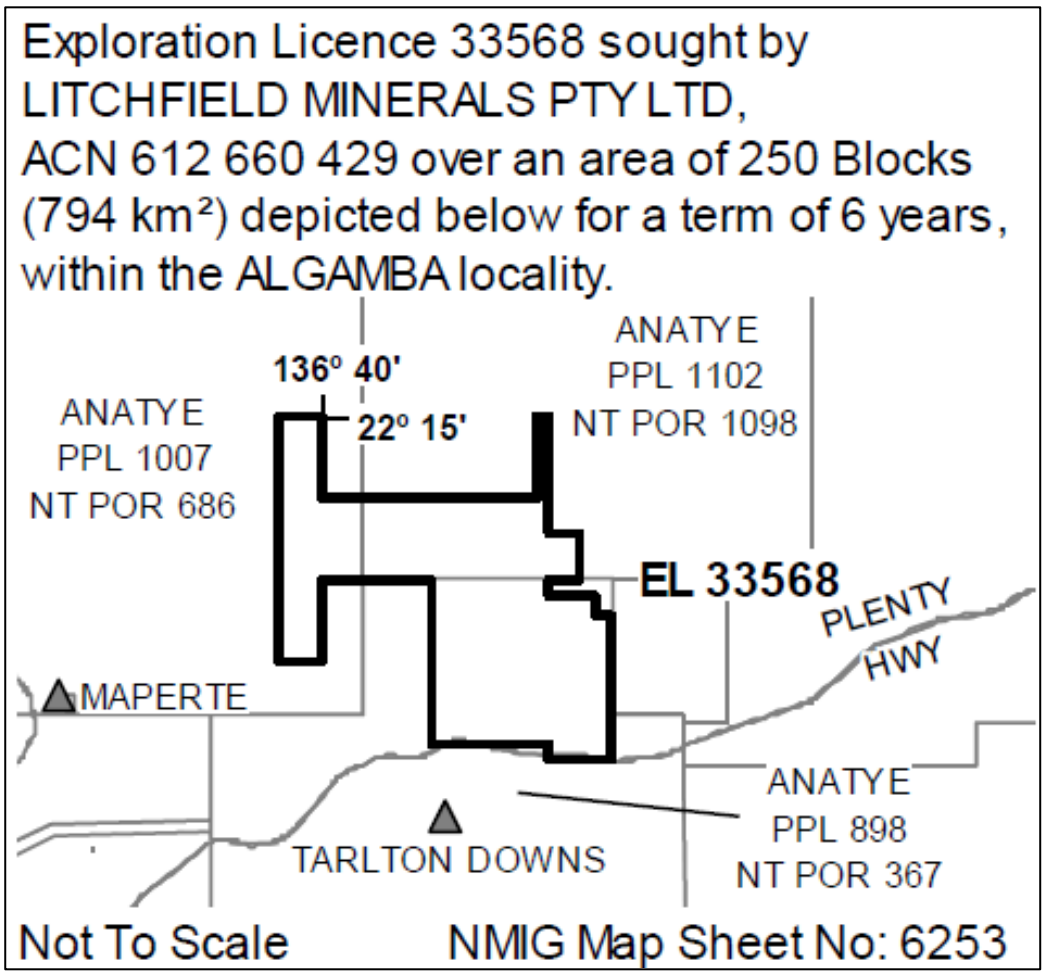
Litchfield applied for ELA 33568 on 6 July 2023. Australian law recognises that Indigenous people have rights and interests in the land under their traditional laws and customs. The Native Title Act 1993 (Cth) sets out specified processes that must be followed for any 'future act' on land or waters that would affect native title rights and interests. Applications for most mineral resource concessions are considered future acts and are subject to these native title processes.

There are two processes for resolving native title rights and interests with respect to mineral resource concessions i.e., the right to negotiate process and the expedited process, which is faster than the right to negotiate option. The expedited process occurs when the State asserts that the activities to be performed under the resource authority will have minimal effect on native title rights and interests, and where the State issues native title protection conditions as part of the approval process. This process applies only to exploration authorities and mineral development licences that don't cause major ground disturbance.

For ELA 33568, NT Government has determined that the expedited process is applicable. This process requires the NT Government to provide written notice to any registered native title body corporate or claimant that it intends to grant the application under the expedited process. A native title party has four months in which to lodge an objection.

On 13 September 2023, Litchfield received notification from the Mineral Titles section of the NT Department of Industry, Tourism and Trade of the Proposed Grant Under the Mineral Titles Act (NT) and Native Title Act 1993 (Cth). Figure 4-3 shows an extract from the formal notice.

Figure 4-3. Extract of notice of proposed grant of ELA 33568.



Source: Mineral Titles section of the NT Department of Industry, Tourism and Trade, 2023

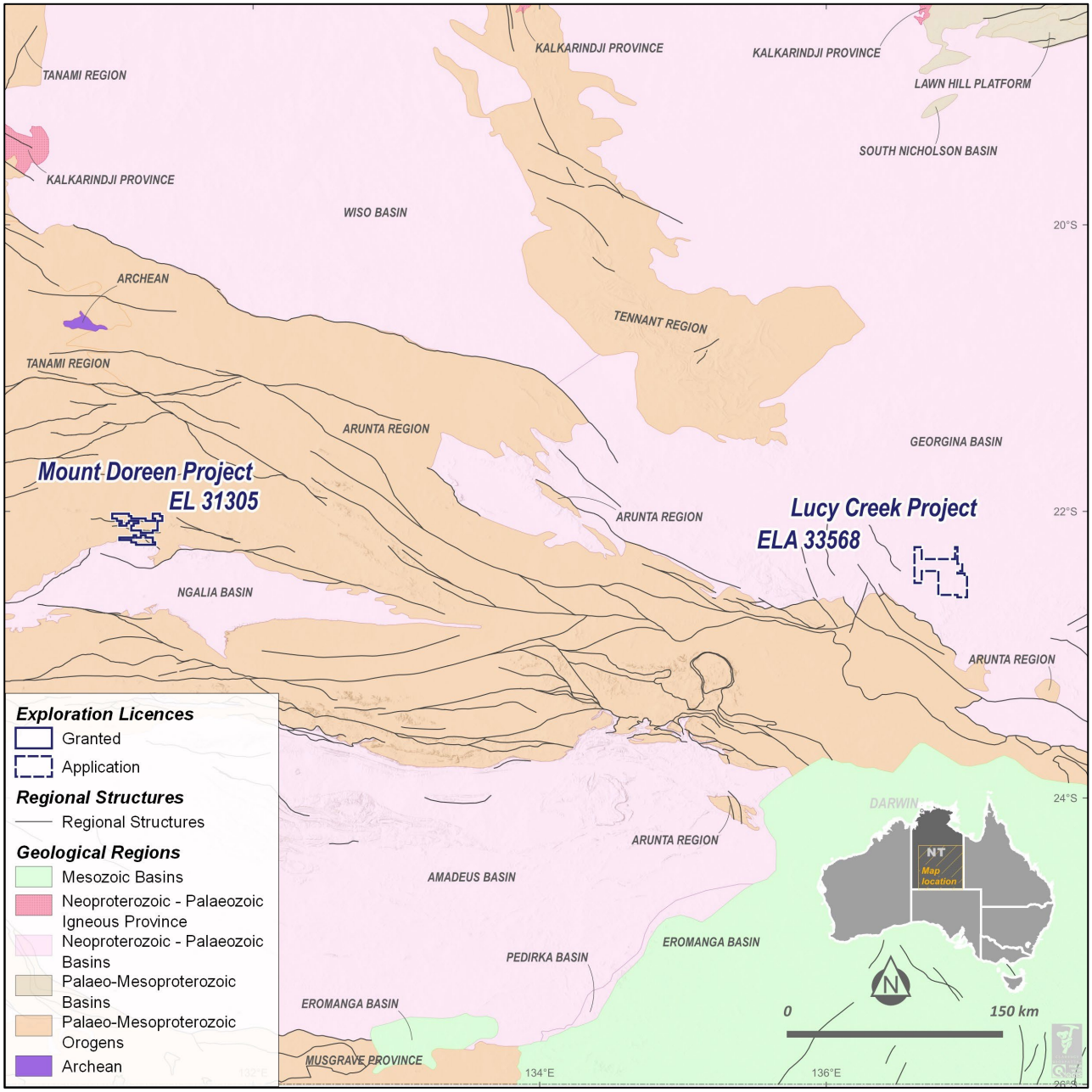
To the extent known and notwithstanding the requirements noted elsewhere, Derisk is not aware of any significant factors and risks that may affect access, title, or the right or ability of the Company to perform work at the Property. However, Derisk notes that as at the effective date of this Report, ELA 33568 has not been granted. Consequently, the Company's interest is restricted to the application, there is no assurance the application will be accepted, and the Company's rights are conditional on the grant of the tenement.

5 GEOLOGICAL SETTING AND EXPLORATION FOCUS

5.1 Regional Geology

The Mount Doreen and Lucy Creek projects are located in southern NT, in central Australia. Figure 5-1 presents a high-level geological overview and structural framework.

Figure 5-1. Regional geological setting and structural framework.



Prepared by Derisk using information sourced from https://geoscience.nt.gov.au/gemis/ntgsjspui and https://geoscience.nt.gov.au/downloads/NTWideDownloads

Both projects lie within the North Australian Craton, which extends across much of northern Australia. The craton includes localised Archean inliers and orogenic domains overlain by widespread and locally thick sedimentary basins.

The Arunta Region is characterised by sedimentation in varied environments, episodic deformation, moderate to high grade metamorphism, and bimodal magmatism. The Mount Doreen project lies within the Aileron Province of the Arunta Region.

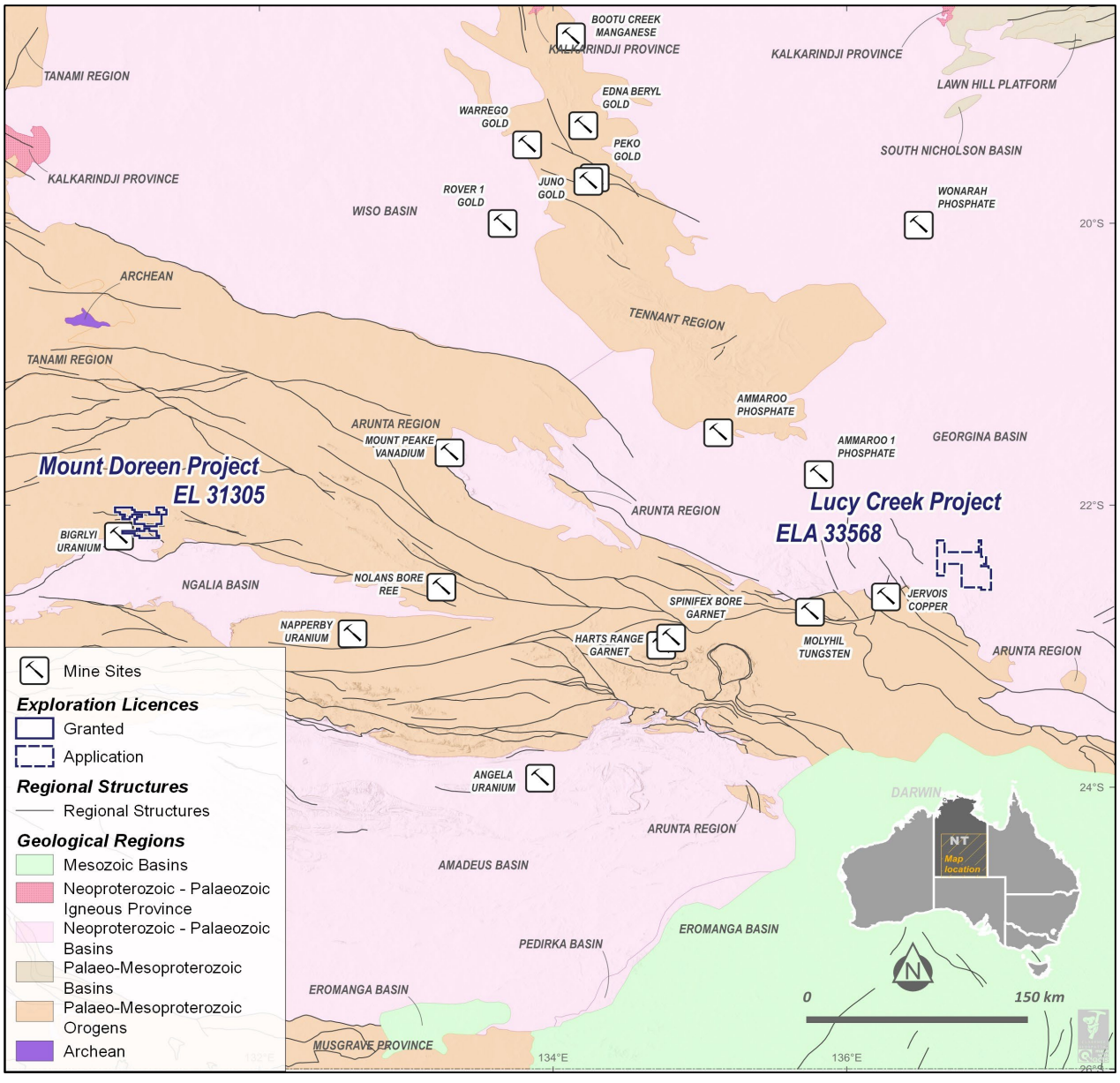
The Palaeoproterozoic Aileron Province comprises metasedimentary successions including subordinate metavolcanic and volcaniclastic rocks that were deposited within the interval 1,860 – 1,740 Ma with the majority of the magmatism during 1,820 – 1,700 Ma (Scrimegour, 2013). The successions preserve evidence for deep water and back-arc shallow marine sedimentation, I-type to S-type bimodal magmatism, multiple episodes of deformation, low to high-grade metamorphism, and hydrothermal fluid flow. The province contains units that are considered to be direct stratigraphic correlatives of units in the Tanami and Tennant Regions.

The Lucy Creek project lies within the Georgina Basin, which is part of the Centralian Superbasin. The Georgina Basin is a polyphase intracratonic basin containing unmetamorphosed Cryogenian to Devonian sedimentary rocks. To the south, the contact with the Aileron Province is a steep southside-up thrust fault system.

5.2 Regional Metallogeny

Central Australia has a strong metallogeny and diverse mineral occurrences, with numerous historic mines and significant deposits (Figure 5-2) that include gold, copper, uranium, REE, tungsten, vanadium, phosphate, and garnet.

Figure 5-2. Location of historic mining operations and significant deposits.



Prepared by Derisk using information sourced from https://geoscience.nt.gov.au/gemis/ntgsjspui and https://geoscience.nt.gov.au/downloads/NTWideDownloads

The most significant gold-copper-bismuth mineralisation is found within the central part of the Tennant Region in the north, with some of the highest grade deposits within the IOCG mineralisation style. The magnetite-hematite-chlorite-quartz ironstones occur in a variety of structural settings and range from copper and sulphide rich and reduced, to gold rich and oxidised (Skirrow and Walshe, 2002). Further IOCG deposits are found to the southwest in similar stratigraphy under the Wiso Basin.

Additionally, west of Mount Doreen the Tanami Region hosts a cumulative endowment of >20 Moz of gold that includes the operating Callie mine (Keys et al., 2023). Most of the orogenic gold mineralisation is structurally controlled within prospective host stratigraphy.

Although the Aileron Province has relatively limited historical mining, the province hosts a variety of orthomagmatic, syngenetic, and epigenetic mineralisation. Nickel-copper-cobalt orthomagmatic mineralisation is associated with mantle-derived mafic-ultramafic intrusions. Syngenetic mineralisation forms (near) synchronously with sedimentation of the enclosing host rocks and includes inferred VMS, VAMS, Broken Hill-type deposits, and some vein-related carbonate replacement deposits. Epigenetic mineralisation is a variety of stratabound and cross-cutting mineralisation that postdate the formation of the host rock assemblage; this includes intrusion-related breccia, vein and skarn mineralisation. Some deposits have multiple mineralisation events.

This is reflected in the province's significant deposits (refer to Figure 5-2):

- Mount Peake vanadium-titanium-magnetite mineralisation hosted in a layered mafic gabbro intrusion.
- Vanadium is also present in the sandstone hosted Bigrlyi uranium deposit within the adjacent Ngalia Basin.
- The carbonate-derived mineralisation at Nolan's Bore contains REE-bearing fluoroapatite veins within a gneissic granite.
- Copper mineralisation at Jervois includes lower grade syndepositional or stratabound disseminated sulphide mineralisation and higher grade structurally-controlled mineralisation.
- Molyhil tungsten-molybdenite mineralisation consists of two iron-rich skarn bodies marginal to a granite intrusion.

The geologic processes and controls on the location and genesis of this broad spectrum of mineralisation styles are poorly understood; the temporal and genetic links between each system, as well as the larger regional tectonic processes and geologic events, are not well constrained. To begin to address these issues, in 2020 sulphur isotopic ($\delta^{34}S$) values for sulphide minerals were determined for a range of different mineral deposits and prospects in the Aileron Province (Simmons and McGloin, 2020). The $\delta^{34}S$ data all plotted near-zero, irrespective of commodity type or the style of mineralisation. Near-zero values are consistent with an igneous sulphur source derived from processes that are either active (e.g., sulphur from magmatic-hydrothermal fluids that exsolve from intrusions) or passive (e.g., sulphur leached from igneous rocks by infiltrative hydrothermal fluids). Areas containing (meta-) igneous rocks are, therefore, suitable first order exploration targets for Palaeoproterozoic mineralisation in the province, both as a direct and indirect source for sulphur, and additionally, as heat engines that can drive hydrothermal fluid flow in the upper crust.

The Lander Rock Formation is considered to be the direct stratigraphic equivalent of the turbiditic Killi Killi Formation in the Tanami Region and likely the Ooradidgee Group in the Tennant Region. It is intruded by numerous granites and lesser mafic rocks with ranges most commonly in the range 1,820 – 1,770 Ma (Scrimgeour, 2013). Gold occurrences in the Lander Rock Formation in the northern and western Aileron Province appear likely to be similar style to orogenic gold in the Tanami Region although IOCG mineralisation may also occur.

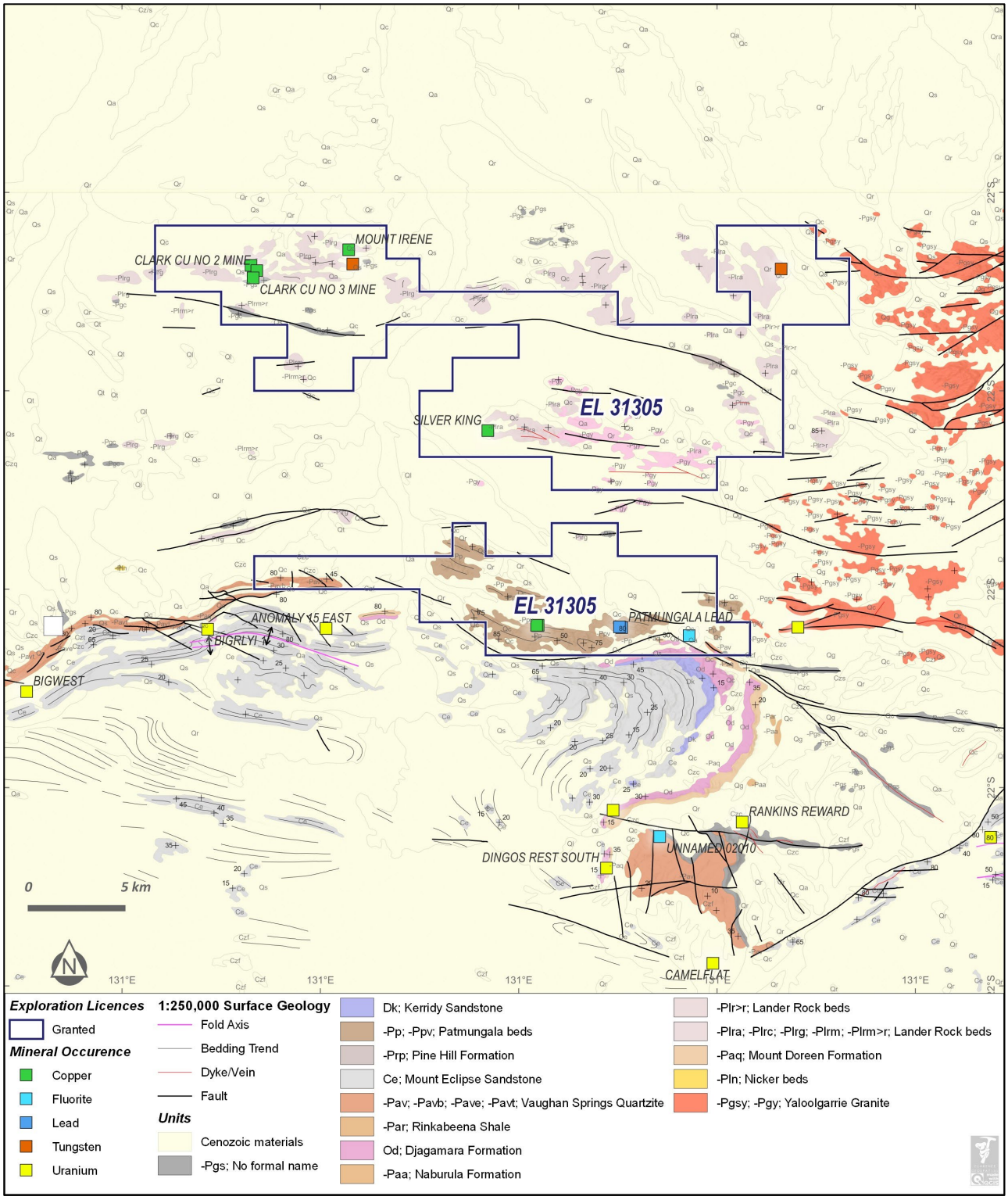
The Aileron Province hosts numerous uranium-enriched granites and is prospective for basement-hosted mineralisation as well as a source of uranium for sandstone-hosted mineralisation in overlying and surrounding basins. Sandstone-hosted uranium mineralisation deposits include Angela in the Amadeus basin and Bigryli in the Ngalia basin. At Bigryli a vanadium enrichment zone forms a halo to the uranium-vanadium deposit (Energy Metals, 2018). The Napperby uranium deposit is a calcrete-style mineralisation hosted in a Tertiary palaeochannel.

The southern Georgina Basin contains several styles of copper and lead-zinc base metal mineralisation. These include MVT, stratiform sediment-hosted and sandstone hosted types. Sedimentary or secondary manganese deposits are also present in the basin as well as large Cambrian sedimentary phosphate deposits in carbonates.

5.3 Exploration Focus – Mount Doreen

In the vicinity of the Mount Doreen project, numerous mineral occurrences and historical small-scale mining operations are recorded, including copper, lead, tungsten, fluorite, and uranium (Figure 5-3).

Figure 5-3. Mineral occurrence map – Mount Doreen district.



Prepared by Derisk using information sourced from https://geoscience.nt.gov.au/gemis/ntgsjspui and https://geoscience.nt.gov.au/downloads/NTWideDownloads

Copper ± gold-silver-lead-zinc mineral occurrences are hosted within the Lander Rock Formation and include the Mount Hardy deposit to the east of EL 31305 and the Clark and Silver King prospects in the northwest of the tenement. Mineralisation is associated with quartz veins and pegmatites, and hosted within folded amphibolite facies schist at Mount Hardy, and granite and phyllite at Clark. Silver King mineralisation is a vein and quartz-rich greisen (highly altered granitic rock or pegmatite) hosted in a muscovite-sericite schist. The leached and silicified mineralised zone at Silver King is suggested to be related to a porphyry system, which is consistent with the molybdenite-bismuth enrichment. The age for the polymetallic base metal and silver mineralisation is inferred between ca 1,820 –1,760 Ma (McGloin and Matchan, 2019).

Exploration by Todd River Resources at the nearby Mt Hardy prospect resulted in an Inferred Mineral Resource for the Hendrix deposit of 2.6 Mt @ 6.7% Zn, 0.9% Cu, 1.5% Pb, and 35 g/t Ag (Todd River Resources, 2019).

At Wolfram Hill in the northeast of the tenement, copper and tungsten mineralisation is associated with muscovite-bearing pegmatite and quartz veins that intrude and cross-cut folded and foliated, biotite–muscovite–andalusite–quartz schist and minor metasandstone of the Lander Rock Formation. In 2019 muscovite from an outcropping pegmatite associated with mineralisation was collected for age dating (Mcloin and Matchan, 2019). The 1,550 ± 4 Ma age is broadly consistent with the timing of emplacement of the nearby Yarunganyi Granite, part of the Southwark Suite that outcrops less than 2 km from Wolfram Hill. This result suggests that the copper and tungsten mineralisation at the Wolfram Hill prospect is related to intrusion of felsic magmatism at ca 1,550 Ma.

Based on the apparent temporal constraints, the tungsten and copper mineralisation at Wolfram Hill does not appear to be related to the earlier granite-related base metal and silver mineralisation. The Wolfram Hill mineralisation appears to have formed during a younger episode of hydrothermal activity associated with felsic magmatism occurring some 200 Myr after Mount Hardy and other base metal and silver mineralisation.

The Mount Irene copper occurrence to the east of Clark comprises quartz-veined shears. This and the nearby Ringer tungsten occurrence are poorly documented. In the south of the tenement, copper and lead occurrences have been recorded in quartz-mica schist of the Patmungala beds.

Uranium occurrences are located to the south of the tenement in the Ngalia Basin, and to the east of the tenement at Crystal Creek Anomaly B. The Ngalia Basin contains the Bigryli uranium–vanadium deposit that comprises mineralised lenses hosted in the Mount Eclipse Sandstone. Crystal Creek Anomaly B was drilled in 2009 and uranium occurs in a mineralised shear zone hosted by greisenised granite of the Southwark Suite (Uranium Exploration Australia, 2010).

Litchfield considers the tenement is prospective for a range of mineralisation styles given the varied regional and local mineral occurrences, Lander Rock Formation's stratigraphic equivalents across orogen regions, and the presence of igneous rocks.

The most prospective mineralisation model is epigenetic intrusion-related breccia and vein mineralisation with potential polymetallic copper-lead-zinc-silver-molybdenite and tungsten. Mineralisation can be from varied sources and associations as evidenced from mineralisation dating.

Other possible mineralisation models include IOCG, orogenic gold, and syngenetic mineralisation with potential lead-zinc-copper-silver-gold, and sandstone-hosted uranium mineralisation.

Derisk considers that the epigenetic, IOCG, orogenic gold, and syngenetic mineralisation models are appropriate and applicable to the Mount Doreen project, and that exploration over the project area is justified. The range of mineralisation models is appropriate for the relatively early stage of exploration and these may be refined with further results.

5.4 Exploration Focus – Lucy Creek

In the vicinity of the Lucy Creek project, numerous manganese mineral occurrences are recorded (Figure 5-4). Lucy Creek and Halfway Dam manganese occurrences are interpreted to be stratabound. At Lucy Creek 2 a 1 – 2 m thick manganese horizon is hosted within dolomitic siltstone of the Tomahawk Formation. There is a possible REE association with carbonate-hosted phosphate-bearing horizons but this has not been demonstrated to date at the tenement.

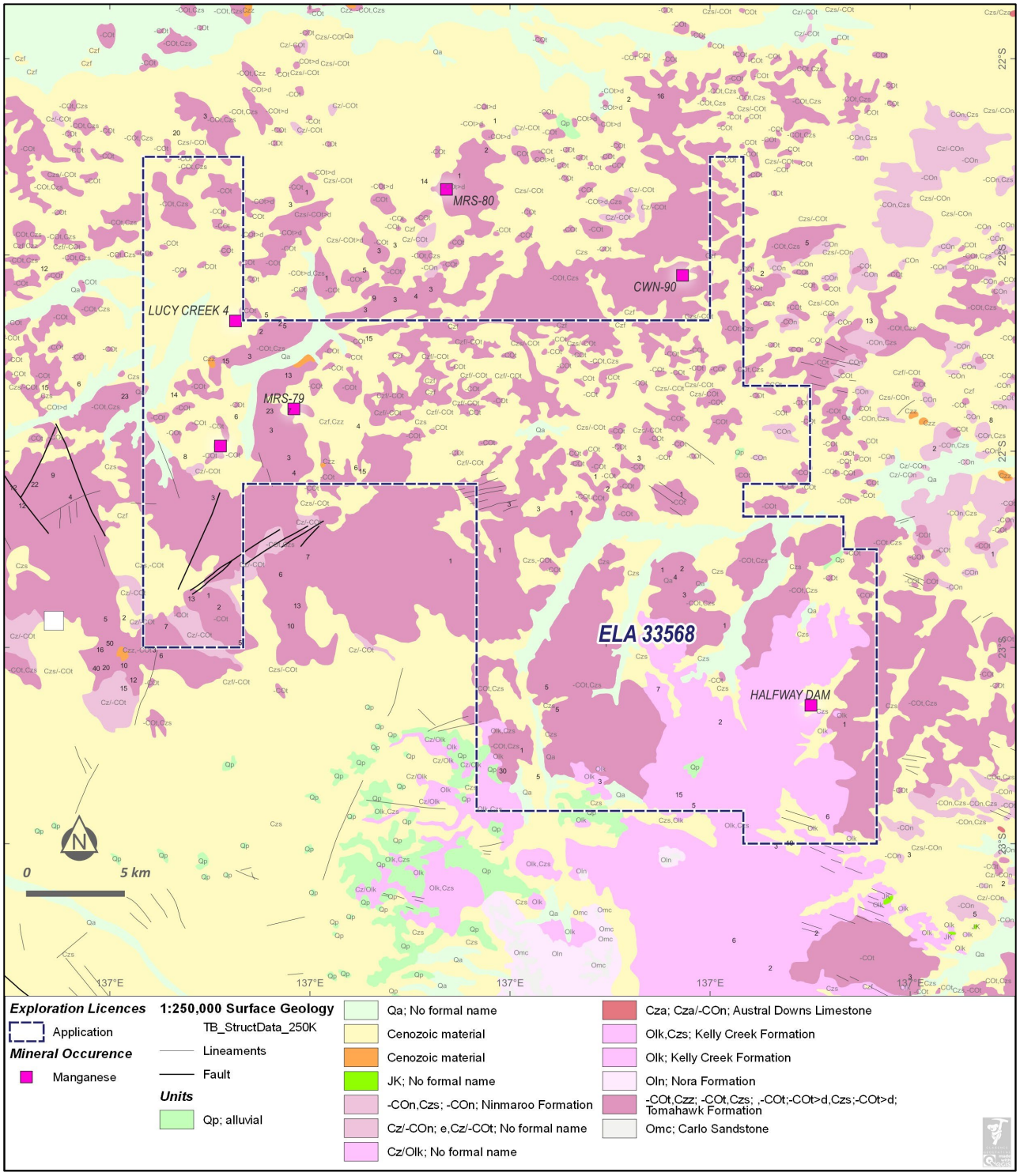
Litchfield considers the area is prospective for manganese-iron, REE, and base metal mineralisation hosted within the Georgina Basin sequence.

Litchfield also considers the area may be prospective for diamonds originating from the basement rocks below the Georgina Basin sediments comprised of the Altjawarra Block, which is part of the North Australian

Craton. The Altjawarra Block is associated with a zone of very thick lithosphere, interpreted to be at least 200 km. The geological setting is believed to be prospective for kimberlitic diamond pipes and the area has been the subject of diamond exploration by several companies (Elkedra Diamonds NL, 2003).

Derisk notes that the Lucy Creek tenement is at a very early stage of exploration. Based on exploration completed in the district, the area is prospective for MVT mineralisation and stratiform/stratabound sediment-hosted hosted manganese deposits. There is also some support for the potential for REE, phosphate, and diamond mineralisation across the tenement.

Figure 5-4. Mineral occurrence map – Lucy Creek district.



Prepared by Derisk using information sourced from https://geoscience.nt.gov.au/gemis/ntgsjspui and https://geoscience.nt.gov.au/downloads/NTWideDownloads

6 MOUNT DOREEN

6.1 General

6.1.1 Location, Access, and Infrastructure

The Mount Doreen project consists of one EL located approximately 300 km northwest of Alice Springs in southern NT (refer to Figure 3-1). Access from Alice Springs is by the Tanami Highway, which passes through the northeastern part of the tenement. Access within the project is via a combination of sealed public road and unsealed private station tracks.

Alice Springs is a major regional centre and provides a wide range of services and infrastructure to support exploration and mining activities, including air, road and rail facilities. The Yuendumu local community is located approximately 45 km southeast of the tenement within the Central Desert Region local government area.

Yuendumu has a semi-arid climate with mean maximum temperatures ranging from 37.1°C in summer to 22.4°C in winter. Monthly rainfall ranges from approximately 3.5 mm to 70.8 mm, most falling in the summer season months, but the rain is intermittent and long periods of drought separated by occasional falls of heavy rain are typical (Table 6-1).

Table 6-1. Yuendumu long term climate records.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ANN
Mean Max (^{0}C)	37.1	36.3	34.9	30.9	25.6	22.4	22.9	25.4	30.3	33.5	35.7	36.5	30.9
Mean Min (^{0}C)	22.3	21.6	19.6	14.5	9.7	6.1	5.1	6.7	11.8	15.8	19.1	21.4	14.5
Mean Rain (mm)	70.8	56.5	23.2	16.8	21.2	8.9	6.3	3.5	10.4	15.3	29.5	64.1	312.8
Mean Rain Days	6.7	5.6	3.2	2.1	2.9	1.8	1.1	0.9	1.9	3.9	5.2	7.4	41.5

Source: https://www.eldersweather.com.au/climate-history/nt/Yuendumu

The project is located within extensive plains of red soil or sand between scattered hills and ranges (Figure 6-1 and Figure 6-2). The dominant vegetation is spinifex on sandy plains and rocky ridges, and mulga on flood plains and sheet wash surrounding ridges and hills. The land is primarily used for grazing cattle.

Figure 6-1. Mount Doreen project – Surface topography and landforms from the top of Wolfram Hill.

Source: Derisk site visit, 2023

Figure 6-2. Mount Doreen project – Surface topography and tenement granite landforms.

Source: Derisk site visit, 2023

6.2 Project-Scale Geology

The project is located in the southern portion of the Aileron Province of the Arunta Region. Figure 6-3 illustrates the local geology across the tenement.

The oldest rocks in the Mount Doreen area are the metamorphosed Paleoproterozoic siliciclastic sediments of the ca 1,840 Ma Lander Rock Formation. The Lander Rock Formation is characterised by interlayered pelitic schist and psammite, metagreywacke and gneiss. It may include meta-banded iron-formation, metavolcanic rocks, and amphibolite sills. The rocks are variably metamorphosed from greenschist to granulite facies and are interpreted to have a predominantly turbiditic origin. These sediments were multiply deformed and variably metamorphosed during the ca 1,810 Ma Stafford Event and numerous subsequent events. As noted earlier, this Formation correlates to stratigraphy in the Tanami and Tennant Creek Regions.

Other Paleoproterozoic volcano sedimentary successions in the Mount Doreen area include the younger Patmungala Beds in the south of the tenement. These comprise steeply dipping and tightly folded sandstone, conglomerate, siltstone and felsic volcaniclastic siltstone.

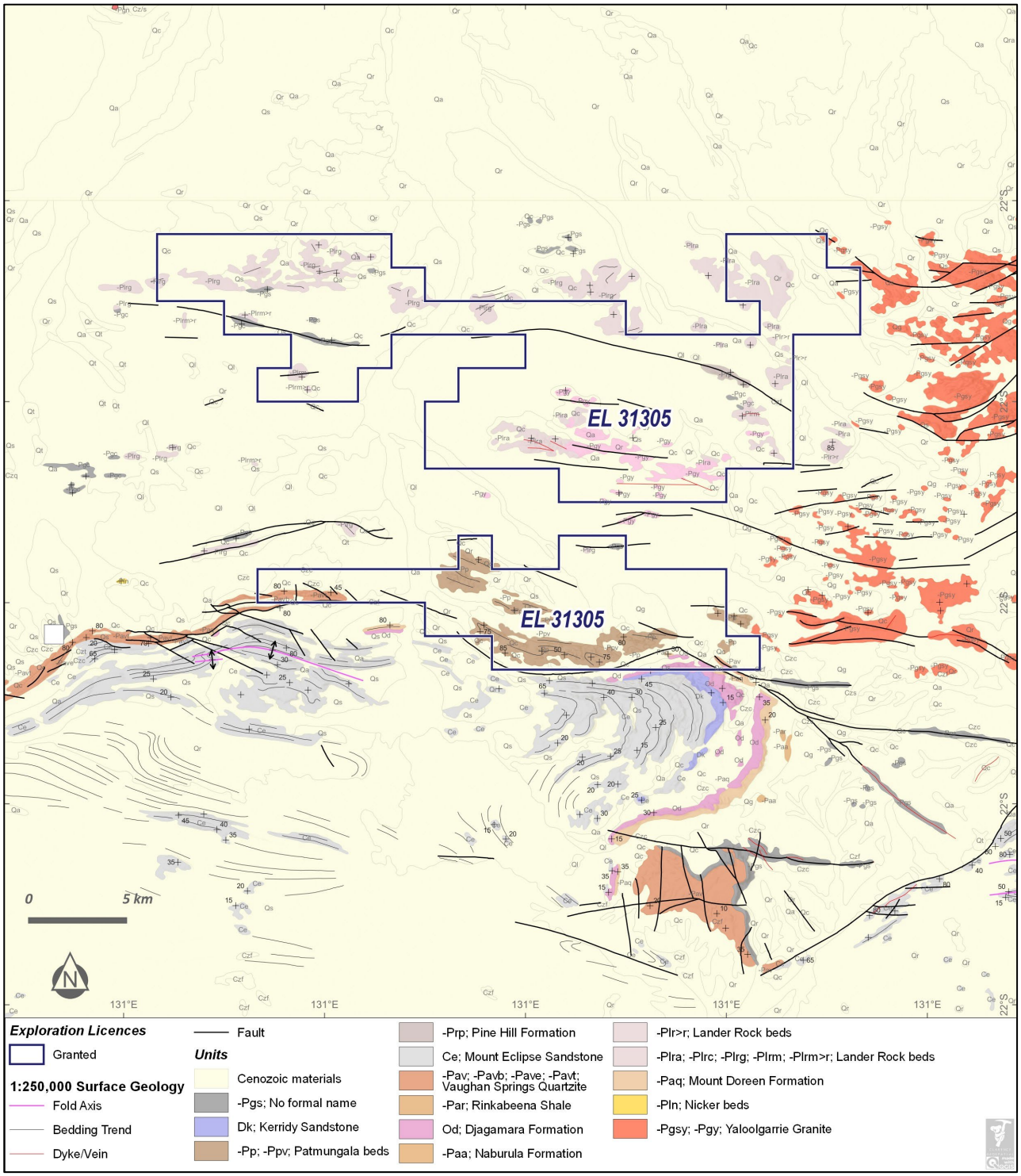
The Lander Rock Formation and the Patmungala Beds are intruded by the Yarunganyi Granite in the northeastern part of the tenement. This and other intrusions are ascribed to the ca 1,580 Ma Southwark Suite. The Southwark Suite has geochemical affinities with granite associated with Proterozoic gold-copper mineralisation elsewhere in Australia (Tanami Gold, 2004). The Yaloolgarrie Granite which outcrops 4 km east of Silver King is inferred to have a maximum age of 1,730 Ma and is considered to be older than the Southwark Suite. Felsic magmatism in the region is generally thought to correspond to three main time intervals i.e., 1,810 – 1,780 Ma, 1,780 – 1,760 Ma, and 1,590 – 1,560 Ma (Kositcin et al., 2018; McGloin and Creaser, 2017).

Numerous major faults strike close to east-west and often contain veins or vein swarms of quartz, forming ridges.

Neoproterozoic to Palaeozoic sedimentary rocks of the Ngalia Basin overlie the Paleoproterozoic Aileron basement in the southwest of the tenement and along the southern boundary.

Proterozoic basement outcrop is restricted to approximately 20-30% of the title area, with the remainder, including the contact between granitic and metasedimentary rocks, covered by recent sheetwash sediments. Granites form tors and large rounded hills, and schists and gneisses form mainly low hills and ridges. Strike extensive quartzite and quartz vein ridges are common. Sedimentary rocks at the southwest and southern edge of the tenement comprise northern margins of the Ngalia Basin and outcrop as prominent ridges.

Figure 6-3. Mount Doreen project area geology.



Prepared by Derisk using information sourced from https://geoscience.nt.gov.au/gemis/ntgsjspui and https://geoscience.nt.gov.au/downloads/NTWideDownloads

6.3 Historical Mining

Minor amounts of copper and tungsten were extracted between 1930 – 1950 at Mount Hardy, Silver King, Clark, Mount Irene, and Wolfram Hill (also known as Mount Doreen).

Mount Hardy, to the east of the tenement has had small scale prospecting from the 1930s to the late 1960s, consisting of surface workings and small pits. There is no evidence of processing, however approximately 750 t of handpicked secondary copper ore was stockpiled (McGloin and Creaser, 2017).

Historical workings at Silver King includes a surface trench, a 16 m deep timbered shaft and a 3 m deep pit. The workings at Clark consist of three sinuous open cuts up to 9 m deep and up to 500 m apart, and several pits that were briefly worked in the 1950s. Past production at Clark has been estimated at about 10 t Cu (Warren et al., 1974; Stewart and Warren, 1977).

At Wolfram Hill there are numerous timbered shafts, adits, and open cuts. Production has been estimated at up to 90 t of wolframite during the period from 1926 – 1956. The latest venture to mine alluvial material derived from Wolfram Hill was from 1972 – 1975 (McGloin and Matchen, 2019; Warren et al., 1974).

Workings at Mount Irene includes two shafts and three small pits. About 5 t of rich secondary ore is stored at the dump next to the workings (Northern Territory Geological Survey, 2020). At Patmungala, copper occurrences include a 10 m trench, and the lead occurrence consists of small pits within a 50 m zone. Estimated production was 1 t Cu (Roebuck Resources NL, 1995; Stewart and Warren, 1977).

6.4 Previous Exploration

Previous exploration across the Mount Doreen project area commenced in the late-1960s and has included geological mapping, geochemical sampling, airborne geophysical surveys, and several drilling programs.

The major exploration programs over the project area include:

- White Industries Ltd/Mareeba Mining & Exploration Pty Ltd (1988 – 1992), who completed geochemical surveys.
- J.R. Bruce and J.H. Mules (1987 – 1991), who completed geological mapping, geochemical surveys, a 5-hole reverse circulation (RC) drilling program, ground magnetics, a small rotary air blast (RAB) drilling program, and possibly a 22-hole air track drill program.
- Track Minerals (1988 – 1990), who completed geochemical surveys.
- MIM Exploration (MIM)/Roebuck Resources NL (Roebuck) (1992 – 1995), who completed geological mapping, geochemical surveys, and a 99-hole RAB drilling program.
- Poseidon Gold Ltd./Yuendumu Mining Company (1993 – 1999), who completed an airborne magnetic and radiometric survey, geochemical surveys, a 584-hole vacuum drilling program and a 25-hole RAB drilling program.
- Rio Tinto Exploration (1996-1999), who completed an airborne radiometric and magnetic survey, ground magnetic and gravity surveys, geochemical surveys, a 2-hole diamond drilling program and a 7-hole RC drilling program. The company's exploration focus was on IOCG, diamonds and uranium mineralisation.
- BHP (late 1990s), who completed reconnaissance geochemical sampling.
- Homestake Gold of Australia Ltd (1996 – 2000), who completed geochemical surveys and a 203-hole vacuum drilling program.
- Tanami Gold (2001 – 2006), who completed geochemical surveys, a 254-hole vacuum drilling program and a 317-hole RAB drilling program.

Exploration that was carried out in and around the known prospects included:

- Silver King and surrounds: Varied geochemical surveys, geological mapping and drilling by Bruce and Mules, Roebuck, and Tanami Exploration.
- Clark and surrounds: Historical drilling by the NT government, varied geochemical surveys by Track Minerals, Poseidon/Yuendumu and Homestake, and limited vacuum drilling by Homestake.
- Wolfram Hill and surrounds: Minor historical drilling, reconnaissance geochemical surveys by Mareeba Mining and Poseidon/Yuendumu.

6.5 Current Exploration

The EL was originally granted to Litchfield in 2018 and the Company has completed the following exploration across the tenement:

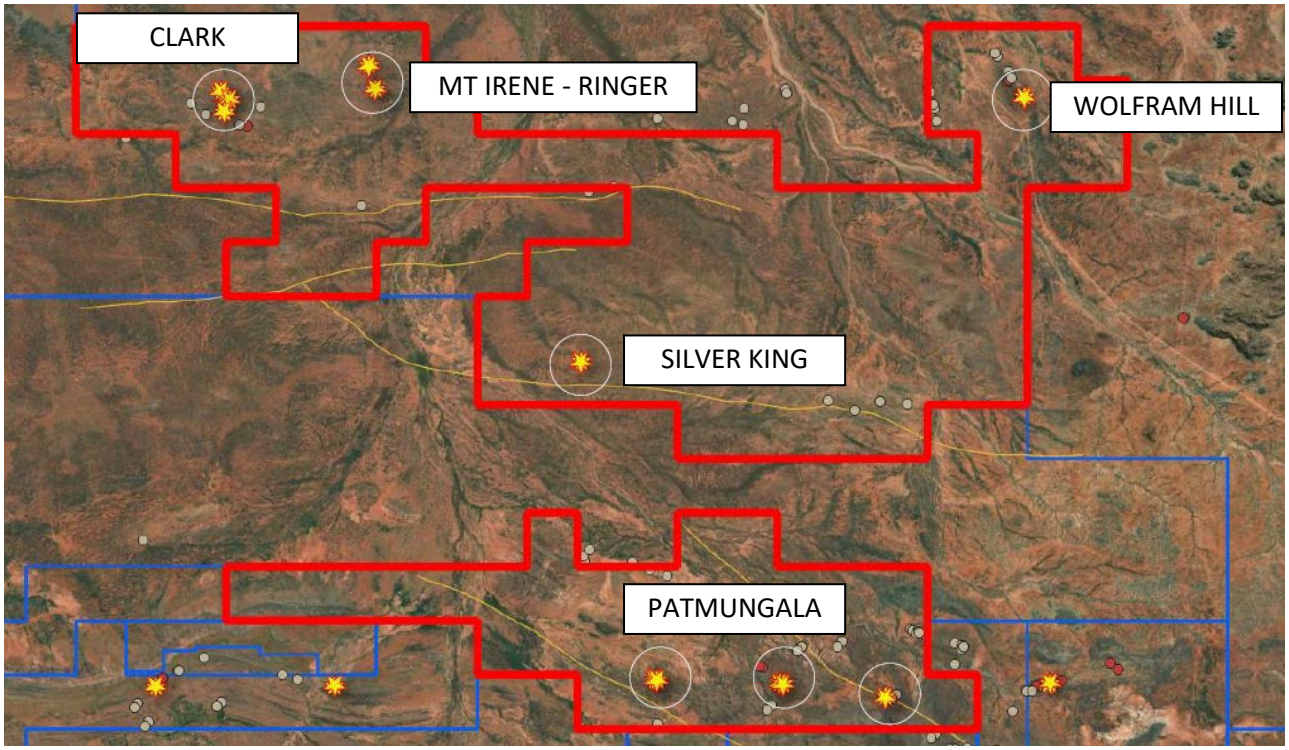
- Literature reviews and desktop analysis.
- October 2019: 13 rock chip samples were collected from Wolfram Hill, Mount Irene, and Silver King that were geochemically assayed by ALS laboratory.
- May 2023:
  - A selection of rock chip samples were collected from Mount Irene, Silver King, and Wolfram Hill that were scanned by a pXRF.
  - Ground geophysics including GAIP and PDIP surveys were undertaken at Mount Irene and Silver King.

- Soil samples were collected from the eastern side of Wolfram Hill and scanned by pXRF.
- Processing of geophysical surveys and 3D inversion modelling of the IP data at Silver King.
- Review of exploration results and target generation of drill targets at the Silver King and Mount Irene prospects.

6.6 Priority Targets

Litchfield has identified five specific high-priority prospects for its initial exploration focus (Figure 6-4) and considers that the uranium prospectivity of the project area needs to be further investigated. These targets are described below.

Figure 6-4. Mount Doreen priority targets.



Source: Litchfield library, 2023

6.6.1 Silver King

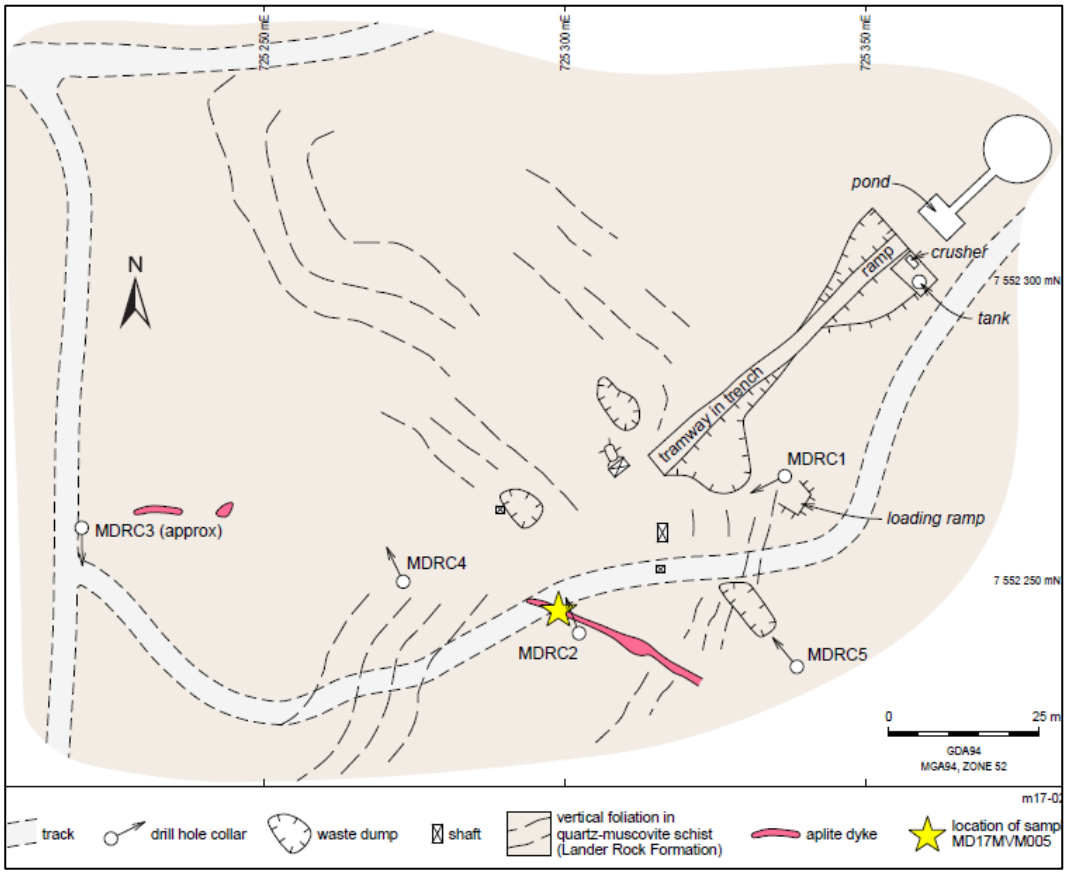
6.6.1.1 Geology and Mineralisation

The host rock at Silver King (also known as Jubilee Silver King) is quartz-muscovite schist of the Lander Rock Formation (Figure 6-5). The schist shows complex folding with faults truncating folds and foliation in places. The schist is intruded by pegmatite and aplite dykes. The Yaloolgarrie Granite outcrops 4 km east of the prospect.

The Silver King prospect comprises several small workings over a mineralised area of 60 m by 50 m (Figure 6-6). The main mineralised zone at the prospect is considered to be located in the hinge of a large fold. Mineralisation strikes 315° magnetic and appears fault bounded by east-west features.

The mineralisation at Silver King has been described as vein and quartz-rich greisen associated with siliceous and iron alteration and spatially associated with aplite dykes and pegmatitic segregations or leached porphyry veins. The mineralised zone is leached and silicified with some suggesting this is related to a porphyry system. The polymetallic metal assemblage, molybdenum-bismuth enrichment, and fluid inclusion studies are also consistent with a granite-related system. At the surface, various oxidised lead, copper, bismuth and iron carbonate, sulphate and oxide minerals are present.

Figure 6-5. Silver King prospect geology.



Source: Kositcin et al., 2018

Figure 6-6. Silver king workings: Shaft and trench (LHS), shallow pit with copper oxide minerals (RHS).

Source: Derisk site visit, 2023

6.6.1.2 Previous Exploration

Early Bureau of Mineral Resources (BMR) and Commonwealth Scientific and Industrial Research Organisation rock chip sampling of mineralised material across the workings include 16 – 55% Pb, 11 – 31% Cu, and 140 – 1,490 ppm Ag (Warren et al., 1974).

Bruce and Mules undertook three drill programs at Silver King and surrounds (Roebuck Resources NL, 1995).

- 22 shallow air-track holes over the workings were apparently drilled by them (evidenced by a map with drill collars only). Re-assaying of cuttings by Roebuck returned values of up to 6.6% Cu, 8.2% Pb, 16.5% Zn, 102 ppb Au, 470 ppm As, 15 ppm Mo, and 470 ppm Bi.
- 5 RC holes targeting mineralisation below the workings (refer to Figure 6-5 for collar locations). Hole MDRC5 intersected 32 m of mineralisation at 1.8% combined Cu/Pb/Zn between 21 – 53 m, including 1 m of 16% combined Cu/Pb/Zn at 22-23 m.
- A small RAB program over a magnetic anomaly southeast of Silver King. Drilling was abandoned and the anomaly was associated with magnetite-rich gneissic roof pendants in porphyritic granite.

MIM and Roebuck (Roebuck Resources NL, 1995) undertook mapping and geochemical sampling at Silver King. Additional tenement-scale exploration included low-level lag sampling over nine magnetic anomalies generated from re-processing of the 1976 BMR aeromagnetic survey, and some rock chip sampling. A RAB program of 99 RAB holes targeted eight magnetic anomalies with assays returning low-level Au and Cu, Pb, Zn, As, Mo and Bi. All anomalies were associated with metasediments intruded by granite with anomalous base metal at or near contact zones.

Tanami Gold (Tanami Gold, 2002; Tanami Gold, 2004) undertook rock chip sampling over the workings and lag sampling east of Silver King at a 1,200 m x 100 m spacing. The rock chips included values to 18.5% Pb, 5.2% Cu, 283.5 ppm Ag and 116 ppb Au. The lag results were not anomalous. In 2002 Tanami Gold undertook tenement-wide vacuum drilling to follow up the MIM/Roebuck geochemical anomalies. A 43-hole vacuum drilling program east and west of Silver King workings at 1,200 m x 100 m spacing produced no significant results.

6.6.1.3 Current Exploration

In October 2019 Litchfield collected three rock chips from workings at Silver King that were analysed by ALS Laboratory. Results included up to 884 ppm Ag, 18.6% Cu, 21.8% Pb, 0.16 % Zn and 0.14 g/t Au.

Later rock chip sampling in May 2023 included pXRF scanning of 56 rocks in which Litchfield noted anomalous tungsten alongside the already well-known base metal mineralisation.

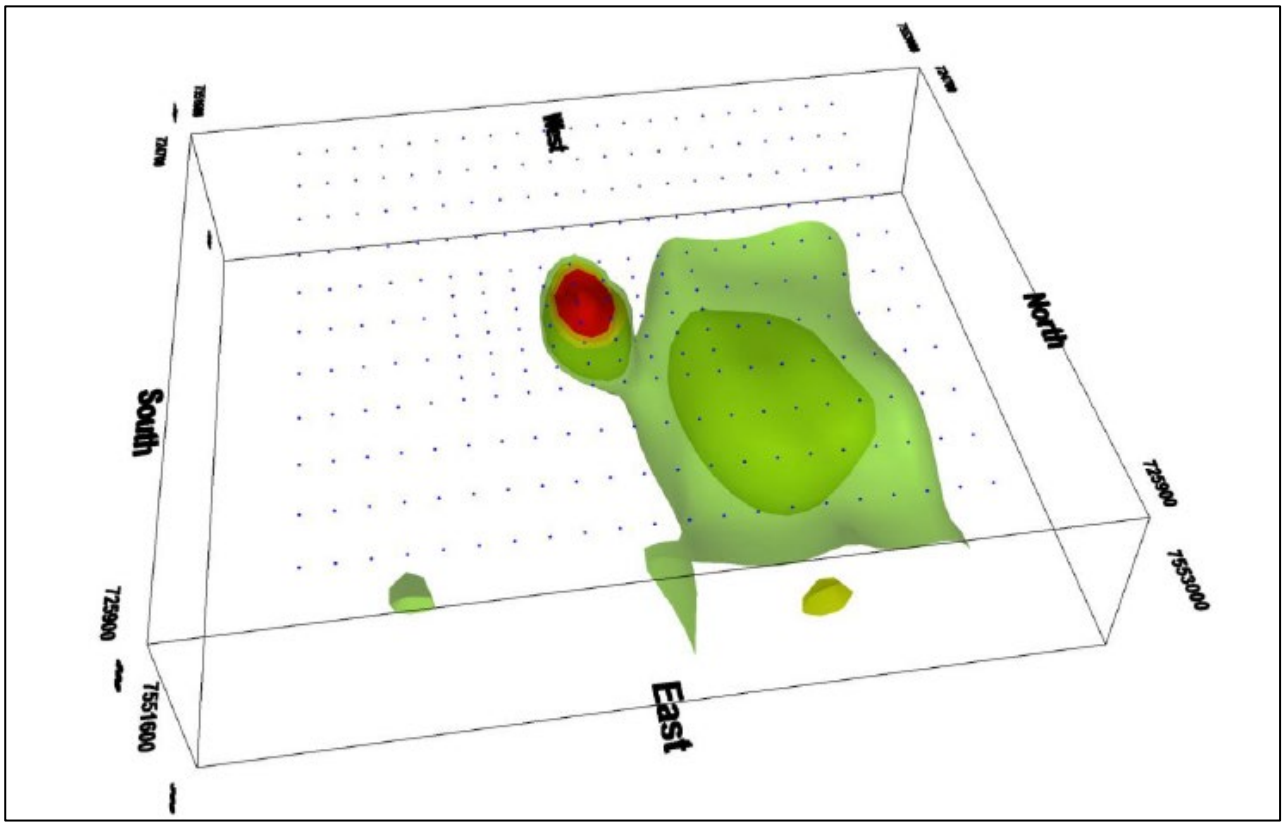
Planetary Geophysics conducted a 10-line GAIP survey over the Silver King workings in May 2023. The lines were spaced 100 m apart and were a minimum of 1 km long. The resistivity is dominated by east-west trends and the chargeability is dominated by a discrete, very chargeable anomaly coincident with historical workings.

This was followed up with a PDIP survey consisting of 4 north-south 1 km length lines, spaced 200 m apart. 3D PDIP modelling (Figure 6-7) shows a low resistivity, east-west oriented linear feature interpreted to be a fault. The discrete strongly chargeable zone in the vicinity of the old workings suggests a vertical pipe-like feature with perhaps up to 100 m of depth extent together with a much broader low chargeability zone to the northeast.

6.6.1.4 Future Plans

Litchfield plans to undertake RC drilling at Silver King to test the IP anomaly in the vicinity of the old workings. Full multi-element suite assays from drill chips will assist to further develop the mineralisation model. This will then refine future targeting at Silver King and surrounds.

Figure 6-7. Silver King 3D PDIP Modelling



Source: RAMA Geoscience, 2023

6.6.2 Mount Irene and Ringer

6.6.2.1 Geology and Mineralisation

The host rock at Mount Irene and Ringer is the Lander Rock Formation. Mount Irene workings comprise two parallel quartz-veined shears (Figure 6-8). Copper oxide minerals are present in working dumps (Figure 6-9).

The Ringer mineral occurrence, which lies 8 km east of the Clark workings is described as copper tungsten in schists. Little is known about this occurrence.

Figure 6-8. Mount Irene workings.

Source: Derisk site visit, 2023

Figure 6-9. Mount Irene Cu oxide dump mineralisation.

Source: Derisk site visit, 2023

6.6.2.2 Previous Exploration

Tanami Gold rock chip sampling at the Mount Irene workings returned a best result of 0.35 g/t Au over a 0.7 m wide composite (Tanami Gold, 2002). Lag soil geochemistry was completed over the area to a 1,000 m x 100 m spacing, returning several low values to a maximum of 7 ppb Au. Later 2004 rock chip sampling east of Mount Irene returned no anomalous results.

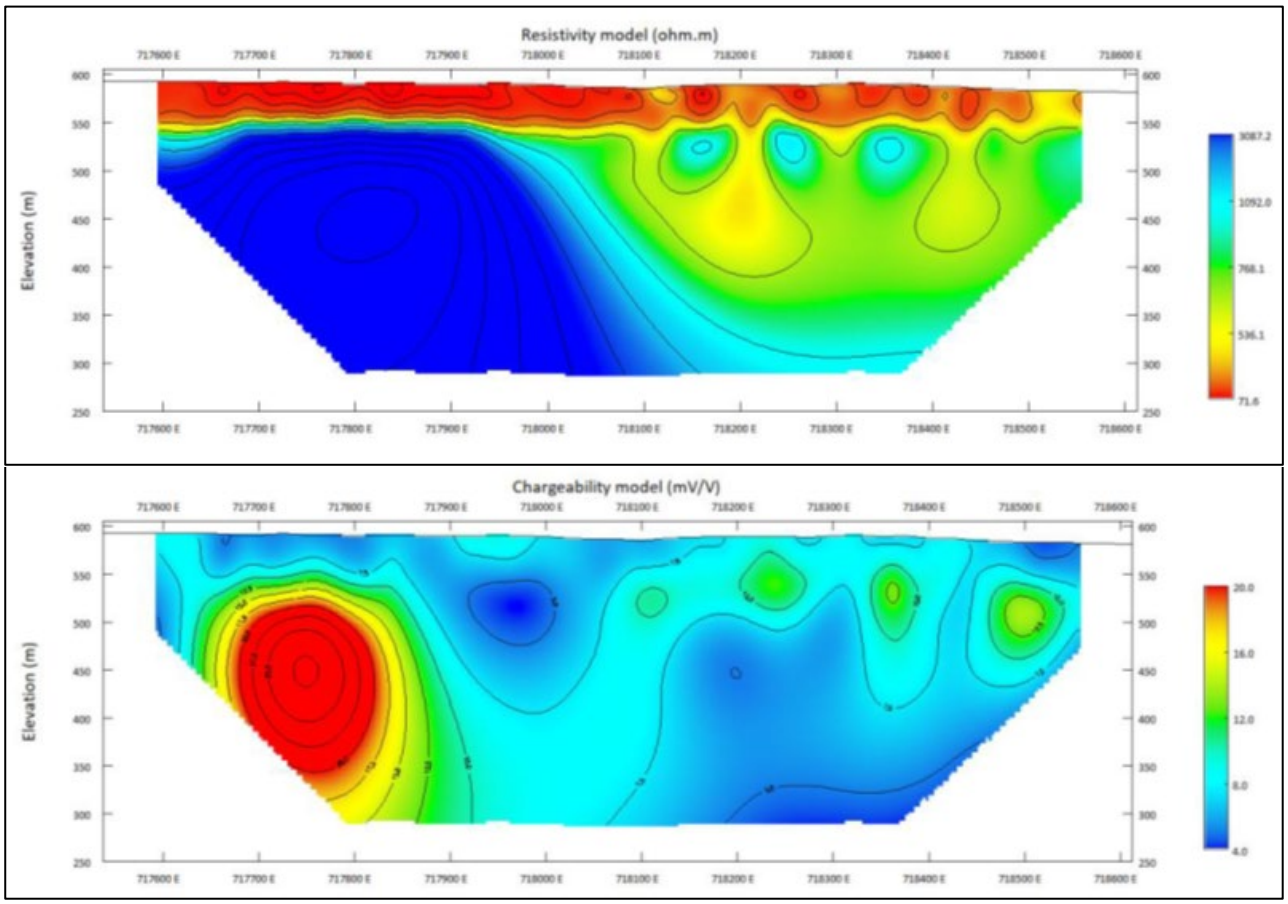
6.6.2.3 Current Exploration

In October 2019 Litchfield collected four rock chips from workings at Mount Irene that were analysed by ALS Laboratory for multi elements and gold. Results included up to 35.8 ppm Ag, 24.2% Cu, 2,930 ppm Pb, 1.3% Zn and 0.56 ppm Au.

Later rock chip sampling in May 2023 included pXRF scanning of 64 rocks, which pointed to anomalous newly discovered, vanadium with anomalous levels of tungsten, tin, lead, and zinc. Copper results showed a consistently high tenor.

Planetary Geophysics conducted an 11-line GAIP survey over the Mount Irene copper workings in May 2023. The lines were spaced 100 m apart and at a minimum of 1 km long. A chargeability anomaly in the northwest corner of the surveyed area was followed up with a one line 1 km length PDIP survey. A large highly chargeable body of 150 m depth was defined, situated in a highly resistive zone, which may sometimes overestimate the chargeability response (Figure 6-10). The anomaly was not completely defined as it is located at the western end of the PDIP line.

Figure 6-10. Mount Irene PDIP modelling: Resistivity (top) and chargeability (bottom).



Source: RAMA Geoscience, 2023

6.6.2.4 Future Plans

Litchfield plans to extend the induced polarisation coverage in the northwest of the prospect in order to fully define the existing anomaly and test for additional targets. Prospect scale rock chip sampling and geological mapping is also planned to refine mineralisation models and drill targeting, followed by a RC drilling program.

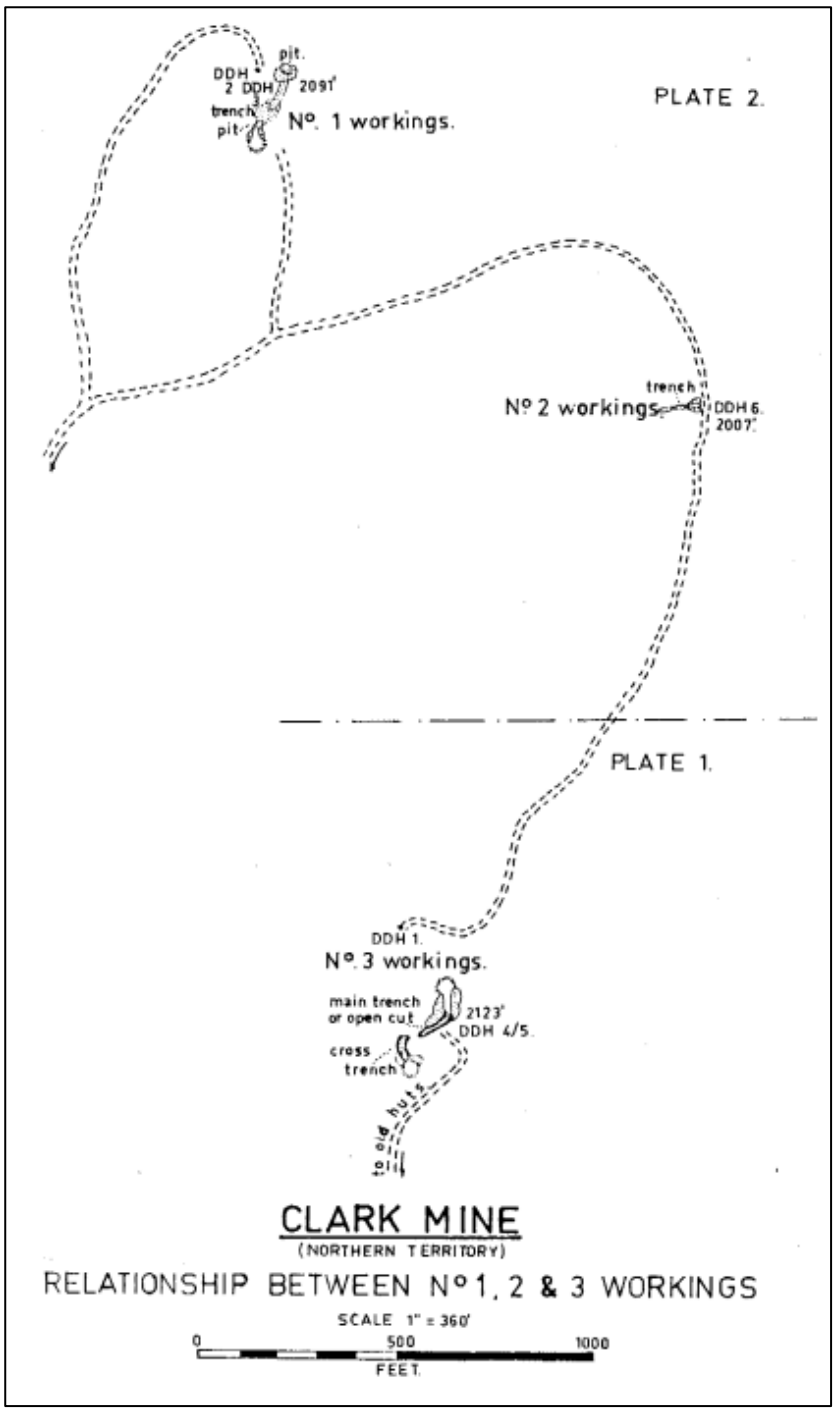
6.6.3 Clark

6.6.3.1 Geology and Mineralisation

The Clark copper workings are located 30 km west of the old Mount Doreen homestead. The prospect geology includes phyllites of the Lander Rock Formation and gneissic granite. The metamorphic rocks have a strike orientation of 065° to 080° and dip steeply northwest.

The three pits lie along strike of a quartz-veined shear zone that strikes east-northeast (Figure 6-11). Several veins of quartz and pegmatite cut the phyllite and granite, and copper minerals occur in three of the veins. Mineralisation consists of malachite, azurite and minor chalcocite in the oxidised zone, with pyrite and chalcopyrite in the sulphide zone. Copper grade appears to decrease with depth.

Figure 6-11. Plan of Clark workings and drilling.



Source: Fruzzetti, 1971

6.6.3.2 Previous Exploration

In 1970 the NT Mines and Water Resources branch undertook geological mapping, rock chip sampling, and drilling at Clark (Fruzetti, 1971). Six diamond holes totalling 282.5 m were drilled with maximum analyses reported of 3.6% Cu, 0.14% Pb, and 0.6% Zn (Figure 6-12). At the time, the Clark workings were estimated to contain 2,800 t of broken material grading 7% Cu and 5,700 t of material grading 2 – 3% Cu.

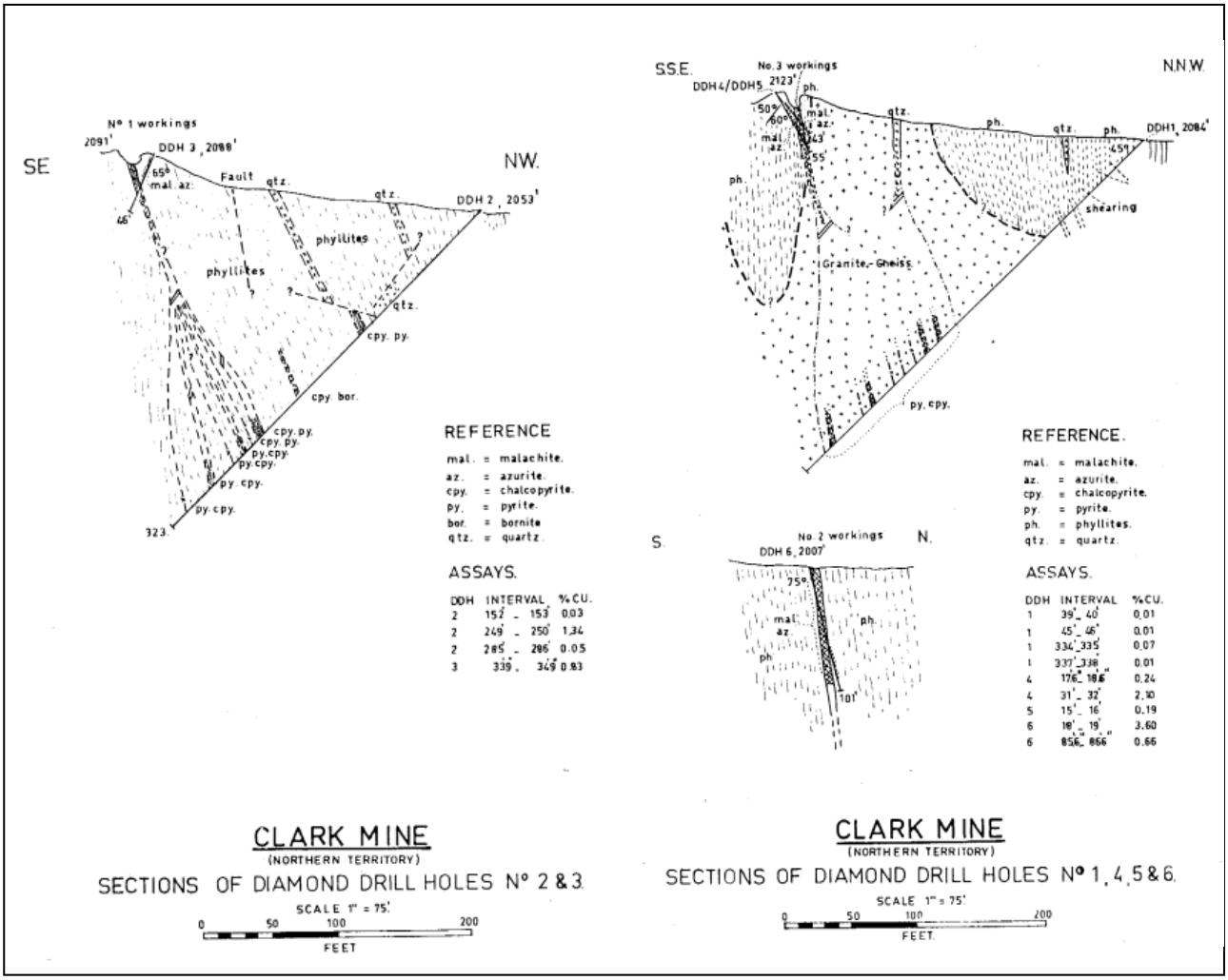
Track Minerals (Track Minerals, 1989) undertook regional stream sediment sampling with weakly anomalous gold west of Clark. One rock chip from Clark contained 14.2% Cu, 2.15% Pb, 0.25% Zn, 34 ppm Ag, and 0.02 g/t Au.

Poseidon/Yuendumu (Yuendumu Mining Company NL, 1994) undertook soil sampling resulting in three coincident As-Au anomalies coincident with known mineralisation near the Clark workings. Further sampling was undertaken 2 km east of the workings. Rock chip sampling from the prospect area returned low gold values.

Homestake (Homestake Gold, 1997; Homestake Gold, 1998) undertook regional soil and stream sediment sampling that outlined an anomaly 1.5 km long over the Clark workings, and a 500 m long anomaly, 1 km south. Rock chip sampling returned up to 1.52 g/t Au and 19.7 % Cu. Later vacuum drilling apparently tested the soil anomalies, with assays resulting in spotty anomalism with a maximum 69 ppb Au.

Tanami Gold (Tanami Gold, 2002) rock chip sampling returned assays up to 1.23 ppm Au**.**

Figure 6-12. Historical Clark drilling.



Source: Fruzzetti, 1971

6.6.3.3 Current Exploration

Litchfield has undertaken no exploration at Clark to date.

6.6.3.4 Future Plans

Litchfield plans to undertake a ground IP geophysics survey below the surface workings. Detailed geological mapping is also planned to refine mineralisation models and potential drill target generation.

6.6.4 Wolfram Hill

6.6.4.1 Geology and Mineralisation

Wolfram Hill is in the northeast corner of the tenement package and consists of two prominent hills, with mineralisation occurring mainly on the eastern side of these hills (Figure 6-13). The host rock is lower amphibolite facies metasedimentary biotite-muscovite-andalusite-quartz schist and minor metasandstone of the Lander Rock Formation (Figure 6-14).

The rocks are tightly folded and the sandstone members have fractured and thus provided sites for pegmatite emplacement. The metasediments are intruded and cross-cut by numerous quartz and pegmatite veins running parallel to each other in a northwest-southeast direction.

Tungsten and copper mineralisation at Wolfram Hill is hosted in two main reefs of pegmatite and quartz. The pegmatites range up to 100 m in length (Figure 6-15). Mining activity has been concentrated on the northeastern limb of the fold.

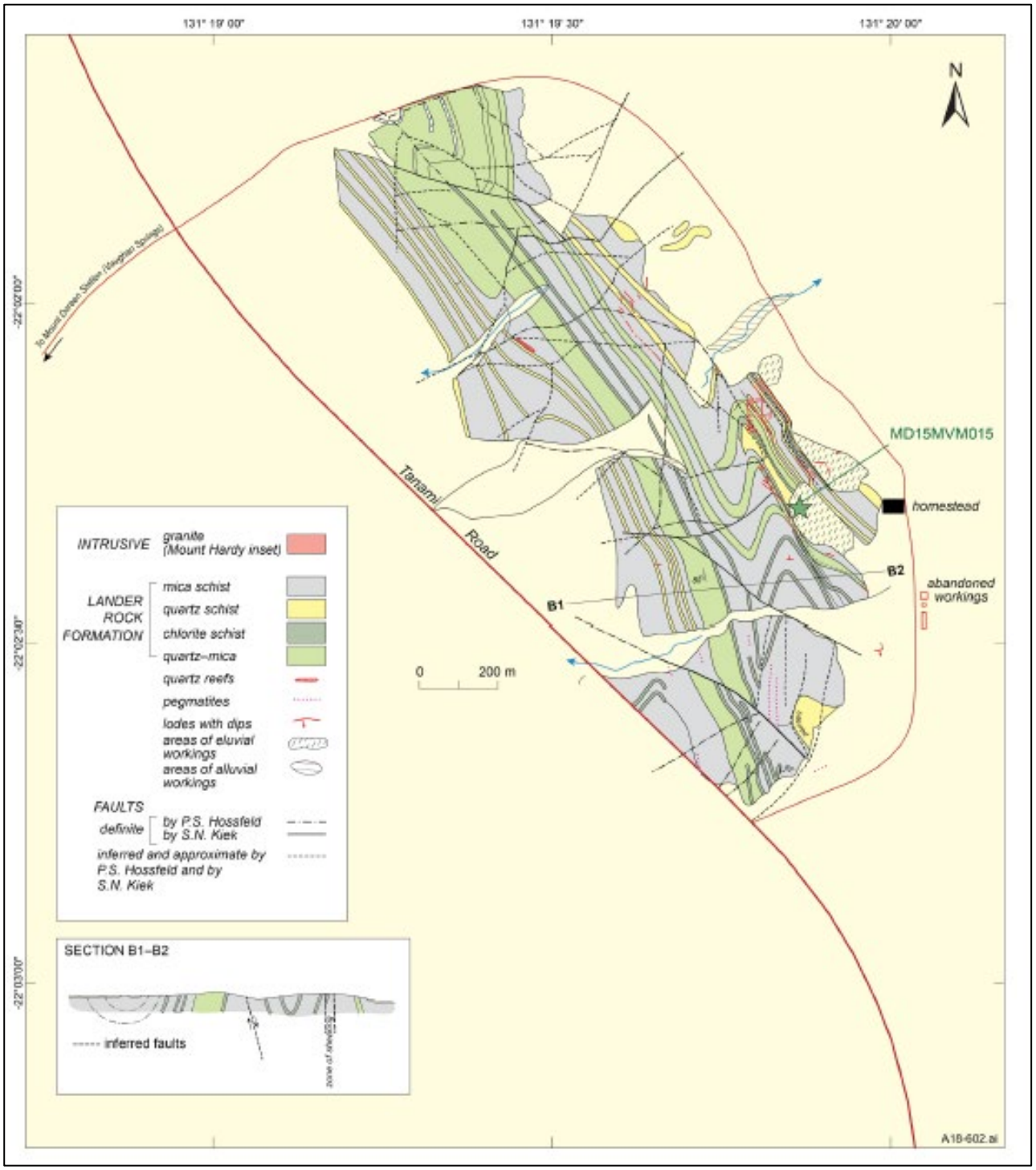
Mineralisation largely comprises wolframite with minor scheelite associated with malachite, azurite, minor chrysocolla and tungstite (Figure 6-15). Other economic minerals reported include chalcocite, chalcopyrite, anglesite, pyrite, limonite, linarite, cerussite, brochantite, siderite, galena, wulfenite, argentite, and gold.

The wolframite occurs as coarse grains in quartz veins, micaceous seams, and pegmatitic quartz-mica segregations; hydrothermal alteration zones of bleached quartz-sericite rock up to 50 cm thick surround the pegmatites.

Figure 6-13. Wolfram Hill vista.

Source: Derisk site visit, 2023

Figure 6-14. Wolfram Hill geology.



Source: McGloin et al., 2019

Figure 6-15. Wolfram Hill historical workings.

LHS photo: Historical workings showing pegmatite within Lander Creek Formation.

RHS photo: Mineralised vein from dump adjacent to historical workings.

Source: Derisk site visit, 2023

6.6.4.2 Previous Exploration

Anzeco, a subsidiary of Union Carbide (Yuendumu Mining Company NL, 1994) reportedly drilled two diamond holes for a total of 240 m underneath surface mineralisation however no information is publicly available documenting the results of this drilling.

Mareeba Mining/White Industries (Mareeba Mining and Exploration, 1992) undertook rock chip sampling around Wolfram Hill with up to 1.13% Cu, 157 ppm Zn, 0.083 ppm Au, 109 ppm Sn, 25 ppm Ag, and 6040 ppm W.

Poseidon/Yuendumu (Yuendumu Mining Company NL, 1994) undertook soil sampling west of Wolfram Hill with near lower detection level results.

6.6.4.3 Current Exploration

In October 2019 Litchfield collected six rock chips from the workings at Wolfram Hill that were analysed by ALS Laboratory for a multi element suite. Results included up to 39.8 ppm Ag, 4.99% Cu, 649 ppm Pb, 886 ppm Zn, 392 ppm Sn, 0.68% W, 214 ppm Mo, and 20.2 ppm Nb.

Rock chip sampling and pXRF scanning in May 2023 of 149 samples identified anomalous copper, tungsten, and tin. Soil sampling in May 2023 was conducted over colluvium with 8 lines completed that were also scanned using pXRF.

6.6.4.4 Future Plans

Litchfield plans to undertake a ground IP geophysics survey below Wolfram Hill. Detailed geological mapping is also planned to refine target generation for later drilling.

6.6.5 Patmungala

6.6.5.1 Geology and Mineralisation

The mineral occurrences are within the Patmungala Beds with local rocks described as vitric tuff, which may be a volcaniclastic siltstone.

At the known copper occurrence, mineralisation is within a chert-vitric tuff horizon over a 200 m strike length. The minerals are mainly malachite and azurite with some cuprite and appear to fill a large tension gash. Copper stains also occur in a quartz vein west of the main prospect.

There is also a lead occurrence 4.5 km to the east that comprises thin bands of disseminated galena within a 50 m wide zone of vitric tuff/rhyolites.

6.6.5.2 Previous Exploration

Roebuck (Roebuck Resources NL, 1995) conducted reconnaissance rock chip sampling. The copper occurrence returned up to 6.2% Cu and trace Ag and Au. A sample of the galena bands at the lead occurrence assayed up to 1,900 ppm Pb. Analysis of gossanous material further south returned 410 ppm Cu, 3,100 ppm Pb, 970 ppm Zn, and trace Au and Ag. Additional ferruginous, mainly carbonate rich horizons were noted but not sampled.

6.6.5.3 Current Exploration

Litchfield has undertaken no exploration at Patmungala to date.

6.6.5.4 Future Plans

Litchfield plans to complete a reconnaissance rock chip sampling and geological mapping program at the prospect to refine the mineralisation model(s) and plan future geophysical survey. Further assessment would potentially result in a drilling program.

6.6.6 Uranium Potential

As noted in Section 5.2, the Aileron Province hosts numerous uranium-enriched granites and is prospective for basement-hosted mineralisation as well as sandstone-hosted mineralisation in overlying and surrounding basins.

In the mid-1990s, Rio Tinto conducted an exploration program over EL 9413, which includes some of the current area of EL 31305. Airborne geophysics identified 51 radiometric anomalies over EL 9413 in four distinct areas and a cluster of eight dipole anomalies. The most significant 19 radiometric anomalies were followed up with a hand-held scintillometer and rock chip sampling (Rio Tinto Exploration, 1999).

Three of the anomalous areas are partially located within the Mount Doreen project i.e.:

- Area 3 is located in the northern part of EL 31305 and consists of small anomalies sourced from the Yaloogarrie Granite, suggesting a possible source for remobilised uranium.
- Area 2 is located in the southern part of EL 31305 where uranium mineralisation is hosted in outcropping Patmungala beds that displayed moderately elevated uranium levels.
- Area 4 is located to the east of Area 2 and straddles the contact between the Patmungala Beds and Yarunganyi Granite. Six anomalies were followed up, with one anomaly containing visible secondary uranium mineralisation.

Rio Tinto did not undertake any further uranium exploration on any of the radiometric anomalies following this field work.

Litchfield considers that Mount Doreen is prospective for uranium mineralisation and plans to assess this potential as a secondary target.

6.7 Derisk Assessment

Derisk notes that Litchfield proposes to focus its short term exploration program in the vicinity of the mineralised prospects where sporadic historical mining has occurred. The Company's strategy is to use ground geophysics – dominantly IP to identify targets for drill testing. This is a logical approach in the short term but does not assess the prospectivity of the remainder of the tenement, which also needs to be done in the medium term.

7 LUCY CREEK

At the effective date of this Report, ELA 33568 is pending. The Company has been advised that the technical assessment and review of the application has been completed by NT Department of Industry, Tourism and Trade except for the Native Title portion of the application, which cannot be completed before 13 December 2023.

Based on this advice, Derisk concludes that there is no reason to believe that ELA 33568 will not be granted to Litchfield in due course, however the Company's interest is restricted to the application, there is no assurance the application will be accepted, and the Company's rights are conditional on the grant of the concession.

7.1 Location, Access, and Infrastructure

The Lucy Creek project consists of a single ELA located approximately 400 km east-northeast of Alice Springs in NT. Access from Alice Springs is via the Plenty Highway to the south of the tenement, then via minor gravel roads and station tracks.

Alice Springs is a major regional centre and provides a wide range of services and infrastructure to support exploration and mining activities, including air, road, and rail facilities.

7.2 Climate, Geomorphology, and Land Use

The Lucy Creek area has a semi-arid climate with hot summers and milder winters. The project is located within mostly gently undulating topography consisting of grassland and scattered scrubland, with some hills (Figure 7-1). Most of the tenement area is covered by pastoral leases.

Figure 7-1. Example of surface topography and landforms at Lucy Creek.

Source: Litchfield library, 2023.

7.3 Geological Setting

The project is located within the southern portion of the Georgina Basin, a large intracratonic sedimentary basin located in central and northern Australia. The basin comprises marine and non-marine sedimentary rocks deposited from the Neoproterozoic to the late-Palaeozoic (850 – 350 Ma). Locally, basin sediments can reach a thickness of 4 km.

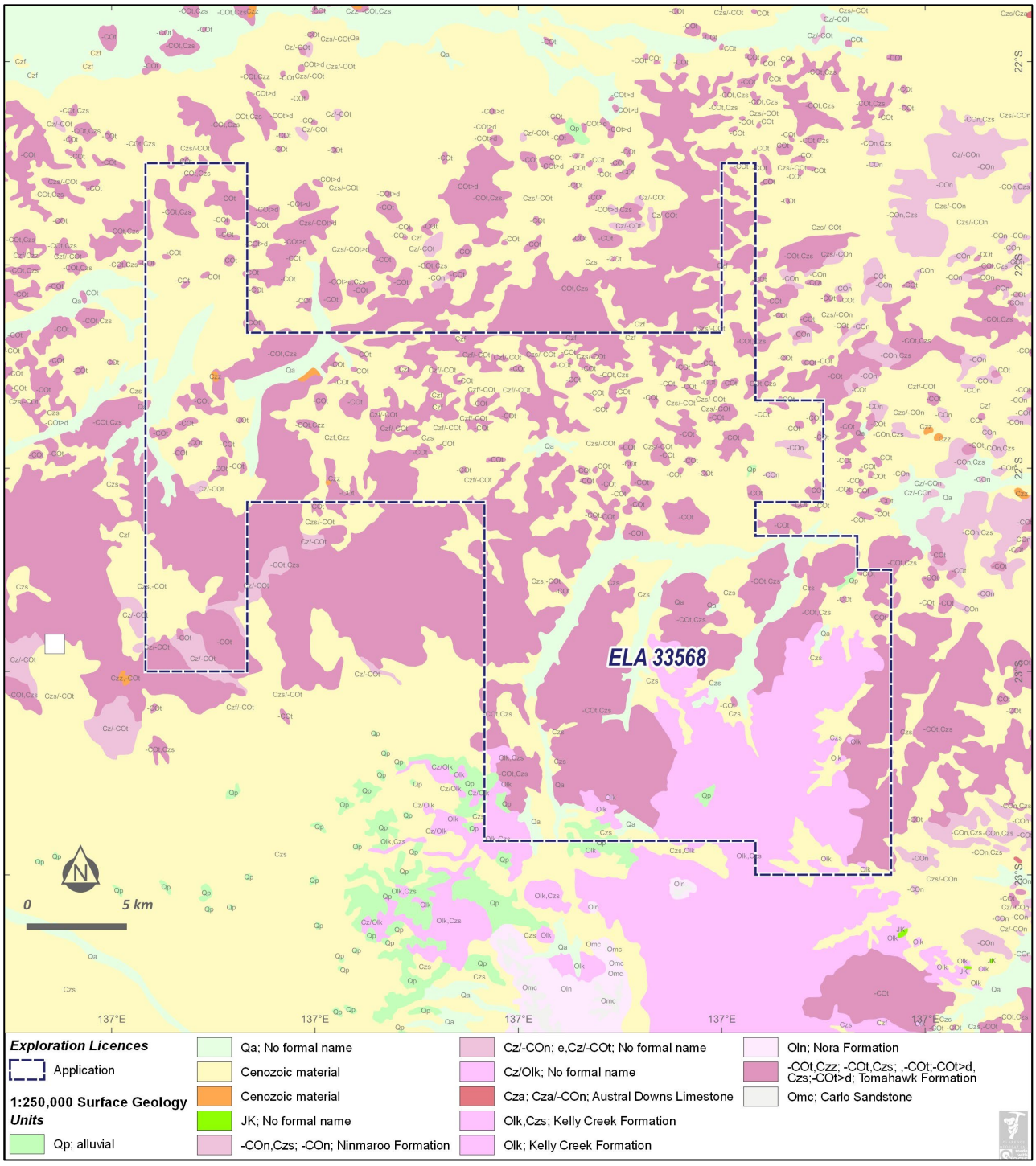
Basement rocks below the Georgina Basin sediments comprise the Altjawarra Block, which is part of the North Australian Craton. This craton is a composite terrane made up of numerous continental blocks that were amalgamated in the early Proterozoic. The Aljawarra Block is interpreted from geophysics and several deep drillholes to be comprised of granitoid – granitic gneiss terranes separated by deformed mafic and ultramafic rocks.

The Altjawarra Block is associated with a zone of very thick lithosphere, interpreted to be at least 200 km. The geological setting is believed to be prospective for kimberlitic diamond pipes and the area has been the subject of diamond exploration by several companies.

Much of the tenement is comprised of the Cambrian Tomahawk Formation, part of the Georgina Basin sequence (Figure 7-2). This formation is composed of quartzose and glauconite sandstone with minor dolostone, limestone, dolomitic quartz sandstone, and conglomerate. Manganese and iron occurrences have been noted in association with this formation.

Significant areas of the tenement are overlain with thin veneers of Quaternary and Cenozoic unconsolidated sands and silts that mask the underlying geology.

Figure 7-2. Lucy Creek Project area geology.



Prepared by Derisk using information sourced from https://geoscience.nt.gov.au/gemis/ntgsjspui and https://geoscience.nt.gov.au/downloads/NTWideDownloads

7.4 Mining

There is no current mining activity on or immediately adjacent to the project and there are no records of any significant historical mining operations.

7.5 Previous Exploration

Previous exploration across the district encompassing the project area commenced in the 1960s and was predominantly focused on the search for base metals within the Georgina Basin e.g., MVT and stratiform sediment-hosted base metal deposits. The Box Hole/Turkey Creek lead-zinc prospect located 340 km northeast of Alice Springs was discovered during this phase.

In the 1980s, CRA Exploration (CRAE) undertook some reconnaissance stream sediment sampling as part of a diamond exploration program that recovered numerous chromite grains, three microdiamonds, and one microdiamond. Although several indicator mineral drainage anomalies were identified, CRAE undertook no further work to identify the source of the drainage anomalies (Elkedra, 2003).

In the early 2000s, Elkedra Diamonds NL (Elkedra) held a very large tenement package comprising over 30 tenements covering an area of more than 47,000 km^2, including the area covered by ELA 33568. Elkedra's main focus was diamonds, following up on the previous exploration completed by CRAE, but exploration also identified the presence of base metals, manganese, and REE mineralisation (Elkedra, 2003).

7.6 Priority Exploration Targets

Litchfield considers that Lucy Creek is prospective for several exploration models as follows:

- High-grade manganese-iron deposits, potentially associated with elevated REE ± cobalt mineralisation (Figure 7-3).
- REE mineralisation associated with Georgina Basin carbonate sediments, similar to known occurrences elsewhere in the basin.
- Kimberlitic diamond mineralisation.
- MVT base metal mineralisation hosted by Georgina Basin sediments.

Figure 7-3. Example of surficial high-grade manganese in the Lucy Creek Project area.

Source: Litchfield library, 2023.

Upon grant, Litchfield plans to undertake a desktop analysis of all available exploration data and complete a soil and rock chip geochemical sampling program, and a petrological assessment. Further exploration would target anomalies generated from the initial geochemistry, with more detailed sampling and geological mapping. Further assessment would potentially result in a drilling program.

7.7 Derisk Assessment

Derisk considers that the Lucy Creek ELA is prospective for a range of commodities including manganese-iron, diamonds, base metals and REEs. Exploration for these targets is at a very early stage.

8 PROPOSED BUDGET AND WORK PROGRAM

8.1 Budget

Litchfield plans to raise AUD 4.5 M as part of the IPO. Post-IPO, Litchfield has proposed a two-year work program across its two project areas, with the majority of funding directed at Mount Doreen. Table 8-1 summarises the proposed high-level two-year exploration budget of AUD 3.38 M, which represents 75% of the public raise.

Table 8-1. Proposed two-year exploration and technical budget.

Program	Year 1 Budget (AUD 000)	Year 2 Budget (AUD 000)	Total Budget (AUD 000)
Access and data compilation	50	50	100
Surveys	100	100	200
Geochemistry, sampling and geological mapping	60	50	110
Drilling and analyses	1,200	1,200	2,400
Metallurgical testing	100	100	200
Mineral Resource assessment	0	100	100
Operational labour costs	134	134	267
TOTAL	**1,644**	**1,734**	**3,377**

Source: Litchfield management, 2023.

The majority of the proposed exploration expenditure is focused on geological mapping and geochemistry, geophysics, and drilling, with drilling comprising 71% of the exploration budget.

The Year 1 budget will be focused at Silver King and Mount Irene, and the Year 2 budget will be focused at Wolfram Hill, Clark and Patmungala (Table 8-2).

Table 8-2. Proposed project-based exploration and technical budget.

Project Area	Year 1 Budget (AUD 000)	Year 2 Budget (AUD 000)	Total Budget (AUD 000)
Silver King	600	100	700
Mount Irene	494	50	544
Clark	200	500	700
Wolfram Hill	200	700	900
Patmungala	100	334	434
Lucy Creek	50	50	100
TOTAL	**1,644**	**1,734**	**3,377**

Source: Litchfield management, 2023.

8.2 Work Program

Litchfield's primary focus in Year 1 will be drill testing the IP targets identified in 2023 at Silver King and Mount Irene, and to undertake new IP surveys at Mount Irene, Clark and Wolfram Hill. Early-stage exploration activities will be undertaken at Patmungala and Lucy Creek

In Year 2, Litchfield's drilling focus will move to Clark and Wolfram Hill, assess the results of the Year 1 programs at Silver King and Mount Irene and potentially commence a mineral resource assessment if results are positive. Exploration activities will continue at Patmungala and Lucy Creek in order to define potential drill targets.

Table 8-3 summarises the technical activities proposed by the Company at each project.

Table 8-3. Proposed project-based two-year exploration program.

Project	Year 1 Program	Year 2 Program
Silver King	• Exploration RC drilling testing targets from the 2023 IP campaign • Review of results and year 2 planning	• Potential diamond drilling • Resource assessment
Mount Irene	• Exploration RC drilling testing targets from the 2023 IP campaign • New ground IP survey to the northwest of Mount Irene to test further targets • Prospect scale geological mapping • Prospect scale surface geochemistry	• Resource assessment
Clark	• Ground IP over a 2 km x 2 km area • 3D modelling of the IP results • Target generation • Prospect scale geological mapping	• Exploration RC drilling testing targets from the 2024 IP campaign
Wolfram Hill	• Ground IP over the entire prospect area • Prospect scale geological mapping	• Exploration RC drilling testing targets from the 2024 IP campaign
Patmungala	• Reconnaissance and rock chip sampling • Prospect scale geological mapping	• Prospect scale ground geophysics
Lucy Creek	• Reconnaissance and rock chip sampling • Prospect scale geological mapping	• Reconnaissance and rock chip sampling • Prospect scale geological mapping

Source: Litchfield management, 2023.

Derisk considers that the work program prepared by Litchfield is reasonable and defensible. The key risk to the Company's objective is that more drilling than budgeted will be required at Silver King and Mount Irene to define a maiden Mineral Resource estimate at these prospects.

Litchfield has advised Derisk that the proposed budgets exceed the EL expenditure commitments for Mount Doreen and the proposed exploration budget submitted as part of the application for Lucy Creek. Derisk has reviewed the proposed exploration program/budget and considers it is reasonable, appropriate and matches the stated aims of the company.

9 RISKS AND OPPORTUNITIES

Derisk considers the key risks for Litchfield are:

- **Exploration risk:** Litchfield may be unsuccessful in its aim of discovering an economic minerals deposit.
- **Tenure risk:** The Company will need to maintain its tenements in good standing and meet expenditure commitments to be sure of retaining tenure.

  At the effective date of this Report, ELA 33568 is pending. Whilst there is no reason to believe that ELA 33568 will not be granted to Litchfield in due course, the Company's interest is restricted to the application, there is no assurance the application will be accepted, and the Company's rights are conditional on the grant of the concession.
- **Funding risk:** Litchfield will need to raise further funds to finance exploration of its assets beyond the next two years. If exploration is successful, in the longer term, detailed drilling and technical studies to define Mineral Resources and Ore Reserves will require significant funds to be raised. Derisk makes no forecast of whether any Mineral Resources or Ore Reserves will be defined.

The key opportunity for Litchfield is exploration discovery success at one or more of its projects.

10 CONCLUSIONS

Litchfield holds one EL and one ELA in NT, with a total area of approximately 1,180 km^2. Mount Doreen is an advanced exploration project and Lucy Creek is an early-stage exploration project. The Company considers both projects are prospective for a range of different commodities including base metals, precious metals, speciality metals such as vanadium and REE, manganese and uranium. There are no Exploration Targets, Mineral Resources or Ore Reserves at either project.

At Mount Doreen, the Company has collated all readily available previous exploration data including geology, geochemistry, geophysics, and drilling data, and has completed its own exploration at several prospects to identify targets for drilling. At Lucy Creek, the Company has undertaken a brief review of previous exploration and identified several exploration opportunities.

Litchfield plans to raise AUD 4.5 M as part of the IPO. Post-IPO, Litchfield has proposed a two-year work program across its two project areas, with the majority of funding directed at Mount Doreen. Drill testing of geophysical targets in Year 1 is planned with further drilling scheduled in Year 2.

Sporadic historical mining activity has taken place at various locations within the Mount Doreen project. This, together with the exploration results achieved to date provides good support for Litchfield to apply a range of exploration models at this project. Whilst exploration at Lucy Creek has been minimal, there is some evidence to support the exploration models proposed for this project. Derisk considers that the mineralisation models put forward by Litchfield for each of its projects are reasonable and defensible, and the proposed exploration program and budget is reasonable and appropriate.

11 PRACTITIONER/COMPETENT PERSON STATEMENTS

11.1 Mark Berry – Practitioner/Specialist and Competent Person

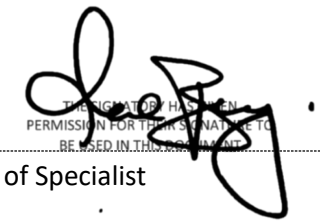
I, Mark Berry, confirm that I am a Principal Consultant and Director of Derisk and that I supervised the production of the report titled Independent Geologist Report of the Northern Territory Exploration Assets to be held by Litchfield Minerals Pty Ltd, with an effective date of 31 October 2023.

I confirm that my firm's Directors, shareholders, employees, and I are independent of Litchfield Minerals Pty Ltd, its Directors, substantial shareholders, and their associates. In addition, my firm's Directors, substantial shareholders, employees, and I have no interest, direct or indirect, in Litchfield Minerals Pty Ltd, its subsidiaries, or associated companies, and will not receive benefits other than remuneration paid to Derisk in connection with this independent geologist report. Remuneration paid to Derisk is not dependent on the findings of this report.

I confirm that I am the Practitioner and Specialist for the technical assessment in this report and that I am also the Competent Person for the compilation of the Exploration Results presented in this report. I am a Member of The Australian Institute of Geologists and have over 40 years of relevant experience. I have not been found in breach of any relevant rule or law of that institute, and I am not the subject of any disciplinary proceeding that I am aware of.

I have read and understood the requirements of the VALMIN Code and the JORC Code. I am a Specialist as defined by the VALMIN Code and a Competent Person as defined by the JORC Code, having more than the minimum experience relevant to the styles of mineralisation and types of deposits described in this report, and to the activity for which I am accepting Practitioner and Competent Person responsibility.

I have reviewed this report, to which this Consent Statement applies. I consent to the release of this report and to the inclusion in this report of the matters and supporting information based on my information in the form and context in which it appears.



30 November, 2023

Signature of Specialist | Date

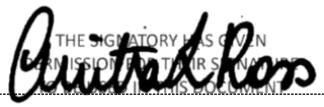
11.2 Anitra Ross – Specialist

I, Anitra Ross, confirm that I am a Senior Geologist with Derisk and that I am a Specialist who contributed to the production of the report titled Independent Geologist Report of the Northern Territory Exploration Assets to be held by Litchfield Minerals Pty Ltd, with an effective date of 31 October 2023.

I confirm that I am independent of Litchfield Minerals Pty Ltd, its Directors, substantial shareholders, and their associates. I am a Member of The Australian Institute of Geologists and have over 20 years of relevant experience. I have not been found in breach of any relevant rule or law of that institute, and I am not the subject of any disciplinary proceeding that I am aware of.

I have read and understood the requirements of the VALMIN Code. I am a Specialist as defined by the VALMIN Code, having more than the minimum experience relevant to the styles of mineralisation and types of deposits described in this report, and to the activity for which I am accepting Specialist responsibility.

I have reviewed this report, to which this Consent Statement applies. I consent to the release of this report and to the inclusion in this report of the matters and supporting information based on my information in the form and context in which it appears.



30 November, 2023

Signature of Specialist | Date

12 REFERENCES

Ahmad, M, and Scrimegeour, I.R., 2013. Chapter 2: Geological Framework: in Ahmad M and Munson TJ (compilers). Geology and mineral resources of the Northern Territory. Northern Territory Geological Survey, Special Publication 5.

Bruce, J. R, and Mules, J.H., 1990. NT Exploration Licence 5091 Report of Exploration Activities 15/01/87 to 14/01/90. Relinquishment Report. Author B. Murrell. Northern Territory Geological Survey, Open File Company Report CR19900307.

Bruce, J. R, and Mules, J.H., 1991. NT Exploration Licence 5091 Report of Exploration Activities 15/01/90 to 14/01/91. Year Four and Final Report. Author B. Murrell. Northern Territory Geological Survey, Open File Company Report CR199103086.

Elkedra Diamonds NL, 2003. Altjawarra Craton Diamond Project. Annual Report for period ending April 30, 2003 for ELs 22539 (Algamba); 22526 (Annitowa); 22541 (Arganara); 23306 (Arthur Creek); 23265 (Barkley's Chance); 23266 (Barkley's Chance North); 22547 (Bathurst); 23272 (Below Dingo East); 23276 (Below Dingo West); 22540 (Bundey River); 22552 (Burramurra); 22546 (Desert Plain); 22537 (Dulcie); 22548 (Elditta); 23597 (Elkedra River East); 23596 (Elkedra River West); 22551 (Georgina); 22542 (Landerandera); 22535 (Last Hope East); 22536 (Last Hope West); 22534 (Lucy Creek East); 22533 (Lucy Creek West); 22538 (Manners Creek); 23202 (Marqua); 22543 (Mount Hogarth); 22528 (Mount Ultim); 22525 (Socqua); 22529(Tarlton); 22530 (Tobermory); 22531 (Toko Range); 22527 (Tomahawk); 22545 (Towners); 22532 (Umberumbera); 22544 (Wanda).

Energy Metals, 2018. Bigrlyi Vanadium Mineralisation Model and Extraction Update. ASX News Release 4 December 2019.

Fruzzetti, O., 1971. The Clark Copper Mine Mount Doreen, NT. Rep. Res. Geol. Office for Mines Branch, NT. Northern Territory Geological Survey Report GS1971-002

Homestake Gold, 1997. Annual Report Exploration Licence 9673 Mount Doreen NT. For the period 27/10/96 to 27/10/97. Author J Stewart. Northern Territory Geological Survey, Open File Company Report CR19980275.

Homestake Gold, 1998. Annual Report for Year Two Exploration licence 9673 Mount Doreen NT. Author K Lindsay-Park. Northern Territory Geological Survey, Open File Company Report CR19980746.

JORC Code, 2012. Australasian code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia. December 2012.

Keys, E., Kreuzer, O., Roshanravan, B. and Buckingham, S., 2023. Mineral potential modelling of gold systems in the Tanami: A multi-technique approach to support the next discovery in the NT. Annual Geoscience Exploration Seminar (AGES) Proceedings, Alice Springs, Northern Territory, 18–19 April 2023. Northern Territory Geological Survey, Darwin. 2023

Kositcin, N., McGloin, M.V., Reno, B.L., Weisheit, A. and Beyer, E.E., 2018. Summary of results. Joint NTGS–GA geochronology project: Base metal and tungsten mineralisation, and skarn alteration in the Aileron Province, July 2017–June 2018. Northern Territory Geological Survey, Record 2018-009.

Kruse, P.D., Dunster, J.N. and Munson, T.J., 2013. Chapter 28: Georgina Basin: in Ahmad M and Munson TJ (compilers). 'Geology and mineral resources of the Northern Territory'. Northern Territory Geological Survey, Special Publication 5.

Litchfield Minerals, 2019. EL 31305 Annual Report for the period 06/06/2018 to 05/06/2019.

Litchfield Minerals, 2020. EL 31305 Annual Technical Report for the period 06/06/2019 to 05/06/2020.

Litchfield Minerals, 2023. EL 31305 Annual Technical Report & Expenditure Statement Reporting Period 06/06/2022 – 05/06/2023.

Mareeba Mining and Exploration, 1992. Final Report EL5688 Mt Doreen September 1992. Northern Territory Geological Survey, Open File Company Report CR19990528.

McGloin, M.V. and Creaser, R.A., 2017. Summary of results. Re-Os molybdenite dating of the Mount Hardy deposit, Aileron Province. Northern Territory Geological Survey, Record 2017-014.

McGloin, M.V. and Matchan, E, 2019. Summary of results. 40Ar/39Ar step-heating muscovite dating, Wolfram Hill (MOUNT DOREEN) tungsten-copper deposit, Aileron Province. Northern Territory Geological Survey, Record 2019-006.

Northern Territory Geological Survey, 2020. Mineral Occurrence database. Downloaded from strike.nt.gov.au/wss.html

RAMA Geoscience Pty Ltd, 2023. Mt Doreen IP Survey 2023 Survey Results. Report prepared June 2023.

Rio Tinto Exploration, 1998. Annie Spring EL 9413. Second Annual Report for the Period ending 15th May 1998. Northern Territory Geological Survey, Open File Company Report CR19980436.

Rio Tinto Exploration, 1999. Annie Spring EL 9413. Third and Final Report for the Year Ending 15/5/1999. Northern Territory Geological Survey, Open File Company Report CR19990273.

Roebuck Resources NL, 1994. Exploration Licence 7749, Pyramid Hill, NT October, 1995. Technical Report No 362. Author Warne, SB. Northern Territory Geological Survey, Open File Company Report CR19940373.

Roebuck Resources NL, 1995. Final Report Pyramid Hill EL7749 NT, Drilling and Sampling Report January 1994. Technical Report No 518. Author Warne, SB. Northern Territory Geological Survey, Open File Company Report CR19960075.

Scrimegeour, I.R., 2013. Chapter 12: Aileron Province: in Ahmad M and Munson TJ (compilers). 'Geology and mineral resources of the Northern Territory'. Northern Territory Geological Survey, Special Publication 5.

Skirrow, R. G., and Walshe, J. L., 2002. Reduced and oxidized Au-Cu-Bi iron oxide deposits of the Tennant Creek inlier, Australia: An integrated geologic and chemical model. Economic Geology, 97(6), 1167-1202.

Simmons, J.M. and McGloin, M.V., 2020. Sulfide δ34S composition of Palaeoproterozoic mineralisation in the Aileron Province, central Australia: an igneous sulfur source? Northern Territory Geological Survey, Record 2020-005.

Stewart, A. J., and Warren, R.G., 1977. The Mineral Potential of the Arunta Block, Central Australia. BMR Journal of Australian Geology and Geophysics 2 (1977): 21-34.

Tanami Gold, 2002. First Annual Report EL's 10063, 10064, 10169, 10407, 22771 Mt Doreen Project. For Year ending 29 October 2002. Northern Territory Geological Survey, Open File Company Report CR20020346.

Tanami Gold, 2004. Third Annual Report EL's 10063, 10064, 10169, 10407, 22771, 23640, 23925 & 23990. Mt Doreen Project. For Year ending 29 October 2004. Northern Territory Geological Survey, Open File Company Report CR20040603.

Track Minerals Pty Ltd., 1989. Annual Report for the year ending 19th June 1989. EL5899. Author SA Dashlooty. Northern Territory Geological Survey, Open File Company Report CR19890703.

Todd River Resources, 2019. Correction to Maiden Hendrix Resource Announcement. ASX News Release 12 July 2019.

Uranium Exploration Australia, 2010. Crystal Creek Uranium Project, NT. Drill results confirm uranium mineralisation at depth. ASX News Release 25 January 2010.

VALMIN Code, 2015. Australasian code for public reporting of Technical Assessments and Valuations of mineral assets. VALMIN Committee, a joint committee of the Australasian Institute of Mining and Metallurgy and Australian Institute of Geoscientists. 2015.

Warren, R.G., Stewart, A.J., Shaw, R.D., 1974. Summary of information on mineral deposits of the Arunta Complex, Alice Springs area, NT. Record 1974/117. Geoscience Australia, Canberra.

Whelan, J.A., et al., 2013. The copper ± gold potential for the Arunta region. Links between magmatism, tectonics, regional large-scale alteration and mineralisation: in Northern Territory Geological Survey, 2013. Annual Geoscience Exploration Seminar (AGES) 2013. Record of abstracts. Northern Territory Geological Survey, Record 2013-001.

Wygralak, A. S., and Bajwah, Z.U., 1998. Geology and mineralisation of the Arunta Inlier, Northern Territory. AGSO Journal of Australian Geology and Geophysics 17 (1998): 35-46.

Young, D. N., Edgoose, C. J., Babe, D. H. and Shaw, R. D., 1995. Mount Doreen Northern Territory 1:250,000 geological map series explanatory notes, SF 52-121, Northern Territory Geological Survey Darwin.

Yuendumu Mining Company NL, 1994. Annual Report Exploration Licence No. 7986 for the Period 26/03/93 to 25/03/94. Author D Barraclough. Northern Territory Geological Survey, Open File Company Report CR19940351.

13 DEFINITIONS AND GLOSSARY

Table 13-1 provides a list of the definitions used in this report together with a glossary of relevant terms and abbreviations.

Table 13-1. Definitions and glossary of terms.

Term	Description
AAICD	Affiliate of the Australian Institute of Company Directors
Ag	Silver
As	Arsenic
Assets	The company's Northern Territory exploration assets
ASX	Australian Securities Exchange
Au	Gold
AUD	Australian Dollar(s)
BMR	Bureau of Mineral Resources
Bi	Bismuth
Company	Litchfield Minerals Pty Ltd
Competent Person (as defined by the JORC Code)	A minerals industry professional who is a Member or Fellow of The Australasian Institute of Mining and Metallurgy, or of the Australian Institute of Geoscientists, or of a Recognised Professional Organisation, as included in a list available on the JORC and ASX websites. These organisations have enforceable disciplinary processes including the powers to suspend or expel a member. A Competent Person must have a minimum of five years relevant experience in the style of mineralisation or type of deposit under consideration and in the activity which that person is undertaking.
CRAE	CRA Exploration
Cu	Copper
Derisk	Derisk Geomining Consultants Pty Ltd
Exploration Results (as defined by the JORC Code)	Data and information generated by mineral exploration programmes that might be of use to investors, but which do not form part of a declaration of Mineral Resources or Ore Reserves.
EL	Exploration Licence
ELA	Exploration Licence Application
Elkedra	Elkedra Diamonds NL
Fe	Iron
g/t	grams per tonne
GPR	Ground penetrating radar
Greisen	Highly altered granitic rock or pegmatite
IGR	Independent Geologist Report
IOCG	iron-oxide copper-gold
IP	induced polarisation
IPO	Initial Public Offering
IRGS	intrusion-related gold system
JORC	Joint Ore Reserves Committee
JORC Code	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 edition, effective December 2012
k	thousand
kg	kilogram(s)
km	kilometre(s)
km^2	square kilometre(s)
kt	thousand tonnes
LHS	Left-hand side
Litchfield	Litchfield Minerals Pty Ltd

Term	Description
m	metre(s)
M	Million
Ma	Million years
MAIG	Member of the Australian Institute of Geoscientists
MIM	MIM Exploration
Mineral Resource (as defined by the JORC Code)	A concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
mm	millimetre(s)
Mo	Molybdenum
Modifying Factors (as defined by the JORC Code)	Considerations used to convert Mineral Resources to Ore Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social, and governmental factors.
Moz	Million ounces
Mt	Million tonnes
MVT	Mississippi Valley-type deposit
Nb	Niobium
NT	Northern Territory
Ore Reserve (as defined by the JORC Code)	The economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at prefeasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable and Proved Ore Reserves.
oz	ounces
Pb	Lead
PDIP	Pole-Dipole IP
Ppb	parts per billion
ppm	parts per million
Practitioner (as defined by the VALMIN Code)	Expert as defined in the Corporations Act, who prepares a public report on a technical assessment or valuation report for mineral assets. This collective term includes Specialists and Securities Experts.
pXRF	portable X-ray fluorescence
RAB	rotary air blast
RC	reverse circulation
REE	Rare-earth elements
RHS	Right-hand side
Roebuck	Roebuck Resources NL
S	Sulphur
Sb	Antimony
Sn	Tin
Specialist (as defined by the VALMIN Code)	Persons whose profession, reputation or relevant industry experience in a technical discipline (such as geology, mine engineering or metallurgy) provides them with the authority to assess or value mineral assets.
t	tonne(s)
Ti	Titanium
tpa	tonnes per annum

Term	Description
VALMIN Code	Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets, 2015 edition, effective January 2016
VAMS, VMS	volcanic-associated massive sulphide
V	Vanadium
W	Tungsten
Ward Keller	Ward Keller Pty Ltd
Zn	Zinc
>	greater than
<	less than
%	percent

APPENDIX A JORC CODE TABLE 1 CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA

Sampling Techniques and Data

CRITERIA	JORC Code Explanation	Commentary
SAMPLING TECHNIQUES	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	• Sampling methods have included surface rock chip, soil, and stream sediment samples, together with drillhole samples comprising open hole percussion (air track, vacuum and RAB), RC percussion, and diamond core samples. • Geochemistry from soil and stream sediment samples is used semi-quantitatively to guide further exploration and is not used for Mineral Resource estimation. • The accuracy of rock chip geochemistry is generally high, but these samples are often spot samples and generally not used in Mineral Resource estimation. • The quality of open hole percussion drilling is generally low because there is a likelihood of contamination of samples. Consequently, these samples are generally used to guide further exploration and are not used for Mineral Resource estimation. • The quality of RC percussion drilling is generally medium – high because the method significantly reduces the potential of contamination, unless there is a lot of groundwater or badly broken ground. However, given the data quality and historical nature of the RC drilling at Silver King by Bruce and Mules, it cannot be used for Mineral Resource estimation and is rather an indicator of mineralisation. The RC hole drilled by Rio Tinto Exploration was reconnaissance in nature. • The quality of diamond coring is generally medium – high because the method is designed to sample the rock mass effectively in most conditions. However, given the data quality and historical nature of the diamond drilling at Clark by the NT Mines & Water Resources, it cannot be used for Mineral Resource estimation and is rather an indicator of mineralisation. The diamond hole drilled by Rio Tinto Exploration was reconnaissance in nature.
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• No information is available documenting measures to ensure sample representivity for surface sampling methods and open hole percussion drilling methods. These methods are not used for Mineral Resource estimation. • No information is available documenting measures to ensure sample representivity for RC percussion drilling methods for historical drilling. These historical holes are not used for Mineral Resource estimation. • No detailed information is available documenting measures to ensure sample representivity for diamond drilling methods for historical drilling. The core was split in half with the method and core size is unknown. These historical holes are not used for Mineral Resource estimation.
	• Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry	• Economic precious metal mineralisation is generally measured in terms of parts per million and therefore rigorous sampling techniques must be adopted to ensure

CRITERIA	JORC Code Explanation	Commentary
	standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	quantitative, precise measurements. Economic base metal mineralisation is generally measured in terms of percentages. • This report details sampling methods assays that are not used for Mineral Resource estimation.
DRILLING TECHNIQUES	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• Open hole percussion (air track, vacuum, and RAB) were undertaken by various operators including Bruce and Miles, MIM Exploration/Roebuck Resources, Poseidon Gold/Yuendumu Mining, Homestake Gold and Tanami Gold. It appears only the Bruce and Mules air track drilling was in the immediate vicinity of the Silver King workings. All other drilling was either surrounding workings or elsewhere in the tenement. • MIM Exploration/Roebuck Resources RAB drilling was carried out using a Gemco H13 rig mounted on a truck. Drilling was largely blade with blade with only a small amount of bottom hole hammering. • Poseidon Gold/Yuendumu Mining vacuum drilling was carried out using Edson tractor mounted rig and an Edson KL 150 mounted on a International 4 x4 truck. Aircore drilling used an Edson KL 150 mounted on a International 4 x4 truck. • No information was recorded about the RC drilling program at Silver King completed by J.R. Bruce & J.H. Mules in 1988. • A RC drilling program was completed by Rio Tinto Exploration in 1998. Drilling was carried out using a versatile multipurpose diamond/RC rig. • No information was recorded about the diamond drilling at Clark by NT Mines & Water Resources in 1969. Drilling depths ranged from 13 to 107 m with four of the six holes less than 31m. • A diamond drilling program was completed by Rio Tinto Exploration in 1997. Drilling was carried out using a Vickers rig drilling RC precollars and NQ diamond core tails
DRILL SAMPLE RECOVERY	• Method of recording and assessing core and chip sample recoveries and results assessed.	• No information is available documenting if sample recovery for open hole percussion drilling was routinely recorded. • No information is available documenting if sample recovery for RC percussion drilling was routinely recorded. • For diamond drilling by NT Mines & Water Resources, sample recovery was measured at variable intervals and varied from 11 -100% with recovery improving with depth. • No information is available documenting if sample recovery for diamond drilling at by Rio Tinto Exploration was routinely recorded.

CRITERIA	JORC Code Explanation	Commentary
	• Measures taken to maximise sample recovery and ensure representative nature of the samples.	• No information is available documenting measures to maximise sample recovery or ensure collection of representative samples for open hole percussion drilling methods. • No information is available documenting measures to maximise sample recovery or ensure collection of representative samples for RC percussion drilling. • Diamond core recoveries by NT Mines & Water Resources were recorded at variable intervals, but no information is available documenting measures to maximise sample recovery e.g., the use of triple tube or appropriate drilling additives. • No information is available documenting measures to maximise sample recovery or ensure collection of representative samples for Rio Tinto Exploration's diamond drilling.
	• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• No assessment has been completed to determine if there is a relationship between sample recovery and grade, and whether there is any potential for sample bias associated with the different drilling methods used to date.
LOGGING	• Whether core and chip samples have been geologically and geotechnical logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	• No information is available documenting logging for open hole percussion drilling. MIM Exploration/Roebuck Resources and Poseidon Gold/Yuendumu Mining noted geological logging was undertaken. • No information is available documenting logging for RC percussion drilling by Bruce and Mules. • Rio Tinto Exploration logged RC percussion chips and diamond core for lithology, alteration and mineralisation. The diamond core was also structurally logged. • Diamond core drilled by NT Mines & Water Resources was logged for lithology, alteration and mineralisation, and deemed to be appropriate for the style of mineralisation and the lithologies encountered. No geotechnical logs were recorded. • Information to support Mineral Resource estimation, mining and metallurgical studies is minimal.
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• Logging of RC percussion chips and core by Rio Tinto and core by NT Mines & Water Resources was qualitative.
	• The total length and percentage of the relevant intersections logged.	• Geological logs were completed for all diamond drilling.
SUB-SAMPLING TECHNIQUES AND SAMPLE PREPARATION	• If core, whether cut or sawn and whether quarter, half or all core taken.	• The NT Mines & Water Resources' core was split in half using an unknown method. Core was sampled in 1 foot lengths with 15 samples submitted for assays. Not all the drill core was sampled and analysed in cases where the geologist believed the core was unmineralised. • No information is available about the size of the Rio Tinto core samples. Sampling appears to be on geological intervals and for the entire hole.

CRITERIA	JORC Code Explanation	Commentary
	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	• No information is available about open hole percussion sample intervals, collection methods, and moisture content. MIM Exploration/Roebuck Resources RAB drilling samples were collected through a cyclone at one metre intervals with 1.5 – 2 kg samples. • No information is available about Rio Tinto's RC sample collection methods, and moisture content. Selected composite intervals were assayed from the 1998 RC hole and the 1997 RC precollars was assayed as 3m composites. • No information is available about Bruce and Mules' RC sample intervals, collection methods, and moisture content.
	• For all sample types, the nature, quality, and appropriateness of the sample preparation technique.	• No information is available for the details of laboratory preparation of open hole percussion, RC percussion and diamond samples. It is assumed that sample preparation methods used by all commercial laboratories followed the basic steps of drying, crushing, and pulverising, but details of the amount of the sample crushed and pulverised are not known. Therefore, it is not possible to assess the quality and appropriateness of the sample preparation techniques. • Poseidon Gold/Yuendumu Mining vacuum drilling was sieved to -100µm before pulverising. • Litchfield Minerals: Rock chip samples were assayed by ALS Laboratory. All samples were less than 550 g and were crushed then pulverised to 85% passing 75um. This is an appropriate sample preparation technique.
	• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	• No information has been recorded that documents quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.
	• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	• No information has been recorded that documents measures taken to ensure that the sampling is representative of the in situ material collected.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• No formal assessment has been undertaken to quantify the appropriate sample size required for good quality determination of polymetallic mineralisation.
QUALITY OF ASSAY DATA AND LABORATORY TESTS	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	• No information is always available for the nature, quality and appropriateness of the assaying and laboratory procedures used for open hole percussion drilling. • MIM Exploration/Roebuck Resources RAB drilling samples were assayed by Genalysis Laboratory for low level gold, copper, lead, zinc, arsenic, molybdenum and bismuth however the assay technique is not fully documented. • Tanami Gold vacuum and RAB drilling samples were also assayed at Genalysis Laboratory with variable elements (including Au, Ag, Cu, Pb, Zn, Mo Co) assayed by an aqua regia digest and ICP-MS or AAS finish. This is a partial technique that is appropriate to the stage of drilling.

CRITERIA	JORC Code Explanation	Commentary
		• Poseidon Gold/Yuendumu Mining vacuum and aircore drilling samples were assayed at ALS for multiple elements with a mixture of aqua regia and unknown acid digests digest. This is a partial technique that is appropriate to the stage of drilling. • Homestake Gold vacuum drilling assayed for Au, Ag, Cu, Pb, Zn and As with no further information. • Bruce and Mules' percussion RC samples were analysed by Amdel Laboratories. Only one hole's assays were documented. The assay method was PM1/4 which is assumed to be industry standard at the time of assaying. No information was recorded that documents assaying and laboratory procedures. • Rio Tinto submitted RC percussion and core samples to Amdel Laboratory for a suite of elements. No information has been recorded that documents assaying and laboratory procedures. • NT Mines & Water Resources' core samples were analysed by The East Point Laboratory, Darwin. No information has been recorded that documents assaying and laboratory procedures. The laboratory noted sample preparation issues resulted in 2 samples being lost and the possibility that individual sample numbers were mixed. Gold assays were noted as "not yet available". • Litchfield Minerals: Rock chip samples were assayed by ALS Laboratory. Multi-elements and REE were assayed with a 4 acid digest and ICP-MS finish. This is an appropriate assay method and is normally considered a total assay method. Selected elements were assayed with borate fusion and ICP-MS finish. This is an appropriate assay method for more resistive elements. Selected samples were assayed for gold with a 30g charge fire assay method with AAS finish. This is an appropriate assay method and is normally considered a total assay method, except where gold grain size is very coarse. Selected samples were assayed for silver with cyanide leach and AAS finish. This is considered a partial assay method.
	• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	• Litchfield Minerals: A handheld XRF instrument was used to determine chemical composition of rock chips at a qualitative to semi-quantitative level of accuracy. No information has been recorded that documents instrument make and model, reading times, calibrations factors applied and their derivation, etc.
	• Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• No information has been recorded that documents quality control procedures adopted. Therefore, it is not possible to assess whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. • Litchfield Minerals: No quality control procedures were adopted for the assaying of the rock chips.
	• The verification of significant intersections by either independent or alternative company personnel.	• It has not been possible to independently verify significant intersections. • Litchfield Minerals has not located any remaining sample material from open hole and RC percussion drilling campaigns.

CRITERIA	JORC Code Explanation	Commentary
VERIFICATION OF SAMPLING AND ASSAYING		• The Clark diamond holes reside in the NT core library but have not been examined to date.
	• The use of twinned holes.	• No information is available documenting the use of twinned holes.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• No information is available documenting primary data, data entry procedures, data verification, data storage (physical and electronic) protocols for all samples. • The Silver King RC drilling information is collated from the original Bruce and Mules Report and later reviews by Roebuck Resources and the Northern Territory Geological Survey. Assay information for one hole is provided on Laboratory data sheets. The hole depths, dips and remainder of assay information was sourced from one hand drawn section. The section reported graphically reported combined Cu/Pb/Zn/Ag assays with no documentation of original assays, nor weighting methods. Hole azimuths were sourced from the Northern Territory Geological Survey map. • The Clark diamond drilling information is collated from the original 1971 report and later review by Track Minerals. The Laboratory assay file noted errors in sample preparation with 2 samples lost and the possibility all individual sample numbers were mixed. • The Rio Tinto Exploration drilling information is collated from open file annual reports. • No field check of collars has been undertaken to date. • Litchfield Minerals: Rock chip sample locations were recorded with hand-held GPS. Samples were photographed prior to despatch to the Laboratory.
	• Discuss any adjustment to assay data.	• No adjustments to assay data have been made.
LOCATION OF DATA POINTS	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• Silver King RC collar locations are approximate and derived from the Northern Territory Geological Survey map. • Clark diamond collar locations and Rio Tinto RC and diamond collar locations are approximate and derived from on screen locations via the NT STRIKE database. • No information is available documenting down-hole surveying.
	• Specification of the grid system used.	• The co-ordinate system used in the tenement is MGA zone 52, GDA94 Datum.
	• Quality and adequacy of topographic control.	• Quality of the topographic control data is poor and is currently reliant on public domain data.
DATA SPACING AND DISTRIBUTION	• Data spacing for reporting of Exploration Results.	• The spacing of drillhole data is variable. Holes were drilled around old workings.
	• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	• There are no Mineral Resources or Ore Reserves. • Data spacing and primary data documentation is not sufficient to support the use of the historical RC and diamond drilling for Mineral Resource estimates.

CRITERIA	JORC Code Explanation	Commentary
	• Whether sample compositing has been applied.	• No information is available documenting RC sample compositing. • The diamond samples were assayed in 1 foot intervals.
ORIENTATION OF DATA IN RELATION TO GEOLOGICAL STRUCTURE	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	• At Silver King the relationship between mineralisation and the RC drilling is not fully understood, with no detailed review of the variable drill azimuths and the mineralisation strike (315 degrees magnetic). Hole MDRC3 was later interpreted by Bruce and Mules to have been drilled in an incorrect orientation to intersect mineralisation. • It appears the diamond drilling at Clark was oriented to intersect perpendicular to the varying strike of the quartz-veined shear zones. However, the exact nature of mineralisation is not fully understood.
	• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• The relationship between the historical drilling orientation and the orientation of key mineralised structures is not fully understood.
SAMPLE SECURITY	• The measures taken to ensure sample security.	• No information is available documenting sample security. • Litchfield Minerals: The rock chip samples were transported by Litchfield Minerals to Alice Springs then despatched by Australia Post to ALS. All samples were triple wrapped.
AUDITS OR REVIEWS	• The results of any audits or reviews of sampling techniques and data.	• There has been no audits review of the actual sampling techniques, as this is not possible. A review of reports describing the Silver King RC drilling and the Clarke diamond drilling data has resulted in the finding they are not suitable for Mineral Resource estimation.

Reporting of Exploration Results

CRITERIA	JORC Code explanation	Commentary
MINERAL TENEMENT AND LAND TENURE STATUS	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	• Refer to Section 4. • The Mount Doreen project is secured by EL 31305 for total of approximately 388.35 square kilometres.
	• The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• Refer to Section 4. • Tenement EL 30305 is in good standing

CRITERIA	JORC Code explanation	Commentary
EXPLORATION DONE BY OTHER PARTIES	• Acknowledgment and appraisal of exploration by other parties.	• Refer to Section 6 and Section 7. A summary of previous exploration and mining is presented below. • 1930- 1956: Minor amounts of copper and tungsten extracted from Silver King, Clark, Mount Irene and Wolfram Hill. • 1969: NT Mines & Water Resources diamond drilling at Clark workings. • 1987 – 2006: White Industries/Mareeba Mining, Bruce and Miles, MIM Exploration/Roebuck Resources, Track Minerals, Poseidon Gold/Yuendumu Mining, BHP, Homestake Gold, Rio Tinto Exploration and Tanami Gold completed geological mapping, geochemical sampling, airborne and ground geophysical surveys, and drilling programs.
GEOLOGY	• Deposit type, geological setting, and style of mineralisation.	• Refer to Section 5. • Mount Doreen is located in the southern portion of the Paleoproterozoic Aileron Province of the Arunta Region. • The oldest rocks at Mount Doreen are the multiply deformed and metamorphosed siliciclastic sediments of the Lander Rock Formation. The younger volcano sedimentary Patmungala Beds lie in the south of the tenement, and both are intruded by the Yarunganyi Granite. Numerous major faults strike close to east-west and often contain veins or vein swarms of quartz, forming ridges. Neoproterozoic to Palaeozoic sedimentary rocks of the Ngalia Basin overlie the Aileron basement in the southwest of the tenement and along the southern boundary. • Mineralisation is considered to be epigenetic intrusion-related breccia and vein mineralisation with polymetallic copper-lead-zinc-silver-molybdenite and tungsten. Mineralisation is interpreted to be from varied sources and associations as evidenced from mineralisation dating. • The most prominent mineralisation is supergene copper at Silver King, Mount Irene and Clark with varying lead-zinc-silver-gold in quartz veins and shear zones. Tungsten and copper mineralisation at Wolfram Hill is hosted in two main reefs of pegmatite and quartz which range up to 100 m long by 50 cm across.
DRILL HOLE INFORMATION	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • Easting and northing of the drill hole collar. • Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar. • Dip and azimuth of the hole. • Down hole length and interception depth. • Hole length.	• Refer to APPENDIX B.

CRITERIA	JORC Code explanation	Commentary
	• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	• Refer to APPENDIX B.. The Silver King RC drilling by Bruce and Mules and the Clarke diamond drilling by NT Mines & Water Resources are not suitable for Mineral Resource estimation. They are indicators of mineralisation only and are not Material. The Rio Tinto drilling was early-stage reconnaissance.
DATA AGGREGATION METHODS	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	• No Material drill results were reported.
	• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	• No data aggregation was undertaken.
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	• No metal equivalent reporting was undertaken.
RELATIONSHIP BETWEEN MINERALISATION WIDTHS AND INTERCEPT LENGTHS	• These relationships are particularly important in the reporting of Exploration Results.	• No Material drill results were reported.
	• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	• No Material drill results were reported.
	• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	• No Material drill results were reported.
DIAGRAMS	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• Refer to Section 6 and Section 7.
BALANCED REPORTING	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Balanced reporting of Exploration Results is presented (refer to Section 6 and Section 7).
OTHER SUBSTANTIVE EXPLORATION DATA	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock	• The Mount Doreen Project includes stream sediment geochemical data, soil sample and rock chip data, geological mapping data, open hole percussion drilling data, and airborne magnetics that have been collected by other companies. This data is undergoing data capture. • Litchfield Minerals: Ground geophysics surveys comprising Gradient Array IP and follow up Pole-Dipole IP at Silver King and Mount Irene were conducted by Planetary

CRITERIA	JORC Code explanation	Commentary
	characteristics; potential deleterious or contaminating substances.	Geophysics. RAMA Geoscience undertook data QAQC, Gradient Array gridding and imaging and 2D Pole-Dipole Inversion modelling. 3D inversion modelling was also completed at Silver King.
FURTHER WORK	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	• Refer to Section 8. • Litchfield plans to conduct surface geological mapping and geochemistry, ground geophysics and drilling across five high-priority target areas over the next two years.
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Refer to Section 6 and Section 7.

APPENDIX B SIGNIFICANT DRILLHOLE LOCATIONS

HOLE Name	Hole Type	Easting (MGA52)	Northing (MGA52)	RL (m)	Azimuth (°)	Dip (°)	Depth (m)	Company
Clark Mine 1	Diamond	713280	7560980	Unknown	Magnetic 157	-45	107.81	NT Mines & Water Resources
Clark Mine 2	Diamond	713280	7560980	Unknown	Magnetic 125	-45	97	NT Mines & Water Resources
Clark Mine 3	Diamond	713110	7561740	Unknown	Magnetic 173.5	-65	13.81	NT Mines & Water Resources
Clark Mine 4	Diamond	713280	7560980	Unknown	Magnetic 335	-50	13.1	NT Mines & Water Resources
Clark Mine 5	Diamond	713280	7560980	Unknown	Magnetic 335	-60	16.52	NT Mines & Water Resources
Clark Mine 6	Diamond	713469	7561396	Unknown	Magnetic 350	-75	30.7	NT Mines & Water Resources
MDRC1	RC	725335	7552270	Unknown	MGA Grid 240	-59	Unknown	J.R. Bruce & J.H. Mules
MDRC2	RC	725305	7552245	Unknown	MGA Grid 340	-59	68	J.R. Bruce & J.H. Mules
MDRC3	RC	725220	7552260	Unknown	MGA Grid 180	-59	78	J.R. Bruce & J.H. Mules
MDRC4	RC	725275	7552250	Unknown	MGA Grid 335	-59	55	J.R. Bruce & J.H. Mules
MDRC5	RC	725340	7552240	Unknown	MGA Grid 325	-59	58	J.R. Bruce & J.H. Mules
RC98AS008	RC	736680	7539990	Unknown	-	-90	138	Rio Tinto Exploration
DD97AS2	Diamond	713150	7544170	Unknown	Magnetic 0	-60	251.8	Rio Tinto Exploration

derisk
GEOMINING CONSULTANTS

"Delivering Tier One advice and services without the Tier One price tag"

PO Box 264 | Red Hill Qld 4059 Australia
info@deriskgeomining.com | www.deriskgeomining.com