

# **Exploring and Developing Mineral Prospectivity in Eastern Australia**

**Master Investor Show - London** 

Saturday, 9<sup>th</sup> of March 2024

Mr. James Chirnside – Managing Director



# FORWARD LOOKING STATEMENTS CAUTION

Certain statements contained in this document constitute forward looking statements. Such forwardlooking statements are based on a number of estimates and assumptions made by the Company and its consultants in light of experience, current conditions and expectations of future developments which the Company believes are appropriate in the current circumstances.

These estimates and assumptions while considered reasonable by the Company are subject to known and unknown risks, uncertainties and other factors which may cause the actual results, achievements and performance of the Company to be materially different from the future results and achievements expressed or implied by such forward-looking statements.

Investors are cautioned that forward looking information is no guarantee of future performance and accordingly, investors are cautioned not to place undue reliance on these forward-looking statements.



# **CORPORATE PROFILE**

## **Board & Management**



- Mr. James Chirnside
  - Chairman, Managing Director



- Mr. Dean Turnbull
  - Non-Executive Director,
  - Founder, Geologist



### • Mr. Richard Udovenya

• Non-Executive Director, Lawyer

ASX Code	DTM
Ordinary Shares on issue	~227m
Options & Performance Rights	~13m
Market Capitalisation @ 0.018	~A\$4.0m

### **Senior Management**

- Mr. Owen Greenberger
   Manager Exploration, Geologist
- Ms. Julie Edwards
   Co. Secretary, Accounting, ASX
- Ms. Aimee Coates

Manager Business

Mr. Brad Milne
 Manager Drilling



# **MINERALS EXPLORATION BUSINESS**

Minerals exploration company "Nirvana" is....

Partially or completely self-funded exploration activities through the generation of inbound cashflow

### **Dart Corporate Profile and Objectives**

- Develop *Inbound* Farm-in / Joint Venture relationships to partially reduce capital dependency on shareholders and thereby reducing dilution
- **Inbound** Farm-in / Joint Ventures create inbound cashflow enabling capital clawback / cash surplus generation i.e. transportable camps avoiding costly accommodation expenditure
- Dart has finished preparing Information Memorandums on all of its major exploration projects. The IM's are used for marketing to potential JV Mining companies
- Develop **Outbound** Farm-in / Joint venture relationships where Dart Explores and Drills earning equity in various projects in Victoria and NSW along the Lachlan Fold Belt
- Adopt administrative and operational capabilities that reduce external dependencies and expenditures i.e. electronic
  platforms used for everything from employee on-boarding, equipment tracking, fuel usage, and expenditure allocation to
  JV partners

### Dart Operational Profile and Objectives

- Dart is self-reliant in most exploration activities including drilling, field work, and geological assessment / modelling
- Dart operates its own own Drill rig. Darts costs of drilling are on par with the lowest drilling costs of any exploration company in Australia
- · Dart makes its own internal geological assessments, and from time to time enlists outside assistance on specialist matters
- Dart operates its own transportable field camps that allow for significant cost savings
- Dart owns a "Vegetation Offset" block utilising offset units for internal purposes as well as selling units to the open market
- To date Dart has sold ~A\$2m worth of offsets to the market and proceeds of these sales flow to Dart over a nine-year period



# **DART COMMODITY EXPOSURES**

Anomalous poly-metallic occurrences of 14 out of 32 prescribed "Critical Minerals" (Geoscience Aust.)

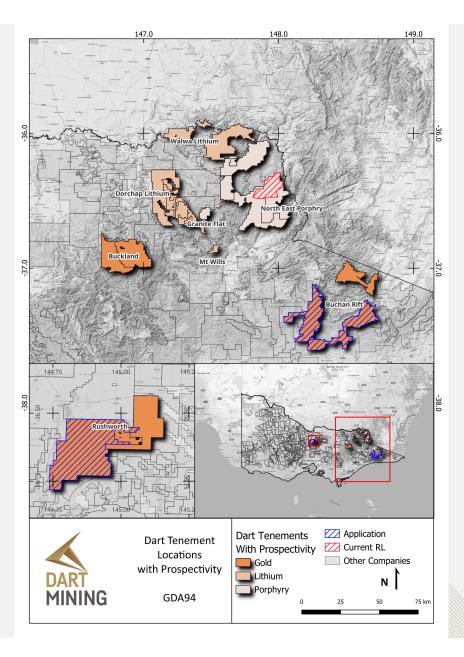
- The most anomalous within Dart's licence areas include;
  - Gold (Au), Silver (Ag), Lithium (Li), Copper (Cu), Molybdenum (Mo), Tungsten (W), Tin (Sn), Caesium (Cs), Niobium (Nb)
- Immediate priority metals and prospectivity include;
  - Gold (Au), Silver (Ag), Copper (Cu), Lithium (Li) and Molybdenum (Mo)
- Current exploration campaigns focussed on;
  - Gold & Lithium

Gold, Silver, Lithium, Copper, and Molybdenum all positive in price outlook for the medium-term



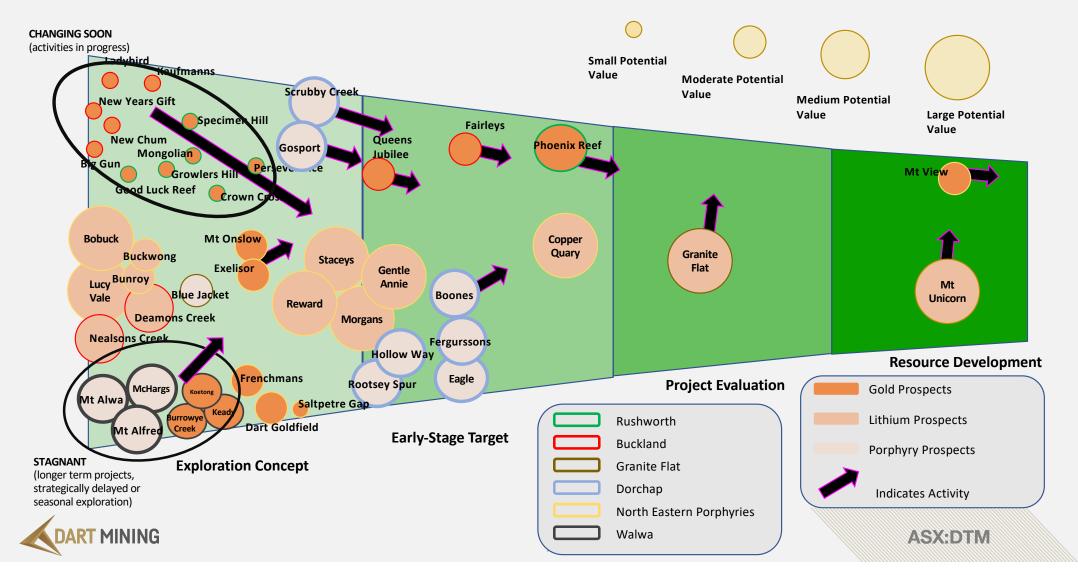
# **EXPLORATION FOOTPRINT**

- Significant landholding in Eastern Australia with ~7,000 km2 tenement area (approximately the size of Lincolnshire)
- · Mostly in the Orogenic (mountainous) regions of Eastern Australia
- Rich in historic Gold and Tin mining, the area is underexplored in contemporary times using modern methods
- Footprint includes:
  - 80+ Geological target projects across 6 work areas
  - 9 Historic Goldfields
  - >1,000 LCT (Li, Cs, Ta) Pegmatite dykes
  - 8 Au-Cu, Mo-Cu Porphyry targets
- Geographic focus on NE Victoria, Eastern Victoria and NSW along the Geologically renown Lachlan Fold Belt
- · Diverse geological setting
  - Orogenic Au
  - Porphyry (Bulk tonnage) Cu-Au, Mo-Cu-Ag
  - Li-Cs-Ta Pegmatites
- Commodity exposures to Precious metals, Base metals, and Critical minerals
- An established technical team with extensive experience in Lachlan
   Fold Belt Geology





# **PROJECT PIPELINE – Shifting to the right** \*Not all prospects shown



# **WORK SCHEDULE 2024**

## **Priority Projects**

### Dorchap Lithium (Li)

- Continuation of Surface mapping and sampling program
- Completion of ground-truthing of LiDAR identified outcrops (~600 targets)
- Planning of Diamond Drilling (DD) program
- Permitting of planned DD campaign
- Geochemical review of entire project area
- Additional drill target identification

### Rushworth (Au)

- Initial 1,200m of DD across Growlers Reef & West Growlers
- Regional fieldwork across EL008161 upon grant
- 4,000m of additional DD across multiple identified high priority targets

## **Additional Projects**

### Dart Goldfield (Au)

• Field Mapping and sampling of identified targets

## Mt Unicorn Porphyry (Mo, Cu, Ag)

Metallurgical review and test-work of historic bulk samples

### Walwa Project (Li, Sn)

• Field mapping and sampling of identified Lithium targets

### Buckland Gold Project (Au)

- Further field mapping and sampling across priority targets
- DD campaign north of Fairley's ridge



# **FIELD IMAGES**



















DART MINING











# **Projects Review**

- Dorchap (Li)
- Rushworth (Au)
- Buckland (Au)
- Unicorn (Mo, Cu, Ag)
- Granite Flat (Au-Cu)
- Northern Porphyries





# **DORCHAP Lithium Project (Farm-in JV) - Summary**

### Location

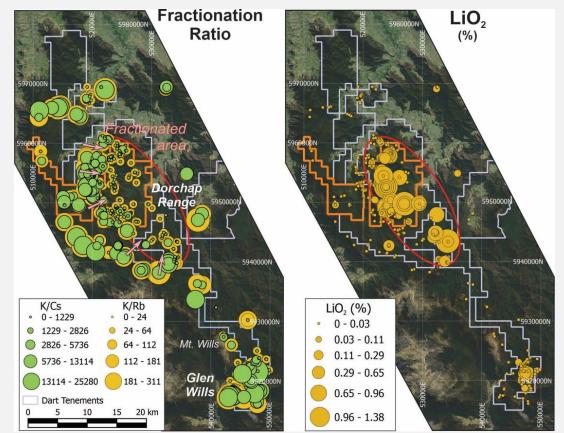
- Situated in the Dorchap Range, between the townships Eskdale & Glen Wills
- First mover land position over important project location

## Style

- Pegmatite hosted Lithium-Caesium-Tantalum
   (LCT) mineralisation
- **Spodumene & Petalite mineralisation**, with localised lepidolite & amblygonite

## Scale

- 20x12km zone of highly-fractionated pegmatites identified from surface sampling
- >1,000 LCT pegmatite dykes across the dyke swarm
- Multiple Li mineralised pegmatite dykes identified, with Li hosted primarily by spodumene







All work fully funded through Joint Venture with SQM

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# **DORCHAP (Farm-in JV) Lithium Project - Highlights**

## Results released 13/9/23

## Drilling

- MIDDH009
  - 10.0m @ <u>1.08%</u> Li<sub>2</sub>O from 313m
    - Including 7.0m @ <u>1.38%</u> Li<sub>2</sub>O from 315m
- MIDDH010
  - 2.0m @ <u>1.07%</u> Li<sub>2</sub>O from 302m
    - Including 1.0m @ <u>1.38%</u> Li<sub>2</sub>O from 303m
- MIDDH002
  - 16.75m @ <u>0.21%</u> Li<sub>2</sub>O (Eagle Dyke)
    - inc. 0.81m @ **1.2%** Li<sub>2</sub>O
- MIDDH005
  - 3.01m @ <u>0.26%</u> Li<sub>2</sub>O (Fergussons Dyke)
    - inc. 0.62m @ 1.63% Li<sub>2</sub>O





## **Rock Chips**

10m @ 1.38% Li<sub>2</sub>O (rockchip sampling)
10m @ 1.22% Li<sub>2</sub>O (rockchip sampling)
10m @ 0.95% Li<sub>2</sub>O & 20m @ 0.33% Li<sub>2</sub>O (Eagle Dyke)
16m @ 0.32% Li<sub>2</sub>O, (Bluejacket Dyke)
4m @ **12.3% spodumene** & 1.13% Li<sub>2</sub>O (Gosport)

# **RUSHWORTH Goldfield - Summary**

### Location

 Dart Mining tenements cover the entire Rushworth Goldfield, located in Central Victoria, 45km northeast of the *Fosterville Gold Mine* - considered to be the most profitable gold mine, of significance, in the world owned by Agnico Eagle (NYSE:AEM, TSX:AEM)

### Style

• Rushworth mineralisation is of an orogenic epizonal quartz-vein style that is interpreted to be genetically similar to the nearby Central Victorian high-grade gold systems

### Scale

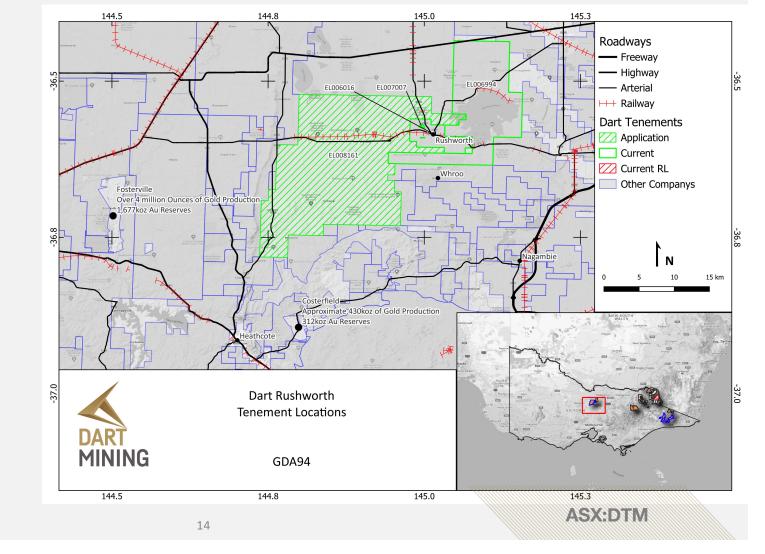
- Recent LiDAR processing has identified >4,600 (shallow) historic workings along some 14km of strike
- The Rushworth Goldfield is vastly under-explored using contemporary exploration methods
- Historic mining efforts were defeated by water ingress and most workings ceased at ~40m



# **RUSHWORTH Goldfield Footprint & Exploration Leases**

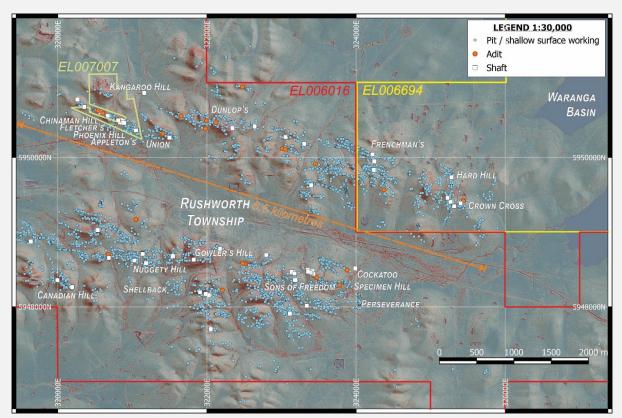
### Regional

- EL8161 application in progress, highest ranked of competing applications over the area.
- Contains the extension of:
  - Rushworth Goldfield,
  - Historic Whroo Goldfield,
    - Containing the Historic
       Balaclava Mine, and
  - Extension of the Moormbool Fault,
    - a major north South structure associated with Costerfield Mine
- Region well serviced with
   infrastructure





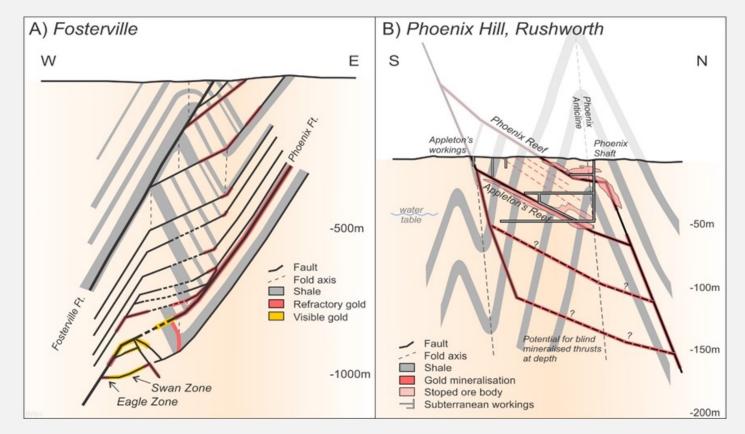
## **RUSHWORTH Goldfield – Location and Historic Workings**



Location of historic workings identified in LiDAR imagery, with key historic prospects and Dart Mining tenements identified. Even at this broad scale, structural trends and the orientation of multiple reef systems is apparent – <u>Dart Mining ASX April 2023</u>



## **RUSHWORTH Goldfield – Structural similarities vs. nearby Fosterville Gold Mine**



Structural model of Fosterville (A) and the Phoenix Hill – Chinaman's Gully area, Rushworth (B), displaying structural and mineralisation characteristics typical of Central Victorian orogenic gold mineralisation. Mineralisation along limb-thrust faults, is notable of most significant Central Victorian goldfields (Castlemaine, Bendigo, Ballarat, Fosterville, Rushworth). Fosterville model (A) modified from Volleger et al. (2020). Phoenix Hill cross-section compiled from geological mapping completed by Jones & Turnbull (2014) and Boucher (2016). Figure modified from <u>Dart Mining ASX November 2020</u>.



# **RUSHWORTH Goldfield – Drilling Underway**

- Drilling has commenced at Rushworth targeting the Growlers Hill Reef.
- Three Structural Targets
  - East West Thrust Hosted Quartz Veins
    - Bedding and hinge related faulting
  - North South Veins
    - Structural accommodation of Lachlan Origin subduction roll back
  - Saddle Reefs
    - Bendigo style hinge related
       mineralisation
- Drilling is targeting the North South Growlers Hill Reef dilation zone, and the intersection of the Thrust Hosted Quartz Veins of West Growlers



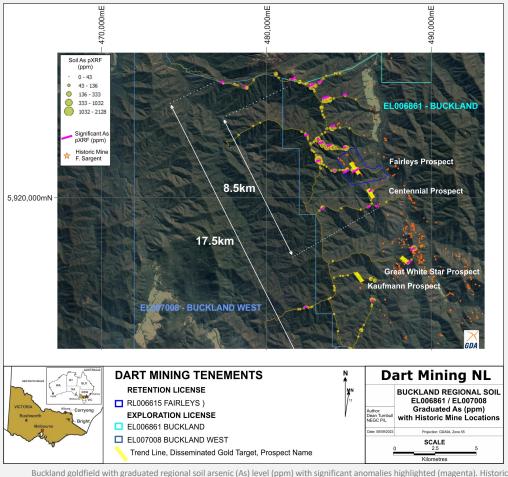


# **BUCKLAND Goldfield – Summary**

- Location
  - Part of 6.9Moz<sup>1</sup> Rutherglen-Beechworth-Harrietville gold district
  - Primary + Alluvial production
  - Buckland shows extensive shallow primary workings (>100) but low primary production
- Scale
  - 17.5km strike identified to date from ~7,500 surface samples
  - Multiple parallel structures identified
  - Thick mineralisation intersected >180m below surface
  - Mineralisation extends to over 10m width at surface and down hole
- Style
  - Shear hosted, orogenic gold system
  - Multiple mineralization styles evident
    - Vein-hosted high-grade gold
    - Broad zones of disseminated sulphide hosted gold
- Recent RAB Drilling Highlights<sup>2</sup> Fairleys Prospect
  - 13m @ 4.82 g/t Au from 12m
    - incl 2m @ 11.6 g/t Au from 20m
  - 11m @ 2.64 g/t Au from 28m
    - incl 3m @ 7.49 g/t Au from 29 m
  - 10m @ 2.27 g/t Au from 4m
    - incl 2m @ 5.52 g/t Au from 7m
  - 2m @ 4.70 g/t Au from 17m and 3m @ 2.62 g/t Au from 26m

Note 1. Historic production figures from: PHILLIPS G.N., 2010. Victorian Gold Province, Australia: A Contemporary Exploration Guide. *GeoScience Victoria Special Publication* 





Buckland goldfield with graduated regional soil arsenic (As) level (ppm) with significant anomalies highlighted (magenta). Histori mine location data (red dots) from F. Sargent Historical Mining Activity layer (GeoVic:

https://earthresources.vic.gov.au/geologyexploration/maps-reports-data/geovic) for reference. Modified from Dart Mining ASX September 2019



# **UNICORN Mo-Cu-Ag Porphyry - Summary**

#### Location

 Situated approximately 20km to the South of Corryong township, and approximately 30km west of Mt Kosciusko on the Victorian-NSW Border

#### Style

- Large rhyolite intrusive with similar geology to the giant Climax & Henderson Molybdenum mine in Colorado, USA
- Also contains significant Copper and Silver

#### Scale

 Total Measured, Indicated, and Inferred Resource: 203Mt JORC (2004<sup>2</sup>) at 0.06% MoEq<sup>1</sup>

#### **Mineralisation**

- Open at Depth and Laterally below 1200m
- Expand initial oxide molybdenum metallurgical studies

Note 1: <u>Molybdenum Equivalent Assumptions</u>: Based on relative value (with reference to the average price) of each metal in the 2 months June 22<sup>nd</sup> to August 23<sup>rd</sup> 2012 listed on the LME for Molybdenum and Copper and average price for the same period for Silver as follows:

- Mo US\$25,871 per tonne
- Cu US\$7515.7 per tonne
- Ag US\$27.6 per ounce

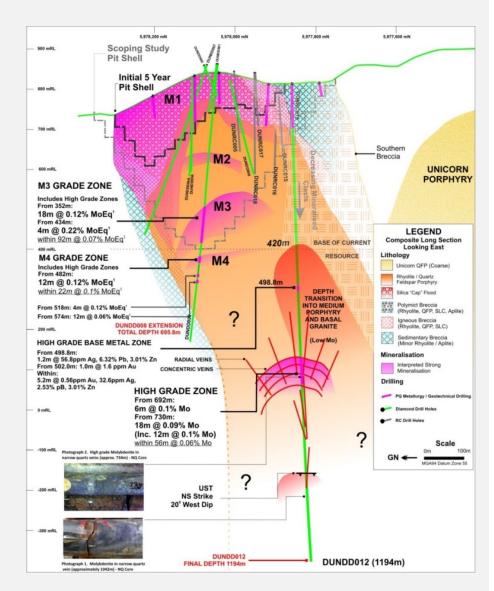
The Molybdenum Equivalent grade should not be interpreted as actual molybdenum grade as the conversion ratios vary with the volatile prices of Mo, Cu and Ag. However, it is the Company's opinion that elements considered here have a reasonable prospect to be recovered.

<sup>1</sup> MoEq (ppm) = Mo (ppm) + (Cu (ppm) / 3.44) + (Ag (ppm) x 34.3)

#### (Dart Mining ASX September 2012)

<sup>2</sup> A Resource Update using a new geological model that defines the extent of Oxide, Transition and Sulphide zones is required due to identified variation in the metallurgical recovery for Oxide Mo & Cu zones. Resource update planned during the PFS phase.





# **GRANITE FLAT Cu-Au Project- Summary**

#### Location

 Situated adjacent to the Omeo Highway, between Mitta Mitta & Glen Wills

### Style

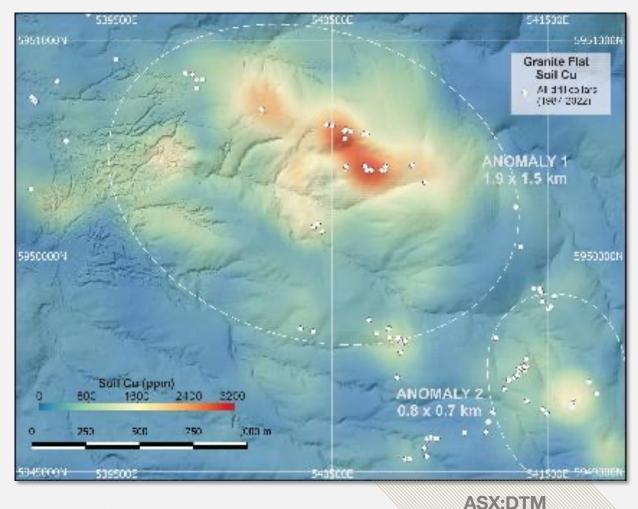
- Two mineralisation styles identified:
- Intrusion-related Cu-Au long intervals of low-grade Cu-Au
- Hydrothermal overprint Narrow silica-sulphide veins of high-grade Au-Cu-Ag ± Pb, Zn

### Scale

- 1.8x 2.4km soil Cu-Au footprint, additional anomalies open in all directions
- Significant remanent magnetism anomalies identified north of project footprint
- IP chargeability and resistivity anomalies identified across 1.5 × 2.0km footprint
- Significant intervals of Cu-Au mineralisation intersected

up to 180m below surface





# **NORTHERN PORPHYRIES**

### Location

• Surrounding Unicorn, additional porphyry targets exist within 10km radius

### Style

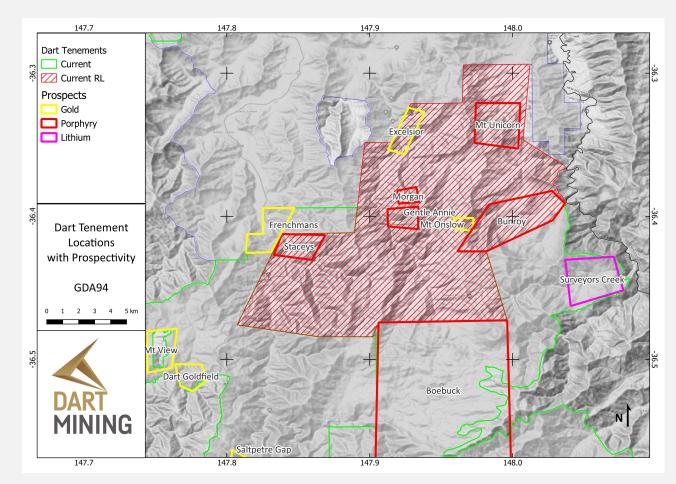
- Development of the Unicorn System.
- Large Silica Cap, and Unidirectional Solidification Textures (UST's) indicate overpressureing of the system and development of multiple, more developed intrusive stocks

### Scale

• Unknown, but holds significant potential.

### **Mineralisation**

 Holds the potential for further developed intrusives moving from Mo dominated to Au-Cu potentials similar to NSW.





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