

2 March 2023

## Investor Presentation

Eclipse Metals Ltd (ASX:EPM) (FSE:9EU) (**Eclipse Metals** or the **Company**) is pleased to enclose its March investor presentation.

**Authorised for release by the Board.**

Carl Popal  
**Executive Chairman**  
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### About Eclipse Metals Ltd (ASX: EPM) (FSE:9EU)

Eclipse Metals Ltd is an Australian exploration company focused on exploring southwestern Greenland, Northern Territory and Queensland for multi commodity mineralisation. Eclipse Metals Ltd has an impressive portfolio of assets prospective for cryolite, fluorite, siderite, quartz, REE, gold, platinum group metals, manganese, palladium, vanadium and uranium mineralisation. The Company's mission is to increase shareholders' wealth through capital growth and ultimately dividends. Eclipse Metals Ltd plans to achieve this goal by exploring for and developing viable mineral deposits to generate mining or joint venture incomes.

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eclipse  
METALS LTD  
ASX: EPM

INVESTOR PRESENTATION - JANUARY 2023



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The Company is at an early development and exploration stage and although reasonable care has been taken to ensure that the facts stated in this presentation are accurate and/or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness.

The information in this presentation that relates to Exploration Results and Exploration Targets is based on information compiled and reviewed by Mr. Rodney Dale, Non-Executive Director of Eclipse Metals Ltd. Mr. Dale holds a Fellowship Diploma in Geology from RMIT, is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM) and has sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Dale consents to the inclusion in this presentation of the matters based on information in the form and context in which it appears. Additionally, Mr Dale confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

## ABOUT ECLIPSE METALS



### Vision Statement:

To sustainably explore, and develop, mineral and metal projects in Tier-1 jurisdictions in Greenland and Australia.

To be a leading supplier of rare earth oxides, quartz minerals and critical raw materials essential for the electrification transition, green economy and renewable energy future.

### Who We Are

An Australian publicly listed exploration and development company focused on exploring south-western Greenland, Northern Territory and Queensland for multi-commodity mineralisation. Eclipse Metals Ltd has an impressive portfolio of strategic mineral prospects for cryolite, fluorite, iron, zinc, high-purity quartz, rare earth elements, uranium, manganese, gold, palladium, vanadium and base metals.

With multiple projects at different stages of exploration targeting a range of minerals, Eclipse is well-positioned to advance despite commodity price cycles.

Exploration of the Company tenements is the primary focus for our highly regarded technical team, and Eclipse is alert to opportunities to acquire additional prospective projects which complement existing assets.

Eclipse boasts a Board with experience, talent and integrity, whose interests are well-aligned with those of its shareholders. Individual Board members are shareholders of the Company they manage.

# CORPORATE SUMMARY



## Corporate Snapshot

<b>ASX Code</b>	<b>EPM</b>
<b>FSE Code</b>	<b>9EU</b>
<b>Shares on issue</b>	<b>~2,028m</b>
<b>Current Share Price</b> (as at 10 February 2023)	<b>A\$0.021</b>
<b>Market Capitalisation</b>	<b>~\$43.0m</b>
<b>Cash</b> (as at 31 Dec 2022)	<b>\$1.3m</b>

## Board & Management

<b>Carl Popal</b>	Executive Chairman
<b>Rodney Dale</b>	Non-Executive Director
<b>Dr Oliver Kreuzer</b>	Non-Executive Director
<b>Ibrar Idrees</b>	Non-Executive Director
<b>Matthew Foy</b>	Company Secretary

### Eclipse Metals 12-month share price chart



# INVESTMENT HIGHLIGHTS



Focused on exploring for **multi-commodity mineralisation** across our project portfolio



Our projects have potential for a **large, highly profitable** industrial mineral/REE operation



Projects are **close to infrastructure** – port, roads, accommodation



**Building relationships** with Governments and other stakeholders



Detailed planning for **exploration and development** across portfolio in 2023



Experienced Board and Management with **proven track record of success**

# WHAT GREENLAND OFFERS



**Near-term production potential** at Ivigtût – processing tailings and low-grade stockpiles for cryolite, fluorite and REE



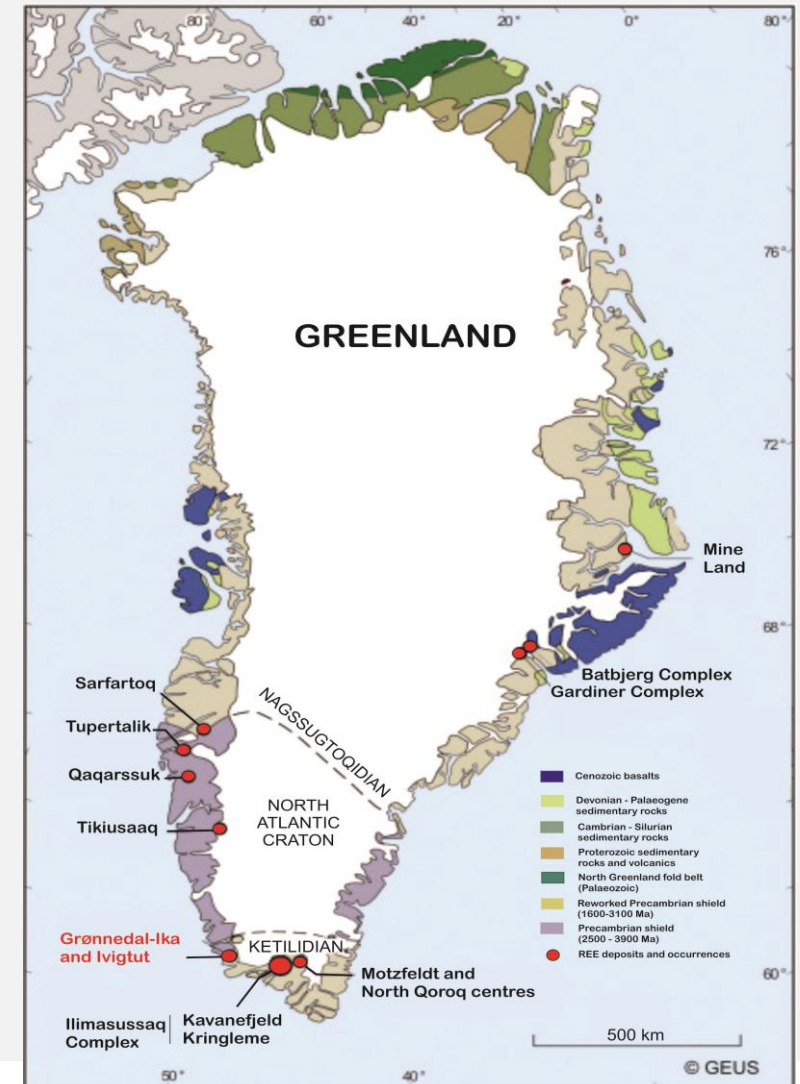
Ivigtût has potential for a **large, highly profitable** industrial mineral/REE operation



Ivigtût is close to infrastructure – **port, roads, power, accommodation**

## Attractive mining in Greenland:

- Greenland hosts **up to a quarter** of the world's rare earth minerals\*
- Comparatively **low sovereign risk** for a European territory
- Favourable mining regulations and tax structure - **26.5% corporate tax rate\*\***
- Established mining operations and infrastructure:
  - Ivigtût – 120-year cryolite mining history
  - Greenland Ruby – mining rubies and sapphires
  - Greenland Anorthosite Mining – anorthosite project in development
- Exploration companies are investing in Greenland REE
- Knowledge of Greenland's REE resources in has taken a large leap forward in recent years



Greenland  
REE deposits

\* <https://www.npr.org/2019/11/24/781598549/greenland-is-not-for-sale-but-it-has-the-rare-earth-minerals-america-wants>

\*\* <https://taxsummaries.pwc.com/greenland/corporate/taxes-on-corporate-income#:~:text=The%20corporate%20tax%20rate%20is,corporate%20tax%20rate%20is%2026.5%25>

# Ivigût (aka Ivittuut) cryolite mine

## GREENLAND



THE WORLD'S LARGEST  
AND  
ONLY CRYOLITE MINE  
WITH  
**REE**  
(RARE EARTH ELEMENTS)

EU Raw Material Commission assessed the criticality of 66 candidate materials in 2020

This included 63 individual materials and 3 material groups:

- heavy rare earth elements,
- light rare earth elements,
- platinum group metals, amounting to 83 materials in total.

**Supply risk** - reflects the risk of a disruption in the EU supply of the material.





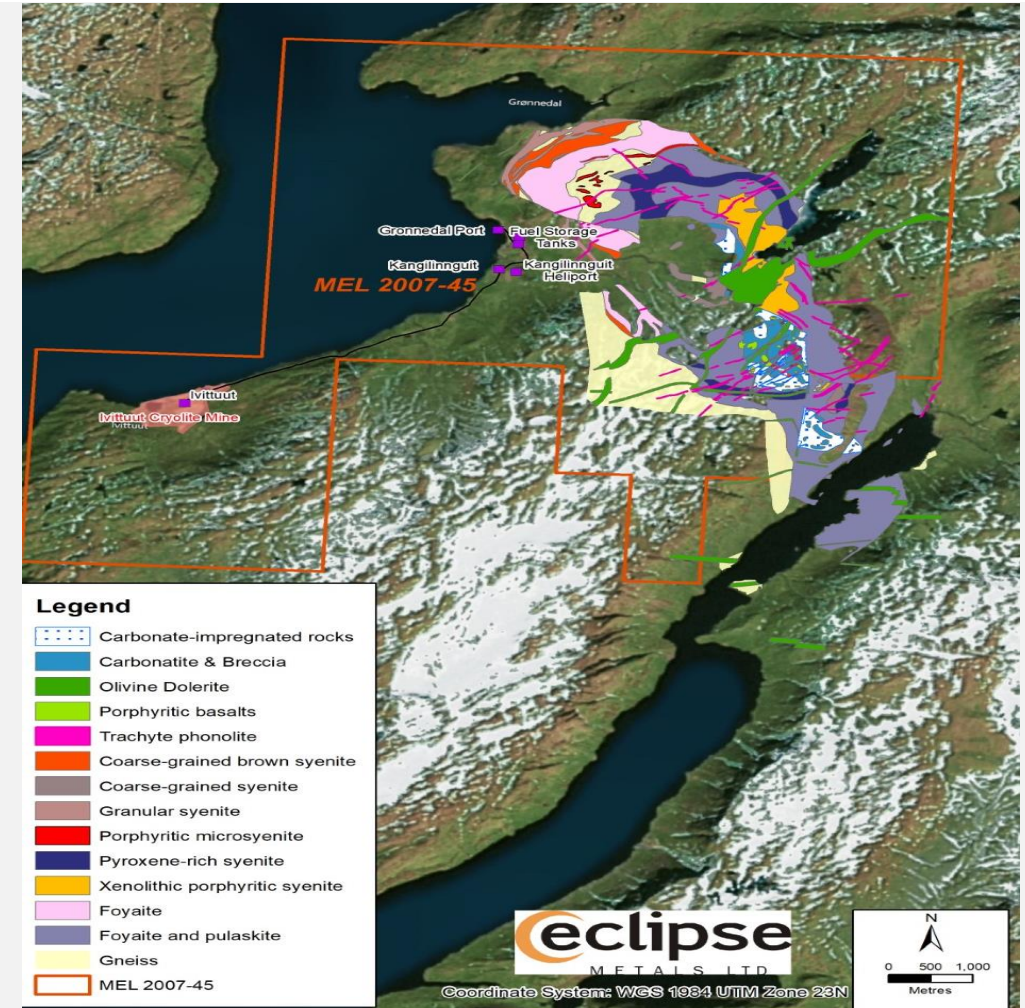
# GREENLAND'S MEL2007-45 - IVIGTÛT & GRØNNEDAL

## MEL2007-45 comprises:

- **Historic Ivigtût cryolite mine**
  - 120-year mining history
  - Produced 3.8 million tons of cryolite for use in aluminium production (Bondam, J, 1991)
- **Grønnedal carbonatite complex**
  - Known to host rare earth elements (REE)

**Eclipse identified undiscovered polymetallic potential and acquired licence in January 2021; initial fieldwork program approved in May 2021**

- Close to **existing infrastructure** including:
  - Heliport
  - Wharf
  - Power station



# POLYMETALLIC POTENTIAL: RARE EARTHS, LITHIUM & INDUSTRIAL MINERALS

## Ivigtût and Grønnedal found to contain:

### 1. Industrial minerals in existing Ivigtût pit:

- Cryolite
- Fluorite
- High silica-grade quartz (**99.9% SiO<sub>2</sub>**)
- Zinc and Iron

### 2. REE mineralisation:

- In and surrounding Ivigtût pit
- At Grønnedal prospect – confirmed by XRF  
*(Pr and Nd are significantly enriched)*
- REE is increasing in demand due to new technology uses (electric vehicles, electronics)
- Heavy Rare Earths such as, Nd and Pr and Sm are amongst the worlds most valuable commodities

### 3. Lithium potential

- Grab samples return up to **430ppm Li<sub>2</sub>O** – in rare mineral **Cryolithionite**

### 4. Tailings and dumps stockpiles - short-term cashflow opportunity

- (165g/t silver, 0.15% copper, 3.83% lead and 0.37% zinc) surface samples
- Laboratory assessment of a historical drill core sample IVT 21 - 11(1) returned 9.86% Zn





## EXPLORATION POTENTIAL AT GRØNNEDAL

- Grønnedal contains a **source of carbonatite minerals and rare earth elements**
  - Carbonate rock is suitable for **neutralising acid mine and process water** – needed for Greenland’s mining industry
  - Eclipse could **ship carbonate** from existing Grønnedal port
  - Grønnedal is a **prime REE target** in Greenland
  - Grønnedal complex has potential for at least **two types** of deposits:
    - **REE mineralisation** occurs through the complex, especially in the late-stage veins where it occurs as various strontium REE carbonate minerals.
    - **Carbonatite** body is 2km by 1km, offering potentially large tonnages of carbonate rock.
- 
- The Grønnedal area contains some of the only known source of carbonate minerals in Greenland which could be suitable for neutralising acid mine and process water. Again, this could be readily shipped from available wharf infrastructure at Grønnedal. This is the only locally known source of carbonate rock in Greenland.

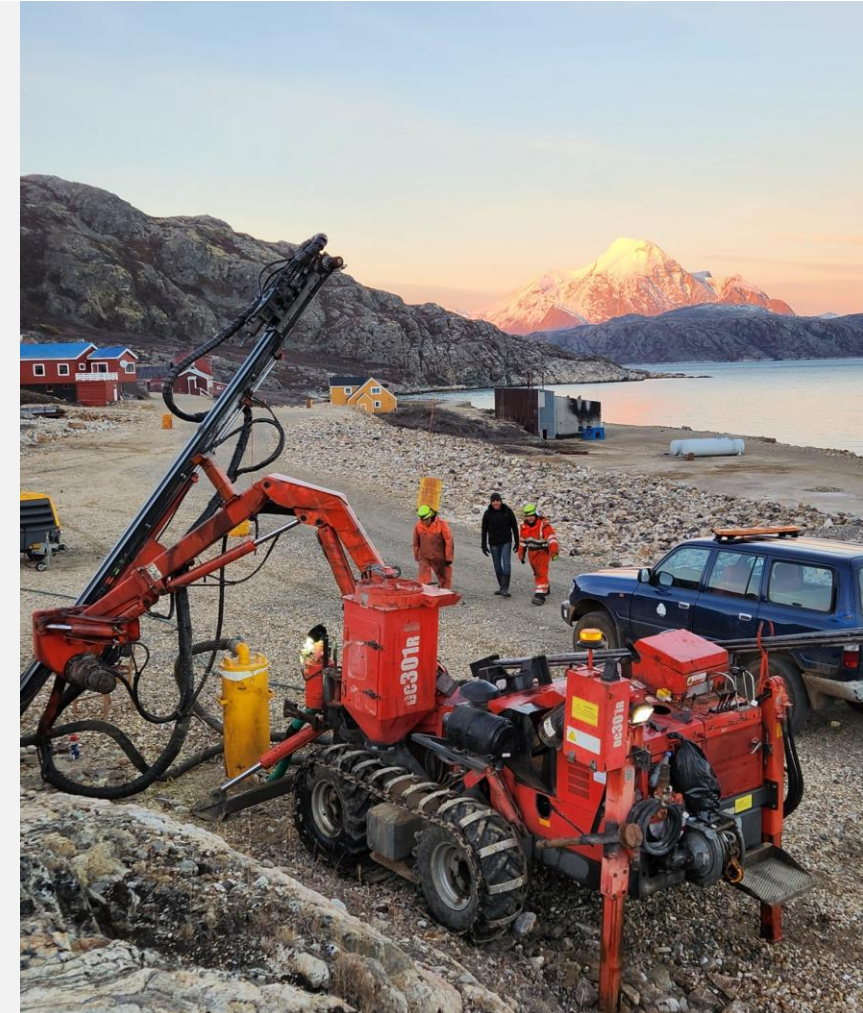


# WORKING TO UNCOVER POTENTIAL OF MEL2007-45 THROUGH METHODOICAL & STRATEGIC EXPLORATION



Since acquiring MEL2007-45 in January 2021, **Eclipse Metals has:**

- Sampled Ivigtût **mine tailings and waste stockpiles**
- Assessed and commenced sampling **19,000m historical drill core** from Ivigtût and Grønnedal
- Completed helicopter-assisted **reconnaissance program**
- Undertaken **laboratory assessment** of bulk quartz sample
- Commenced discussions with Greenland Govt for **Mining Licence application**
- Visited site with drill crew to plan for **drill rig mobilisation**
- Progressed plans for **pit dewatering** at Ivigtût
- Completed **maiden drilling and sampling program** in November 2022



# ENCOURAGING EARLY RESULTS FROM 2022 MAIDEN PROGRAM

## Eclipse maiden drilling and sampling program 2022 included:

- Successful completion of a maiden percussion **drilling and trench sampling program across the Ivigtût and Grønnedal** targets.
- 40 holes across the project – 31 holes at Grønnedal and 9 at Ivigtût
- Five x 20m trenches at Ivigtût waste dumps on 25m spacing
- **50 tonnes of trench samples were crushed** to 30mm and a representative sample of **5 tonnes was shipped to Australia for analysis.**
- leveraging the principles of circular economy



# UNIQUE RARE EARTH MINERALISATION AT GRØNNEDAL - ELEVATED RATIO OF MAGNETIC REE.

Initial XRF analysis has returned encouraging results for rare earth elements **praseodymium (Pr)** and **neodymium (Nd)**, comprising up to 55% of the measured 4REE.

This can be compared with other rare earth deposits:

- i) **Grønnedal** Pr+Nd 55% of the measured 4REE (La+Ce+Pr+Nd) ii) Mountain Pass\* Pr+Nd: 17% of the measured 4REE (La+Ce+Pr+Nd)
- ii) Mountain Pass\* Pr+Nd: 17% of the measured 4REE (La+Ce+Pr+Nd) \*
- iii) Reference: Technology Metals Research, TMR (2015)
- iv) **Mount Weld** CLD\* Pr+Nd: 25% of the measured 4REE (La+Ce+Pr+Nd) \* Reference: Technology Metals Research, TMR (2015)

*First laboratory results are expected in Q2 CY2023*





## GREENLAND'S RARE EARTHS OPPORTUNITY

- **Monopolistic supply conditions:** Demand for Magnetic REE is increasing due to new technology uses (electric vehicles, electronics)
- **Price control by suppliers** far upstream in the supply chain will drive the need for magnetic REE as EV evolves.
- Crucial small quantities of REE, **in a large number of hi-tech components**, are required for the **Green E revolution**.
- **Magnetic REE** such as Nd, Pr, Sm and Dy are among the world's most valuable commodities.
- REE **end uses** include; Magnet manufacturers; glass manufacturers; alloys process; space tech; renewable energy resources; motor parts; drones; cars; electronics.
- **Grønnedal is known to contain REE**, with Pr and Nd significantly enriched in comparison with other globally known deposits.



# IVIGTÛT EXPLORATION TARGETS

## POTENTIAL ECONOMIC RESOURCES



Range	Mineral Zone Domain	Cut Off (%)	Tonnage (t)	Grade (%)
Exploration Target - Lower	Cryolite in Domain 1	0	870,300	16.0
Exploration Target - Upper	Cryolite in Domain 1	0	916,200	17.7
Exploration Target - Lower	Cryolite in Domain 1	10	680,900	18.4
Exploration Target - Upper	Cryolite in Domain 1	10	716,800	20.4
Exploration Target - Lower	Cryolite in Domain 1	20	268,400	25.8
Exploration Target - Upper	Cryolite in Domain 1	20	282,500	28.6
Exploration Target - Lower	Fluorite in Domain 1	10	163,300	18.3
Exploration Target - Upper	Fluorite in Domain 1	10	171,900	20.3
Exploration Target - Lower	Fluorite in Domain 1	20	55,900	39.6
Exploration Target - Upper	Fluorite in Domain 1	20	58,800	43.8
Exploration Target - Lower	Fe in Domain 2	0	924,200	27.5
Exploration Target - Upper	Fe in Domain 2	0	966,900	30.3
Exploration Target - Lower	Zn in Domain 2	0	63,600	1.5
Exploration Target - Upper	Zn in Domain 2	0	66,600	1.7

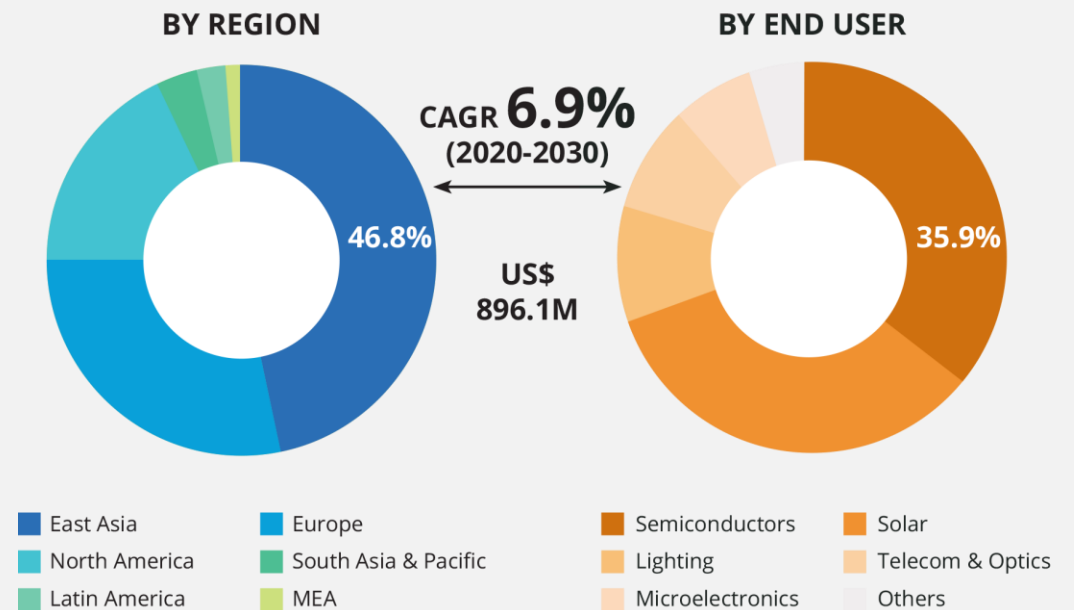
Range	Mineral Zone	Domain No.	Cut Off %	Quartz Tonnage (t)	Quartz Grade Lower %	Quartz Grade Upper %
Exploration Target - Lower	Quartz	3	0	5,700,000	90.0	95.0
Exploration Target - Upper	Quartz	3	0	5,940,000	90.0	95.0
Exploration Target - Lower	Cy-Fl-Fe-Zn	4+5	0	795,000	60.0	90.0
Exploration Target - Upper	Cy-Fl-Fe-Zn	4+5	0	830,000	60.0	90.0

The potential quantity and grade of the Exploration Targets are conceptual in nature. There has been insufficient exploration work conducted to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared based on actual exploration results described in this report including historical drilling data and geological modelling.

## IVIGTÛT HIGH-GRADE QUARTZ OPPORTUNITY

- High-grade quartz and quartz sand is **essential for production** of photovoltaic (PV) products, in high-end electronics and semiconductors
- End uses** include silicon, quartz glass, optical fiber, solar cells and integrated circuit boards
- High-grade quartz is characterised by **high grades of silica (SiO<sub>2</sub>)** and low metal contaminants
- High-grade quartz market is expected to **grow at a CAGR of 7.9%** from \$671.62M in 2019 to **\$1.23Bn by 2027**
- China has **increasing demand for high-grade quartz**, but is largely dependent on imports
- EPM has demonstrated **high-grade quartz mineralisation of >5Mt** at Ivigtût with **up to 99.9% silica grade**.

### HIGH PURITY QUARTZ (HPQ) MARKET VALUE SHARE (%), 2020



**KEY DRIVER:** Growing Demand for Semiconductor ICs, Particularly Due to Rising Penetration of Internet of Things (IoT), Fueling Demand for HPQ

Source: Persistence Market Research Note: Market shares not depicted as per actual scale, only for illustration purposes.



## PARTNERING WITH GREENLAND FOR MUTUAL BENEFITS



Eclipse Metals is partnering with leading Greenland contractors:

- Geologists
- Drillers
- Transport providers

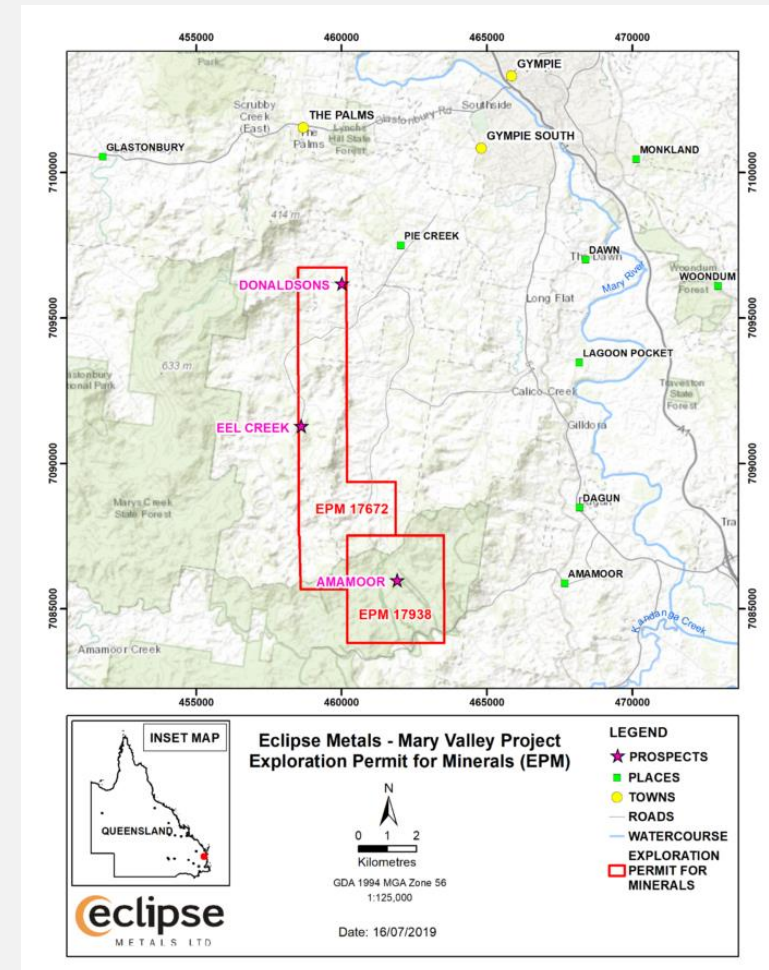
Eclipse is working to preserve Ivigtût's mining history, liaising with Sermersooq municipality to assist in restoring Ivigtût's Mining Museum

Eclipse respects and aims to work with residents of Ivigtût and Grønnedal to develop a project that can benefit all stakeholders



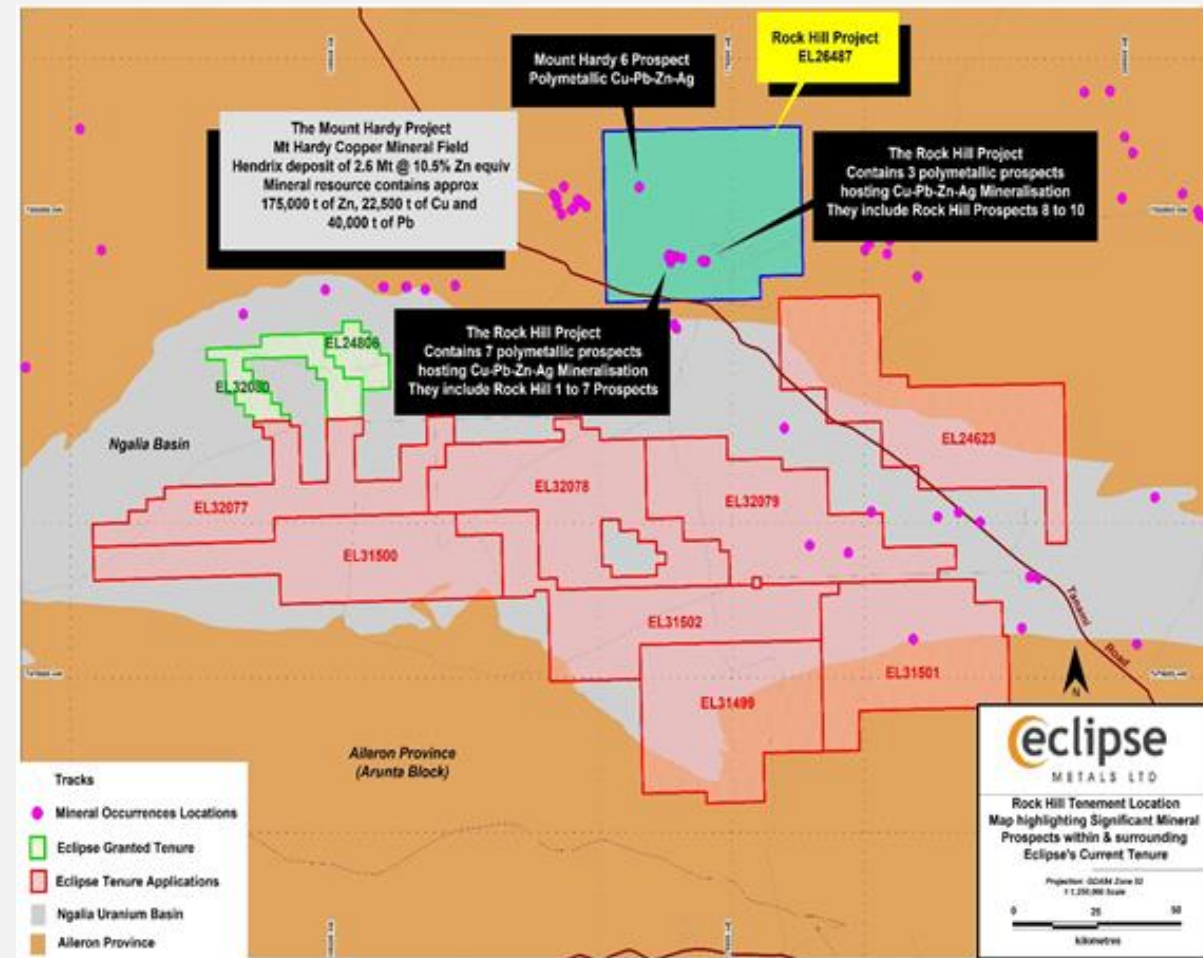
# MARY VALLEY PROJECT, QUEENSLAND - MANGANESE POTENTIAL

- Eclipse holds **34km<sup>2</sup> of manganese exploration terrain** in Qld's Mary Valley district, southwest of Gympie
- Mary Valley hosts **historic mines** including Amamoor No.1, which produced nearly 20,000t manganese at 51% Mn
- Previous drill results include:
  - 2018 drilling: **59.8% MnO<sub>2</sub>**
  - 2020 shallow drilling: **42% MnO<sub>2</sub> from surface**
- Eclipse defined global exploration target of **500,000 - 1Mt Mn**
- Bulk mining at Mary Valley deposit could produce mill-feed for a beneficiation plant to **produce a marketable, high-grade manganese product**
- Manganese is **in demand** for the **lithium-ion battery market**



# ROCK HILL COPPER PROSPECT, NORTHERN TERRITORY

- Review of historic drill data from Rock Hill has defined **high-grade copper-silver and broad zinc mineralisation**
- Historic results include:
  - 3.0m @ 1,420g/t Ag** from 6.1m and
  - 11.6m @ 0.43% Cu** from 58.2m
  - Including **0.3m @ 4.6% Cu and 10g/t Ag**
  - including **0.3m @ 10.20% Cu, 27 g/t Ag**
  - Potential mineralised corridor **extends for >10km**
- Limited drill testing completed to date – **10.2km of strike remains to be explored**
- Eclipse planning **airborne EM survey and RC drilling program** over strongly mineralised zones





## 2023 PLANNED NEWS FLOW – GREENLAND

- **First laboratory results** from drill and trench program due **Q1 CY23**
- Completion of scoping phase of Environmental & Social Impact Assessment, including pit water testing and dewatering strategy
- Resource Drilling Program - **2023 Field Season**
- Continue progressing application for a **Mining Licence at MEL2007-45**
- Further study existing drill core samples and combine with laboratory results to establish a **Resource upgrade**
- **PFS Targeted** for 2023
- Use GPR alongside the SUCHI Model to for resource modelling\*

### Greenland Project Mission Statement

*To understand and harness the unique geology of the area and rejuvenate the historical mine site; targeting the project's poly-metallic and REE mineralisation to supply industrial and critical minerals to global markets.*



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