

PDAC - GREENLAND DAY - JUNE 2022

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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.

## GREENLAND'S MEL2007-45 - IVITTUUT & GRØNNEDAL-IKA

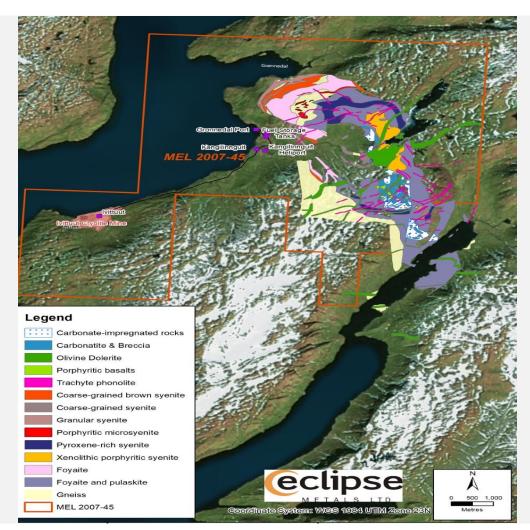


### MEL2007-45 comprises:

- Historic Ivittuut cryolite mine
  - 120-year mining history
  - Produced 3.8 million tons of cryolite for use in aluminium production (Bondam, J, 1991)
- Grønnedal-Ika 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: INDUSTRIAL MINERALS, RARE EARTHS & LITHIUM



#### Ivittuut and Grønnedal-Ika found to contain:

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

- Cryolite
- Fluorite
- High silica-grade quartz (99.9% SiO<sub>2</sub>) (ASX release 6 April 2022)
- Zinc and Iron

#### 2. REE mineralisation:

- In and surrounding lvittuut pit
- At Grønnedal prospect
- REE is increasing in demand due to new technology uses (electric vehicles, electronics)

#### 3. Lithium potential

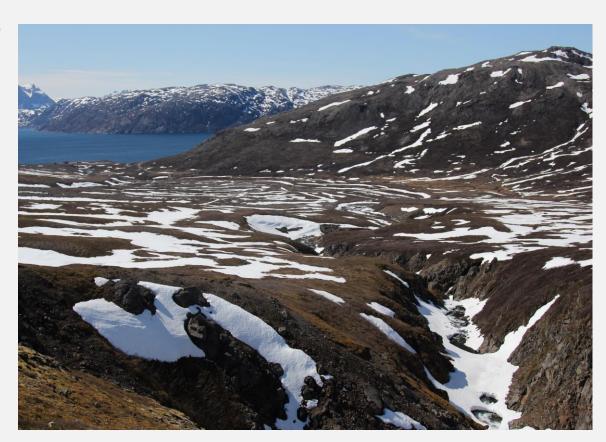
- Grab samples return up to 430ppm Li<sub>2</sub>O (refer ASX release 23 March 2022)
- 4. Tailings and dumps stockpiles short-term cashflow opportunity



## **EXPLORATION POTENTIAL AT GRØNNEDAL**



- Grønnedal-lka 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-lka 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.



# IVITTUUT 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                 |

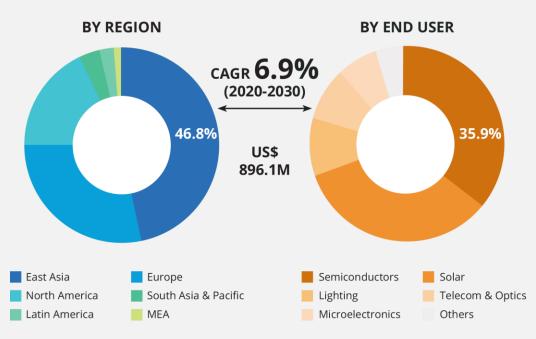
The potential quantity and grade of the Exploration Targets are conceptual in nature. There has been insufficient exploration work conducted to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared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

## IVITTUUT'S 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 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 plus 5Mt at lvittuut 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

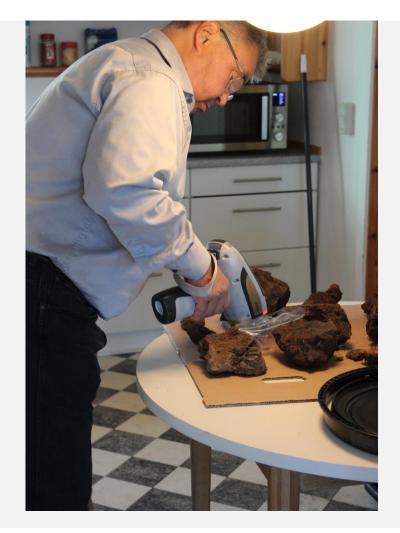
Source: Persistence Market Research Note: Market shares not depicted as per actual scale, only for illustration purposes.

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



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

- Sampled Ivittuut mine tailings and waste stockpiles
- Assessed and commenced sampling 19,000m historical drill core from Ivittuut and Grønnedal
- Completed helicopter-assisted reconnaissance program
- Undertaken laboratory assessment of bulk quartz sample
- Planned for initial drill programme at Grønnedal
- Established dialogue with Greenland Government ministers and department representatives to progress Mining Licence application
- Visited site with drill crew to plan for drill rig mobilisation
- Progressed plans for pit dewatering at lvittuut

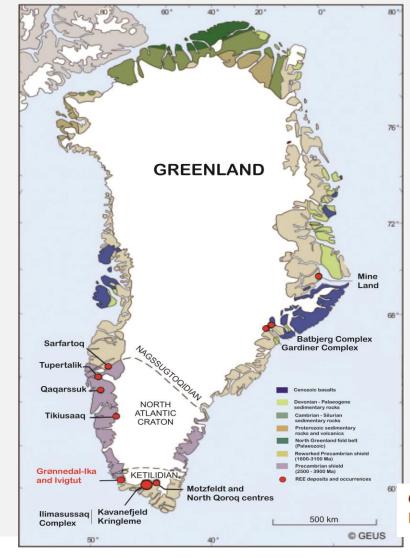


### GREENLAND'S POTENTIAL FOR MINING DEVELOPMENT



### **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:
  - Ivittuut 120-year cryolite mining history
  - Greenland Ruby mining rubies and sapphires
  - Greenland Anorthosite Mining anorthosite project in development
- Other explorers in Greenland include:
  - Bluejay Mining plc (AIM: JAY)
  - Tanbreez REE
  - AEX Gold (TSXV: AEX)
  - Major Precious Metals Corp (NEO:SIZE)
  - Ironbark Zinc Limited (ASX:IBG)



Greenland REE deposits

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

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

# PARTNERING WITH GREENLAND FOR MUTUAL BENEFITS



Eclipse Metals is partnering with leading Greenland contractors:

- Geologists
- Drillers
- Transport providers

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

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





## SUMMARY





Potential for near-term production at lvittuut – processing tailings and low-grade stockpiles for cryolite, fluorite and REE



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



lvittuut is
close to
infrastructure
– port, roads,
accommodation



Building relationships with Greenland Government and other stakeholders



Experienced
Board and
Management
with proven
track record
of success



Detailed planning for exploration during 2022

#### CORPORATE SUMMARY



| ASX Code                                    | ЕРМ      |  |
|---|----------|--|
| Shares on issue                             | ~1,921m  |  |
| Current Share Price<br>(as at 06 June 2022) | A\$0.025 |  |
| Market Capitalisation                       | ~\$48.0m |  |
| Cash<br>(as at 31 March 2022)               | \$1.2m   |  |

### **Board & Management**

| Carl Popal        | Executive Chairman     |  |
|-------------------|------------------------|--|
| Rodney Dale       | Non-Executive Director |  |
| Dr Oliver Kreuzer | Non-Executive Director |  |
| Ibrar Idrees      | Non-Executive Director |  |
| Matthew Foy       | Company Secretary      |  |



