

13<sup>th</sup> August 2021

ASX Announcement

## **EXPLORATION UPDATE** **IVITTUUT GREENLAND PROJECT**

### **Highlights**

- **750m of historical diamond drill core from Gronnedal-Ika carbonatite area identified.**
- **The diamond drill core had not been systemically assayed for REE mineralisation.**
- **Total rare-earth (TREE) of up to 34,400 ppm are recorded from grab samples collected at Gronnedal-Ika carbonatite deposit (ASX release 2/3/2021).**
- **Europium has been recognised throughout the carbonatite intrusion at several times greater concentration than average for rocks elsewhere. In short supply worldwide.**
- **Extensive faulting and fracturing associated with the intruding carbonatite are considered to have mobilised highly mineralised fluids extending into the surrounding rocks which has implications for further REE enrichment during alteration processes.**
- **The Gronnedal-Ika carbonatite contains the only known readily accessible source of carbonate rock in Greenland which could be suitable for neutralising acid mine and process water.**
- **Strong correlation between the REE mineralisation identified within olivine dolorite dyke and the magnetic zones.**

Eclipse Metals Ltd (ASX: **EPM**) (**Eclipse Metals** or the **Company**) is pleased to provide this update on current ongoing examination of historical diamond drill core from the Gronnedal-Ika carbonatite intrusive and over 19,000m from Ivittuut cryolite mine environ within its MEL2007/45 licence located in south-western Greenland. Six diamond holes with a combined length of 750m, were drilled over 50 years ago within Gronnedal-Ika carbonatite intrusive and much of the core remains uncut and untested. .

The drill core is stored in a Greenland Government facility in Kangerlussuaq (Sondre Stromfjord) approx. 320km north from the capital Nuuk. The core has been preliminarily examined by the Eclipse Metals Greenland office administrator and a Consulting Geologist.

The core was found to be in good condition and well catalogued, enabling Eclipse personnel to readily identify the drill holes of initial interest and to collect samples from selected sections for analysis in Perth. Of particular interest is the core from the six holes drilled into the carbonatite intrusive where historical exploration has identified anomalous rare earth element content in dolerite dykes intruding the carbonatite.

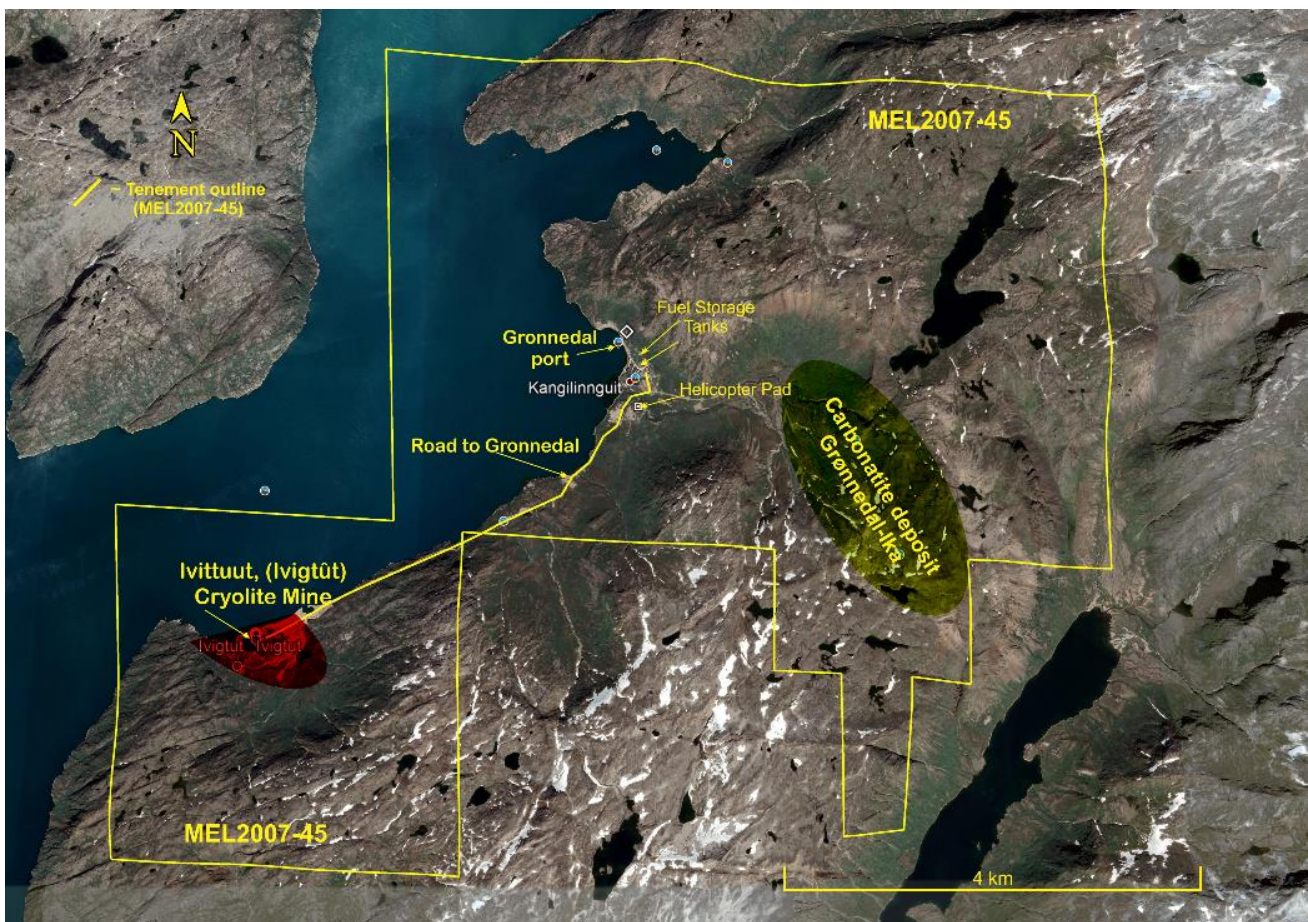
The Company has collected samples for preliminary testing and intends to cut and assay all the core at a later date utilising appropriate QA/QC protocols.





**Figure 1. Drill core located in Greenland Government facility in Kangerlussuaq (Sondre Stromfjord)**

The Company has identified the potential for untapped rare earth, high grade quartz, cryolite, siderite, sphalerite and carbonate material at the Company's Ivittuut project. This area has not been systematically explored for other commodities including the REE mineralisation of the carbonatite complex, which has been well noted in academia (Goodenough, 1997).



**Figure 2. Ivittuut Project Location Map – MEL 2007- 45 - located on the coast of Arsurk Fjord in southwestern Greenland.**





*Figure 3. Historical drill core from the Grønnedal-Ika carbonatite.*

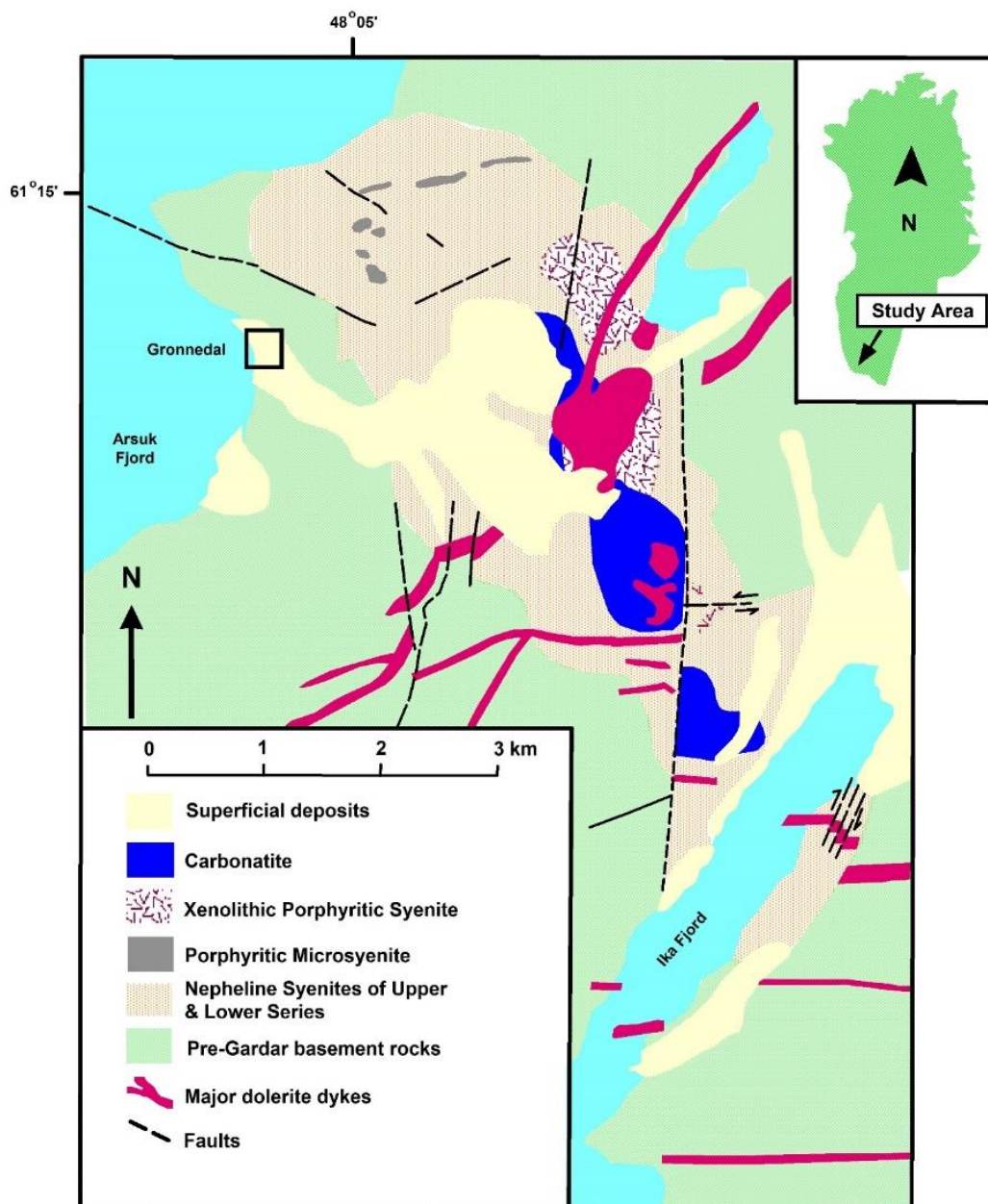


*Figure 4. Core drilled into the Ivittuut quartz body below the historical cryolite mine.*

## **ABOUT THE IVITTUUT PROJECT**

Ivittuut is located in southwestern Greenland and has a power station and fuel supplies to service this station and local traffic to support mineral exploration. About 5.5km to the northeast of Ivittuut, the twin settlements of Kangilinnguit and Grønnedal, respectively provide a heliport and an active wharf with infrastructure. The Grønnedal-Ika carbonatite complex is less than 10km from Ivittuut and only 5km from the port of Grønnedal. This complex is also one of the 12 larger Gardar alkaline intrusions in Greenland and is recognised as one of the prime REE targets in Greenland by GEUS along with Kvanefjeld and Kringlerne (Tanbreez).





**Figure 5. – Gronnedal-Ika Carbonatite and Intrusive Dykes.**

### GRONNEDAL-IKA CARBONATITE COMPLEX

The Gronnedal-Ika carbonatite, nepheline syenite complex and later dolerite dykes are intruded into crystalline Archean basement rocks centered on 48°03'W: 61°14'N, about 10km to the northeast from Ivittuut.

The drill holes examined in this first visit were originally sited to obtain samples of nepheline syanite for ceramic manufacture but intersected contact areas of later olivine dolorite dykes carrying magnetite.

REE occurs throughout the carbonatite complex, especially in late-stage veins where it occurs as various strontium REE carbonate minerals. Europium (Eu) has been recorded from the whole intrusion with several times greater than average for rocks elsewhere in the Gardar Province and many times more than normally found in carbonatite.

Minerals identified within the complex include apatite, monazite, stronianite and synchysite which host LREE, as well as zircon and monazite which host HREE (LREE = light rare-earths. HREE = heavy rare-earths).

Carbonate rock from this complex could provide a neutralising agent for mine and process water for other operations in the region.

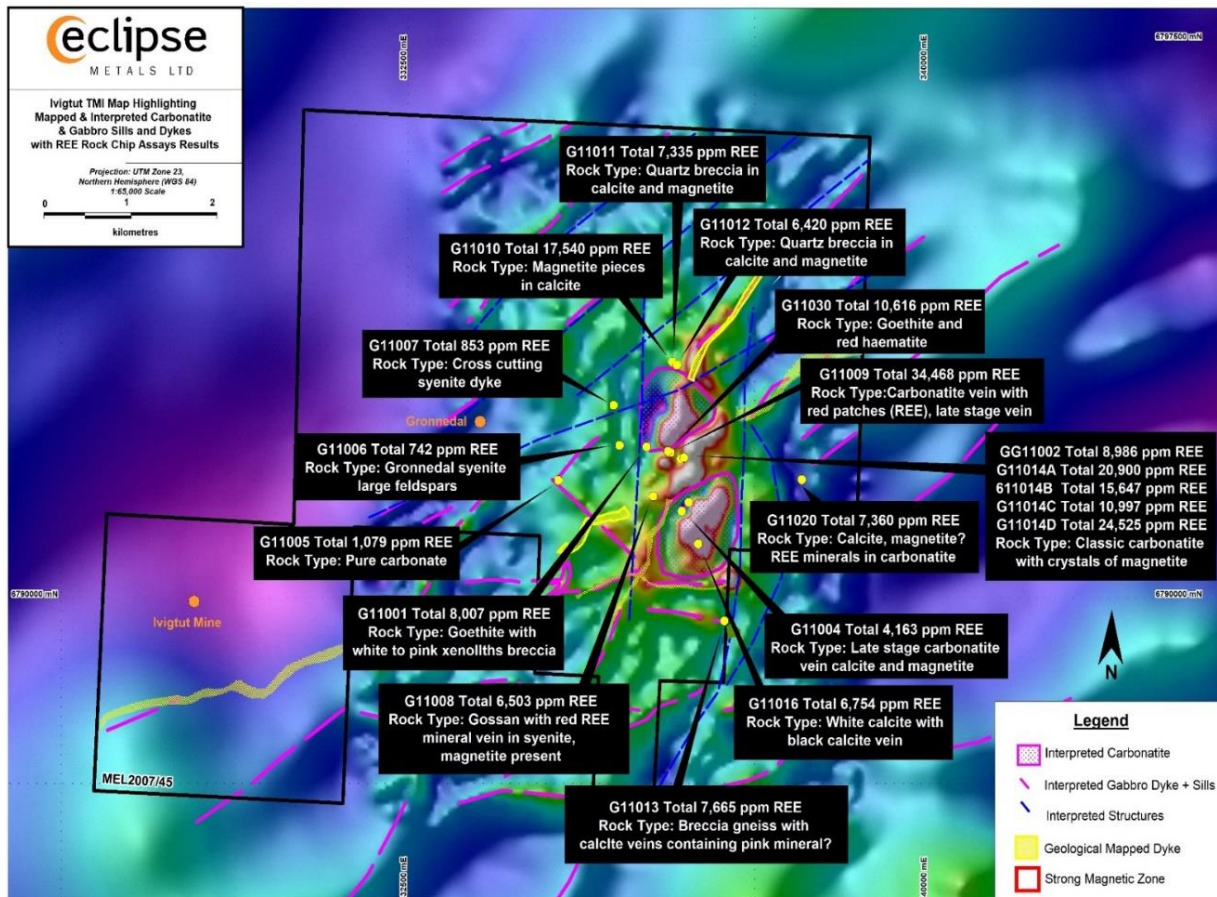
Further details of samples and laboratory analyses will be provided in due course.





**Figure 6: Carbonatite Breccia with large carbonate fragments – Gronnedal settlement in the background**

The geophysical analysis over Gronnedal-Ika carbonatite/dyke geological units have been confirmed to be far more extensive than previously known which is further encouragement for potential REE and sulphide mineralisation. The Dighem survey defined seven conductive targets which are recommended for follow up exploration and ground truthing.



**Figure 7: Rock Chip Location highlighting strong REE mineralisation with the TMI Images in the background (refer ASX release 2/3/2021)**

## FORWARD STRATEGY

This initial evaluation of drill core has provided additional significant information on the prospectivity of the carbonatite occurrence and mafic dykes which will save considerable future costs in delineating this REE deposit.

Samples collected by Eclipse Metals Greenland's office are being dispatched from Sondre Stromfjord (Core Storage) to Australia for laboratory analysis for REE elements. The Company will announce results as soon as testing is completed.

## GROWTH OPPORTUNITIES

The Company is also in early stage discussions with third parties in respect of potential joint venture partnerships and other opportunities that will advance the projects and add value for Shareholders. The Company will keep the market updated as these discussions progress.

### Authorised for release by the Board

Carl Popal  
**Executive Chairman**

Rodney Dale  
**Non-Executive Director**



### Competent Persons Statement

*The information in this report / ASX release 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 report / ASX release 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 Ltd (ASX: EPM)

Eclipse Metals Ltd is an Australian exploration company focused on exploring South-western Greenland, Northern Territory and Queensland for multi commodity mineralisation. Eclipse Metals Ltd has an impressive portfolio of assets prospective for cryolite, fluorite, siderite, quartz (high purity silica), 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.

## REFERENCES

*The below documents are all classified as open file report which can be downloaded from the internet*

**The following references have been cited in this report: -**

G B & Associates, 2011, "Ivittut Annual Report 2013, Licence No. 2007/45 GEUS Open File Series Report No.22563

Goodenough, K. M. (1997). Geochemistry of Gardar intrusions in the Ivigtut Area, South Greenland. Ph.D. thesis, University of Edinburgh.