1st December 2023 ASX Announcement

RARE EARTHS IDENTIFIED OVER 5 KM STRIKE AT GRØNNEDAL DEPOSIT, GREENLAND

HIGHLIGHTS

- Rare earth mineralisation at Grønnedal extends over 5 km by 2 km, with an exploration target focusing on 3 km by 800 m of ferrocarbonatite defined.
- Extrapolating the outcropping area of ferrocarbonatite to a depth of 50m indicates a potentially significant exploration target of REE mineralisation.
- The grade range for the exploration target comprises a notable proportion of magnet REE (Nd, Pr, Dy, and Tb), which has the potential to be competitive with other REE projects globally.
- A grid-based diamond drilling program is planned, along with detailed geological mapping and petrological studies to better understand REE mineralisation controls.

Eclipse Metals Ltd (**Eclipse** or the **Company**) (ASX: EPM) is pleased to announce that it has delineated a rare earth element (REE) exploration target at Grønnedal within its 100% owned Ivigtût multi-commodity project in SW Greenland. While the rare earth mineralisation at Grønnedal extends over 5 km by 2 km of nepheline syenite, the exploration target currently encompasses an approximately 3 km by 800 m section of ferrocarbonatite intruding the syenite (**Targeted Area**). This Targeted Area is highlighted in Figure 1 and is derived from a combination of recent exploration, a geophysical assessment and review of public domain data.

Data from a 1995 DIGHEM airborne magnetic survey highlights several ovoid shaped responses associated with brecciated ferrocarbonatite bodies (Fig. 2) (refer ASX announcement 9 February 2021). Comparative analysis of the magnetic response with the mapped extent of the ferrocarbonatite suggests a more widespread presence of these formations than previously mapped. Furthermore, 3D inversion interpretation of the magnetic data shows that the carbonatites extend to at least one kilometre below the surface where the two discrete bodies coalesce. In addition, the DIGHEM electromagnetic data revealed seven conductive targets, potentially sulphide mineralisation, recommended for follow up investigation with drilling.

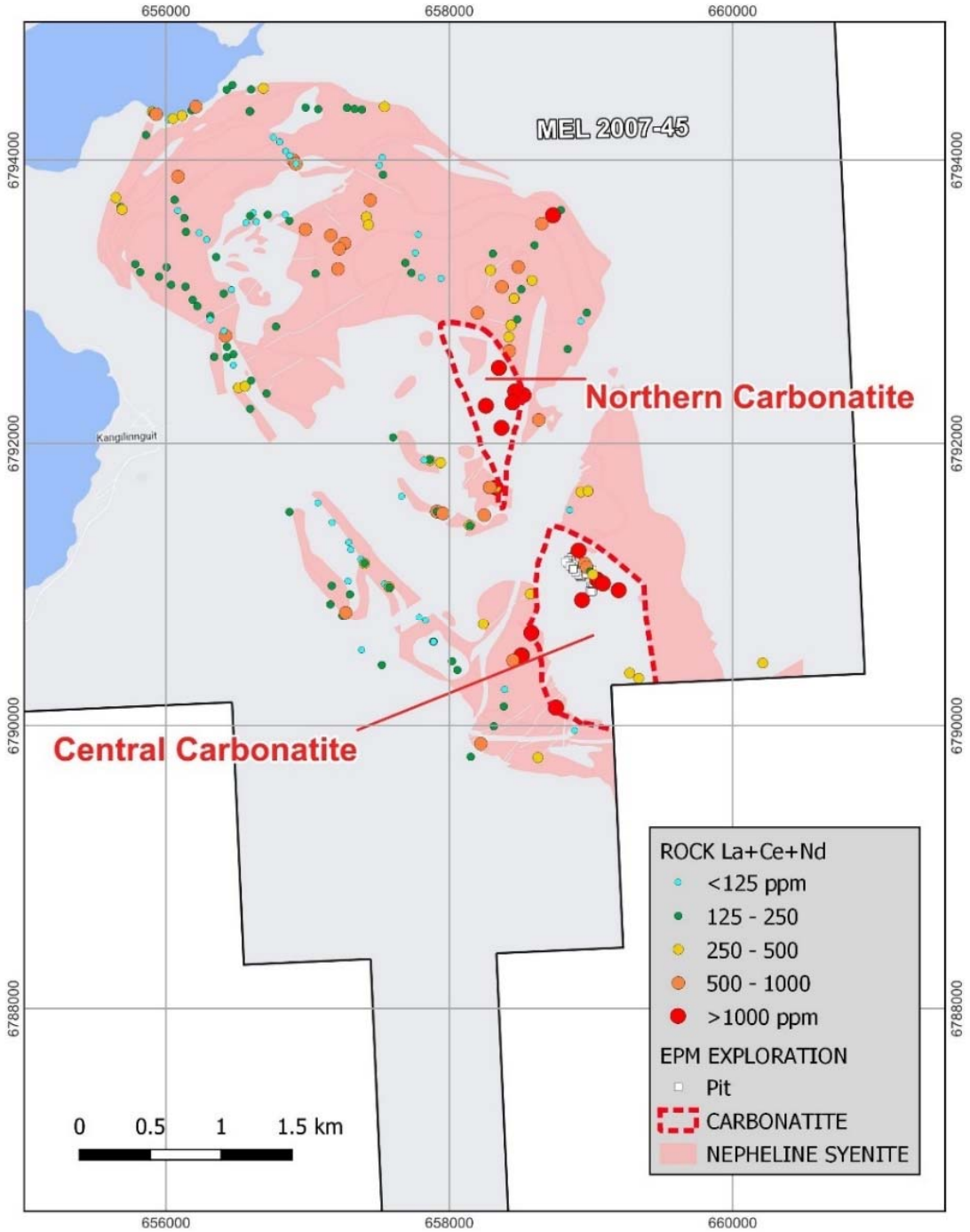

Figure 1. MEL 2007-45 Location Map, showing the geology of the Grønnedal nepheline syenite with ferrocarbonatite plugs (Target Area)

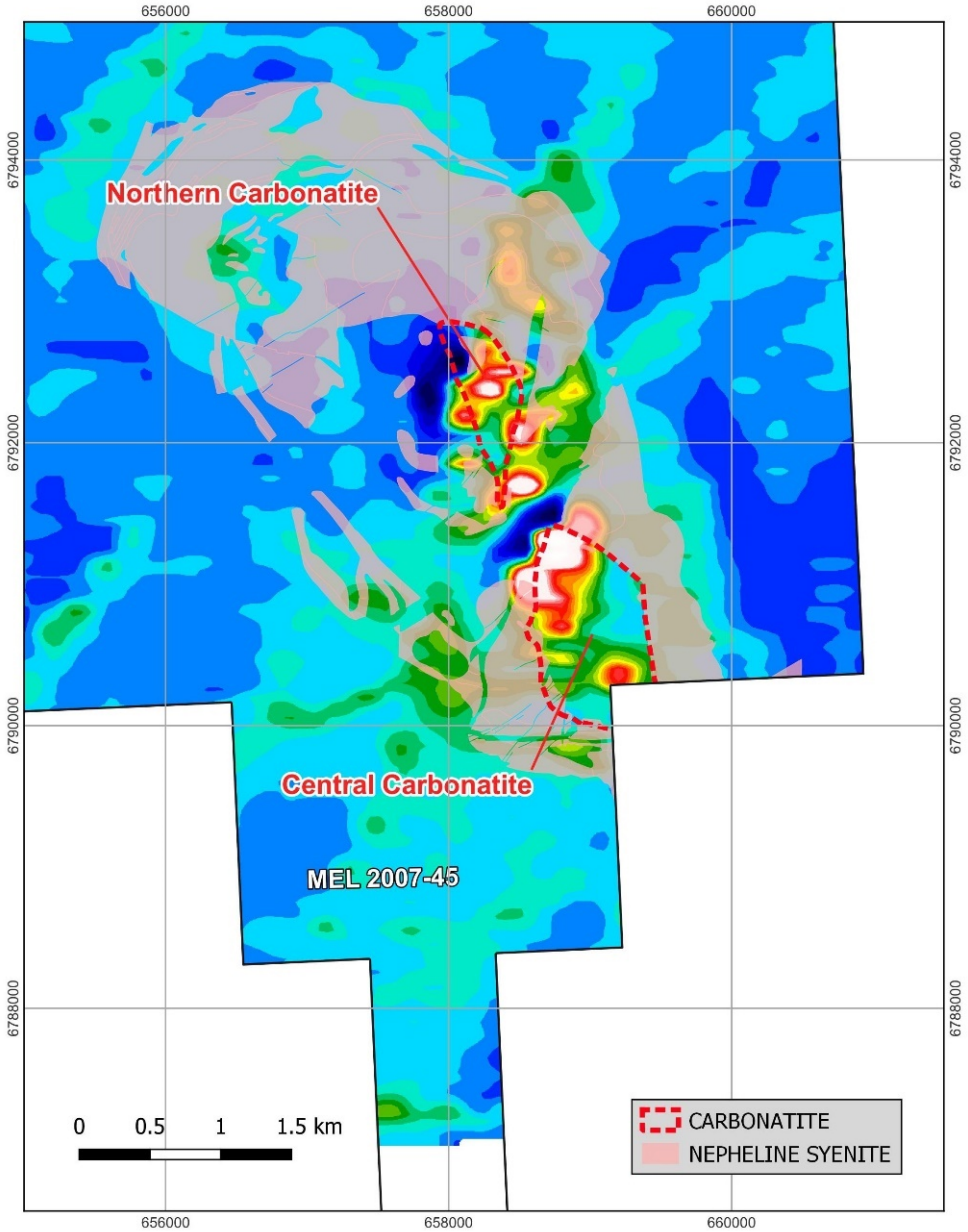

Figure 2: Total magnetic intensity image from DIGHEM survey.

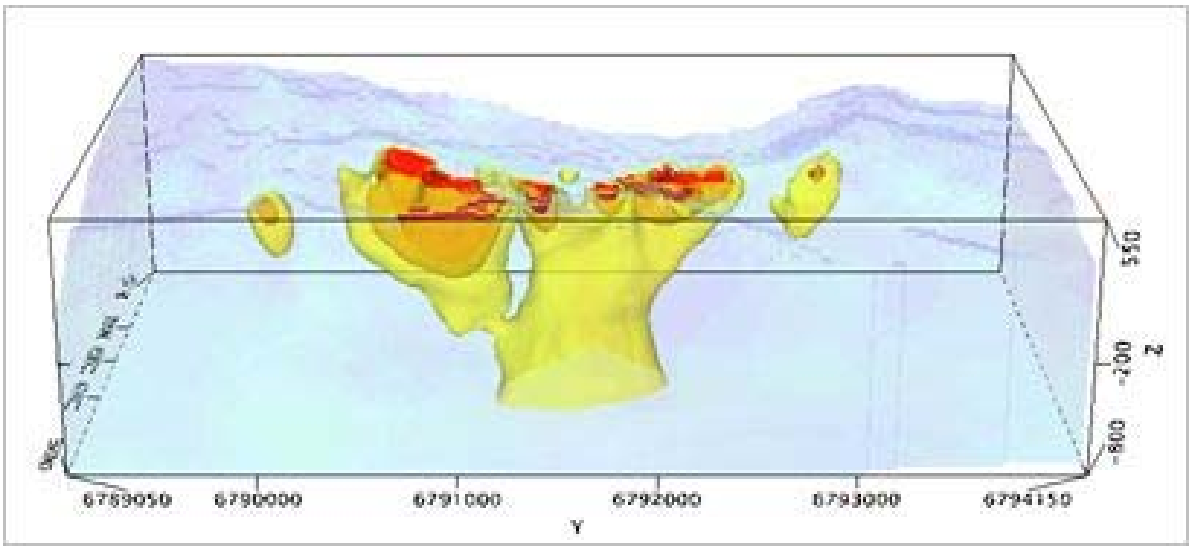

Figure 3: 3D inversion of DIGHEM magnetic data. Isosurfaces: red – 0.15 orange 0.13 yellow 0.11 SI **(Fathom Geophysics).**

Upon conservative analysis, extrapolating only the outcropping area of ferrocarbonatite (approximately 1.4 million m^2) to a depth of 50m indicates yields an **exploration target of between 175 and 245 million tonnes of REE mineralisation** based on a plausible range of rock density (2.5 and 3.5 gm/cm^3 respectively) (**Exploration Target**).

The anticipated grade for the Exploration Target is between 0.25 and 0.50% TREE including **32% – 39%** magnet REE (Nd, Pr, Dy and Tb) based on previously reported results from pitting and drilling in a small part of the Central carbonatite body (refer ASX announcements 25 July and 8 August 2023) as well as historic surface rock sampling (Fig. 1; Table 1).

The potential quantity and grade of the Exploration Target is 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 and recent drilling data and geological modelling.

Dataset	Total Samples	Samples > 300 ppm TREE		Ave. TREE ppm ¶	Magnet REE	
		#	%		ave. ppm	% total
EPM pits (< 2 m)[1]	52	51	**98**	**4,694**	1,839	**39**
EPM percussion drill holes (0 - 22 m)[2]	224	158	**71**	**3,602**	1,185	**33**

[1] ASX Announcement 25 July 2023
[2] ASX announcement 8 August 2023

Bedford (1989) surface samples (refer JORC tabled annexed)	24[3]	24	100	**3,624**	1,059	**>29**
	6[4]	6	100	**6,378**	1,910	**>32**

Table 1: Summary of TREE grade information for the Grønnedal ferrocarbonatites in parts per million (ppm). ¶ Average grade relates to samples > 300 ppm TREE. [3] Analysis of La, Ce and Nd only by XRF. [4] Analysis by INAA of 10 only of the 15 REE. Pr and Dy were not determined (Bedford, 1989).

With this in mind, the Company notes the exploration target is based upon analytical results to date that indicate a high proportion of the so-called magnetic REE in the total REE "basket" (Table 1) within the Targeted Area. **The range of magnet REE (MREE) is between 32% and 39%** which compares favourably with the proportion of MREE publicly disclosed in relation to other REE projects, including the Songwe Hill project in Malawi and the Yangibana project in Australia.

There has been insufficient exploration work conducted to confirm if the estimated proportion of MREE within the Targeted Area is indicative of the proportion of MREE contained throughout the broader mineralisation at Grønnedal. Further sampling and analytical work will need to be obtained throughout the remainder of the mineralisation at Grønnedal and there can be no guarantee that such data will be consistent with the Grønnedal analytical results to date.

In addition to the ferrocarbonatite Exploration Target, historical public domain rock chip sampling of the composite intrusion reveals that anomalous levels of rare earth elements La, Ce and Nd occur over the full 5 km length of nepheline syenite exposed within the company's tenement (Figure 1; Bedford, 1989). While the ferrocarbonatite intrusions at Grønnedal are generally richest in La, Ce and Nd, highly anomalous values have been recorded throughout the nepheline syenite body and related altered rocks (Figure 1 and Table 2).

Combined La + Ce + Nd ppm	# Samples	Max	Mean	Median
All Data	236	15,203	685	220
Carbonatite	24	8,256	3,624	3,566
Altered Syenite	25	15,203	920	209
Other	4	560	403	398
Syenite II	40	981	289	229
Syenite I	129	1,132	258	185
Altered Gneiss	14	689	381	361

Table 2: Summary of La, Ce and Nd (ppm) content of various rock types at Gronnedal from historic surface rock sampling (Bedford, 1989). Other rare earth elements were not analysed.

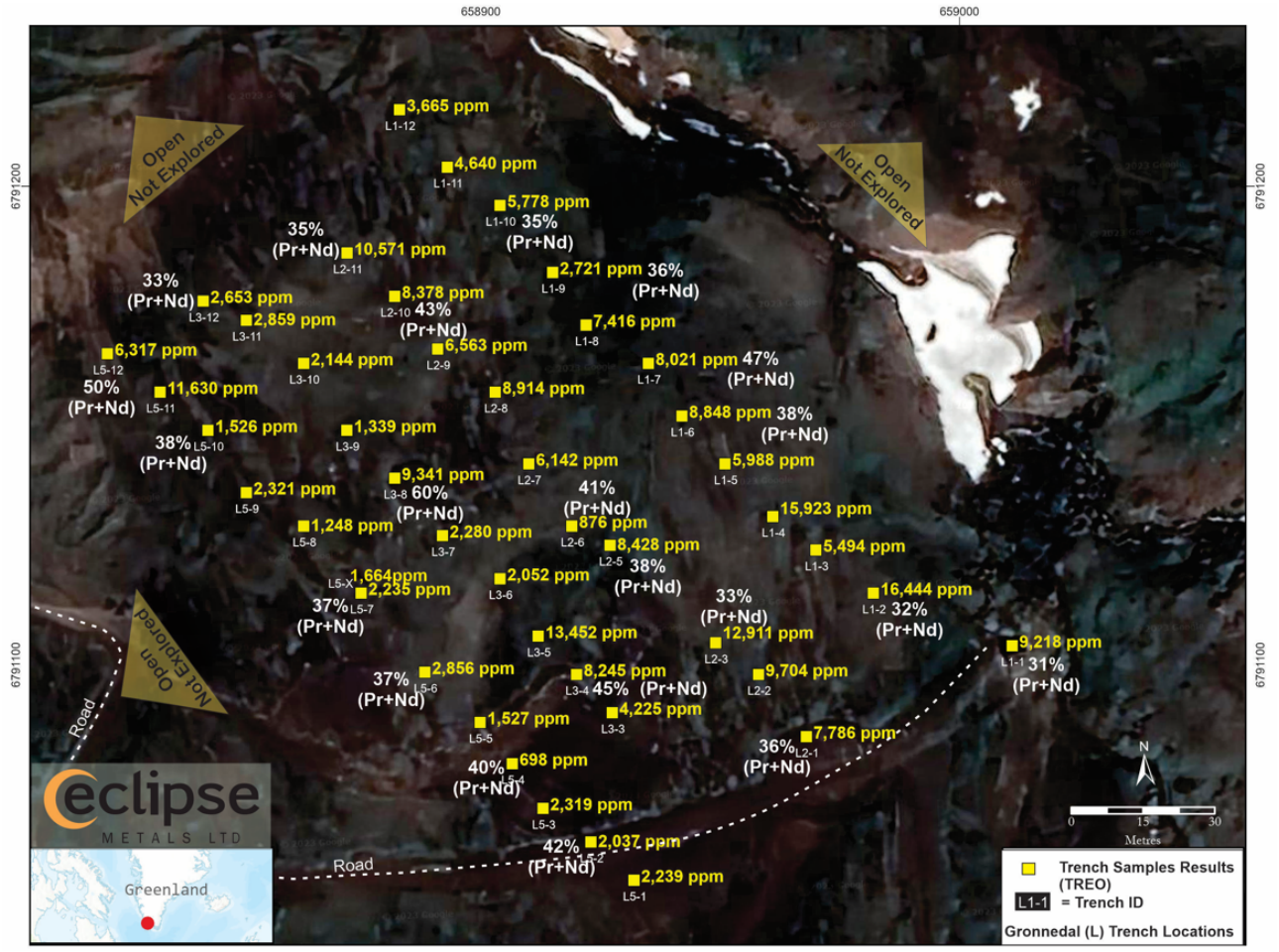

Figure 4: Grønnedal pitting results (Refer ASX announcement 25 July 2023). See Figure 1 for location of these pits within the Central carbonatite.

A program of diamond drilling is planned to test the ferrocarbonatite exploration target together with detailed geological mapping and petrological studies aimed at better understanding controls on REE mineralisation, particularly in the less well understood altered syenites.

Executive Chairman Carl Popal commented: *"Eclipse is extremely pleased with these results and is excited to contemplate what the future might bring. The Ivigtút mining precinct contains the world's only historical mine of the rare mineral cryolite and is now developing as a leader in rare earth element (REE) mineralisation with exploration of the nearby large Grønnedal carbonatite body. This carbonatite is enriched in elevated medium REE mineralisation when compared with other parts of the globe containing similar carbonatite REE. Grønnedal REE's presents a strategic global project in tier 1 jurisdiction, with existing infrastructure for development, and will become more of a priority in the current global environment. The large REE strike area has the potential to be the leader, playing a pivotal role in the magnetic REE global supply chain for the EU and US.*

We are poised to work on significant commercial aspects of the Ivigtút project through the coming year, which includes not only Grønnedal REE but also the critical mineral domains within the Ivigtút pit. The Company is poised to rejuvenate the Ivigtút mine to be once again a global project in the supply of critical minerals and REE. We are currently developing the Environmental Impact Assessment (EIA) and Social Impact Assessment (SIA) aspects and planning dewatering of the historical pit for pre-feasibility and mining of the remaining mineralisation."

Authorised for release by the Board of Eclipse Metals Ltd.

Carl Popal
Executive Chairman

Aiden Bradley
Investor Relations
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Reference

Bedford, C.M., 1989, The mineralogy, geochemistry, and petrogenesis of the Grønnedal-Ika alkaline igneous complex, south-west Greenland: PhD Thesis, Durham University, 433 pp.

About Eclipse Metals Ltd (ASX: EPM)

Eclipse Metals Ltd is an Australian exploration company focused on mineral exploration in 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, 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.

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 Dr. Andy Wilde, consultant to Eclipse Metals Ltd. Dr Wilde holds a PhD in geology from Monash University and is a fellow and registered professional geoscientist (RPGeo Mineral Exploration) of the Australian Institute of Geoscientists 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. Dr Wilde 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, Dr Wilde 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.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg 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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• Eclipse' Grønnedal carbonatite samples are from shallow pits. Bedford (1989) took surface rock samples, but his sampling method and its level of representivity are unknown.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).*	• Details of Eclipse drilling previously reported ASX Aug 8th 2023
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Details of Eclipse drilling previously reported ASX Aug 8th 2023

Criteria	JORC Code explanation	Commentary
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Details of Eclipse drilling previously reported ASX Aug 8th 2023
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Not relevant
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.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters*	• Bedford (1989) analysed his samples using the XRF device at Durham University and by INAA at the University of London. Substantial QA/QC procedures are documented in his PhD thesis. These methods report total REE content of the rocks.

Criteria	JORC Code explanation	Commentary
	used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Eclipse' samples were analysed at ALS of Perth using method ME-MS61L – 4 acid digest with ICP-MS finish. ALS employed CRM's, blanks and duplicates for QA/QC purposes. This method reports near total REE content of the rock.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Details of Eclipse drilling previously reported ASX Aug 8th 2023
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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Bedford's sample locations were digitised from maps in his PhD thesis and are believed to be accurate to within 50 m. Eclipse samples were location with handheld GPS.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Bedford's samples are irregularly distributed and evidently controlled by access. Eclipse samples relate to a grid of pits covering a small part of the Central carbonatite.
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.* • *If the relationship between the drilling orientation and the orientation of key*	• It was not possible to identify the orientation of geological structures in the shallow pits and drill holes referred to herein.

Criteria	JORC Code explanation	Commentary
	mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	• *The measures taken to ensure sample security.*	• Samples secured on-site, transported to private, lock-up building, processed, bagged and transported in locked shipping container and shipped to Perth by ship Australia under normal security procedures.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits have been completed yet.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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.* • *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.*	• MEL 2007 / 45 granted to Eclipse Metals in February 2021 for a period of 3 years with extensions subject to activities and expenditure. • Granted by Government of Greenland.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	**GEUS Report File No. 20236** Planning of the Ivigtût Open Pit of Kryolitselskabet Oresund A/S - Mining of the Flouritic Orebody"; Outokompu OY Mining Consultants, 1987. This report provided 18 cross sections showing drill traces with cryolite (kry), fluorite (fs) and siderite (sid) values together with pit profiles, resource blocks and tabulated tonnage estimates on each section with an SG of 2.95. **GEUS Report File No. 20238** "The Planning of the Ivigtût Open Pit of Kryolitselskabet Oresund A/S – Report of the First Phase, Investigation of the Quantity and Quality of Extractable Ore from the Ivigtût Open Pit"; Outokompu OY Mining Consultants, 1986. This report

Criteria	JORC Code explanation	Commentary
		contained 23 sections showing drillhole traces and contoured cryolite/fluorite grades with an overlay of resource blocks. These sections were used to check positions of drillholes relative to those shown in the above report (GEUS 20236). Resource tonnages are provided. **GEUS Report File No. 20335** Kryolitselskabet Oresund A/S, De Resterende Mineralreserver I Kryolitforekomsten Ved Ivigtût, Ultimo 1987" This report is the most useful of the reports. It provides: - Drillhole location plan - Complete cross section locations - Pit survey points - Plans of underground and in-pit ramp - 38 cross section showing drillhole traces, geological interpretation and ore blocks - Tabulated ore blocks with cryolite, fluorite and siderite grades and tonnages (back-calculated blanket SG of 3) **GEUS Report File No. 21549** "Ivigtût Mineopmaaling, 1962" This report is a survey record of the open pit and includes 28 sections, each of which show the pit profile together with drillhole traces and, on some sections, underground workings. **GEUS Report File No. 20241** Kryolitselskabet Oresund A/S, Lodighedsdistribution I, Ivigtût Kryolitbrud, 31.12.1985" (Danish) 108 pages of drillhole analytical data in %: hole ID, from to, cryolite, fluorspar, Fe, Cu, Zn, Pb, S
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Late stage nepheline syenite and carbonatite intrusions into crystalline basement.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*	• Details of Eclipse drilling previously reported ASX Aug 8th 2023

Criteria	JORC Code explanation	Commentary
	o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *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.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Details of Eclipse drilling previously reported ASX Aug 8th 2023
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Details of Eclipse drilling previously reported ASX Aug 8th 2023
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*	• Maps are provided in the body of the text.

Criteria	JORC Code explanation	Commentary
	hole collar locations and appropriate sectional views.	
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.*	• Summary analytical results included as tables in the text.
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 characteristics; potential deleterious or contaminating substances.*	• Exploration by Eclipse Metals of the Ivigtût and Grønnedal prospects is at an early stage with field work to date consisting of reconnaissance sampling, trenching and a maiden drilling program.
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).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Geological mapping; diamond drilling.