20 January 2025 ASX Announcement

Eclipse Metals Ltd Progresses Grønnedal Resource Expansion: Analytical Assessment of Historical Drill Core Samples Underway

HIGHLIGHTS:

- **Calibrated Analysis in Progress: Samples from six historical Grønnedal drill holes are being used to refine and validate XRF results for precise resource estimation.**
- **Focus on Rare Earth Elements (REE): Analytical emphasis on REE geochemistry, with additional investigation into niobium (Nb) and gallium (Ga) mineralisation.**
- **Advanced Mineralogical Studies: Mineralogy using TIMA technology aims to correlate geochemical data with mineral phases.**
- **Results Timeline: Laboratory analyses are underway in Sweden, with outcomes anticipated in Q1 2025.**

INTRODUCTION

Eclipse Metals Ltd (**ASX: EPM**) (**Eclipse** or the **Company**) is pleased to update shareholders on recent progress at its Grønnedal prospect, located within the Ivigtût Project in southwestern Greenland. Building on the October 2024 announcement, the Company has taken significant steps to expand its maiden JORC Code (2012) compliant Mineral Resource Estimate (MRE). The current MRE, comprising 1.18Mt grading 6,859ppmm Total Rare Earth Oxides (TREO) (Table 1, Appendix 1), is based on limited shallow drill testing of a small section amounting to less than approximately 5% of a larger carbonatite complex that is enriched in rare earths mineralisation.

Classification	Tonnage	*Grade*				*Contained Material*			
		TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
	t	ppm	ppm	ppm	ppm	t	t	t	t
Inferred	1,180,000	6,859	6,266	593	2,385	8,070	7,380	700	2,810

Table 1: Eclipse's Grønnedal Classified Mineral Resource
(LREO: Light Rare Earth Oxides, HREO: Heavy Rare Earth Oxides, MREO: Magnet Rare Earth Oxides)

In 1950, Kryolitselskabet Øresund A/S, (Cryolite Miner), drilled six diamond holes in the vicinity of the Grønnedal resource to test for a potential iron ore deposit. This drilling extends to depths of up to 200m. During 2024 Eclipse completed XRF analyses of the core from these drillholes, which is stored in Gothenburg. The analysis comprised automated core-scanning using the Minalyze XRF TruScan technology developed by Veracio in Gothenburg, Sweden,

The XRF analysis confirmed the qualitative presence of REE mineralisation. Selected intervals of the core are currently being verified by laboratory analysis. This phase focuses on REE geochemistry, particularly neodymium (Nd), praseodymium (Pr), dysprosium (Dy), and terbium (Tb), which are pivotal for magnet applications.

Selected samples are also being analysed by TIMA (TESCAN Integrated Mineral Analyser) mineralogical analysis in order to align chemical analyses with specific mineralogical features, thus enhancing the understanding of resource quality and distribution.

GEOLOGY

The Grønnedal MRE is located at the northern end of Central Carbonatite which covers an area of 1,400m by 750m (Figure 1). The Central Carbonatite forms part of a larger complex that includes the Northern Carbonatite that is yet to be tested for REE. The Central Carbonatite is enclosed within syenitic rocks and is intruded by a series of north-easterly trending dolerite, basaltic and trachytic dykes (Figure 2). The depth to which the carbonatite extends is yet to be determined. Data from the deeper historic diamond drillholes, all of which ended in mineralisation, reveal a minimum vertical extent of 170m.

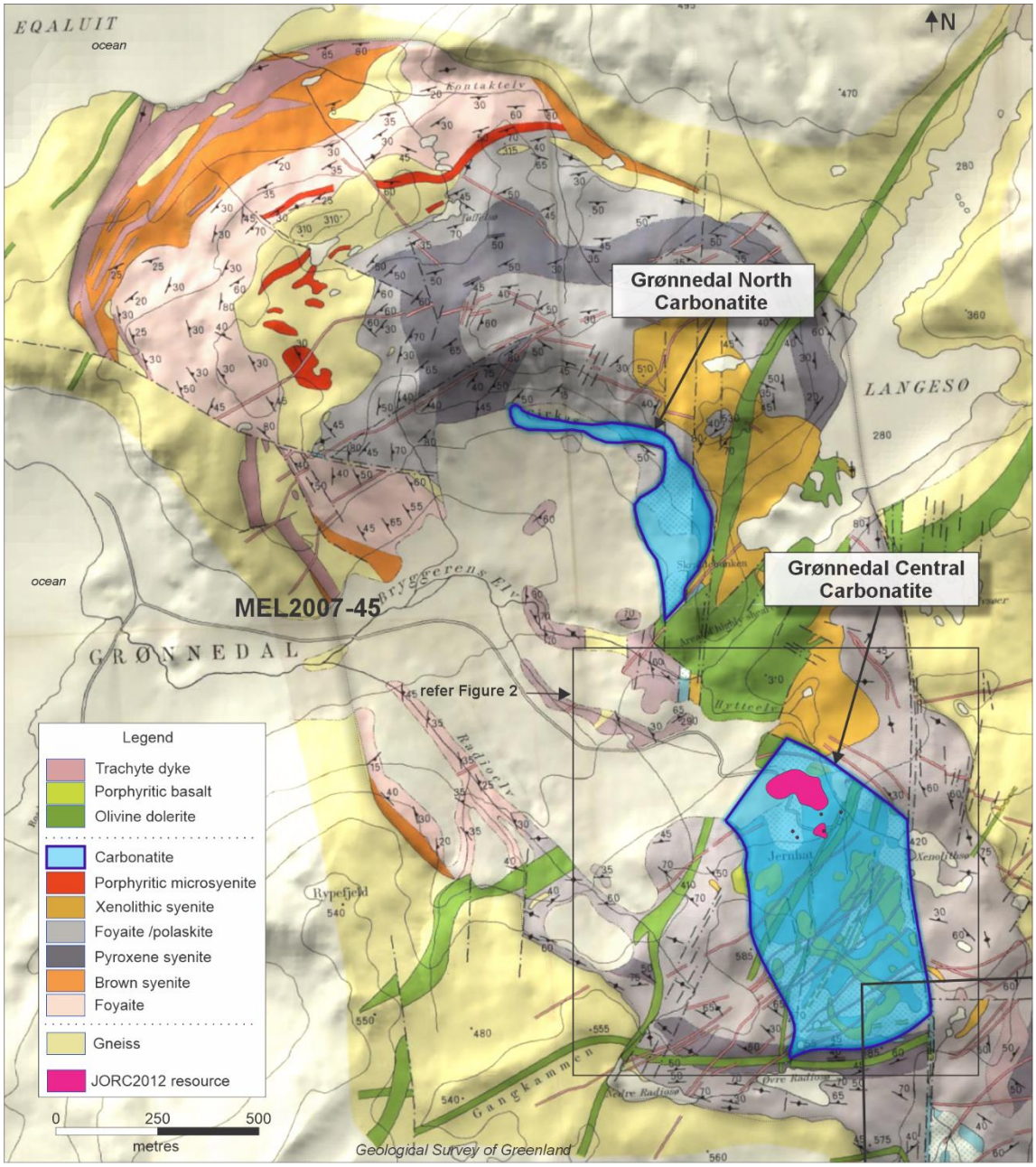

Figure 1: Geology of the Grønnedal Carbonatite Complex

The footprint of the current MRE is defined through shallow trenching and drilling over a 300m x150m area which represents a small fraction of the Central Carbonatite. The resource is open-ended in all directions and at depth. Confirmation of REE in the historic diamond holes, which were drilled outside of the resource envelope, is considered to be significant as it indicates continuation of mineralisation into areas that remain untested.

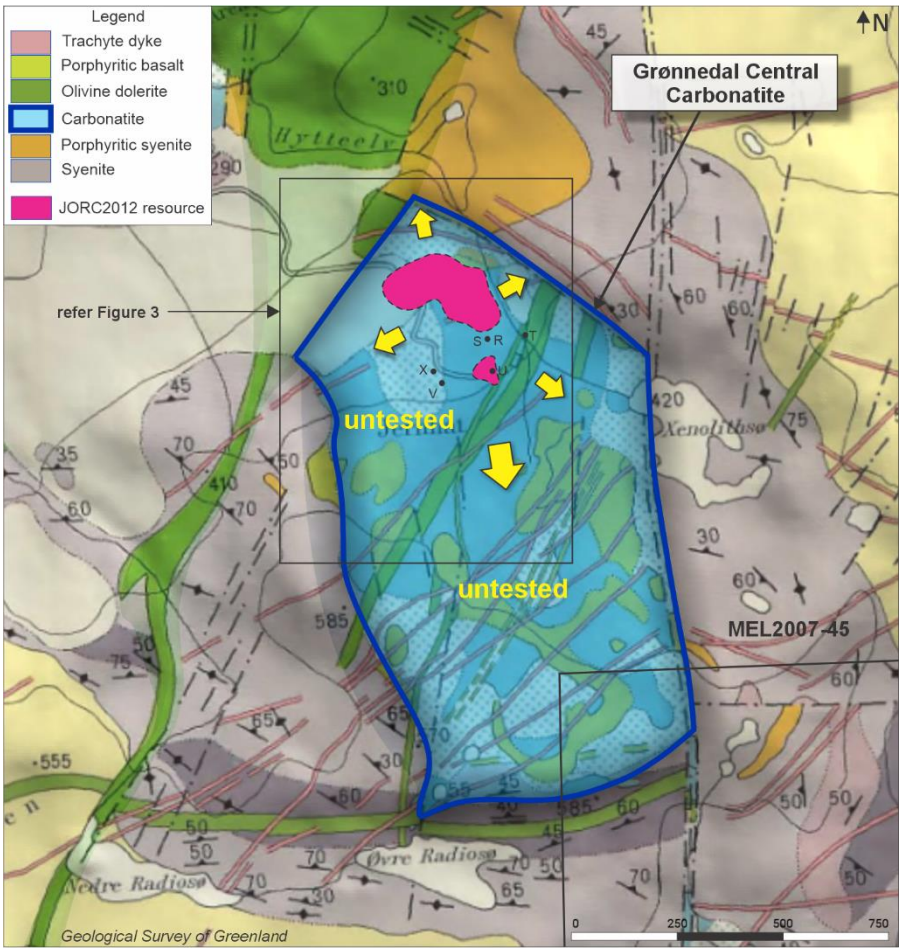

Figure 2: Geology of the Grønnedal Central Carbonatite with Drillhole Locations

MINALYZE XRF TRUSCAN RESULTS

The automated XRF scanning of drill-core from drill-holes R, S, T, U, V and X, drilled by Cryolite Company (Sweden) detected an element suite comprising Ce, Nd, Eu, Gd, Tb and Dy in parts per million (ppm). A total of 747 intervals were analysed, however, XRF readings were only partially collected for Ce, Nd and Dy (Table 2). XRF analyses are indicative of potential mineralisation and require laboratory analysis for final grade determination.

Hole ID	Ce (ppm)	Nd (ppm)	Eu (ppm)	Gd (ppm)	Tb (ppm)	Dy (ppm)
No. Readings	633	379	747	747	747	724
Maximum	9,853	4,533	4,821	3,438	8,150	1,553
Minimum	38	147	227	221	1,481	85
Average	1,167	882	1,585	1,266	3,811	667

Table 2: Sampling Statistics of Minalyze XRF TruScan Program

Downhole anomalous intervals were calculated for Tb using a 3,000ppm cut off, a minimum interval of 3m and 3m maximum internal waste (Table 3). These data cannot be used for any quantitative analysis.

Hole ID	Easting	Northing	Depth	Azimuth	Dip	From (m)	To (m)	Interval (m)	Tb_XRF (ppm)
R	658997	6791046	200.8	160	-50	0	28	28	4,618
R						29	56	27	4,551
R						116	121	5	3,143
R						130	142	12	3,505
R						143	150	7	5,075
R						154	185	31	4,984
R						193	200	7	4,588
S	658997	6791046	99.4	160	-70	0	67	67	4,204
S						68	75	7	4,271
T	659086	6791056	175.6	160	-50	0	35	35	4,947
T						117	124	7	3,426
T						126	145	19	3,454
T						147	152	5	3,193
T						155	170	15	4,114
T						172	176	4	5,854
U	659002	6790970	155.1	160	-50	1	4	3	3,100
U						8	13	5	3,034
U						16	50	34	5,040
U						53	134	81	4,257
U						141	155	14	3,803
V	658887	6790944	61	160	-50	1	9	8	3,085
V						15	61	46	4,624
X	658870	6790970	58.1	340	-50	0	8	8	3,462
X						11	16	5	3,117
X						20	58	38	3,979

Table 3: Anomalous Tb Intervals Calculated from Minalyze XRF TruScan Data

IMPLICATIONS

An Exploration Target of between 175 and 245 million tonnes of REE mineralisation grading between 6,000ppm and 7,000ppm TREO has been estimated (refer ASX Announcement, “Rare Earths Identified Over 5km Strike at Grønnedal Deposit, Greenland”, 1 December 2023).

The Exploration Target remains conceptual as further exploration is required to define a Mineral Resource over the same area. Although current exploration and historical drilling has provided valuable data for geological modelling the potential quantity and grade are uncertain. The Mineral Resource Estimate only covers a smaller defined area (Figure 3). Further exploration is necessary to assess the larger target.

The results of the XRF analyses suggest that extensions to the known mineralisation occur within the limits of the Exploration Target. Most the holes ended in XRF-detected mineralisation which further suggests that mineralisation continues to a significant depth (Figure 4).

These conclusions are significant as they suggest that the current exploration model is valid and that, subject to the results of the planned laboratory analyses, a larger revised exploration target may be justified.

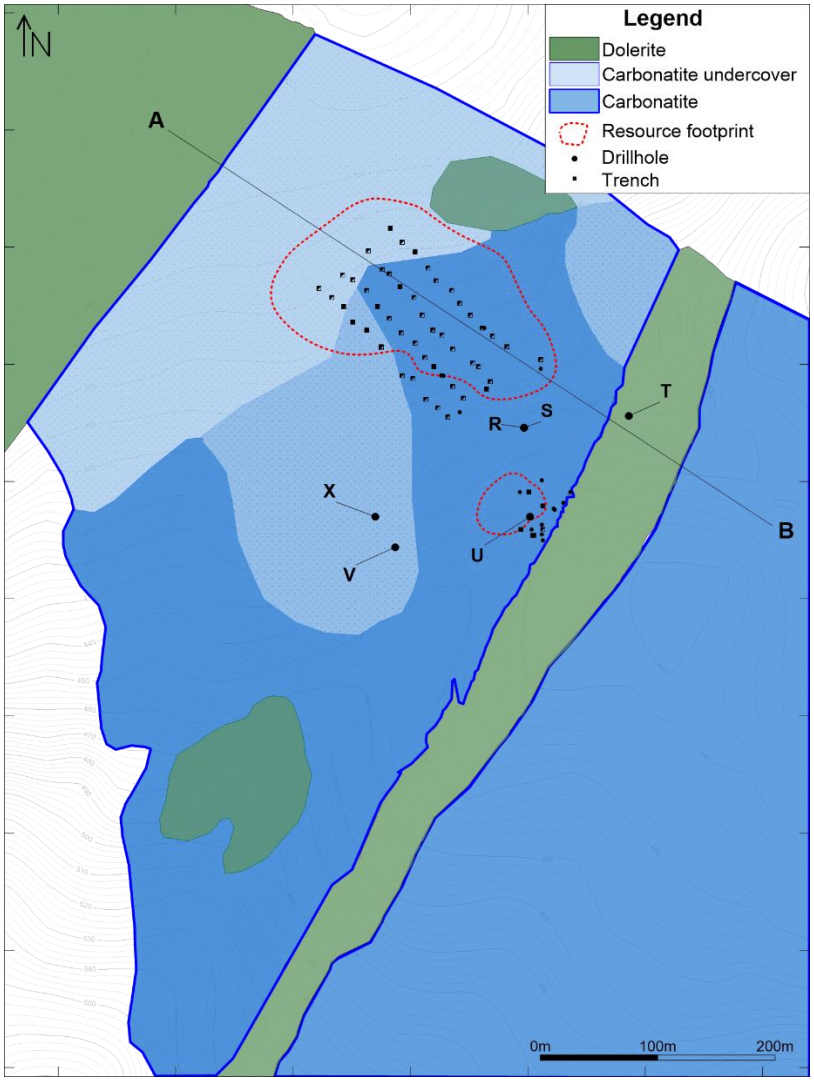

Figure 3: Geology of the Grønnedal Central Resource Area

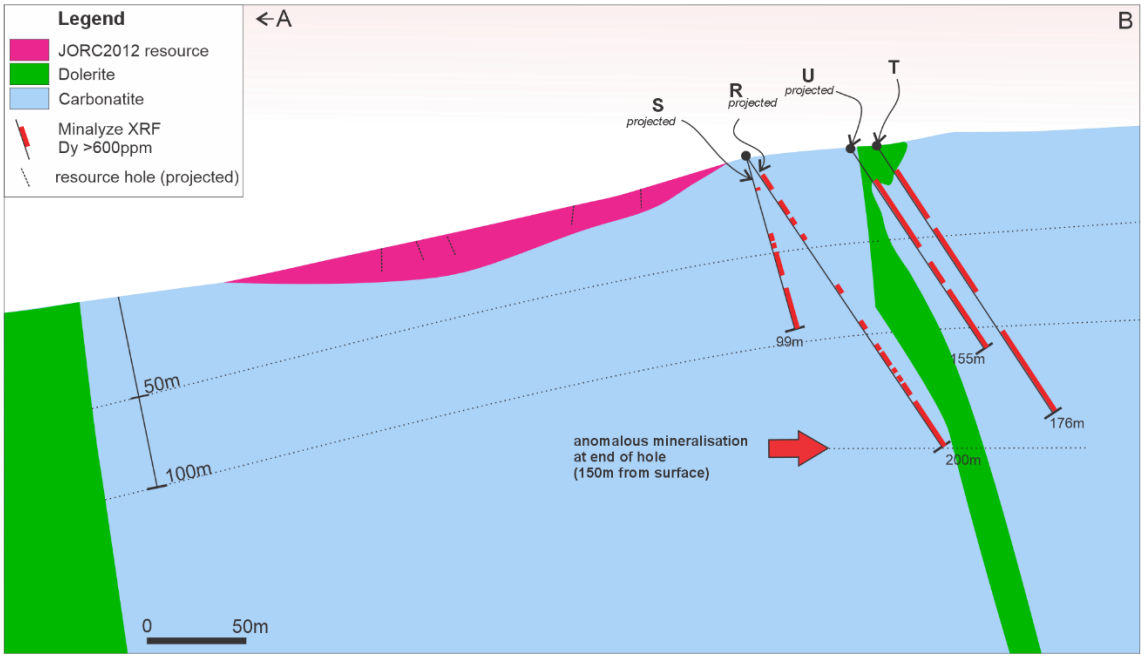

Figure 4: Cross Section through the Grønnedal Central Resource Area

REGIONAL EXPLORATION POTENTIAL

Rare Earth mineralisation in the Grønnedal carbonatites is associated with magnetite resulting in the mineralisation being associated with a strong magnetic anomaly. Airborne electromagnetic data has identified seven compelling conductive targets requiring exploration drilling (Figure 5). The intensity of the magnetic anomalies suggests that the carbonatite may extend much deeper than the 500m previously interpreted. Additional conductive targets warrant further exploration.

The exploration targets suggest a very large volume of REE, with projections estimating a substantial presence of magnet REE (Nd, Pr, Dy, and Tb). Notably, the concentration of magnetic REE at Grønnedal ranging from 33% to 39% compares favourably with leading international carbonatite REE projects. (Refer to ASX announcement: Rare Earth identified over 5 km strike at Gronnedal 1st December 2023).

NEXT STEPS

Initial analyses for samples of historical diamond drill core from the Company's Greenland project, reveal a notable concentration of medium and magnet rare earth elements (REE), including Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), and Terbium (Tb), placing Grønnedal's magnet REE content in a competitive position compared with global standards. These insights also bolster the understanding of leaching effects within the carbonatite iron cap magnetite and siderite-rich zones. Moreover, robust data from the six drillhole cores tested confirms high neodymium ratios, corroborating previous surface results.

The analytical assessment underway in Sweden will provide calibrated and accurate geochemical data to solidify the project's resource potential.

- Results of these analyses are expected in Q1 2025
- Interpretation of the results will be used to plan further drilling
- The intention is to increase the classified Mineral Resource, in line with Eclipse's broader development strategy.

STRATEGIC DEVELOPMENT ADVANTAGE

The Ivigtût Project encompasses port facilities and associated infrastructure that allow year-round access for shipping (Figure 7). The Grønnedal deposit itself, is located 3km east from the port and is accessed by an established all-weather road and track network. Eclipse believes that these accessibility and infrastructure attributes significantly enhance both the development prospects and timelines for the Project.

Eclipse Metals remains committed to advancing the Grønnedal project and will continue to update the market of developments.

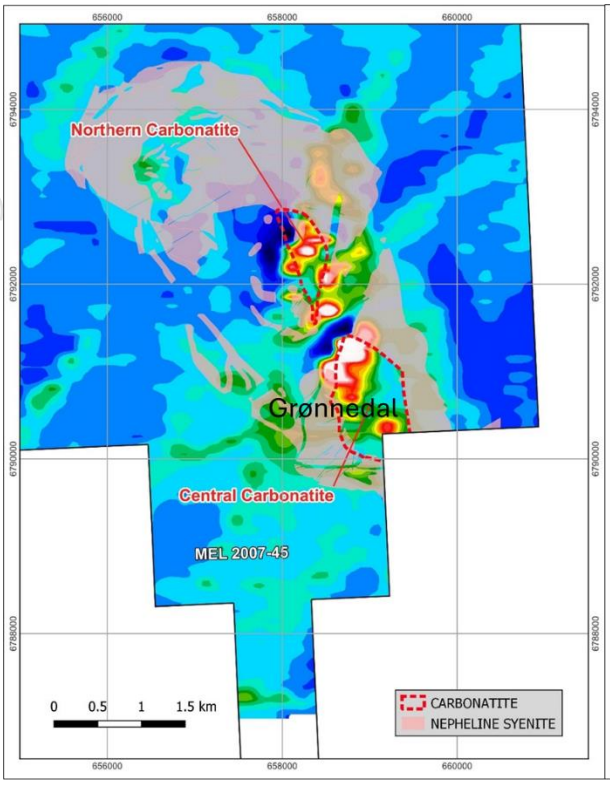

Figure 5: Total Magnetic Intensity Image from DIGHEM survey

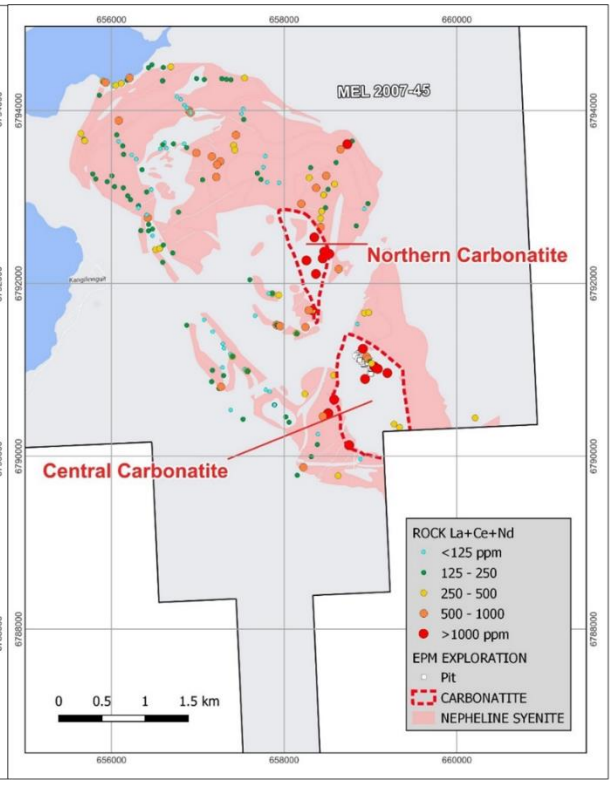

Figure 6: Grønnedal MEL 2007-45 REE Geochemical Sampling

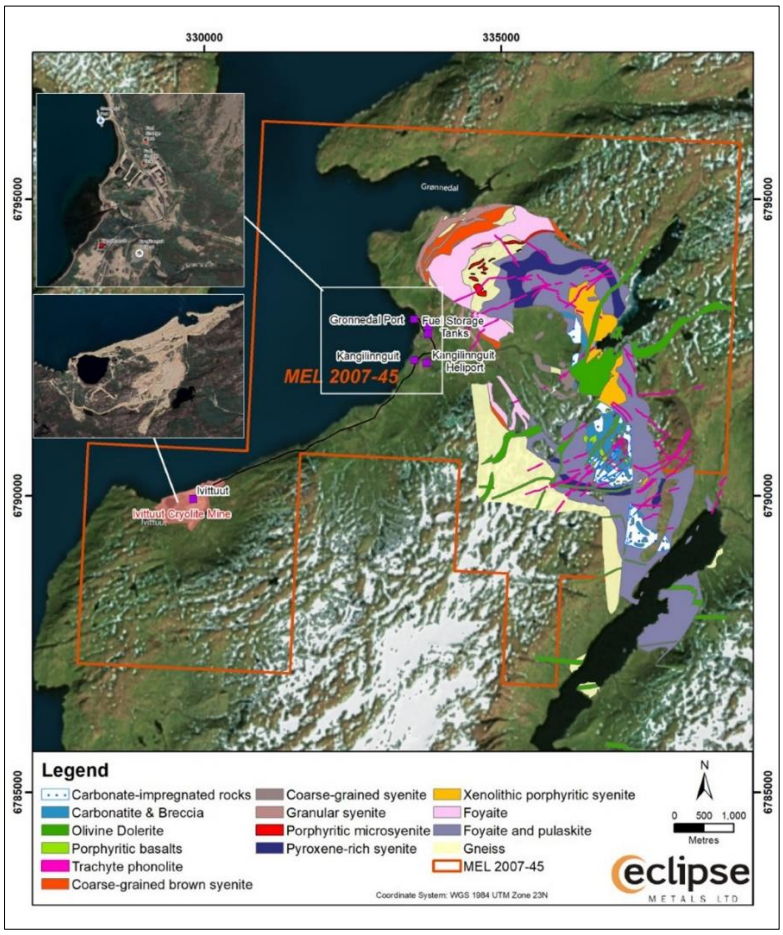

Figure 7: Project Location Map

Appendix 1

Grønnedal MRE

Classification	Inferred	Total
Tonnage (t)	1,180,000	1,180,000

Element	Grade (ppm)	Rare Earth Oxide Content (Tonnes)
TREO	6,859	8,070
LREO	6,266	7,380
HREO	593	700
MREO	**2,385**	**2,810**
CeO_2	2,879	3,390
Dy_2O_3	75	90
Er_2O_3	16	20
Eu_2O_3	86	100
Gd_2O_3	188	220
Ho_2O_3	9	10
La_2O_3	789	930
Lu_2O_3	1	0
Nd_2O_3	**1,879**	**2,210**
Pr_6O_{11}	414	490
Sm_2O_3	306	360
Tb_2O_3	18	20
Tm_2O_3	2	0
Y_2O_3	193	230
Yb_2O_3	7	10

Authorised by the board of Eclipse Metals Limited.

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ABOUT ECLIPSE METALS LTD (ASX: EPM)

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

ABOUT THE IVIGTÛT PROJECT

Eclipse Metals' Ivigtût project is in southwestern Greenland and has a power station and fuel supplies to service this station, and local traffic infrastructure to support minerals exploration. About 5.5 kilometres to the northeast of the Ivigtût prospect, the twin settlements of Kangilinnguit and Gronnedal provide a heliport and an active wharf with infrastructure. The Ivigtût project's Gronnedal carbonatite complex prospect is less than 10km from Ivigtût and only 5km from the port of Gronnedal. This complex is also one of the 12 larger Gardar alkaline intrusions and is recognised as one of the prime rare earths targets in Greenland by GEUS, along with Kvanefjeld and Kringlerne

COMPETENT PERSONS STATEMENT

The information in this announcement that relates to exploration results and exploration targets is based on information compiled and reviewed by Mr Alfred Gillman, Non-Executive Director of Eclipse Metals Ltd. Mr Gillman holds a B.Sc (Honours) from the University of Western Australia and is a Fellow and Chartered Professional (Geology) of the Australasian Institute of Mining and Metallurgy (FAusIMM, CP). Mr Gillman 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 Gillman consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

Information contained in this report relating to mineral resources has been previously reported by the Company on 9 February 2024 (Announcement). Eclipse confirms that it is not aware of any new information or data that would materially affect the information included in the Announcement, and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not changed materially.

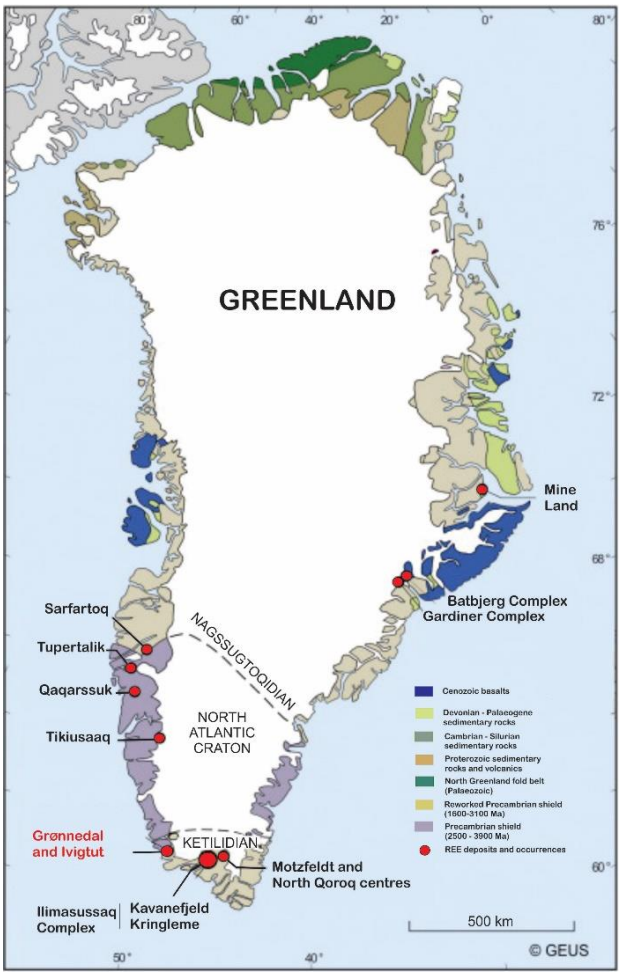

Figure 8. Greenland REE Deposits and location of Grønnedal and Ivigtût

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.*	• Selected core chips representing different rock types from two areas within Eclipse Metals' Greenland tenement MEL2007-45. • The core chips are from diamond holes drilled historically. • Samples are not representative of an orebody and were collected for initial geological, petrological and geochemical evaluation.
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).*	• Conventional diamond drilling.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *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.*	• All samples are from historic holes diamond holes. • Records of procedures and recoveries not available presently. • Full core is yet to be re-logged and sampled under controlled conditions.
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.*	• The samples have been logged geologically and recorded as a guide for future field work and exploration planning. • Sample-logging is only qualitative in nature.

Criteria	JORC Code explanation	Commentary
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.*	• There are small sections of half-core samples sawn in over several periods. • The samples are not representative of whole mineralisation. • Quality control procedures are not applicable for the historical core samples.
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 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.*	• Minalyzer CS provide fast high resolution assays based on X-ray Fluorescence. • The X-ray Fluorescence spectral data is acquired through a continuous scan along the complete length of the sample. The X-ray beam footprint for scanning drill core is 20 x 1 mm. • Due to the scanning nature of the data collection compared to spot analysis the Minalyzer results are highly representative of the lab results. • Determinations will only be used for the selection of intervals for geochemical evaluation.
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.*	• Not applicable
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.*	• UTM coordinates for Gronnedal-Ika historical drilling have been tabulated. • Latitudes and longitudes for a local grid at Ivigtût mine have also been tabulated.
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*	• Not applicable as selected geological and geochemical samples were collected to represent different rock types with no resource implications.

Criteria	JORC Code explanation	Commentary
	classifications applied. • *Whether sample compositing has been applied.*	
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 mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Not applicable.
Sample security	• *The measures taken to ensure sample security.*	• Samples are to be dispatched by secure sea freight and held in high-security laboratory environment.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been conducted on the project.

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.*	• MEL2007-45 tenement granted to Eclipse Metals Greenland (a wholly owned subsidiary of Eclipse Metals Ltd) by the Greenland Minister of Finance, Industry and Minerals Resources, as announced to the ASX on 17 February 2021.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The 19,000 metres of diamond drill cores stored in a government facility are yet to be fully logged and re-sampled. • Data and results from exploration conducted by other parties is being accumulated and assessed for reporting and as a guide for future exploration. • Historical results have been used to prepare preliminary exploration models for planning future activities.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The deposit type is a nepheline syenite and carbonatite intrusion into Archean 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:*	• All available information is tabulated within the body of report.

Criteria	JORC Code explanation	Commentary
	○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *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.*	• Not applicable
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').*	• Not applicable as no resources are estimated.
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 hole collar locations and appropriate sectional views.*	• Not applicable
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.*	• All analyses reported as received.
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.*	• All exploration data reported as appropriate and references provided to earlier reports.