

9 February 2024 ASX Announcement

### MAIDEN INFERRED RESOURCE DECLARED FOR THE GRONNEDAL RARE EARTH PROJECT, GREENLAND

#### **Highlights**

- Mineral Resource Estimate (MRE) comprising 1.18 million tonnes grading 6,859 ppm TREO containing 8,074 tonnes TREO using a 2,000ppmTREO cut-off
- MRE extends from surface to a depth of 9.5m representing 80,000 tonnes per vertical metre (TVM)
- Resource remains open in all directions
- Resource represents a small fraction of a large carbonatite intrusive that has been drill-tested
- MRE supports significant upside case for initial development and investment

Eclipse Metals Limited (ASX: EPM) (Eclipse or the Company) is pleased to announce a maiden inferred Mineral Resource for the Grønnedal REE deposit which forms part of Eclipse's Ivigtût project in southwest Greenland. The inferred resource estimate incorporates results from Eclipse's initial drilling and trenching program completed in 2023.

The resource is contained within rocks of the Proterozoic Grønnedal Complex that intrudes Archean basement gneissic rocks in the Gardar Province, Southwest Greenland.

The Grønnedal REE complex is formed within a northerly trending 8km x 3km ovoid body of layered nepheline syenites which are intruded by a xenolithic syenite with a central plug of calcite and calcite—siderite carbonatite.

These rocks have, in turn, been intruded by large north-east trending dolerite dykes. The concentration of rare earth elements is developed in the carbonatite.

With a high percentage of outcrop, the area has been mapped in detail and hence the extent of the geological units that host the REE mineralisation are very well understood and defined.

#### **Resource Area**

The Grønnedal REE mineralisation has been defined in the northern parts of a central block of carbonatite that measures approximately 1,400m north-south and 750m east-west. The carbonatite is truncated to the northwest by a dolerite dyke. The extent of dolerite intrusives within the carbonatite is yet to be established but it is likely that where grades drop off it is because dolerite dykes have been intersected. It is likely that this carbonatite extends to a depth exceeding 500m below surface (Figure 1).



The resource area is restricted to a relatively small portion of the carbonatite that has been tested by trench sampling and drilling. Mineralisation is developed from surface to at least the maximum vertical extent of drilling of 22m. All mineralised holes ended in high grade REE. Trench sampling has returned high REE grades to the northern and western limits of the sampling grid. The resource area remains open at depth, along strike and in width.

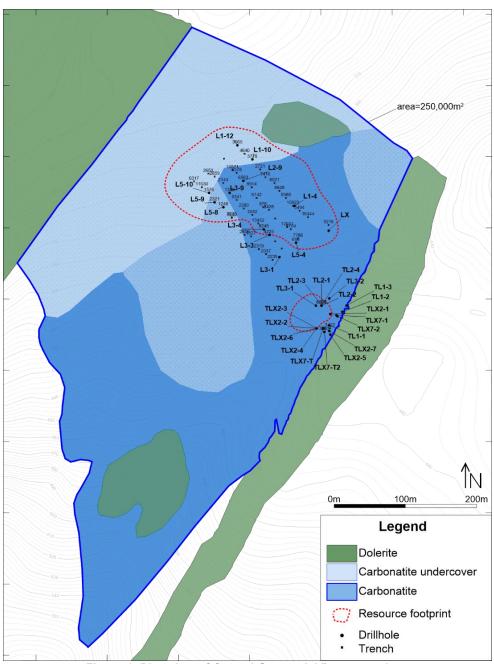


Figure 1: Plan view of Central Gronnedal Resource Area

#### **Resource Estimate**

The resource footprint is defined by a combination of trench sampling and drilling results. Trench sampling was carried out of a regular north-west oriented grid over a 300mx150m area



within the carbonatite intrusive. Contoured TREO results of the trenching show pervasive mineralisation over the sampled area with significantly higher grades located towards the southern and eastern areas (Figure 2). It is also notable that mineralisation is spatially openended in all directions.

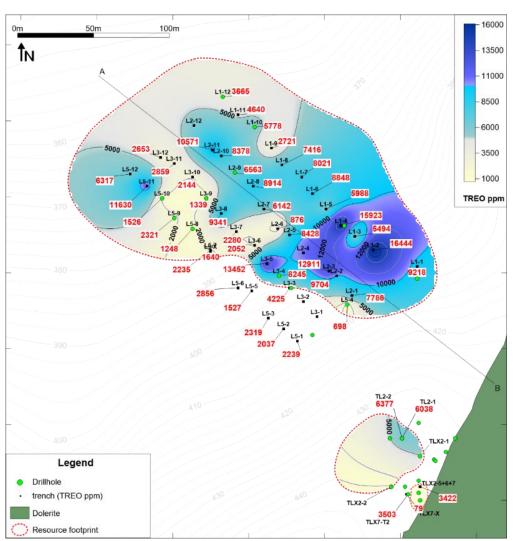


Figure 2: Trench Sampling TREO Contours

Drilling comprised 33 vacuum holes for a total of 407m to an average depth of 12m. Holes located within the carbonatite were mostly mineralised from surface to the end of hole. Significant results are listed in Table 1 and shown on Figure 3. Unmineralised holes appear to have intersected dolerite.



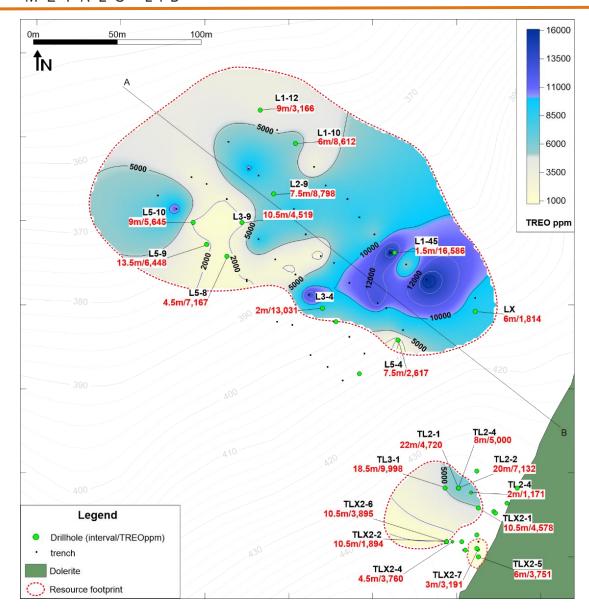


Figure 3: Drillhole Location Map on Trench Sampling TREO Contours



Hole ID	x	у	Depth	Dip	Azimuth	From (m)	To (m)	Interval (m)	TREO (ppm)
								` ,	
L1-10	658904	6791196	6.5	-90	0	0.5	6.5	6.0	8,612
L1-12	658883	6791216	12.5	-90	0	2.0	11.0	9.0	3,166
L1-4	658963	6791131	2	-90	0	0.5	2.0	1.5	16,586
L2-9	658891	6791166	8	-60	140	0.5	8.0	7.5	8,798
L3-1	658942	6791059	20	-90	0				nsr
L3-3	658928	6791090	3.5	-45	140				nsr
L3-4	658920	6791098	3	-90	0	1.0	3.0	2.0	13,031
L3-9	658872	6791149	11.5	-70	140	1.0	11.5	10.5	4,519
L5-10	658843	6791149	10	-90	0	1.0	10.0	9.0	5,645
L5-4	658965	6791079	8	-60	100	0.5	8.0	7.5	2,617
L5-8	658863	6791129	5.5	-60	130	1.0	5.5	4.5	7,167
L5-9	658851	6791136	14.5	-60	120	1.0	14.5	13.5	6,448
LX	659011	6791096	20	-43	160	0.0	6.0	6.0	1,814
TL2-1	659001	6790991	22	-80	320	0.0	22.0	22.0	4,720
TL2-2	659001	6790991	6.9	-80	40	0.0	20.0	20.0	7,132
TL1-3	659036	6790991	20	-80	40				nsr
TL2-1	659001	6790991	22	-90	0				nsr
TL2-2	659001	6790991	20	-60	290				nsr
TL2-3	659001	6790991	3	-45	290				nsr
TL2-4	659001	6790991	20	-60	110	0.0	8.0	8.0	5,000
TL2-4	659009	6790988				16.0	18.0	2.0	1,171
TL3-1	658993	6790991	22	-85	20	3.5	22.0	18.5	9,998
TL3-2	659012	6791001	20	-80	320				nsr
TLX2-1	659013	6790979	11.5	-90	0	1.0	11.5	10.5	4,578
TLX2-2	658994	6790959	11.5	-65	300	1.0	11.5	10.5	1,894
TLX2-3	658994	6790959	11.5	-90	0	-			nsr
TLX2-4	658998	6790959	11.5	-60	90	7.0	11.5	4.5	3,760
TLX2-5	659013	6790950	12.5	-90	0	2.0	8.0	6.0	3,751
TLX2-6	658994	6790959	12.5	-90	270	2.0	12.5	10.5	3,895
TLX2-7	659013	6790954	12.5	-60	140	2.0	5.0	3.0	3,191
TLX7-1	659022	6790977	10.5	-80	340			1	nsr
TLX7-2	659023	6790976	10.5	-80	30				nsr
TLX7-T	659003	6790959	11	-80	245				nsr
TLX7-T2	659005	6790954	11.2	-80	300				nsr

Table 1: Drillholes Intersections Used to Inform the MRE (1,000ppmTREO cut off) (ASX release 8 August 2023)

#### **Grade-Tonnage Estimate**

The MRE was carried out using an inverse distance squared interpolation of composited drillhole assay data within an indicator radial bias function (Indicator RBF) constraint. Trench sampling results were used to confirm the spatial extent of mineralisation but were not used in the grade estimation.

The block models contain attributes pertaining to resource block, resource category, grade class, geologic domain and numerical attributes for TREO, rare earth oxides of all rare earth elements.

No metallurgical recovery work has been undertaken, however Eclipse believes that there are reasonable prospects for eventual economic extraction based on similar deposits elsewhere. Notable examples of carbonatite-derived REEs deposits are the Bayan Obo mine in China, Mountain Pass in the USA, and Mount Weld in Australia.

No open pit optimisation work has been carried and thus the MRE is reported on a global basis. The MRE is reported in Table 2 using a 2,000ppm TREO cut off.



The resource classified as inferred and is considered by the Competent Person to be appropriate for a project at this level of development. Resource upgrades may be possible with the adoption of either reverse circulation (RC) or diamond core sampling together with additional holes.

Classification	Inferred	Total
Tonnage (t)	1,180,000	1,180,000
Floreset	Grade	Material Content
Element	(ppm)	(Tonnes)
TREO	6,859	8,070
LREO	6,266	7,380
HREO	593	700
MREO	2,385	2,810
CeO <sub>2</sub>	2,879	3,390
Dy <sub>2</sub> O <sub>3</sub>	75	90
Er <sub>2</sub> O <sub>3</sub>	16	20
Eu <sub>2</sub> O <sub>3</sub>	86	100
Gd <sub>2</sub> O <sub>3</sub>	188	220
Ho <sub>2</sub> O <sub>3</sub>	9	10
La <sub>2</sub> O <sub>3</sub>	789	930
Lu <sub>2</sub> O <sub>3</sub>	1	0
$Nd_2O_3$	1,879	2,210
Pr <sub>6</sub> O <sub>11</sub>	414	490
Sm <sub>2</sub> O <sub>3</sub>	306	360
Tb <sub>2</sub> O <sub>3</sub>	18	20
Tm <sub>2</sub> O <sub>3</sub>	2	0
Y <sub>2</sub> O <sub>3</sub>	193	230
Yb <sub>2</sub> O <sub>3</sub>	7	10

Table 2: Grønnedal Classified Mineral Resource (Differences may occur in totals due to rounding)



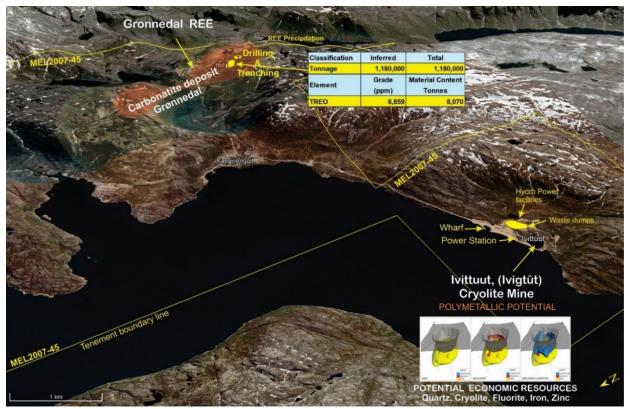


Figure 4: Ivigtut & Gronnedal Projects location map

#### **Exploration Target**

The limited, shallow drilling program has defined a near surface mineralisation resulting in an estimated 124,000 tonnes per vertical metre (TVM) within the resource footprint. Geological and geophysical data indicate that the carbonatite mineralisation is widespread and deeply seated.

All drillholes ended in REE mineralisation suggesting that the resource may extend at depth.

Rare earth mineralisation at Grønnedal Central extends over 1.3km by 0.8km, with an exploration target focusing on 600m by 400m northern segment (Figure 5). Extrapolating the outcropping area of carbonatite in the northern segment to a depth of between 50m and 100m indicates a potentially significant exploration target of REE mineralisation (Figure 6). Such a large exploration target is speculative and additional drilling is required.

A revised exploration target is defined based on the extrapolated tonnes per vertical metre of the carbonatite footprint (Table 3).

Tonnes	Tonnes	TREO ppm	TREO ppm	Tonnes TREO	Tonnes TREO
Low	High	Low	High	Low	High
35,000,000	40,000,000	6,000	7,000	210,000	

Table 3: Gronnedal Central Exploration Target (rounded)



The Exploration Target is conceptual in nature as there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource under the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code" (JORC 2012). The Exploration Target is not being reported as part of any Mineral Resource or Ore Reserve.

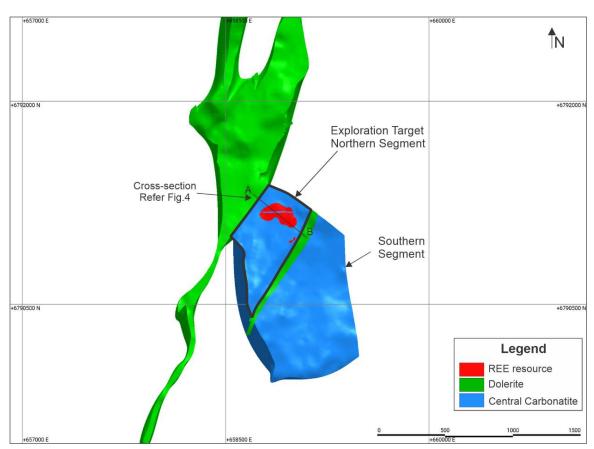


Figure 5: Plan View Extents of the Exploration Target



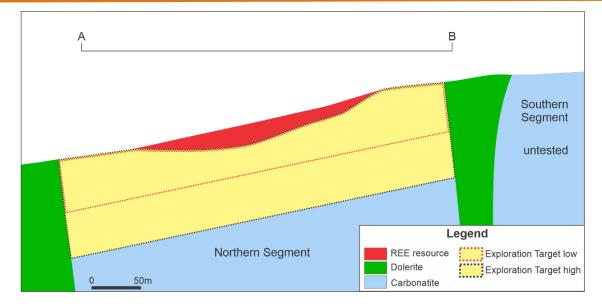


Figure 6: Cross Section Through the Northern Segment of the Central Carbonatite

The anticipated large amount of unmineralised dolerite intrusions has been taken into account. The carbonatite is bisected by a north-easterly trending dolerite dyke which splits the carbonatite into northern and southern segments (Figure 5). The exploration target relates only to the northern segment for which there is confirmatory sampling of rare earth mineralisation. This exploration target forms a small portion of a larger exploration target that was announced previously (1 December 2023). It is possible that with an expanded sampling program a proportion of the southern segment may be included which could significantly boost the tonnage of the exploration target.

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.

The grade range for the exploration target comprises a notable proportion of magnet REE (Nd, Pr, Dy, Y and Tb), which has the potential to be competitive with other REE projects globally.

Authorised for release by the Board.

Carl Popal Executive Chairman +61 8 9480 0420









#### **About Eclipse Metals Ltd (ASX: EPM)**

Eclipse Metals Ltd is an Australian exploration company focused on exploring for REE, cryolite, fluorite, siderite and quartz at its Ivigtût and Grønnedal prospects in South-western Greenland. Its impressive portfolio which also includes assets in the Northern Territory and Queensland and is prospective for gold, platinum group metals, manganese, palladium, vanadium, and uranium mineralisation. The Company's mission is to increase shareholder wealth through the successful identification, exploration, and development and/or monetisation of our targeted mineral deposits.

#### **Competent Persons Statement**

The information in this report / ASX release that relates to Mineral Resource Estimates and Exploration Results is based on information compiled and reviewed by Mr. Alfred Gillman who is the Principal Geologist of the Independent Consulting firm Odessa Resources Pty Ltd. Mr. Gillman is a Fellow and Chartered Professional 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 Gillman 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 Gillman 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.



#### **Summary of Mineral Resource Estimate Methodology Supporting statements**

#### **Geology and Geological Interpretation**

The Gronnedal geological nepheline syenite intrusive is part of the Proterozoic Gardar Province of southwest Greenland. This has been intruded by xenolithic syenite, xenolithic carbonatite and sovitic (coarse grained) carbonatite which became more iron rich due to later fractionation to form extensive ferrocarbonatite facies. (Ref. Bradford 1989).

#### Drilling techniques.

Open hole, rotary blade vacuum drilling.

#### **Cut-off Grades**

The Mineral Resources was reported above a cut-off grade of 2000 ppm TREO.

#### Sample analysis method and sub-sampling

Samples bagged on site and re-located to secure off-site premises for riffle splitting to produce an assay sample of approx. one third of the drill sample with balance stored in lockable shipping container. Assays samples sent by sealed and locked sea container to Australia for analysis.

Samples analysed by ALS Laboratory using the ME-MS 61-REE procedure with conventional laboratory QA/AC practices in secure premises.

No sub-sampling in this early stage of geological definition.

#### **Density**

Determined by ALS Laboratory procedure OA-GRA08d. SG Range 2.62 to 3.42 gm/cucm, with an average 3.2 gm/cucm

Modifying factors - none.

#### Reasonable prospects -

Geological area of interest well defined by historical mapping, sampling and geophysical data. Analysis of geophysical survey data indicates probable depth of carbonatite / ferrocarbonatite units to be in the order of 500m.



#### 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	<ul> <li>Nature and quality of sampling (e.g. 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Grønnedal carbonatite samples collected from trenches and drill-holes</li> <li>Initial field tests by hand-held XRF assumed to be indicative only. Instrument not calibrated.</li> <li>Chemical analyses to assess levels of elements contained, not for ore-grade estimates.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic,</li> </ul>	Open-hole, top-drive, rotary air-blast drilling.

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Criteria	JORC Code explanation	Commentary
	etc) and details (e.g. 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).	
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Drill samples collected by vacuum system and bagged on-site.</li> <li>Continual monitoring of sample recovery system.</li> <li>Samples logged on-site, each sample mixed and combined, riffle-split and bagged with duplicates retained in off-site storage facility.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Samples geologically logged before submission for analysis for identification only. Not quantitative.</li> <li>Limited photography due light conditions in freezing/snowing conditions</li> </ul>



Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Samples for geological determination, identification and for assay.</li> <li>Samples riffle split in secure storage facility.</li> <li>Duplicates collected and stored for back-up.</li> <li>QC adequate for early level of exploration.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g.</li> </ul>	<ul> <li>Standard laboratory procedures for sample preparation, elemental determination by ALS Laboratories using ME-MS 61-REE assay method,</li> <li>Standard laboratory QA / QC.</li> <li>Standard laboratory procedures with blanks and duplicates. No external laboratory checks warranted at this stage.</li> </ul>



Criteria	JORC Code explanation	Commentary
	standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Drilling and trenching for geological and chemical determinations.</li> <li>Twinning not appropriate at this stage of exploration.</li> <li>Standard laboratory documentation.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Handheld GPS locations: -         Grønnedal – within 600m of 658880mE: 6791300mN.         No surveyed grid. Handheld GPS only and correlation with hard-copy maps.</li> <li>UTM</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Each trench location recorded by hand-held GPS.</li> <li>Location data to be used in computer program for indication of continuity or resource estimation.</li> <li>Samples Crushed, riffle- split and bagged with duplicates retained in storage in Greenland.</li> <li>No compositing.</li> </ul>
Orientation of data in relation to	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation</li> </ul>	<ul> <li>Shallow exploration trenches not oriented.</li> <li>Drill hole azimuth measured and recorded in attached tables.</li> <li>Geological orientation irregular, to be determined by</li> </ul>



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

#### Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>The security of the tenure held at the time of</li> </ul>	<ul> <li>MEL 2007 / 45 granted to Eclipse Metals in February 2021 for a period of 3 years with extensions subject to activities and expenditure.</li> <li>Granted by Government of Greenland</li> </ul>
	reporting along with any known impediments to obtaining a licence to operate in the area.	<ul> <li>No known impediments to obtaining mining licence.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	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)



Criteria	JORC Code explanation	Commentary
		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 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



Criteria	JORC Code explanation	Commentary
		grades and tonnages (back-calculated blanket SG of 3)
		"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	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	Late stage granitic / syenitic / carbonatite intrusions into crystalline basement.
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on</li> </ul>	Drill location and azimuth information measured and recorded in tables included with this report.



Criteria	JORC Code explanation	Commentary
	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	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Not applicable
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	Relationship of mineralisation and hole depth recorded and described in body of report.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These</li> </ul>	<ul> <li>Appropriate coordinated maps are provided in the body of the text.</li> </ul>



Criteria	JORC Code explanation	Commentary
	should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>Fully coordinated analytical results included with this report.</li> </ul>
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.	<ul> <li>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. The Company expects to be able to report substantive exploration data once it has completed it's 2023/24 field season at the prospects.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Geological mapping; remote sensing; trenching and drilling.</li> <li>Detailed geological assessments planned for 2023 field season.</li> <li>Diamond drilling.</li> </ul>



Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Minera Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	Assay data were imported into the database directly from electronic spreadsheets provide by laboratories. Histograms graphical logs were also prepared and reviewed
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	The CP has not visited the site. Site visits to the project have so far been logistically difficult and seasonally affected.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The resource is contained with rocks of the Proterozoic Grønnedal-Ika Complex that intrude Archean basement gneissic rocks in the Gardar Province, South Greenland.</li> <li>The Grønnedal-Ika complex is formed over a northerly trending 8km x 3km ovoid body that dominated by layered nepheline syenites which were intruded by a xenolithic syenite and a central plug of calcite to calcite—siderite carbonatite.</li> <li>These rocks have, in turn, been intruded by large north-east trending dolerite dykes. The concentration of rare earth elements is developed in the carbonatite.</li> <li>With a high percentage of outcrop the area has been mapped in great detail and hence the extents of the geological units that host the REE mineralization are very well understood and defined.</li> </ul>

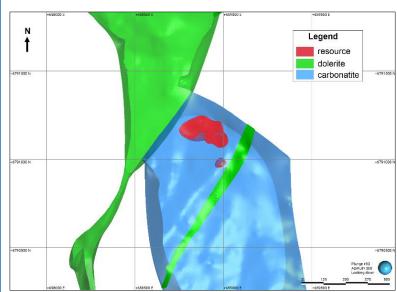
**Section 3 Estimation and Reporting of Mineral Resources** 



#### **Dimensions**

 The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.

- The Grønnedal REE mineralization has been defined in the northern parts of a central block of carbonatite that measures approximately 1,400m north-south and 750m east-west. The carbonatite is truncated to the north west by dolerite. The extent of dolerite intrusive within the carbonatite is yet to be established but it likely that where grades drop off it is because dolerite dykes have been intersected. It is likely that this carbonatite extends to considerable depths far exceeding at least 500m below surface.
- The resource area is restricted to a relatively small portion of the carbonatite that has been tested by trench sampling and drilling. Mineralization is developed from surface to at least the maximum vertical extents of drilling which is 22m. All mineralized holes ended in high grade REE. Trench sampling has returned high grade REE grades to the northern and western limits of the sampling grid Thus, both the vertical and aerial extents remain largely open.
- Therefore, the CP considers the resource area to be open at depth and along strike and width.





## Estimation and modelling techniques

- The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
- The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
- The assumptions made regarding recovery of by-products.
- Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- Discussion of basis for using or not using grade cutting or capping.
- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- Modelling and estimation work was carried out using Leapfrog Geo/Edge 2023.2.1
- A wireframe resource constraint was formed using and indicator radial bias function (Indicator RBF) of the drillhole data.
- RBF parameters were adjusted to maintain reasonable extrapolation of the data.
- The mean sample interval is 1.61m. For estimation purposes samples were composited to 1.5 metre lengths for statistical analysis and grade estimation.
- Domained estimators were developed for each rare earth (RE) oxide.
- Inverse distance squared interpolation was used to estimate the grade for each RE oxide
- Top cut were not applied to the RE oxide values
- Estimation was performed using Leapfrog Geo/Edge 2023.1.1software.
- The block models contain attributes pertaining to resource block, resource category, grade class, geologic domain and numerical attributes for TREO, rare earth oxides of all rare earth elements.

Block Model Parameter	Value	
Parent Block Size	10mx10mx10m	
Sub-block count (i, j, k)	5, 5, 5	
Minimum block size (i, j, k)	2m ,2m 2m	
Base point (x, y, z)	658700,6790900,450	
Boundary size (W x L x H)	410,360,110	
Azimuth	0	
Dip	0	
Pitch	0	



Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	Tonnages are based on dry basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Currently a subjective cut-off grade of 2,000 ppm TREO was applied to reported resource estimates.
Mining factors or assumption s	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	



Metallurgica
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The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.

 Eclipse is planning to undertake preliminary metallurgical testwork at Gronnedal. At present Eclipse has not made any definitive metallurgical assumptions about the project.

#### Environmen t al factors or assumption s

Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.

 Eclipse is in the process of outlining environmental, social, and community impacts regarding the potential development of the project. These impacts are being included in conceptual designs of all facets of the project.



Bulk density	•	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.  The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.  Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	•	An average specific gravity of 3.20 represents the in-place ore material at Gronnedal.  This value is based on two drillhole samples and three trench rock samples.  The SG determinations were carried out by ALS Laboratories, Perth.
Classification	•	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).  Whether the result appropriately reflects the Competent Person's view of the deposit.	•	The mineral resource is classified as inferred.  Appropriate account has been taken of all relevant factors, including the relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data.
Audits or reviews	•	The results of any audits or reviews of Mineral Resource estimates.	•	There have not been any audits of mineral resource estimates.



# Discussion of relative accuracy/ confidence

- Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.
- The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.
- These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

- Reported resources for Gronnedal are in-place global estimates of tonnage and rare earth grade.
- The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories.
- This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person's experience with similar deposits around the world.
- The factors that could affect the relative accuracy and confidence of the estimate include:
  - The completeness and accuracy of the database; and
  - The accuracy of the historic assay methods.
  - The Competent Person is of the opinion that the scope for variations is minimal, and if any, the impact on the Mineral Resource estimate is unlikely to be significant.
- The estimates are localised to model blocks of a size considered appropriate for local grade estimation. The tonnages relevant to technical and economic analysis are those classified as either Indicated or Inferred Mineral Resources.