9th February 2021

ASX Announcement

MULTIPLE GEOPHYSICAL ANOMALIES IDENTIFIED ON IVITTUUT PROJECT

Highlights

- **Geophysical data sets over Ivittuut project MEL2007/45 evaluated including government-commissioned regional magnetic/radiometric surveys and commercial airborne TMI and Dighem surveys.**
- **Strongest magnetic responses closely associated with known carbonatite and gabbro bodies; magnetic anomalies suggest a larger extent of carbonatite than indicated by geological mapping.**
- **Reinterpreted 1995 aeromagnetic survey and Dighem survey data sets confirm previously mapped dykes and indications of deep-seated dykes/sills.**
- **Magnetic survey highlighted numerous north-east and east-west trending gabbroic dykes and sills with magnetite and sulphide mineral potential, many of which do not appear in 1:100,000 geological mapping.**
- **Geophysical surveys have defined seven conductive targets with a close spatial relationship to the carbonatite unit – all anomalies remain untested.**

Eclipse Metals Ltd (ASX: **EPM**) (**Eclipse Metals** or the **Company**) is pleased to announce results from its recently completed re-interpretation of geophysical data over the Gronnedal-Ika area within the Ivittuut Project tenement, MEL2007/45, in Greenland. The aim of the program was to identify new magnetic/EM anomalies that shared similar geophysical signatures with known mineralisation in other major mineral deposits within the Gardar Province.

The project tenement is considered to be highly prospective for rare earth elements (**REE**). Core Geophysics were commissioned to obtain available open file geophysical datasets, process the data and make initial comment on the data for REE, magnetite and massive sulphide exploration potential. This work has provided a significant amount of information on prospectivity of the carbonatite occurrence and mafic dykes.

GEOPHYSICAL SURVEY BACKGROUND

Most recent geophysical surveys over the project (circa 1980+) have been captured by the Geological Survey of Denmark and Greenland (GEUS) and include regional surveys commissioned by the government and those conducted by exploration companies.

The most relevant datasets are the 1995 GEUS aeromagnetic survey (TMI) flown at 500m line spacing and a Dighem airborne electromagnetic survey flown at 200m line spacing by Diamond Field Resources in 1995. The survey was flown by helicopter over areas off the inland ice/glacier following topographic contours with flight traverses from 2km to 5km apart. The data has been captured by digitising maps generated at the time and can be used as a guide only.

The 1995 Dighem survey contains both magnetic and electromagnetic data. The magnetic data from the Dighem survey was processed and imaged individually as well as being merged together with the GEUS magnetic dataset. The data has been processed and imaged in an attempt to highlight and better define controlling structures including shears, faults and lithological variations. Data processing included calculation of the first and second vertical derivatives and tilt derivatives, with all magnetic data reduced to the pole.

Data from historic radiometric surveys (Syduran Project) collected in 1979-1980 was also studied.

RESULTS FROM GEOPHYSICS REINTERPRETATION & MODELLING

The 1995 magnetic data provides the best coverage and resolution over the project tenement. The strongest magnetic responses are evident in the eastern portion of the tenement and are closely associated with carbonatite and gabbro bodies as mapped in the 1:100,000 geology series. The strong magnetic response suggests a high magnetite concentration at these sites. The magnetics also highlight numerous north-east and east-west trending (gabbroic) dykes of which only some appear in the 1:100,000 mapping (Refer to Figure 1).

The magnetic data highlights two ovoid shaped responses associated with the carbonatite bodies (Refer to Figure 1). Comparing the size of the magnetic response with the extent of the mapped carbonatite, suggests there is a larger potential extent of carbonatite than indicated by earlier mapping.

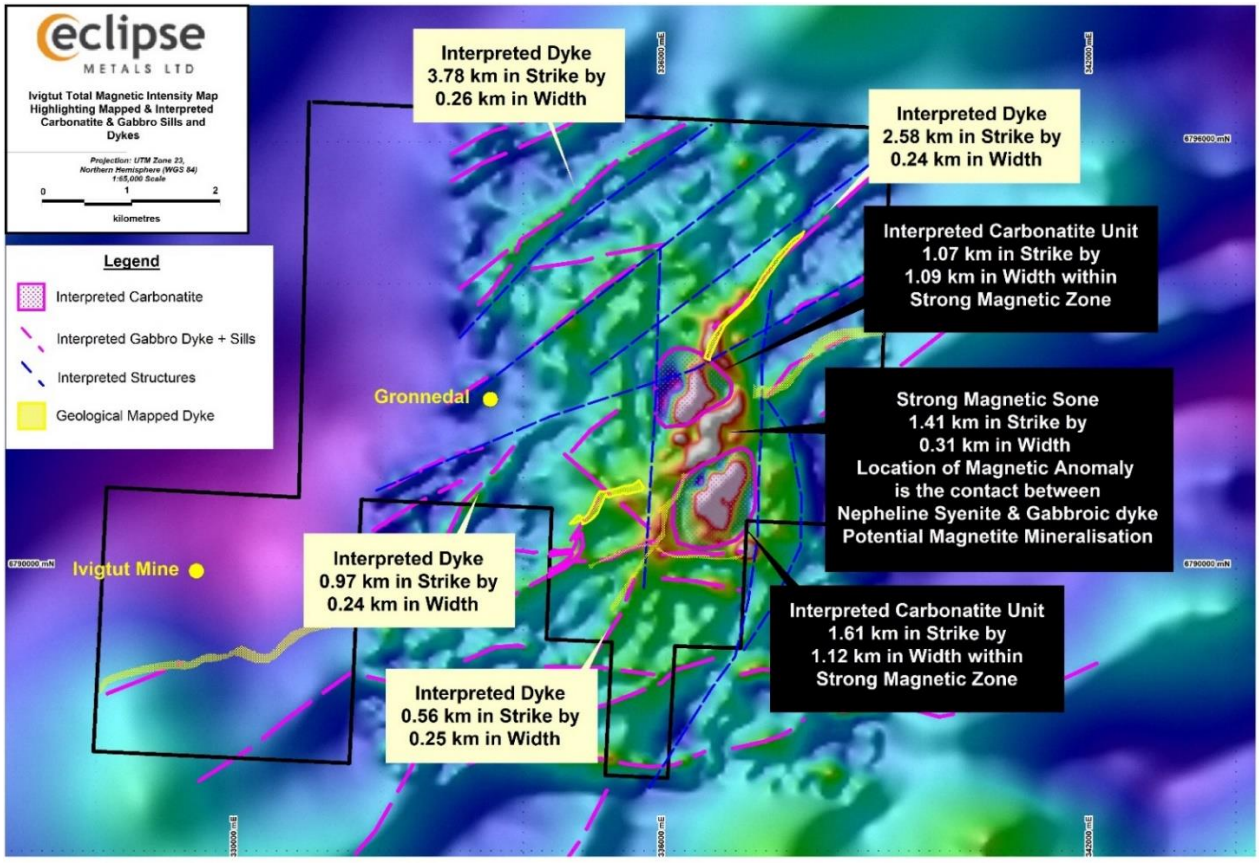

Figure 1: Regional TMI Image highlighting extensive magnetic zones associated with the interpreted carbonatite & dykes/sills

The Ivittuut mine appears to lie on the edge of a large circular magnetic low indicated in the regional survey which represents a granitic intrusive body (Figure 1). Data resolution in the immediate vicinity of the mine is too coarse to define any small-scale features which may characterise the response of the intrusion.

The Dighem electromagnetic data has defined seven (7) conductive zones (Refer to Figure 2). These are likely sourced from either sulphide minerals or magnetite, which can also produce a conductivity-like response in frequency domain EM systems. Large strongly conductive zones along the western and south eastern areas of the survey are due to sea water in the fjords. Target zones have been outlined over the stronger conductors and are recommended for follow up investigation (Refer to Figure 2).

Gabbroic dykes have been the subject of base metal exploration programs in the region, with MDA investments discovering Ni sulphides at Discovery Dyke approximately 30km to the south (Ferguson 2007). The Dighem survey has defined a number of conductive targets which may represent sulphide or possibly magnetite sources.

The radiometric data is very coarse but indicates anomalous values in the region of the carbonatites, with the uranium data best defining the limit of the carbonatites. High uranium responses elsewhere in the project tenement should be investigated for additional carbonatites.

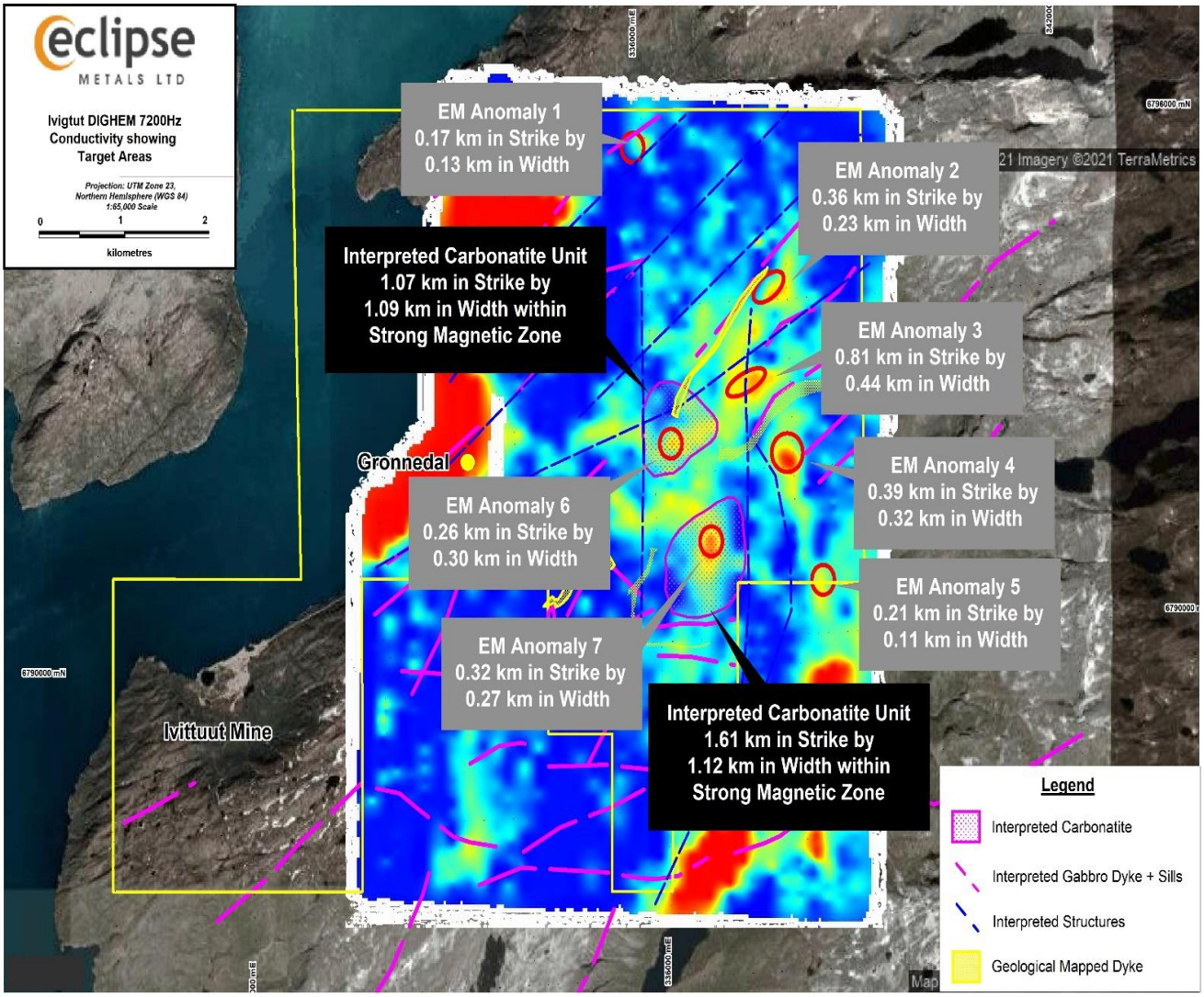

Figure 2: Regional EM Image highlighting extensive EM target zones associated with the interpreted carbonatite & dykes/sills

CONCLUSION & RECOMMENDATION

Re-interpretation and remodelling of geophysical data have successfully extracted previous unknown information over the Gronnedal-Ika areas. The carbonatite/dyke geological units have been confirmed to be far more extensive than previously known which is further encouragement for potential REE and sulphide mineralisation. The Dighem survey defined seven conductive targets which are recommended for follow up exploration and ground truthing.

The radiometric data is sparse but available traverses show anomalous response over the carbonatites. Radiometric surveys are an important direct detection tool for REE exploration and it is recommended that additional, higher resolution surveys be conducted over the project tenement.

Authorised for release by the Board.

Carl Popal
Executive Chairman

Pedro Kastellorizos
Non-Executive Director

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Competent Persons Statement

The information in this report that relates to Exploration Results together with any related assessments and interpretations is based on information compiled by Mr. Pedro Kastellorizos, a Non-Executive director of Eclipse Metals Limited. Mr. Kastellorizos is a Member of the Australasian Institute of Mining and Metallurgy (the AusIMM) 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. Kastellorizos has verified the data disclosed in this release and consents to the inclusion in this release of the matters based on the information in the form and context in which it appears.

About Eclipse Metals Ltd (ASX: EPM)

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

REFERENCES

The following references have been cited in this report: -

Gothenborg,J. 1989. Report on the cryolite exploration at Ivittuut, South Greenland 1989. Platinova Resources Ltd. GEUS Open File Report 20516. 69 pages.

Ferguson,J. 2007. Annual Report of Activities for 2006 on EL2004/11, Ivittuut, West Greenland. MDA Investments Pty Ltd. GEUS Open File Report 22011. 137 pages.

JORC Code, 2012 Edition – Table 1 report

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.*	<u>AIRBORNE GEOPHYSICS</u> • Eclipse Metals has completed re-modelling and re-interpretation of Diamond Field Resources airborne Dighem, AEM and TMI survey over the Gronnedal area. • Inversion modelling was applied based on original digital source data • Interpretation and modelling of Diamond Field Resources was completed by Core Geophysics in Perth. The digital data was downloaded from the Greenland Portal website (http://www.greenmin.gl/).
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).*	• Not Applicable
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.*	• Not Applicable

Criteria	JORC Code explanation	Commentary
	• *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.*	• Not Applicable
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 Applicable
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,*	• The system records pre-set frequencies/coil pairs to measure the resistivity of the sub-surface as shown in Figure 2. The survey data included three resistivities for 56KHz, 7200Hz and 900Hz for the coplanar coil set (i.e. vertical component) with 56KHz having the shallowest penetration and 900Hz the deepest. An inferred depth is also provided for each frequency. The Dighem EM data were gridded and imaged to provide conductivity.

Criteria	JORC Code explanation	Commentary
	duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	
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 84, Zone 23 N was used • Topography is based on SRTM 5 m global elevation data.
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.*	• The Dighem AEM and TMI were flown on 200m line spacing.
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.*	• Survey lines were orientated in a south-north direction.
Sample security	• *The measures taken to ensure sample security.*	• Not Applicable
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Digital copies of the survey data were reviewed by Core Geophysics for appropriateness/quality prior to re-modelling.

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 will, subject to such regulatory approvals in Greenland (if any) as are necessary to transfer the Tenement, be transferred to Eclipse Metals Limited. The total area of the MEL is 50 sq km. • No current security over the tenure.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Very little exploration work has been completed over the Gronnedal area after the work completed in 1948-1950 with minor amounts of exploration data.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Granitic Intrusive Deposits, Vein hosted
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:* ○ *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.*	• Not Applicable
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*	• Not Applicable

Criteria	JORC Code explanation	Commentary
	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.*	
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
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.*	• The information in this announcement release does not refer to a significant discovery however maps and figures have been included to illustrate the location of potential exploration targets.
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.*	• No historical reporting can provide this information.
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.*	• Not Applicable
Further work	• *The nature and scale of planned further work (eg 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.*	• It is recommended that high resolution ground or airborne surveys including gravity, magnetics and radiometrics be completed around the historic mine area to detect additional Intrusives.