20th April 2023

ASX Announcement

ECLIPSE SAMPLING OF HISTORIC IVIGTÛT DRILL CORE CONFIRMS POLYMETALLIC MINERALISATION

Highlights

- **Sampling of a deep diamond drillhole (Hole A) drilled into the centre of the historic Ivigtût mine in 1948 has provided new insights into the polymetallic mineralisation.**
- **Hole A intersected a 12.7m upper zone of iron-zinc mineralisation and a 3.7m lower iron-zinc-copper zone, both accessible from Ivigtût's existing pit.**
- **Historic drill holes into these zones returned maximum assay values of 1.7% Cu, 18.2% Zn and 7.7% Pb.**
- **pXRF analysis of the historic drill core has detected gold, silver, bismuth, tin and tungsten within the iron-zinc ± copper zones, warranting further investigation.**
- **The pXRF analysis also detected elevated niobium in the greisen body underlying the lower iron- zinc-copper zone. The greisen is known to be enriched in REE, niobium, tin, tantalum and tungsten. Further investigation is warranted.**

Eclipse Metals Ltd (**Eclipse** or the **Company**) (ASX: EPM) is pleased to announce it has gained access to historic drill core from Exploration Drillhole A (Hole A) (Figure 1), which was drilled vertically into the centre of the Ivigtût multi-commodity deposit in Greenland in 1948.

Examination of Hole A by Eclipse has served to visually corroborate reports of mineralisation remaining under the present Ivigtût pit floor (Bondam, 1991). The assessment has also served to substantiate significant grades of zinc in a previously identified southwest-dipping tabular body (Domain 2) located directly beneath Domain 1 of the mined cryolite-fluorite body (Figures 2 and 3) (ref ASX announcement dated 10th March 2021).

Spot measurements taken with a portable X-ray fluorescence analyser (pXRF) returned promising zinc and niobium results from certain downhole intervals of Hole A, along with highly anomalous spot values of lead, copper, gold, silver, bismuth, tin and tungsten (Figure 4). Whilst zinc (results ranging from 0.3% to 18.2% Zn), copper (0.04% to 1.7% Cu) and lead (0.05% to 7.7% Pb) are known from the historic Ivigtût drillhole assay data (ref ASX announcement dated 10th March 2021), the presence of niobium as well as gold, silver, bismuth, tin and tungsten warrants further investigation.

About Exploration Drillhole A (Hole A)

Hole A, a diamond drillhole drilled vertically from near the centre of the Ivigtût pit floor (Figure 1), was collared 54.00m below sea level and drilled a total length of 502.62 m (Table 1). The hole was completed in 1948.

The main aim of Hole A was to locate additional cryolite zones below the 1948 pit floor, as cryolite was the focus of previous mining at Ivigtût.

The historic drill core from Hole A is held by the University of Copenhagen, Denmark, and available for visual, non-destructive inspection.

Metallogenic domains of the Ivigtût multi-commodity deposit

The Ivigtût deposit can be broadly divided into three metallogenic domains (Figures 2 and 3) (ref ASX announcements dated 10th March 2021 and 29th March 2021):

- **Domain 1 (D1) (cryolite and fluorite)** is a circular feature measuring approximately 200 m in diameter, developed immediately below the base and lower edges of the open pit. Immediately below the open pit this domain averages 6m, ranging between 4m and 25m true thickness. At the lower corners of the pit the domain bulges out to a thickness of up to 30m.

- **Domain 2 (D2) (iron and zinc)** is an essentially flat to shallow southwest-dipping tabular body located directly beneath D1. Under the central part of the pit the vertical separation between D1 and D2 is approximately 25m. Towards the pit perimeter, the two zones intersect. Zinc mineralisation within D2 is considered to have a very close association with occurrence of siderite (iron carbonate). Historical drilling campaigns only assayed for base metals to a limited extent with little work focusing on potential zinc mineralised lodes. Some of the drilling has yielded high grade base metal values such as 1.7% Cu, 18.2% Zn and 7.7% Pb (ref ASX announcement dated 10th March 2021) hosted within the iron (siderite) mineralised lode. There is evidence of limited historic underground extraction below the northern part of the pit. These workings appear to have focused on a zone of higher-grade zinc below D1. Most of the zinc mineralisation is hosted within >30% Fe-rich zones and remains largely untested.

- **Domain 3 (D3) (quartz)** lies directly below the cryolite-fluorite and iron-zinc zones. It forms a flat roughly circular intrusive body 220m in diameter with a thickness of approximately 90m comprising of high-grade quartz.

Inspection of Hole A

Logging of the upper portion of Hole A, from 0m to 221m down hole, identified several distinct zones (Figure 4), including cryolite, siderite, zinc, greisen, quartz and zinc-copper zones, which are broadly consistent with the previously identified and modelled domains D1 (cryolite and fluorite) and D2 (iron and zinc) and D3 (quartz) (ref ASX announcements dated 10th March 2021 and 29th March 2021).

The zinc-rich mineralisation intersected in Hole A (Figures 4 to 6) corresponds to D2 with the upper zone from 27.15m being 12.7m thick. and lower iron-zinc-copper zone from 86.2 m being 3.7 m thick. The iron-zinc zones are separated by a 49.7 m thick interval of quartz.

The upper iron-zinc zone (Figure 5) is comprised of quartz, siderite, sphalerite and marmatite (a black, iron-rich variety of sphalerite). Spot pXRF measurements also detected trace concentrations of copper and gold.

The lower iron-zinc-copper zone has many similarities with that of the upper zinc zone but the marmatite of the lower zone is intergrown with chalcopyrite, galena and pyrite (Figure 6). Spot pXRF measurements detected appreciable levels of copper, gold and silver.

Ivigtût mine dump samples collected by Eclipse, which returned assay results of up to 165.00 g/t silver, 0.14% copper, 3.83% lead and 0.37% zinc (sample I21012; ref ASX announcements dated 10th March 2021), further corroborate the multi-commodity potential of the Ivigtût deposit and clearly demonstrate the need to better understand the distribution of these metals within the deposit, and whether some of these metals could represent economically viable by-products.

Analysis of the historic drill core by pXRF has also detected elevated niobium in the greisen body underlying the lower iron- zinc-copper zone. The greisen is known to be enriched in REE, niobium, tin, tantalum, and tungsten (ref ASX announcement dated 24th March 2022).

Further investigation of the mineralisation potential of the greisen is clearly warranted.

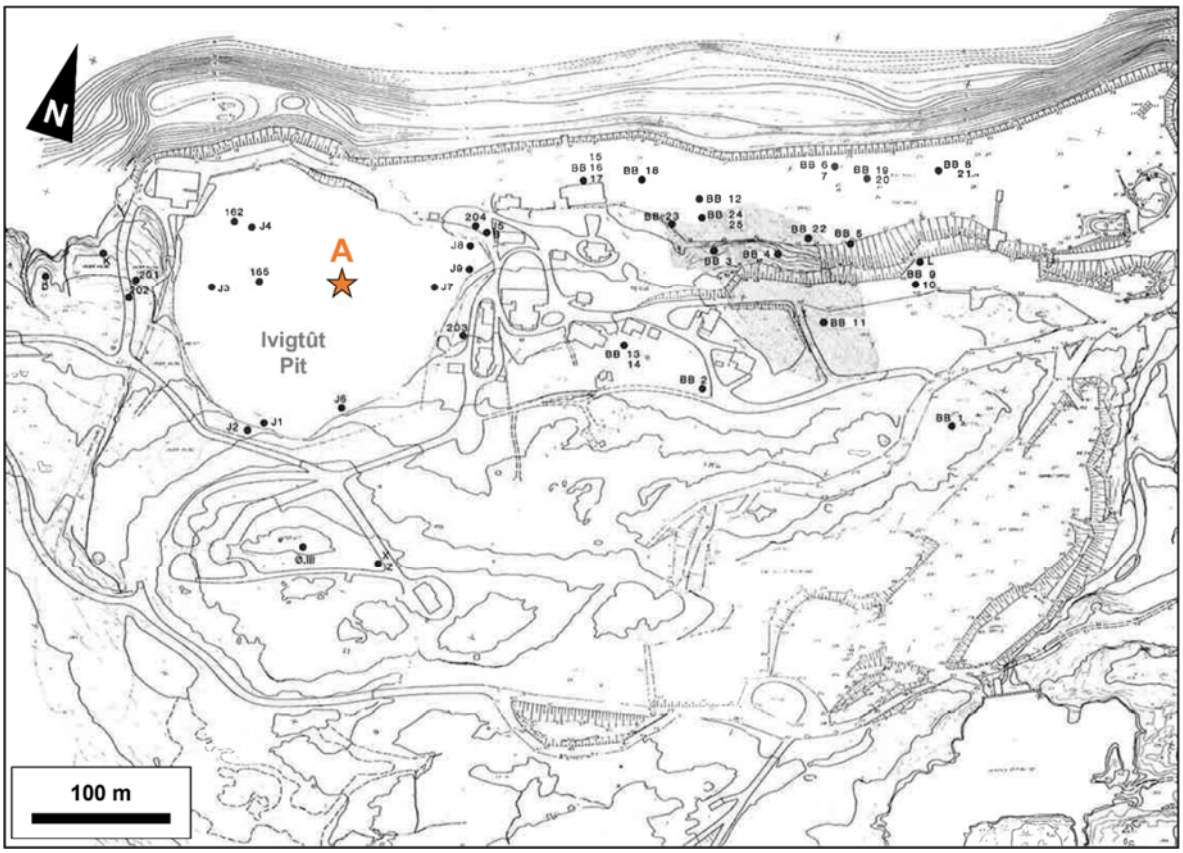

Figure 1a. Location of Exploration Drillhole A, which was drilled vertically from the bottom of the pit (54.00m below sea level) into the centre of the Ivigtût multi-commodity deposit in 1948. Collar details are provided in Table 1.

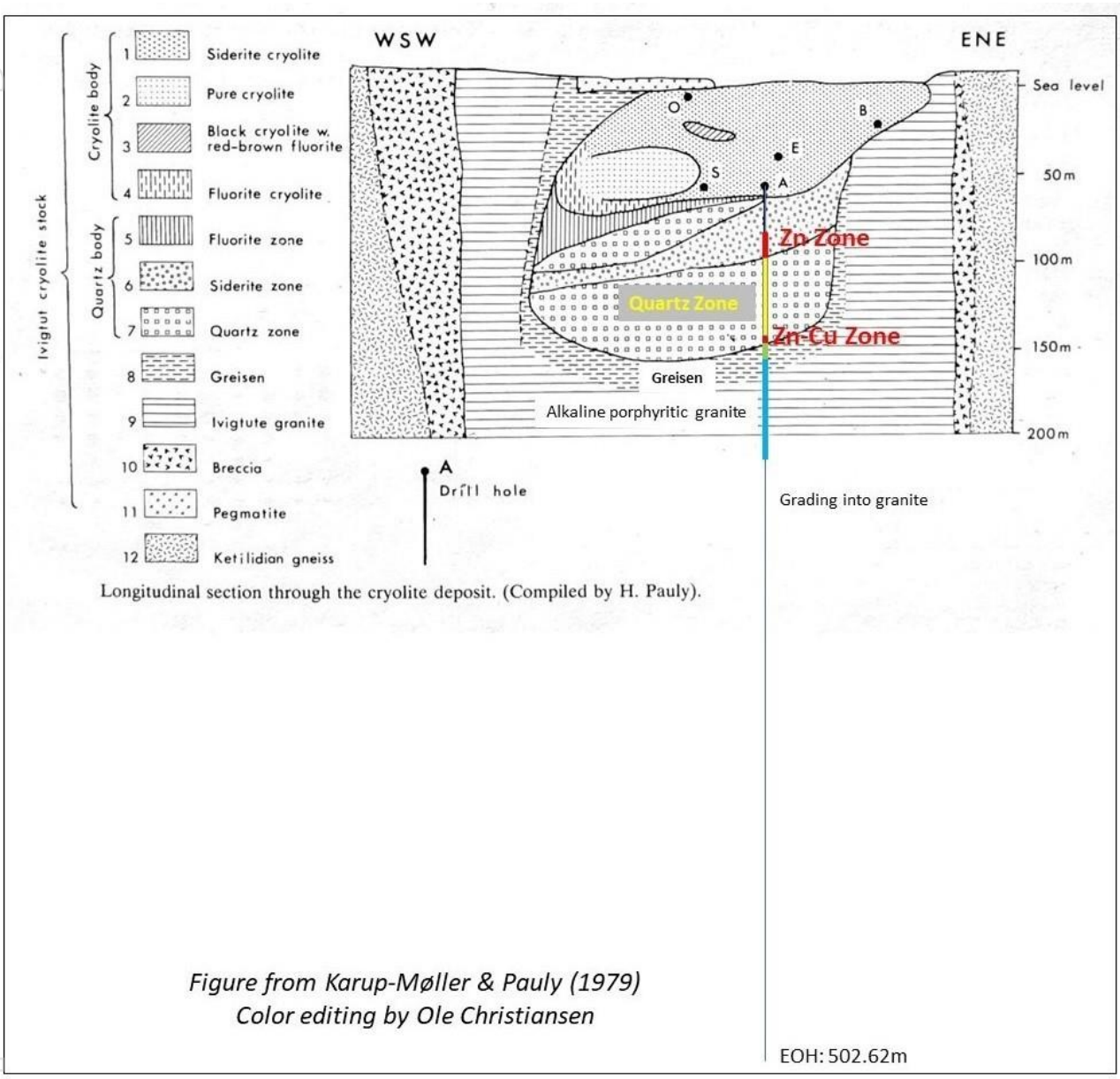

Figure 1b. Schematic cross section showing the trace of Hole A. Also shown are the main geological units as known in 1979.

Table 1. Location information for Hole A.

Hole ID	Easting	Northing	Collar Elevation	Hole Length	Orientation	Coordinate System
Exploration Drillhole A	651,770 m E	6,789,000 m N	54.00 m below sea level	502.62 m	Vertical	WGS 1984 UTM Zone 22N

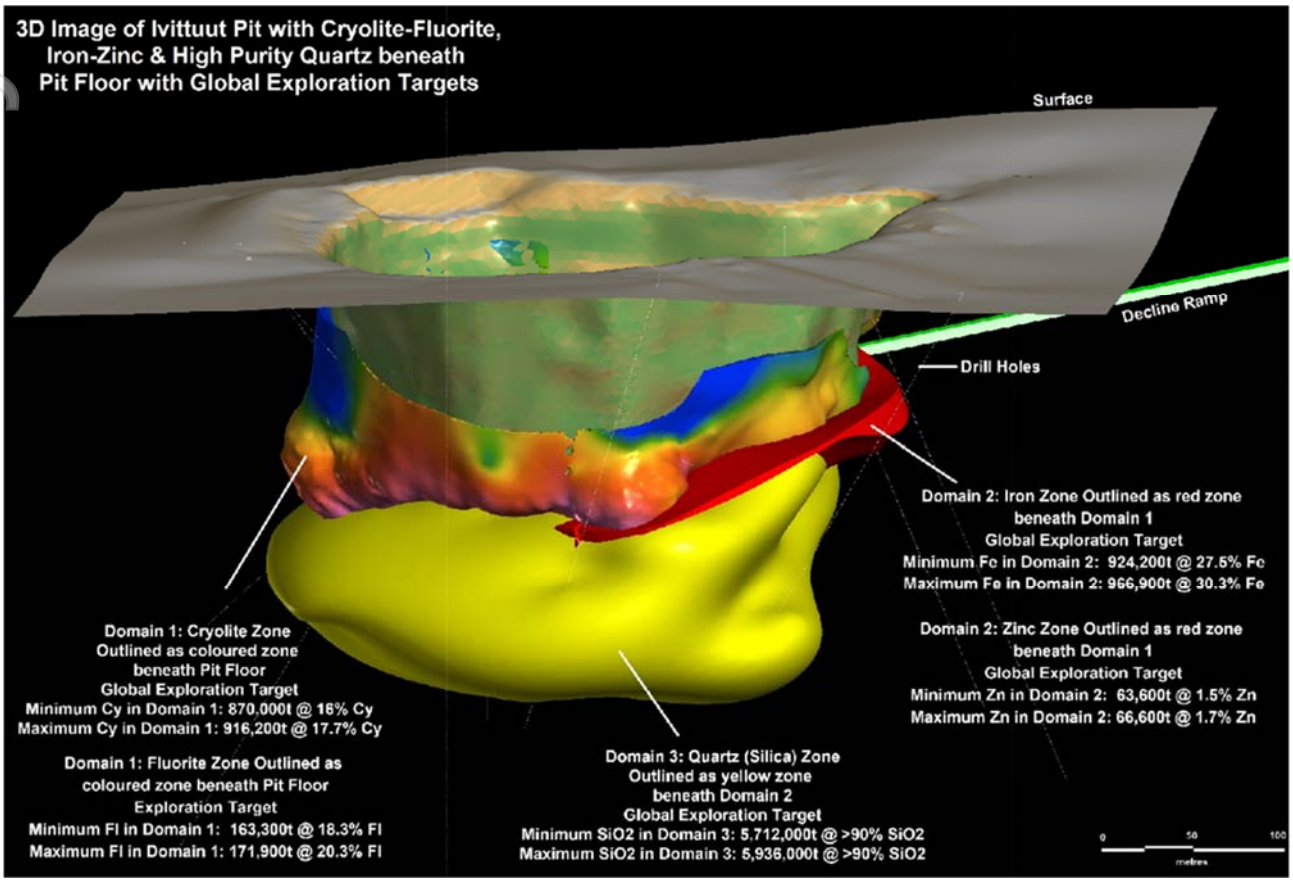

Figure 2. 3D oblique image showing modelled metallogenic domains D1, D2 and D3 below the Ivigtût pit floor. Also shown is the decline, which leads to the historic underground workings (ref ASX announcement dated 29th March 2021). Cautionary Statement: The potential quantity and grade of the Exploration Targets 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 drilling data and geological modelling.

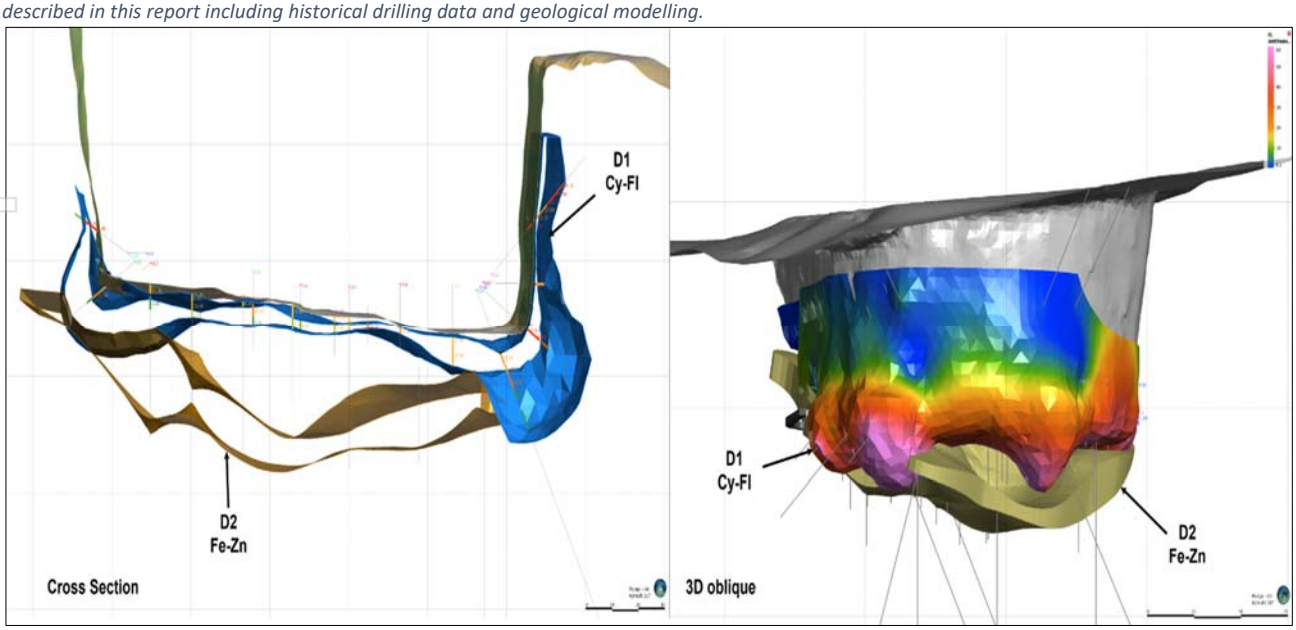

Figure 3. Cross section and 3D view of metallogenic domains D1 (cryolite and fluorite) and D2 (iron and zinc) (ref ASX announcement dated 10th March 2021).

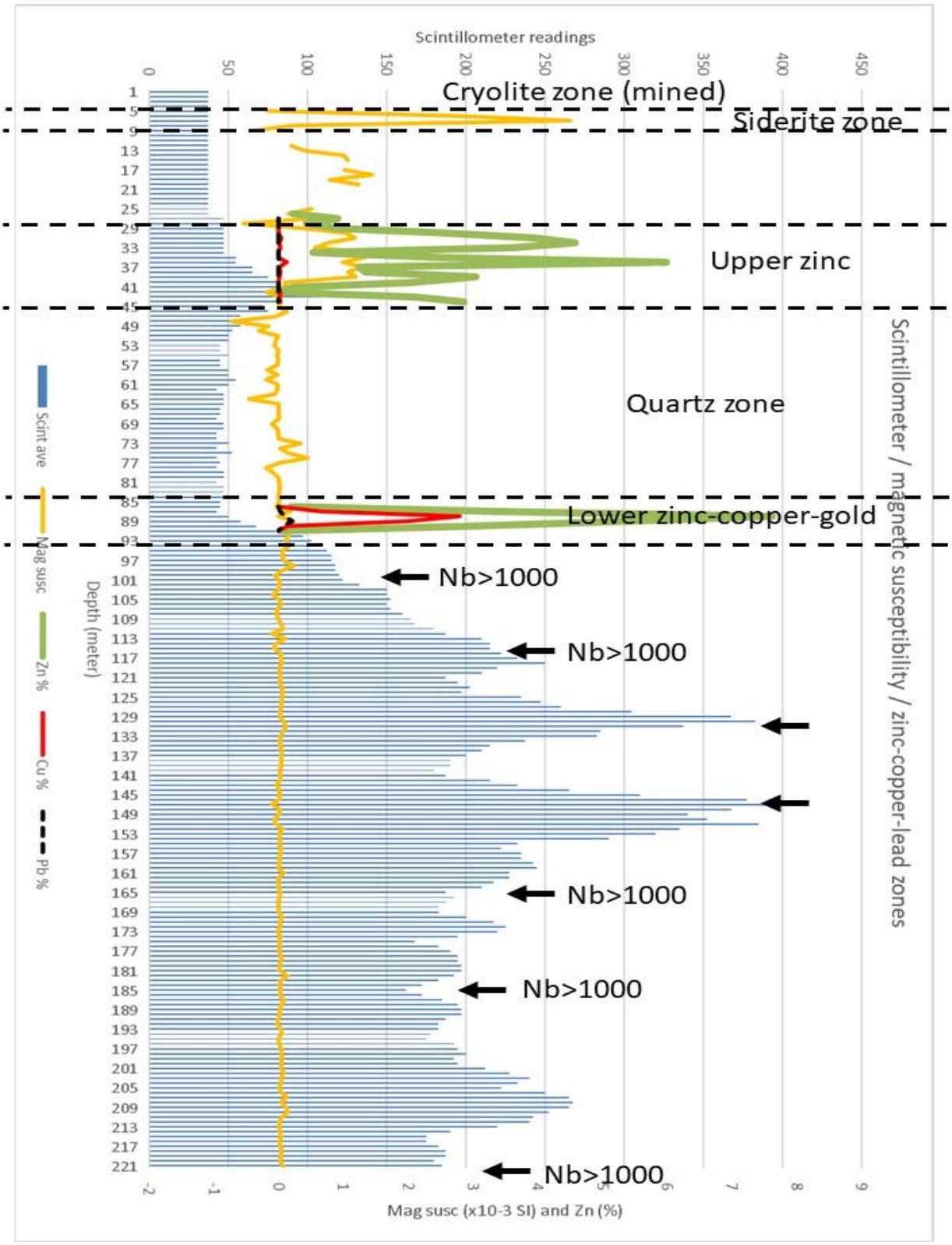

Figure 4. Downhole log for the upper 221 m of Hole A showing scintillometer, magnetic susceptibility and generalised zinc (Zn), copper (Cu), lead (Pb) and niobium (Nb) pXRF readings.

Figure 5. Diamond drill core from Hole A, upper zinc zone (approximately 26.8 to 35.2m down hole), showing siderite and sphalerite mineralisation in a quartz host with black marmatite, an iron-rich variety of sphalerite.

Figure 6. Left image: Half-core (width approximately 40mm) showing marmatite, sphalerite and chalcopyrite from the lower zinc-copper zone (86.2 to 89.9m) . Right image: Drill core interval showing coarse grained siderite and marmatite in a quartz host.

Authorised for release by the Board of Eclipse Metals Ltd.

Carl Popal
Executive Chairman

Oliver Kreuzer
Non-Executive Director

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, 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 Person's Statement

The information in this announcement that relates to Exploration Results and Exploration Targets are based on information compiled and conclusions derived by Dr Oliver Kreuzer, who is a Member (#2762) and Registered Professional Geologist (RPGeo #10073) of the Australian Institute of Geoscientists (AIG) and a Member (#208656) of the Australasian Institute of Mining and Metallurgy (AusIMM). Dr Kreuzer is a Director of Eclipse Metals Limited and has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Kreuzer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

References

Bondam, J., 1991: The Ivigtut cryolite deposit in South Greenland. Short note on recent geoscientific developments. GEUS Open File Series Report No.21339, Grønlands Geologiske Undersøgelse 91/4.

Karup-Møller, S., and Pauly, H., 1979. Galena and associated ore minerals from the cryolite at Ivigtut, South Greenland. Meddelelser om Grønland, Greenland Geoscience 2.

JORC Code, 2012 Edition – Table 1 report template

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 Metals ("Eclipse")** • Drill core from Exploration Drillhole A (**"Hole A"**) was geologically logged at the University of Copenhagen, Denmark, which owns the historic drill core from Hole A. The core is available for visual, non-destructive inspection only. As such, sampling of the core by Eclipse was limited to use of non-destructive technologies, including pXRF (Olympus Delta scanner manufactured by Innovative-X-Systems), scintillometer, magnetic susceptibility meter and UV lamp. Scanning of the core with the above instruments was done on a scale of approximately one scan per meter of core. Mineralised intersections were measured in more detail with approximately nine readings taken per meter of core. Measurements were taken for internal purposes only. Absolute numbers are not disclosed in this report given that pXRF spot measurements are typically subject to bias and not representative of the grade of the broader mineralised zone. Generalised zinc (Zn), copper (Cu), lead (Pb) and niobium (Nb) results are shown in figure 4 of this report. **Historic Operator(s)** • No information is available regarding historic sampling techniques.
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).*	• Hole A is a diamond drillhole that was drilled vertically from near the centre of the Ivigtût pit floor. The drilling was undertaken by Kryolitselskabet Øresund A/S in 1948. The hole was collared 54 m below sea level and drilled a total length of 502.62 m. The collar location of Hole A is 651,770 m E and 6,789,000 m N (coordinate system: WGS 1984 UTM Zone 22N).
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• No information is available regarding drill sample recovery.

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.*	**Eclipse** • Logging information collected by Eclipse is shown in Figure 4 of this report. **Historic Operator(s)** • There are no drill core logs available for Hole A.
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.*	**Eclipse** • The historic drill core from Hole A is held by the University of Copenhagen, Denmark, and available for visual, non-destructive inspection only. **Historic Operator(s)** • No information is available regarding sampling techniques and sample preparation.
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*	**Eclipse** • The historic drill core from Hole A is available for visual, non-destructive inspection only. **Historic Operator(s)** • No information is available regarding the quality of assay data and laboratory tests.

Criteria	JORC Code explanation	Commentary
	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.*	**Eclipse** • The historic drill core from Hole A is available for visual, non-destructive inspection only. **Historic Operator(s)** • No information is available regarding the verification of sampling and assaying.
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.*	• The location of data points is provided in Table 1 and Figure 4 of this report as well as in figure 4 of Bondam (1991). The accuracy of the historic collar location is unknown.
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.*	**Eclipse** • See “Sampling Techniques” for details. **Historic Operator(s)** • No information is available regarding data spacing and distribution.
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.*	• Based on the available drill hole and geological information (e.g., Bondam, 1991) and 3D geological modelling by Eclipse (ASX announcement dated 29th March 2021), the drill hole orientation is roughly orthogonal to the various metallogenic domains intersection in Hole A.
Sample security	• *The measures taken to ensure sample security.*	**Eclipse** • The historic drill core from Hole A is held by the University of Copenhagen, Denmark, and available for visual, non-destructive inspection only. **Historic Operator(s)** • No information is available regarding sample security
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 granted to Eclipse Metals Greenland (a wholly owned subsidiary of Eclipse) by the Greenland Minister of Finance, Industry and Minerals Resources, as announced to ASX on 17 February 2021
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• 19,000m of diamond drill cores stored in government facility 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 to 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 Ivigtût deposit is a differentiated, polymetallic body largely comprising of cryolite, fluorite, quartz, siderite and base metals within a vertically extensive, pipe-like greisen and intrusive and explosive breccia system hosted by a basement of Archean granite gneiss.
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* 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*	• All available information is tabulated within body of this report.

Criteria	JORC Code explanation	Commentary
	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.*	**Eclipse** • No data aggregation has been conducted by Eclipse. **Historic Operator(s)** • No information is available regarding data aggregation methods that may have been applied by historic operators.
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').*	• Based on the available drill hole and geological information (e.g., Bondam, 1991) and 3D geological modelling by Eclipse (ASX announcement dated 29th March 2021), the drill hole orientation is roughly orthogonal to the various metallogenic domains intersection in Hole A. As such, mineralisation widths observed in Hole A are close to true width.
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.*	• Appropriate diagrams are provided in the body of this report.
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.*	**Eclipse** • All assay results referred to have been previously reported to the ASX. References are provided for all relevant ASX announcements. **Historic Operator(s)** • No historic assay data are available for Hole A.
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*	• All data have been reported as appropriate and to keep the market informed to the highest level possible. References are provided to relevant earlier reports.

Criteria	JORC Code explanation	Commentary
	rock characteristics; potential deleterious or contaminating substances.	
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.*	Further work planned at Ivigtût consists of Geological exploration and mapping, geophysical and geochemical surveys, diamond drilling, trenching, PFS for mine access.