

## Evergreen Discovery Zone Expanded at Browns Reef

### Highlights

- Follow up diamond drilling program aimed at **extending the Evergreen Discovery Zone at Browns Reef** has progressed over the last few weeks
- Two holes drilled to the south of the high-grade zone identified during the March and June quarters this year intersected disseminated and massive sulphides
- Both holes intersected zones of significant zinc and lead sulphide mineralisation, which were recognised by logging of drill core
- Samples from the mineralised zones have been submitted for assay
- Mineralised intervals are:
  - **BRD020**: 6.4m from 198.4 to 204.8m down hole (estimated true width 3.8m)
  - **BRD021**: 9.1m from 293.5m to 302.6m down hole (estimated true width 5.5m)
- Drilling program has been suspended due to difficult access conditions following a long period of abnormal rains in the Central West of New South Wales
- Two additional holes which were planned to test for extensions of the Evergreen zone to the north as part of the current program have been deferred, and will be drilled after the ground dries out and access conditions permit
- The Evergreen lode zone has now been identified over a strike length of more than 150m and vertical depth of 300m and remains **open along strike in both directions, and at depth**.

**Eastern Metals Limited (ASX: EMS, 'Eastern Metals' or 'the Company')** is pleased to announce that two diamond drill holes to test for mineralisation at Browns Reef each intersected massive and disseminated sulphide mineralisation. This drilling has extended the Evergreen lode a further 50m to the south of the area drilled by EMS earlier this year. Following a prolonged period of heavy rainfall, two additional holes planned to test for extensions to the lode to the north have been deferred.

The Evergreen lode has now been now identified over a strike length of more than 150m and vertical depth of 300m and remains **open along strike in both directions and at depth**.

Lake Cargelligo's mean rainfall to June is 217.0 mm. For 2022 more than 499 mm of rain has fallen. This has made access for heavy equipment like drill rigs difficult. Figure 1 shows ruts in farm tracks caused by moving the drilling contractor's equipment to site. Eastern Metals has unilaterally decided to defer further drilling to avoid unnecessary damage to the farming property. The track shown in this photograph will be made good and the drilling program will be completed after the ground dries out and conditions improve to allow easier rig access.



**Figure 1.** – Heavy rain this year has made access to drill sites at Browns Reef difficult

## **Managing Director and CEO, Wayne Rossiter said**

*“This follow up drilling campaign has extended the Evergreen lode by at least a further 50m to the south and importantly we are seeing areas of massive sphalerite. This program was the next step of a concerted drilling effort to build a potentially mineable tonnage at Browns Reef within the larger mineralised system. We now have a mineralised area with a strike length of over 150m and a vertical depth of 300m that remains open along strike in both directions and at depth. Core has been cut with samples delivered to ALS in Orange. Further disclosures will be made when the assay results become available.*

*Our drilling team and staff did an outstanding job completing these holes in difficult conditions. We look forward to the drilling of the planned step out holes 50m to the north which we could not drill because of the difficult access caused by heavy rains this year.”*

## **Browns Reef**

Browns Reef lies 5km to the west of the town of Lake Cargelligo, approximately 470km west of Sydney, on EL 6321. The area surrounding Browns Reef is utilised for agricultural purposes, including grazing and cropping.

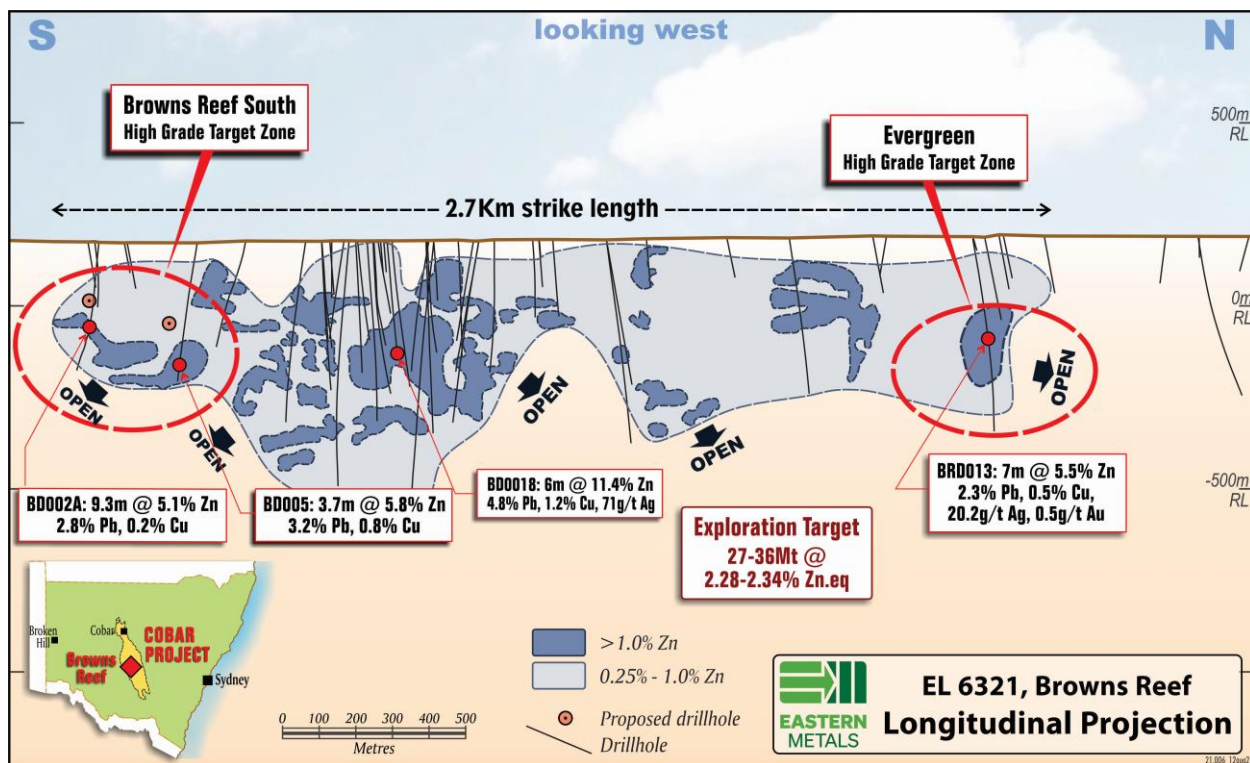
The Browns Reef deposit occupies a small part of the tenement. Most of the deeper drilling to date has been confined to a zone approximately 2.7km long in the central to southern part of the tenement and is situated on the eastern flank of the interpreted 9km long synclinal structure.

An Exploration Target of 27 to 37 million tonnes averaging between 1.3-1.4% zinc, 0.6- 0.7% lead, 9-10g/t silver and 0.2-0.3% copper has been reported for Browns Reef. Eastern Metals' strategy to date has been to identify, based on previous drilling, areas within the Exploration Target envelope where higher grade zones of base metal mineralisation may occur. The two principal higher grade target zones are shown in the long section in Figure 2. Drilling of the northern target area by Eastern Metals has resulted in the discovery of the Evergreen Zone. Drilling of the southern target zone shown in Figure 2 has not yet commenced.

**This current round of drilling was designed to test for extensions to the Evergreen Zone along strike to both the north and the south.**

To date, Eastern Metals has drilled six diamond holes into this zone. All intersected base metal sulphide mineralisation. Two additional holes were planned, but have been deferred due to heavy rains that have made access difficult

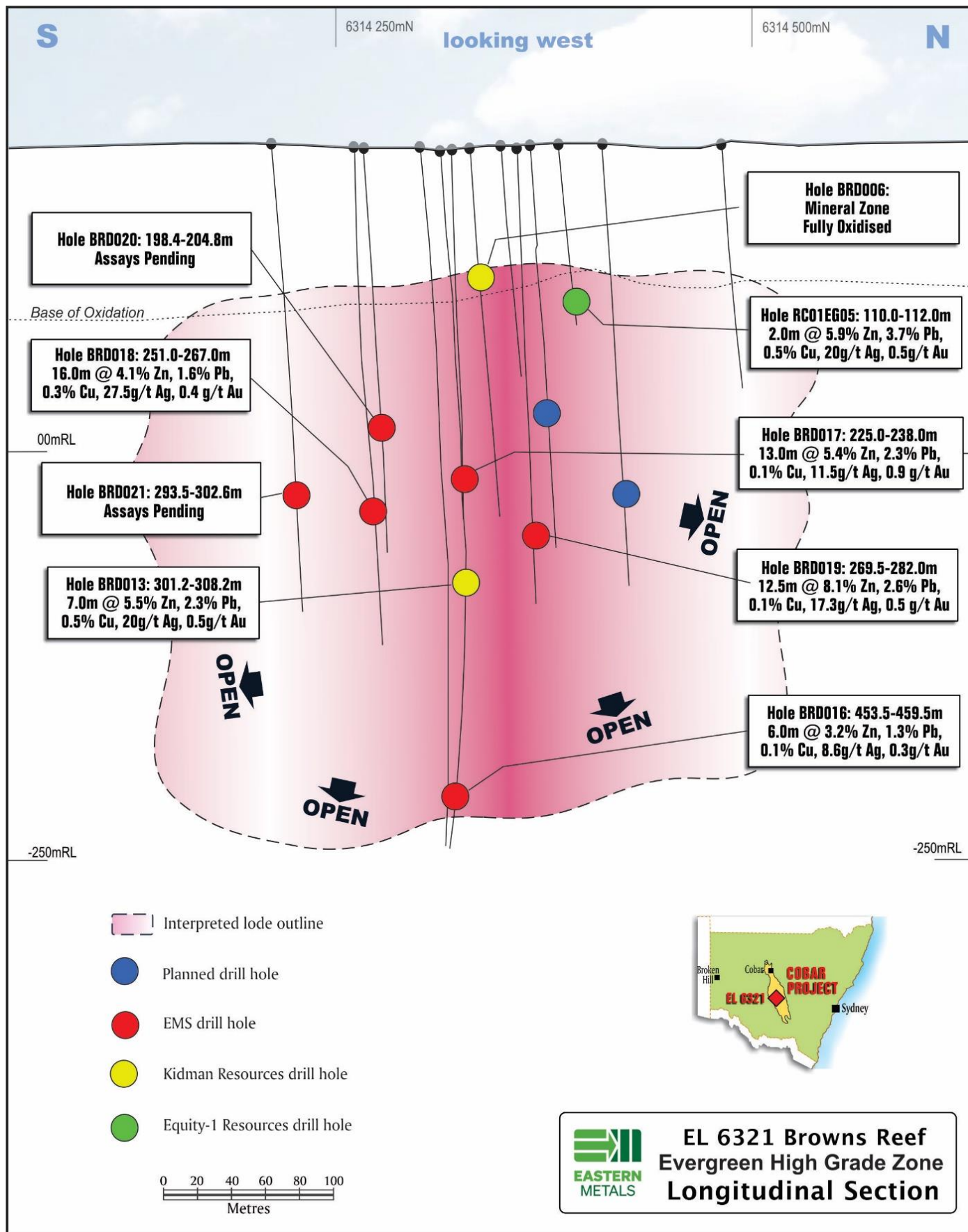




**Figure 2.** Long section of Browns Reef deposit previously drilled which identifies Exploration Target envelope and the Evergreen Zone

Both holes drilled in the current round of drilling intersected zones of significant zinc and lead sulphide mineralisation, based on visual logging of drill core. Hole BRD020 intersected 6.4m of massive and disseminated sulphides from 198.4 to 204.8m down hole, and hole BRD021 intersected 9.1m of massive and disseminated sulphides from 293.5m to 302.6m down hole. Core from the mineralised intersections has been cut and sent to a laboratory for assay. It will not be until the assay results become available that the true significance of these intersections is known.

A long section for that part of the Browns Reef deposit now known as the Evergreen Zone, is shown in Figure 3 below. This drawing shows pierce points for the six holes drilled to date by Eastern Metals in red, those drilled by other companies in yellow and green, and the two additional holes intended to be drilled by Eastern Metals as part of the current program but deferred due to difficult access conditions, in blue.



**Figure 3. Long Section of Browns Reef Evergreen Zone.**

## Authorisation for this Announcement

This announcement has been authorised for release by the Company's Disclosure Officers in accordance with its Disclosure and Communications Policy which is available on the Company's website, [www.easternmetals.com.au](http://www.easternmetals.com.au).

## Previously Reported Information

The information in this report that references previously reported Exploration Results, Mineral Resources or Ore Reserves is extracted from the Company's Prospectus released on 18 August 2021 (ASX: EMS 22/10/2021), along with the Company's ASX announcements released on 17 January 2022, 31 January 2022, 11 February 2022, 9 March 2022, 26 April 2022 and 23 May 2022. The Prospectus and the subsequent announcements are available to view on the Company's website or on the ASX website ([www.asx.com.au](http://www.asx.com.au)). Other than information set out in the Company's Prospectus and the more recent ASX announcements released set out above, and in this announcement, the Company confirms that it is not aware of any new information or data that materially affects the information included in the Prospectus or subsequent ASX announcement and that all material assumptions and technical parameters underpinning the information in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

## Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning the Company's planned activities, including mining and exploration programs, and other statements that are not historical facts. When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. In addition, summaries of Exploration Results and estimates of Mineral Resources and Ore Reserves could also be forward looking statements. Although Eastern Metals believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

## Competent Person Statement

The information in this Presentation that relates to Exploration Results in this announcement is based on information compiled by Mr Gary Jones who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Jones is a full-time employee of Geonz Associates, Consultant Geologists, a former director of Eastern Metals, and Principal Consultant – Geology to the Company. Mr Jones has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code. Mr Jones consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

## Contacts

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## APPENDIX 1

### KEY INFORMATION FOR BRD020 & BRD021

Hole_ID	Collar Co-ords		Dip	Azimuth	Azimuth	RL	Depth
	MGA94Z55_East	MGA94Z55_North	Degrees	MGA94Z55_Grid	Magnetic	M	M
BRD020	436458	6314260	-58	73	63	187	291
BRD021	436435	6314200	-59	73	63	187	355.5

Hole_ID	Mineralised Zones			
	Depth_From (m)	Depth_To (m)	Down Hole Interval (m)	Estimated True Width (m)
BRD020	198.4	204.8	6.4	3.8
BRD021	293.5	302.6	9.1	5.5



# JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data: Browns Reef Project

### Diamond Drilling, reporting drilling only, no assays.

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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.</i>	Diamond drill core provides a high-quality sample that is logged for lithological, structural, geotechnical, analytical and other attributes.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Sampling of the mineralised core for assaying has been carried out using a diamond saw as per industry best practice.
	<i>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.</i>	The tenor of the mineralisation has not yet been determined by laboratory analysis. However, the holes have been geologically logged in detail. More comments around assaying will be provided once assays are received.
Drilling techniques	<i>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).</i>	The Browns Reef project holes were drilled with standard diamond drilling techniques. Rotary mud drilling was used to pre-collar the hole to solid rock whereupon coring commenced in HQ size core (diameter: 63.5mm) to fresh rock and then NQ core (diameter: 47.6mm) followed by NQ3 (45.1mm) through the lode section to end of hole (EOH). Eastern Metals used a reputable drilling contractor; DDH1 Drilling with a truck mounted rig.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Diamond drill core recoveries were recorded during drilling and reconciled during the core processing and geological logging. Core was generally competent with some zones of broken core. There was no significant drill core lost during drilling.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i>	Diamond drill core is measured and marked after each drill run using wooden blocks denoting the depth. Rig procedures are adjusted as necessary including drilling rate, run length, bit and fluid pressure to maintain sample integrity and to keep the profile of the hole as near as possible to the planned dip and azimuth.

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	Laboratory analyses are not yet available however core loss was minimal. Care was taken to avoid bias when sawing the mineralised zones.
Logging	<i>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.</i>	Systematic geological and geotechnical logging has been undertaken. Data to be collected includes: <ul style="list-style-type: none"> <li>• Nature and extent of lithologies and alteration</li> <li>• Intervals, amount and mode of occurrence of metallic minerals such as pyrite, chalcopyrite, galena and sphalerite.</li> <li>• Location, extent and nature of structures such as bedding, cleavage, veins, faults etc</li> <li>• Geotechnical data such as recovery.</li> </ul>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography</i>	Depending on the lithology being logged, drill core is logged as both qualitative (discretionary) and quantitative (volume percent sulphide minerals, quartz veining). Core is being photographed wet and dry with one tray per image.
	<i>The total length and percentage of the relevant intersections logged.</i>	The entire hole was geologically logged from top to bottom (100%). Intervals with no recovery were noted as such but were generally minor.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken</i>	Core was cut using a manual diamond saw. Wherever possible all samples were collected from the same side of drill core. The full interval of half-core sample was submitted for assay analysis. Where core is incompetent due to being broken rock, representative samples were be collected along the axis of the core.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Not applicable – core drilling.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Drill core was cut in half along the length and the total half core submitted as the sample. This procedure meets industry standards where 50% of the total sample taken from the diamond core is submitted. All intervals were submitted for assaying. Sample weights will be recorded by the assay laboratory.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	No sub-sampling has been completed by Eastern Metals. All sub-sampling of the prepared core is completed by the assay laboratory.
	<i>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.</i>	The retention of the remaining half-core is an important control as it allows assay values to be viewed against the actual geology; and, where required, further samples may be submitted for quality assurance or petrography. No resampling of half core or duplicated samples have been completed at the project by Eastern Metals.

Criteria	JORC Code explanation	Commentary
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The sample sizes are appropriate to correctly represent the mineralisation based on style of mineralisation
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Not applicable: Lab data not being reported at this stage.
	<i>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.</i>	No use of hand-held geophysical instruments is planned for the core at this stage. Magnetic susceptibility measurements may be carried out in future.
	<i>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.</i>	Appropriate standards and blanks were inserted into the sample stream. Duplicate samples will be forwarded to an independent laboratory for check assaying. Assays are not reported here as they are not yet available.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	The presence of massive sulphides has been confirmed by Eastern Metals Principal Consulting Geologist via close-up core photographs. Laboratory assays have not yet been obtained.
	<i>The use of twinned holes.</i>	Nil.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All data and logging was recorded directly into field laptops. Visual and numerical validation was completed by the on-site geologist.
	<i>Discuss any adjustment to assay data.</i>	NA. Assays yet to be received.
Location of data points	<i>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.</i>	A handheld Garmin GPSmap unit was used to site the hole collar position with an averaged waypoint measurement accuracy of 1m. Alignment of the drill rig was carried out using offset fore and back site pegs and compass and confirmed with the down-hole survey tool. Down-hole surveys for dip and azimuth were carried out using an Axis gyro survey instrument at down-hole intervals of between 25 and 30m.
	<i>Specification of the grid system used</i>	Grid system used for the Lake Cargelligo project is Geodetic Datum of Australia (GDA)94 Zone 55S.
	<i>Quality and adequacy of topographic control.</i>	Topographic control with hand-held GPS and government 1:50,000 scale topographic mapping is adequate for the project. DTM data has been obtained from EMS and previous exploration company surveys.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Drill holes in this program were spaced 50 metres up dip and along strike from hole BRD018 drilled by Eastern Metals. Core blocks recording the depth are inserted at the end of each core run.
	<i>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.</i>	50 metre spacing of drill holes will be sufficient to enable the estimation of an indicated mineral resource for this section of the Browns Reef mineral deposit.
	<i>Whether sample compositing has been applied</i>	No.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The inclined drill holes were designed to intersect the known lithological and interpreted mineralisation as near as possible to a perpendicular orientation. The orientation of the drill hole will achieve relatively unbiased sampling.
	<i>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.</i>	The holes were designed to intercept perpendicular to geological units and mineralisation to best obtain near true widths.
Sample security	<i>The measures taken to ensure sample security.</i>	Core is held at an off-site location and when being processed, is stored in secure storage. Assay samples have been delivered to the analytical laboratory by the site geologist thereby avoiding any handling by a third party transport operator.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or review are warranted at this stage.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<i>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.</i>	EL6321 Browns Reef is located 5km west of Lake Cargelligo NSW. The tenement is held by Eastern Metals Limited. Ground activity and security of tenure are governed by the NSW State government via the Mining Act 1992. Land is Freehold and access was granted under the terms of a compensation agreement with the land holder.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	The Browns Reef base metal mineralisation was first discovered by the landowner who recognised outcropping gossanous material. The prospect was subsequently systematically developed by Jennings Industries-Electrolytic Zinc Company of Australia (EZ)-Esso Joint Venture, and later by Comet Resources. The most recent exploration was carried out by Kidman Resources which was acquired by Wesfarmers in 2019 and who sold the project to Eastern Metals in 2021.
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	Volcanogenic massive and disseminated Cu, Pb, Zn, Ag, (Au) deposit hosted in steeply dipping sediments.



Criteria	JORC Code explanation	Commentary
Drill hole Information	<p>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:</p> <ul style="list-style-type: none"> <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>	See Appendix 1 in the body of the report.
	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.	Not applicable due to no laboratory assays yet available.
	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	Not applicable due to no laboratory assays yet available.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable due to no laboratory assays yet available.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Not applicable due to no laboratory assays yet available.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Drill hole BRD020 & BRD021 azimuths are both 73 degrees MGA 94 Z55 grid to the East. The targeted mineral zone is semi-vertical. The holes were designed to intersect perpendicular to the mineralisation to best gain near true widths.
	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').	Intersections of sulphide mineralisation in this report are down hole lengths. Based on the known geology and orientation of the drill hole true widths are estimated at 60% of these down hole lengths.
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	See figure 3 in the body of the report.

Criteria	JORC Code explanation	Commentary
<i>Other substantive exploration data</i>	<i>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.</i>	Other exploration data are discussed in the body of the report and Eastern Metals are not reporting grade as assays are not yet available.
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Two further step-out inclined diamond holes to the north are planned for this program as detailed in the main body of the report.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	See the main body of the report.