

## LARGE SCALE RARE EARTHS AND BASE METAL PROJECT IDENTIFIED

### Three Northern Territory Exploration Licences under Application

A review of recent geochemical and geophysical work by Geoscience Australia has led to the identification of a new rare earths and base metals project area on the northern Barkly Tableland.

#### Rare Earths

- Very large drainages with peak rare earths and niobium assay values in sediments.
- Long weathering history and lack of outcrops are favourable for near surface enrichments.
- High sediment assay values of the more valuable rare earths including Neodymium.

#### Base Metals

- An historic 88m intersection of copper lead zinc mineralised black shale in BHP core hole MD1.
- Very large drainage in an area of cover with peak values of copper cobalt bismuth molybdenum tellurium niobium palladium uranium vanadium tungsten.

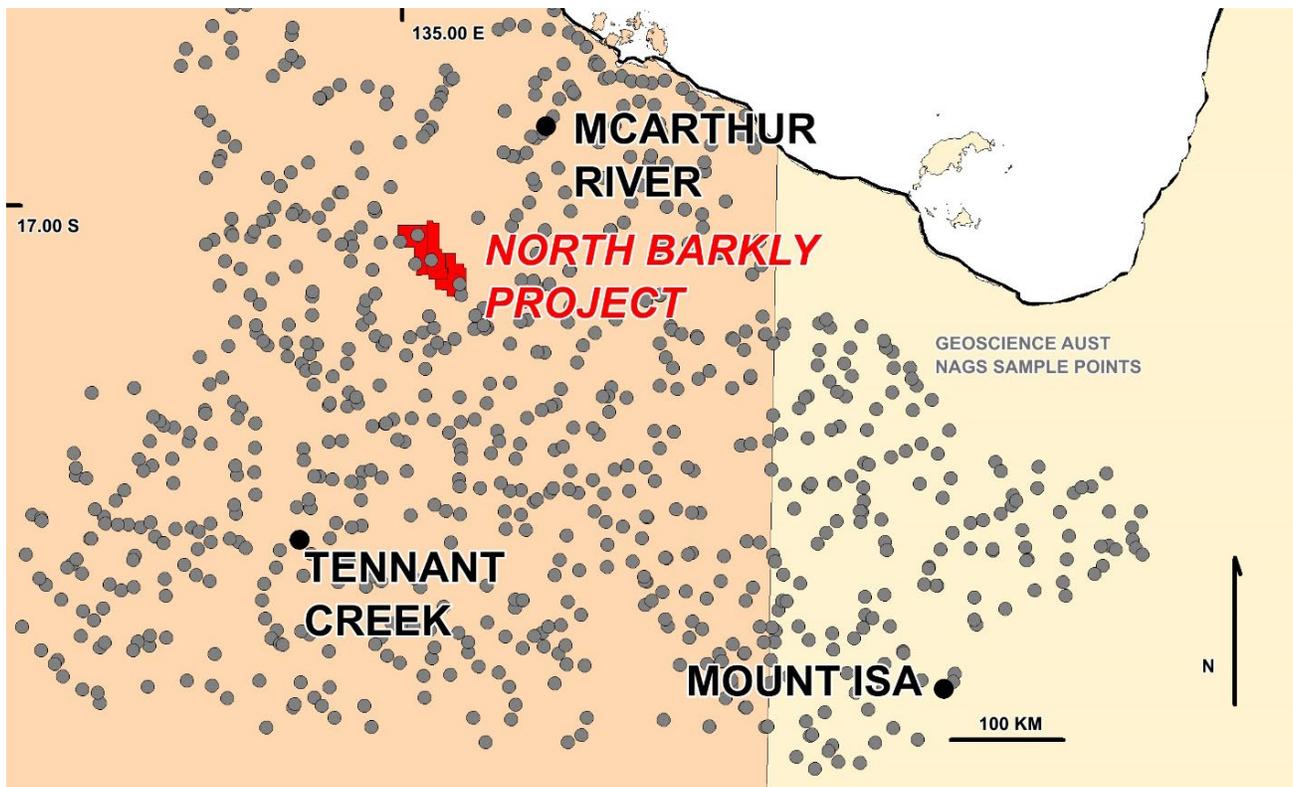


Fig.1 Location of the Project and Geoscience Australia Sampling



## The North Barkly Project

The project is comprised of three Exploration Licence applications (33128 / 29 / 30) totalling 1,950 sq km over pastoral lands on the Barkly tablelands 500km northwest of Mount Isa and 150km southwest of McArthur River.

Some of the applications will need Native Title agreements prior to being granted so timing is unknown.

The Barkly region has been subject to intensified geophysical, geochemical and geological investigation by Geoscience Australia over recent years, leading to the recognition of potential for repetitions of the large mineral deposits such as those mined at McArthur River and in the Mount Isa area.

These two largest deposits in this region are hosted by pyritic black dolomitic shale horizons, usually adjacent to large faults, and in the lowest part of the shale unit where it abuts a fault, or in the keel of a local structure.

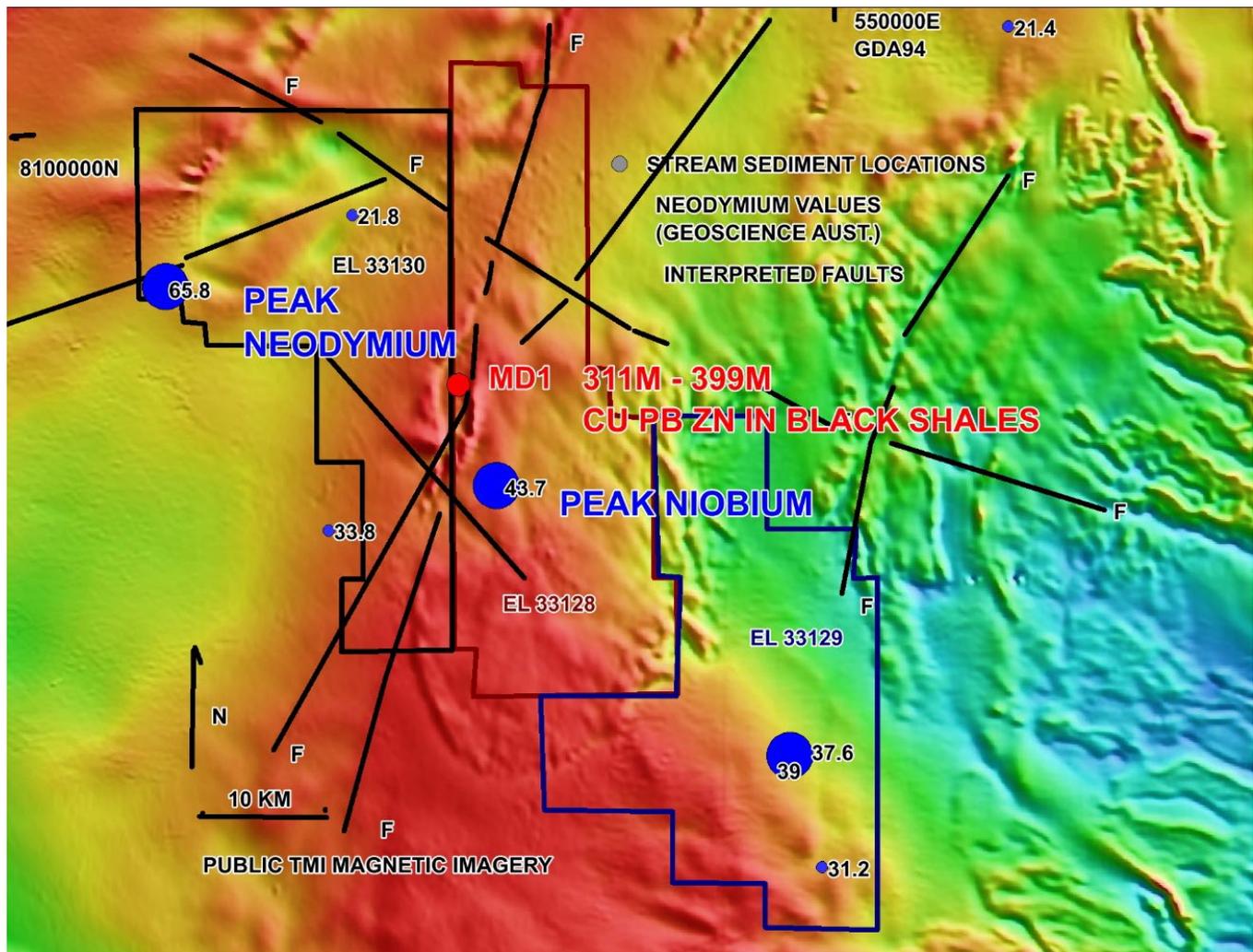


Fig.2 Project EL Applications with fine fraction Neodymium (ppm) results on magnetics. The coincident peak in Niobium supports the rare earths prospectivity

The North Australian Geochemical Survey (NAGS) results are publicly available from Geoscience Australia. CML has examined the large volume of data and has identified this area as having the strongest indicators of a major rare earths deposit. The peak rare earths trend northwest to southeast through the project area and are strongly supported by the peak niobium scandium tellurium palladium and cobalt values in the centre.

These elements are indicative of a carbonatite source, which may be one or more of the magnetic bodies close to the peak niobium.

BHP (CR 19930191) drilled a core hole MD1 to 415m at a site 10 km north of the peak sample, close to strongest magnetic bodies, and noted post Mesozoic brecciation in sediments from 37.4m to 44.6m, and further down, weak copper lead and zinc disseminations, stringers, and veinlets in contorted zones between 311m and 399m. No rare earths analyses were conducted.

The project area is characterised by a lack of outcrop, and strong weathering, features which are conducive to rare earths enrichments in the near surface.

A base metal potential also exists within the project. The tuffaceous black dolomitic pyritic shale intersected by BHP in MD1A, is the preferred host rock for the major base metal deposits in this region.

The base metal sulphides indicate that a mineralising process has occurred locally, and viable grades may be found in a more favourable site nearby. The Geoscience Australia geophysical data (Fig.3) demonstrates that this prospective conductive horizon underlies the entire project area, generally at about 350m depth.

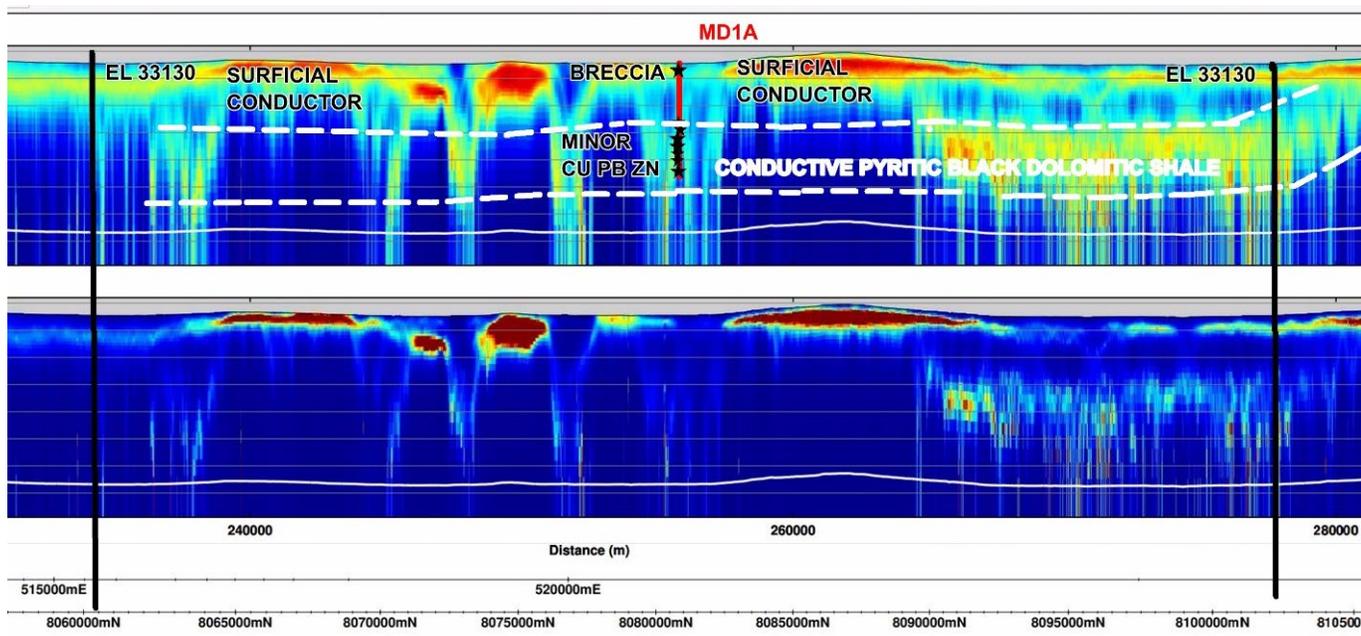


Fig.3 Geoscience Australia Tempest Airborne EM Section 117002 N-S through hole MD1A.

### Proposed Exploration Programme

After the ELs are granted, CML proposes to define the sources of the stream sediment metals and rare earths by conducting more detailed sampling. The current and any future Geoscience Australia data will also be examined in more detail, in particular the geophysics. The BHP MD1 drill core will be located and, if possible, be analysed for more elements, including rare earths.

Drilling will take place, after the targets are well defined.

## **Authorisation**

This announcement has been authorised for release to the ASX by the CML Board of Directors.

Dr Leon Pretorius

Chairman and CEO

2 February 2022

### **For technical enquiries contact:**

Leon Pretorius on 0419 702 616

### **For corporate or finance enquiries contact:**

Charles Thomas by email to [charles@gttventures.com.au](mailto:charles@gttventures.com.au)

## **COMPETENT PERSON STATEMENT**

The information in this release that relates to exploration results is based on information compiled by Mr Neil Wilkins M.Sc. Exploration and Mining Geology, who is a Member of The Australian Institute of Geoscientists. Mr Wilkins is employed by Ascry Pty Ltd, which provides consultancy services to CML. Mr Wilkins has previously worked in the North Barkly Project area and has more than five years' experience which is relevant to the styles of mineralisation and types of deposit mentioned in this report and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves' (the JORC Code). This public report is issued with the prior written consent of the Competent Person as to the form and context in which it appears. Mr Wilkins holds shares in Chase Mining Corporation Limited.

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	<ul style="list-style-type: none"> <li>• 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.</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 (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.</li> </ul>	<ul style="list-style-type: none"> <li>• Stream sediment sampling by Geoscience Australia involved sieving to various fractions, each of which was analysed by a very large suite of elements. The samples were from overbank sediment sites located by GPS. The sieve size used here was the ultrafine fraction (75 microns). The other fractions recorded similar results.</li> <li>• The Geochemical data can be downloaded and is known as the North Australian Geochemical Survey (NAGS)</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• 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).</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• No drilling</li> </ul>
Logging	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>studies.</i></p> <ul style="list-style-type: none"> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><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></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>No sampling</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><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></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>The NAGS sampling details are on the public record and can be downloaded from Geoscience Australia.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No drilling samples.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations</i></li> </ul>	<ul style="list-style-type: none"> <li>Hand held GPS</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>used in Mineral Resource estimation.</i></p> <ul style="list-style-type: none"> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <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></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>• <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.</i></li> <li>• <i>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></li> </ul>	<ul style="list-style-type: none"> <li>• The historic results are from CML EL applications 33128, 33129, and 33130. These applications have not been granted and some will require Native Title agreements</li> <li>• The ELs are 100% CML, and there are no known access restrictions.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>There has been airborne EM by BHP (1993) and also by Geoscience Australia (2018) – Tempest wide spaced survey – details are available for download by the public.</li> <li>BHP reported drilling a core hole (MD1) in 1993. The logs can be located in the Northern Territory publicly available company reports, i.e., CR 19930191.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Shear hosted rare earths mineralisation in sediments, with a niobium scandium tellurium cobalt copper association. Possible carbonatite dykes and plugs under shallow cover.</li> <li>The BHP logs and report state a potential for sediment hosted base metals.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li><i>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:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>No rare earths drilling.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>No drilling</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• No drilling and no sections reported</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• The company plans to conduct geochemical surveys and drilling after grant.</li> </ul>