Drilling Set to Commence on North Barkly Project

Highlights

- Up to 15 widely spaced reconnaissance Reverse Circulation drillholes to test the rare earths enrichments.
- The drilling will also investigate the extensive copper lead zinc silver and gold anomalies detected in the cover by multi-element geochemical sampling.
- The drillholes are located over prospective gravity and magnetic targets, in the McArthur Basin.
- The North Barkly Project is the geochemically strongest and shallowest of all the new projects in the Barkly region, and is amenable to RC drilling, rather than deep diamond drilling.

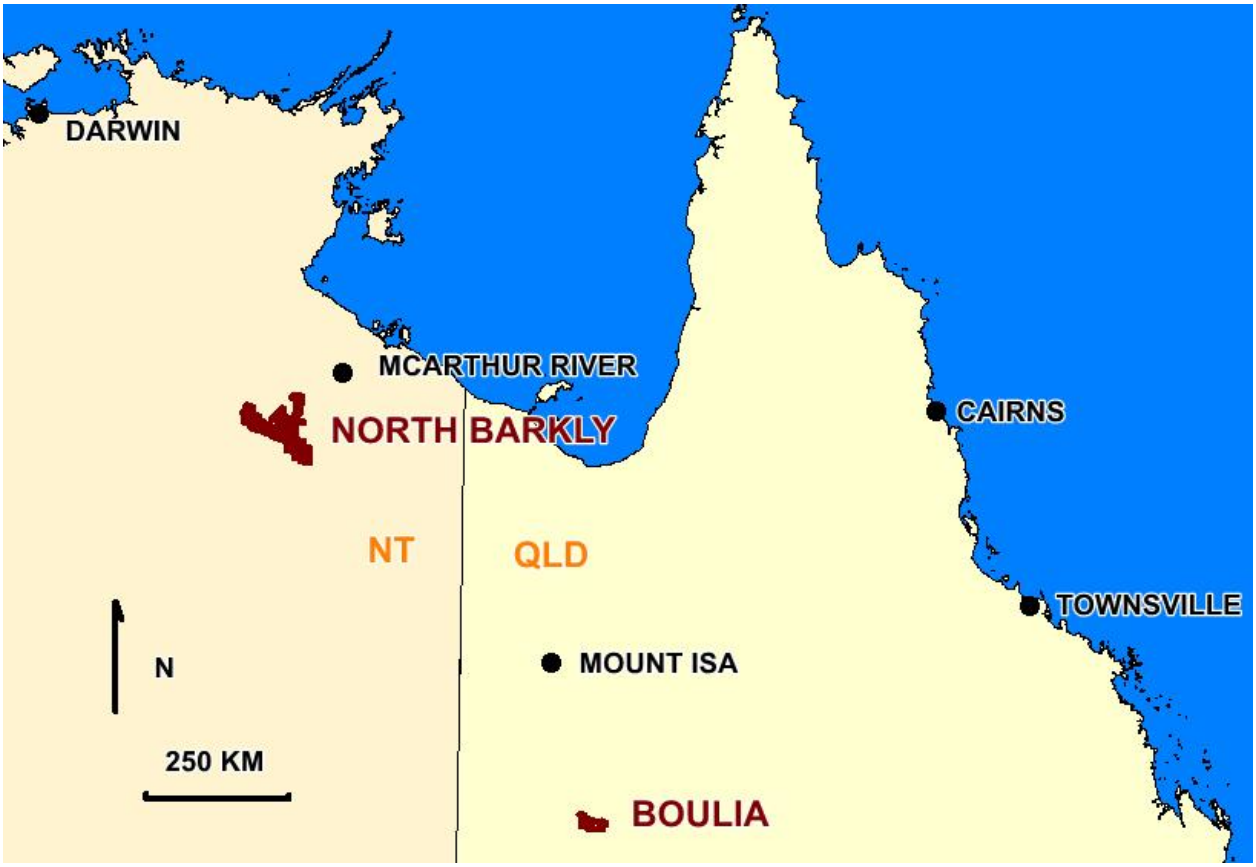

Figure 1 Location of GCMs North Barkly Project

Drilling is set to begin on GCMs 100% North Barkly Project in the Northern Territory. The reverse circulation rig that has been contracted for an approved programme of up to 15 widely-spaced reconnaissance holes for an estimated 1,500m of drilling is on site, together with the GCM crew and a Squirrel helicopter to ferry everyone daily from the base at the Heartbreak Hotel. Note the 10km scale bar on Figures 2 and 4, and the distance between the proposed drill sites MLG001 to MLG015 for the sheer size of the Project area.

The programme has been designed to primarily test the strength and extent of the widespread rare earths' enrichment, which is expected to be most strongly developed within 40 metres of the surface. Normally, the level of maximum REE enrichment lies in a flat lying clay rich layer between the surface laterite and the less weathered bedrock.

Several of the holes will be continued to deeper levels to provide information on the extensive local base metal anomalism in the cover and the known base metals in the underlying McArthur Basin.

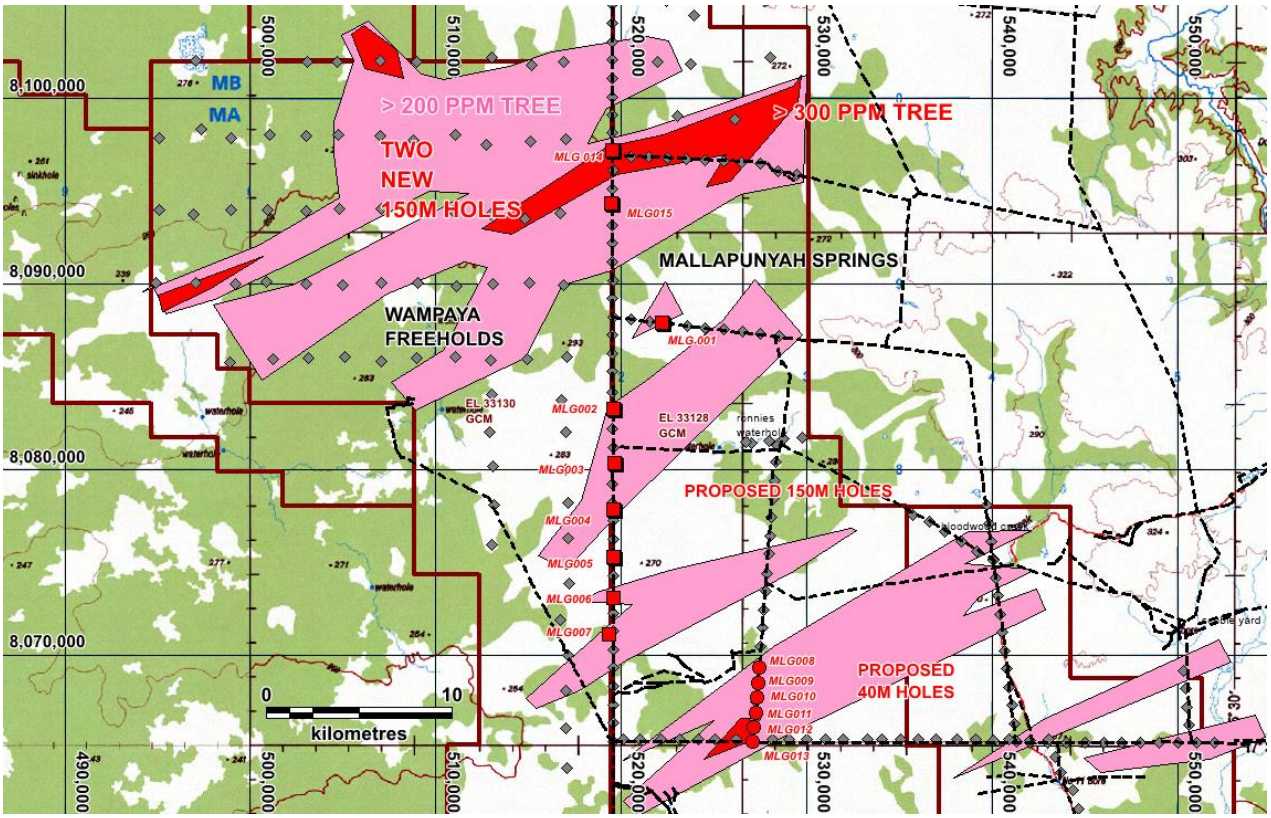

Figure 2 Rare Earths Anomalism and the Drilling Plan

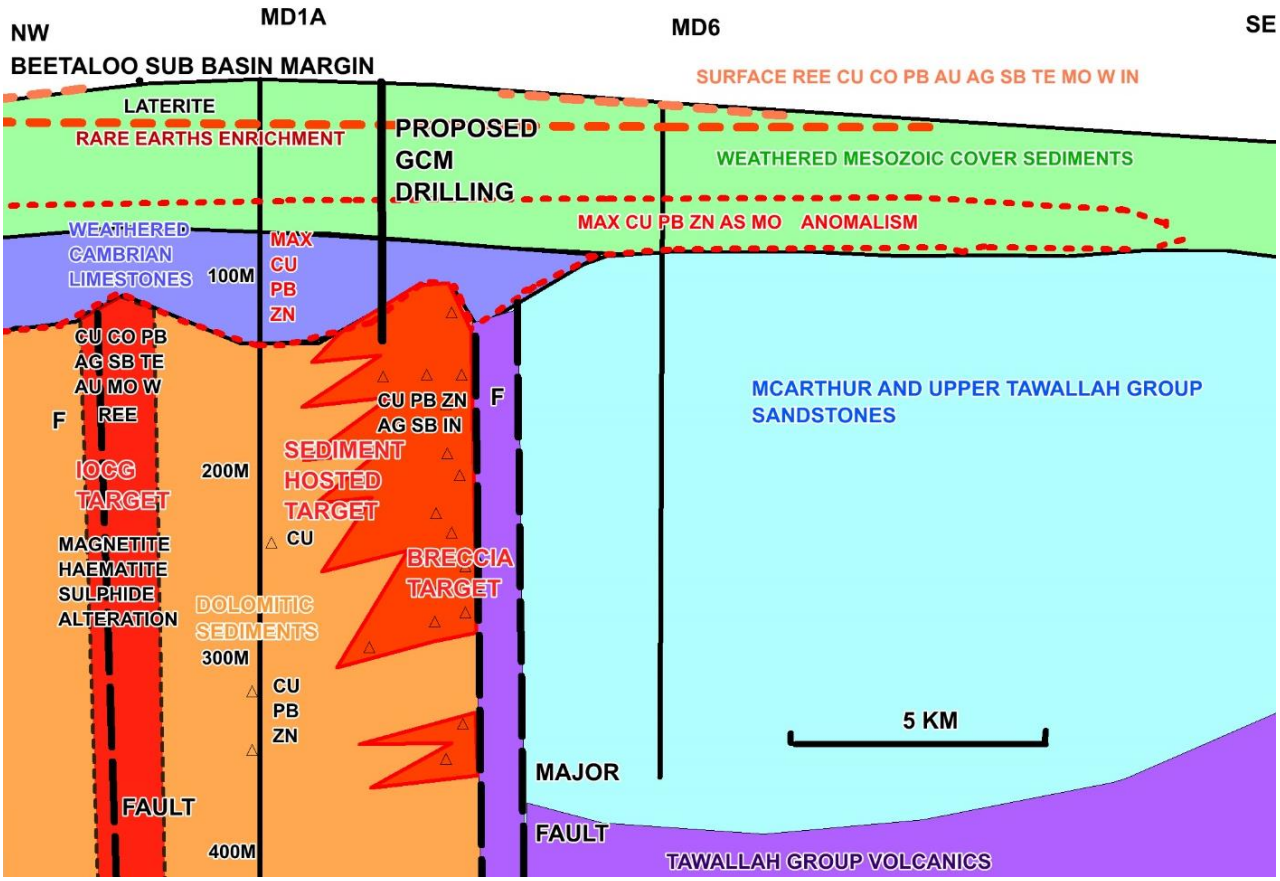

Figure 3 Schematic Cross Section of the Proposed Drilling

The top 90m of the drilling will be passing through sequences that are equivalent in age and are similar to the major vanadium (molybdenum and uranium) host rocks known in the Julia Creek area of Queensland.

Below that level there are remnant patches of older limestones and below 120m there are McArthur basin rocks, which in this area are considered to have high prospectivity for both McArthur style Silver Zinc Lead and Copper as well as IOCG Gold Copper deposits.

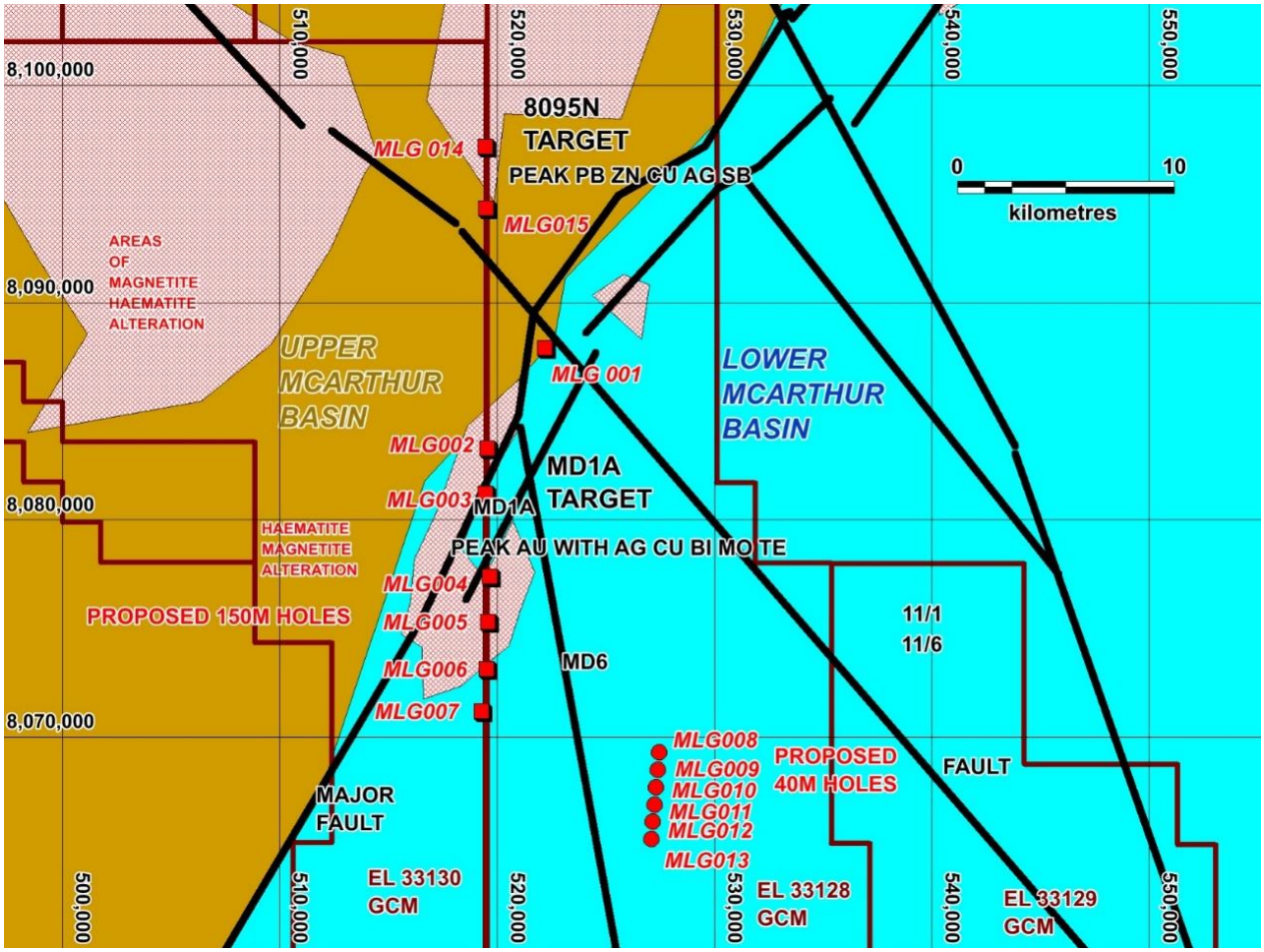

Figure 4 Proposed Drilling - Interpreted Basement Geology (ca 130m depth)

Programme Design (Figures 2, 3 and 4)

The drillsites have been designed to primarily give an overall test of the laterite plateau for shallow layers of rare earths enrichment, with 9 initial widely spaced holes along a north south traverse of 25 kilometres. A shorter closer spaced traverse of 40m holes is designed to provide information regarding continuity.

Previous diamond drilling and surface exploration has demonstrated that there is extensive base metal anomalism in the local cover. With this in mind, the drilling has a secondary purpose to outline any metal zoning that would help determine the source of the remobilised metals. The peak areas of GCM geochemical anomalism are referred to as the 9095N and MD1A targets.

Additionally, the holes along the 25km traverse have been positioned to intersect the NNE striking Beetaloo Sub Basin boundary fault at a low angle, with sites over gravity, magnetic and geochemical peaks. These peaks are considered to be indicative of mineralisation in the underlying McArthur Basin, and if possible, the holes will be deepened to provide intersections of these rocks.

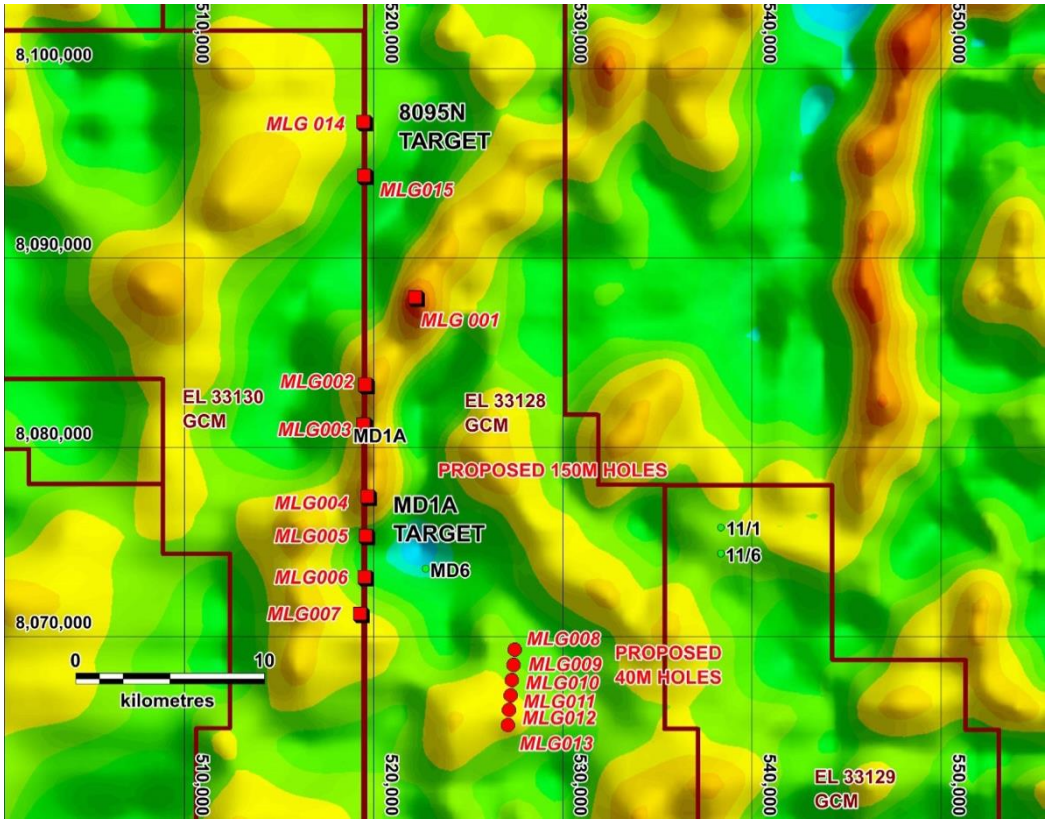

Figure 5 Proposed Drilling on 200m depth Modelled Gravity

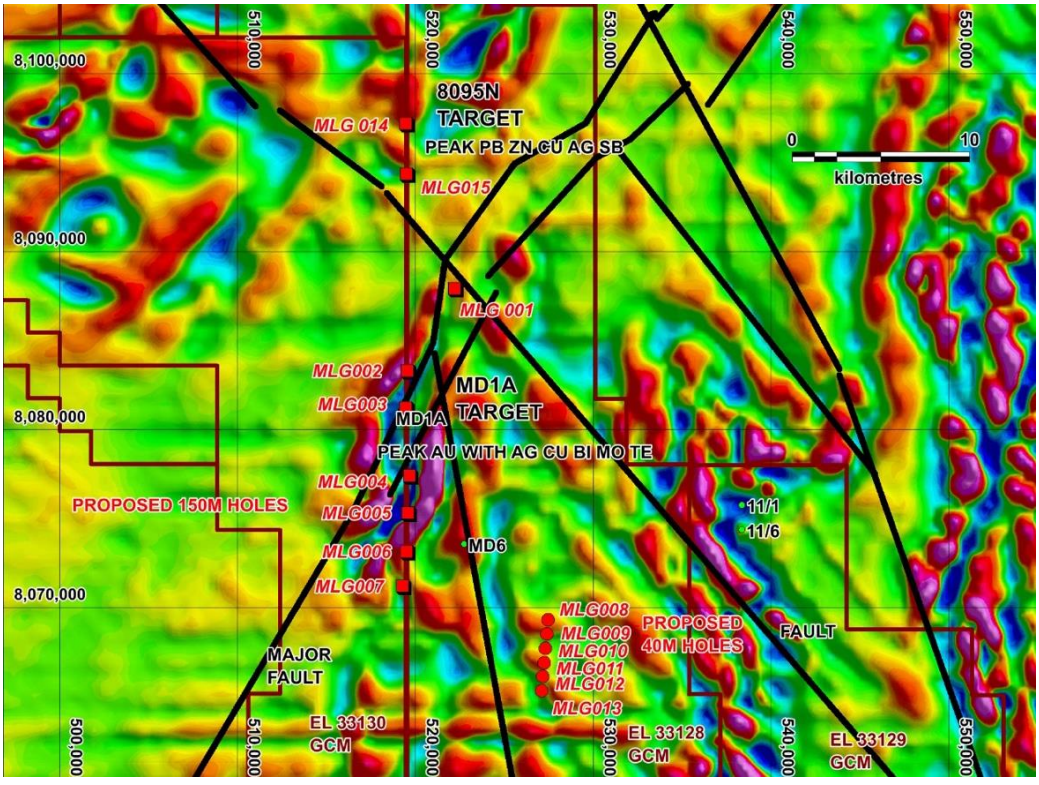

Figure 6 Proposed Drilling on 200m Magnetic Susceptibility Depth Slice

Sampling and Analytical Procedures

The entire drillholes are to be sampled at 1 metre intervals, but the initial assays will be done on 4 metre composite samples which are to be analysed for all elements of possible interest. Unusually high results may indicate that further 1m analyses are warranted for specific elements.

Additionally, the 1m samples will be tested on site for rare earths using an Olympus handheld XRF analyser. 1 metre samples with strongly elevated XRF rare earths will be separately analysed using a more specific analytical method at a certified laboratory.

Visibly mineralised intervals for base metals vanadium-uranium or bauxite may also be selected for special 1 metre analyses.

Timing

It is expected that full analytical results will not be available until late September, but GCM will report significant results that arise from visual logging and XRF analyses.

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 GCM. 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 Green Critical Minerals Limited.

Authorisation

The provision of this announcement to ASX has been authorised by the Board of Green Critical Minerals.

GCM confirms that it is not aware of any new information or data that materially affects the exploration results contained in this announcement.

Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves, or potential growth of Green Critical Minerals Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

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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.*	• No New Sampling Results announced.
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).*	• No drilling
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.* • *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.*	• No drilling
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.*	• No drilling

Criteria	JORC Code explanation	Commentary
	• *The total length and percentage of the relevant intersections logged.*	
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.*	• No drilling
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 have been established.*	• No new sampling
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.*	• No drilling results
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.*	• No new sampling.
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*	• Not Applicable

Criteria	JORC Code explanation	Commentary
	classifications applied. • *Whether sample compositing has been applied.*	
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.*	Not Applicable
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.*	• GCM sampling as previously reported, prior company sampling and Geoscience Australia sampling are all mutually supportive in identifying the area as anomalous in a variety of metals and rare earths.

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.*	• The announcement refers to 100% Green Critical Minerals Ltd (GCM) granted ELs 33128, 33129, and 33130, as well as EL applications 33229, 33230, 33467 and 33468. The applications mainly cover a mix of freehold leasehold and solely in the case of 33468 Aboriginal land. • There are no known security issues with the tenure at this time, however EL application 33468 may involve protracted negotiations to secure tenure.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been airborne EM by BHP (1993) and also by Geoscience Australia (2018) – Tempest wide spaced survey – EM and drilling details are available for download by the public. CRs 1993-191, 1994-139, 1995-181, 1996-210. • Geoscience Australia (GA) has conducted wide spaced geochemical sampling throughout the region, as part of the North Australian Geochemical Survey. • Stream sediment sampling with gold anomalous results

Criteria	JORC Code explanation	Commentary
		draining the project is reported on the public NT geochemical database – CR1995-0365, CR1984-0247. and CR1989-0751 • CRA explored for diamonds and drilled RC collared corehole RK2 into the magnetic alteration bodies of interest and the logs are publicly available in CR1995-0520.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Iron Oxide Copper Gold (IOCG) deposits containing copper gold rare earths molybdenum and other elements in association with haematite or magnetite alteration and replacements. • Mt. Isa (McArthur) Style zoned Co Cu Pb Zn, associated with basin margin faulting. • An ionic clay hosted rare earths deposit within a Tertiary laterite weathering profile. The rare earths originate in the IOCG systems but are remobilised in the laterite profiles.
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.*	• No IOCG drilling • No rare earths drilling. • Drilling by BHP in 1994 and as previously reported.
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.*	• No drilling
Relationship between mineralisation widths and	• *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.*	• No drilling

Criteria	JORC Code explanation	Commentary
intercept lengths	• *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').*	
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.*	• Not applicable
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.*	• Not applicable
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.*	Geoscience Australia and NT Geological Survey public magnetic data has been modelled by Geodiscovery Geophysical consultants to produce imagery. The depth slice imagery displays the magnetism of rocks at varying depths. The geological interpretation is by Neil Wilkins M.Sc who has had several years of mineral and petroleum experience across the McArthur Basin.
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.*	• The company plans to conduct drilling.