



## MAJOR MINERAL RESOURCE ESTIMATE UPGRADE FOR THE McINTOSH GRAPHITE PROJECT

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- Mineral Resource Estimate at the McIntosh Graphite Project increased to **30.2Mt** grading 4.40% TGC, a **26% upgrade**.
- Project's scale and premium product potential further enhanced, with the potential for a **+20 year life of mine** (approx. 40ktpa).
- Previously excluded fine flake material now included based on metallurgical test work results and updated marketing information.
- Product suite for fine flake size upstream and downstream qualifications identified, with initial target markets of lubricants, friction components, agriculture, and coatings.
- Expansion of the McIntosh graphite product suite to include spherical purified graphite (SPG) anode qualifications exist, with additional test work to be performed.

**Green Critical Minerals Ltd ("GCM" or "the Company")** which holds earn-in rights for up to 80% of the McIntosh Graphite Project (see announcement on 15 June 2022) is pleased to announce a major increase to 30.2 million tonnes (Mt) in the Mineral Resource estimate for its flagship McIntosh Graphite Project ("**Project**") in Western Australia. This represents a **substantial 26% upgrade from the previous estimate** of 23.8Mt, grading 4.45% Total Graphitic Carbon (TGC).

### METALLURGICAL BREAKTHROUGHS UNLOCK RESOURCE UPGRADE

The resource upgrade follows an extensive review of existing data, including detailed analysis of historical metallurgical test work programs and the recently concluded metallurgical test work program (see announcements dated 17 June 2024 and 19 June 2024) conducted on graphitic ore from the McIntosh area. These studies have delivered outstanding results, demonstrating that the fine flake size component (<150µm) of the graphite concentrate can be upgraded to >95% TGC purity through conventional flotation processes.

Significantly, analysis of the particle size distribution assay data has revealed that the <150µm component of the concentrate achieves the overall target product concentrate grade. These encouraging outcomes



have identified various new market opportunities for premium graphite product streams from the McIntosh project.

Commenting on the announcement, **GCM's Managing Director Clinton Booth said:** *"This major resource upgrade, in conjunction with our recently announced metallurgical results, is a transformational milestone for the McIntosh Graphite Project. By unlocking the value of the fine flake component, we have not only increased the total resource inventory but also opened up new potential revenue streams for premium graphite products. This increase in the mineral resource estimate to 30Mt provides a pathway to a mining operations of some 20+ years."*

#### INCLUSION OF MAHI MAHI RESOURCE CONTRIBUTES TO UPGRADE

Buoyed by the positive metallurgical results and marketing initiatives, the Company has incorporated the previously modelled but unreported Mahi Mahi resource into the latest estimate. This decision was driven by the high degree of geological and mineralogical consistency observed across the broader McIntosh project area, which extends over 30km of strike length.

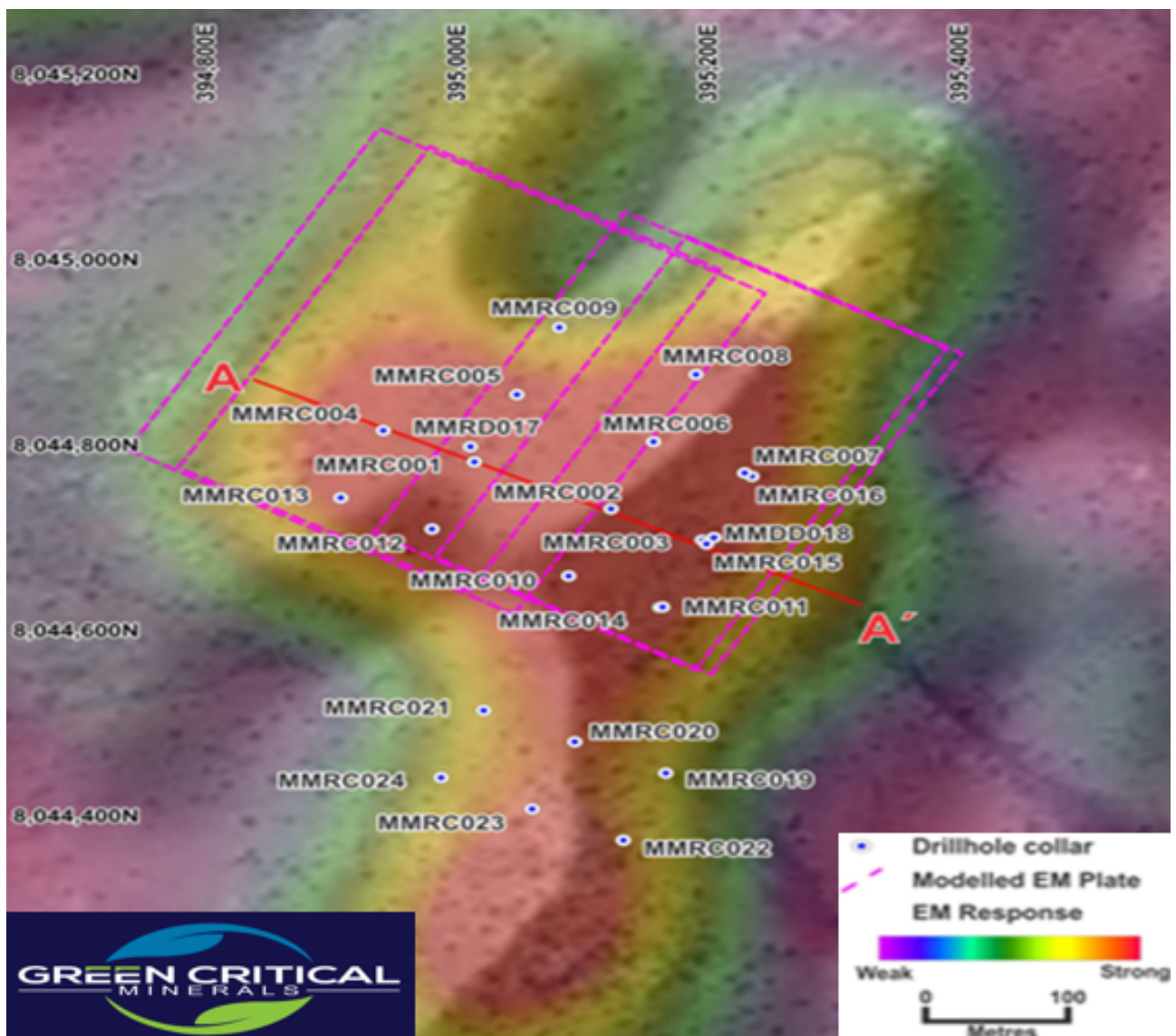
Current and historic metallurgical test work programs have been conducted on samples from the Emperor and Wahoo deposits, delivering outstanding concentrate grades. Diamond drill samples from the Longtom, Barracuda, and Mahi Mahi deposits exhibit similar geological and mineralisation characteristics, albeit with varying flake size distributions.

Crucially, analysis of the flake size distribution of the concentrates produced has shown that the fine flake size component generates TGC grades that closely match the total concentrate grade. This observation underpins the decision to include the Mahi Mahi resource in the latest estimate.

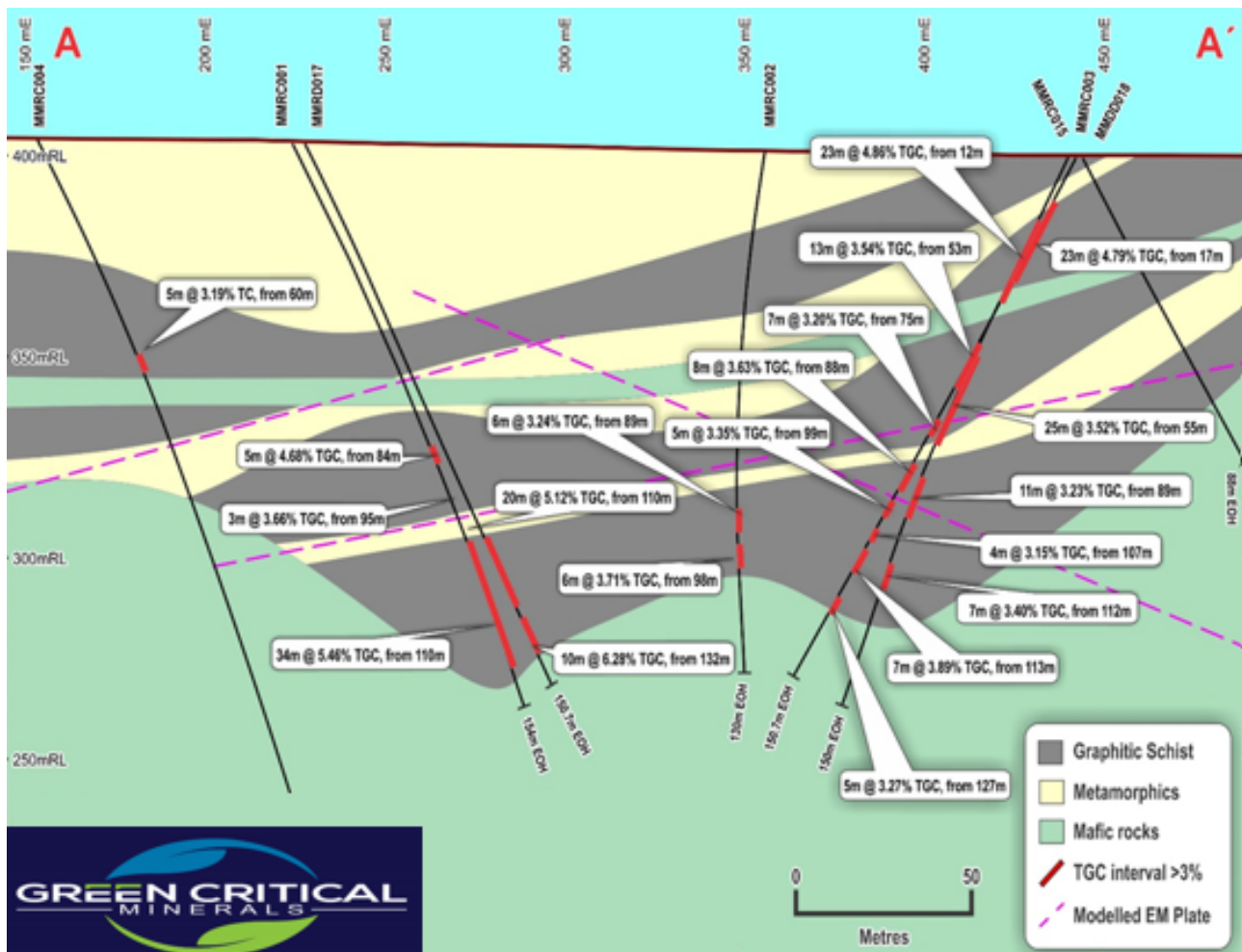
Deposit	Resource Classification	Tonnes (Mt)	%TGC	Contained Graphite (Mt)
Emperor	Indicated	12.1	4.28	0.52
	Inferred	3.8	4.35	0.17
	Total	15.9	4.3	0.68
Wahoo	Indicated	1.3	3.97	0.05
	Inferred	0.0	0.00	0.00
	Total	1.3	3.97	0.05
Longtom	Indicated	5.1	4.93	0.25
	Inferred	0.8	5.25	0.04
	Total	5.9	4.97	0.29
Barracuda	Indicated	0.7	4.4	0.03
	Inferred	0.0	0	0.00
	Total	0.7	4.4	0.03
Mahi Mahi	Indicated	0.0	0	0.00
	Inferred	6.3	4.2	0.27
	Total	6.3	4.2	0.27
All	Indicated	19.2	4.44	0.85
	Inferred	10.9	4.33	0.47
	<b>Total</b>	<b>30.2</b>	<b>4.40</b>	<b>1.33</b>

Table 1: Updated Mineral Resource Estimate for the McIntosh Graphite Project

This mineral resource estimate update reflects the company's recent review of historical datasets and findings that the dominate graphite flake size over the area is classified as fine. The Mahi Mahi resource had been modelled previously, but not included in the resource statement due to its fine flake size endowment. GCM is now satisfied that the graphitic ore from the fine flake size Mahi Mahi resource can produce a concentrate that can be sold into various end markets. Further details about the Mineral Resource of the McIntosh project deposits are available on the ASX announcements platform ([www2.asx.com.au](http://www2.asx.com.au), Code: HXG, Date: 5 April 2018, Title : Revised McIntosh Mineral Resource ~ Amended).



**Figure 1. Plan view of drill hole locations and VTEM geophysical anomaly (with modeled plates) for the Mahi Mahi resource.**



**Figure 2. Cross section through the Mahi Mahi resource showing drill hole intercepts and modelled geology looking NNE.**

## ONGOING METALLURGICAL OPTIMISATION

GCM is committed to an ongoing metallurgical test work program to support the identification and design of an optimised process flow sheet, with the most recent results announced on 17 June 2024.

The Company is now planning further metallurgical test work across the McIntosh resource areas, leveraging the optimised flow sheet. This comprehensive approach aims to validate the potential for premium graphite product streams across the project's entire resource base.

**GCM's Managing Director Clinton Booth added:** "Our metallurgical program is advancing, and we are highly encouraged by the results achieved thus far. With ongoing process optimisation, we are confident in our ability to become a leading and reliable global producer of high-quality upstream and downstream graphite powder products."



### NEXT STEPS UPDATE

GCM reported in the 21 November 2023 announcement the various next steps it will be taking to progress McIntosh. GCM is pleased to advise numerous activities are underway, and the information and results gathered from those activities is being used to inform future activities.

Based on the development pathway outlined GCM has therefore prioritised:

- Ongoing marketing analysis and potential customer engagement to identify McIntosh specific sale agreement opportunities, including traditional graphite markets, downstream graphite markets and both primary and secondary battery markets which includes the lithium-ion battery sector.
- Continuation of its comprehensive metallurgical test work program, to optimise each processing step from primary grinding, rougher and various cleaning stages for the McIntosh deposits.
- Development of a process flow sheet to support the design of a graphite concentrate pilot plant, including the possibility of a micronisation circuit and state of the art packaging system.

### Competent Person Statement

#### *Exploration Results and Mineral Resource Estimates*

The Mineral Resources set out in this announcement are based on, and fairly represent, information and supporting documentation reviewed by Mr. David Eastman, a competent person. Mr. Eastman is employed full time by the company and is a Member of the Australian Institute of Geoscientists. Mr. Eastman has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Eastman has consented to the inclusion of statements regarding the Mineral Resources set out in this announcement in the form and context that they appear. Further details about the Mineral Resource of the McIntosh project deposits are available on the ASX announcements platform ([www2.asx.com.au](http://www2.asx.com.au), Code: HXG, Date: 5 April 2018, Title : Revised McIntosh Mineral Resource ~ Amended)

#### *Metallurgical test work outcomes*

The information in this report that relates to the metallurgical activities are based on information compiled by Oliver Peters, who is a Member of the Professional Engineers of Ontario and the Principal Metallurgist and President of Metpro Management Inc. Oliver Peters 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Oliver Peters consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### Authorisation

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





### **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.

### **List of attachments**

*Appendix 1:* JORC Table 1 for Mahi Mahi Resource Estimate

**Appendix 1: JORC Table 1 for the Mahi Mahi Resource Estimate – From February 2019 and amended April 2024**

**Section 1 Sampling Techniques and Data**

Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> </ul>	<p><b>1. Reverse Circulation</b></p> <ul style="list-style-type: none"> <li>RC drilling used high pressure air and a cyclone with a rotary splitter.</li> <li>Samples were collected at one-metre intervals.</li> <li>All graphitic intervals were submitted for analyses.</li> <li>Duplicate and standards analysis were completed and no issues identified with sampling reliability.</li> <li>Samples were sent to the ALS laboratory in Perth for assay preparation and then sent to ALS in Brisbane, Vancouver and Ireland for Total Graphitic Carbon (TGC) analyses.</li> <li>All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay.</li> <li>Sampling was guided by Hexagon and MRL's protocols and QA/QC procedures.</li> <li>RC drilling samples of 3 to 5kg weight were shipped to the laboratory in calico bags; samples were pulverised and milled for assay.</li> </ul> <p><b>2. Diamond Drilling</b></p> <ul style="list-style-type: none"> <li>HQ3 drill core samples were collected at one-metre intervals.</li> <li>All graphitic intervals were submitted for analyses.</li> <li>Core samples were quarter split by ALS using a diamond bladed saw and sent to the ALS laboratory in Perth for assay preparation and then sent to ALS in Brisbane, Vancouver and Ireland for Total Graphitic Carbon (TGC) analyses.</li> <li>All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay.</li> <li>Duplicate samples, CRM standards and blank material (washed quartz sand) were used during the drill programs. Duplicates were collected after each 50 samples. Standards were inserted for samples ending in *00,*20,*40,*60 and *80 and blanks for samples ending in *01,*21,*41,*61 and *81. Sampling was guided by Hexagon and MRL's protocols and QA/QC procedures.</li> </ul>

Criteria	JORC Code Explanation	Commentary
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>• <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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></li> </ul>	<p><b>1. Reverse Circulation</b></p> <ul style="list-style-type: none"> <li>• 22 RC holes have been completed for 2,848 metres.</li> <li>• All RC drilling was completed with face sampling hammers and collected through a cyclone. Sample recovery was estimated as a percentage of the expected sample, sample state recorded (dry, moist or wet), samples tested with 10:1 HCl acid for carbonates and graphite surface float.</li> <li>• Drilling was completed by Mt Magnet Drilling using a Hydco 1300 drill rig.</li> </ul> <p><b>2. Diamond Drilling</b></p> <ul style="list-style-type: none"> <li>• One RC pre-collar was drilled in preparation for a HQ<sub>3</sub> diamond tail, for a total of 51m.</li> <li>• Two diamond holes for 251 metres were completed.</li> <li>• HQ<sub>3</sub> core was collected using a 3m core barrel.</li> <li>• Drilling was completed Mt Magnet Drilling using a Hydco 650 drill rig.</li> <li>• Core orientation was recorded using a Reflex EZ Shot instrument.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <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></li> </ul>	<p><b>1. RC Drilling</b></p> <ul style="list-style-type: none"> <li>• A face sampling hammer was used to reduce contamination at the face.</li> <li>• 1m drill chip samples, weighing between 3-5kg were collected in sequentially numbered bags.</li> <li>• Split samples were recovered from a cyclone and rig-mounted cone splitter. The sample recovery and physical state were recorded.</li> <li>• Every interval drilled is represented in an industry standard chip tray that provides a check for sample continuity down hole.</li> </ul> <p><b>2. Diamond drilling</b></p> <ul style="list-style-type: none"> <li>• Core recoveries were measured for each run between core blocks and measurements recorded.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All RC and diamond drilling was logged for geology in the field by qualified geologists. Lithological and mineralogical data was recorded for all drill holes using a coding system developed specifically for the Project. Primary and secondary lithologies are recorded in addition to texture, structure, colour, grain size, alteration type and intensity, estimates of mineral quantities, graphite intensity and sample recovery. The oxidation zone is also recorded.</li> <li>• No adjustments have been made to any assay data.</li> <li>• Geological logging is qualitative in nature.</li> </ul>



Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>Diamond drill logging also recorded recovery, structure and geotechnical data.</li> <li>Diamond core was orientated using the Reflex orientation tool.</li> <li>All core was orientated and marked up in preparation for cutting.</li> <li>Core was photographed both wet and dry.</li> </ul>
<b>Sub-sample techniques and sample preparation</b>	<ul style="list-style-type: none"> <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>	<p><b>1. RC Drilling</b></p> <ul style="list-style-type: none"> <li>All samples were marked with unique sequential sample number.</li> <li>RC drilling samples were bagged at the drill site in calico bags with a second outer plastic bag to prevent loss of fines. The sample sizes are considered to be appropriate to the grain size of the material being sampled.</li> <li>1m RC drill samples were submitted to ALS laboratories in Perth. The samples were riffle split on a 50:50 basis, with one split pulverised and analysed for Total Graphitic Carbon (TGC), Total Carbon (TC) and Total Sulphur (TS) using a LECO Furnace, and the other split held in storage.</li> <li>For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected. Duplicate assay results exhibit good correlation with the original assays and no consistent bias is evident.</li> <li>Sample preparation: <ol style="list-style-type: none"> <li>Coarse crush using a jaw crushed to better than 70% passing 6mm.</li> <li>For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50</li> <li>Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size.</li> <li>Small aliquot (~10g) taken for assay.</li> </ol> </li> </ul> <p><b>2. Diamond Core</b></p> <ul style="list-style-type: none"> <li>Diamond drill core was cut into half core (retained for metallurgical testing) and the remaining half sawn into quarter core using diamond blade core-saw. Quarter core was used for samples and duplicates. Core cutting was carried out by ALS in Perth.</li> <li>Duplicate assay results exhibit good correlation with the original assays and no consistent bias is evident.</li> <li>Sample preparation: <ol style="list-style-type: none"> <li>Coarse crush using a jaw crushed to better than 70% passing 6mm.</li> </ol> </li> </ul>

Criteria	JORC Code Explanation	Commentary
		<ol style="list-style-type: none"> <li>2. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50</li> <li>3. Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size.</li> <li>4. Small aliquot (~10g) taken for assay.</li> </ol> <ul style="list-style-type: none"> <li>• Sampling procedures and sample preparation represent industry good practice:</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>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The assaying and laboratory procedures used are appropriate for the material tested.</li> <li>• Sampling was guided by Hexagon and MRL's protocols and QA/QC procedures.</li> <li>• For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected.</li> <li>• Field duplicates were taken from the coarse reject of processed diamond core samples at a rate of 4 every 100 samples, standards at a rate of 4 every 100 samples and blanks at 2 every 100 samples.</li> <li>• Statistical analysis of standards, blanks and duplicates during the QAQC process showed that the data was satisfactory.</li> <li>• No issues were identified with sampling reliability</li> </ul>
Verification of sampling and assaying	<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>• Hexagon QA/QC checks show that all samples are within acceptable limits. No adjustments to assay data have been made based on the analysis of duplicates, standards and blanks.</li> <li>• Standards from ALS laboratory were found to be acceptable.</li> <li>• Duplicate analysis was completed and no sampling issues were identified.</li> <li>• During a site visit in October 2015, a geological consultant from CSA verified that the diamond drilling, geological logging and sampling practices were of industry standard. The same practices were used for the Mahi Mahi drilling in 2018.</li> <li>• Green Critical Minerals conducted external verification on all data collected during 2018.</li> <li>• The Hexagon database is hosted in a SQL backend database, ensuring that data is validated as it is captured and exports are produced regularly. Assay results are merged into the database from the lab certificates limiting transcription or mapping errors from occurring.</li> </ul>

Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> <li>No adjustments have been made to the results.</li> </ul>
<b>Location of Data points</b>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>24 drill collars were surveyed by MNG Survey using a Differential GPS. The degree of accuracy of drill hole collar location and RL is estimated to be within 0.1m for DGPS.</li> <li>All holes used in the resource have been downhole surveyed using a gyro by ABIM Solutions.</li> <li>The map projection used is the Australia Geodetic MGA 94 Zone 52.</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>Drill spacing on an approximate 80m by 80m grid.</li> <li>Geological interpretation and mineralisation continuity analysis indicates that data spacing is sufficient for definition of a Mineral Resource.</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>Holes generally drilled dipping at -60° to the southeast targeting a north westerly dipping body.</li> <li>Diamond drill core has been orientated using a Reflex ACE tool (9Act II), with <math>\alpha</math> and <math>\beta</math> angles measured and positioned using a Kenometer.</li> <li>The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.</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>Unique sample number was retained during the whole process.</li> <li>RC samples were placed into calico bags and then into plastic bags prior to being put into bulka bags on pallets. The bulka bags were then transported by road to ALS laboratories in Perth. Preparation was completed by ALS in Perth and then transferred through internal systems to ALS Brisbane, Vancouver and Ireland for analysis</li> <li>Diamond core was sent to ALS in Perth for cutting and preparation. Then transferred through internal systems to ALS Brisbane, Vancouver and Ireland for analysis.</li> </ul>

Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> <li>• Drill core was transported to ALS in Perth by road train in stacked core trays, secured to pallets with metal strapping.</li> <li>• The sample security is considered to be adequate.</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>• Sampling techniques and data collected methods have been audited by CSA during a site visit in October 2015. These same practices were adopted in 2018.</li> <li>• Field data is managed by an independent data management consultancy Rocksolid Solutions.</li> <li>• All data collected was subject to internal review.</li> <li>• No audits or reviews were completed on work completed in 2018.</li> </ul>

## Section 2 Reporting of Exploration Results

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> </ul> <p><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></p>	<ul style="list-style-type: none"> <li>• Drilling at the Mahi Mahi deposit occurred on exploration lease E80/4825. This tenement is held by Hexagon Energy Materials Limited.</li> <li>• Mineral Resources Ltd were the managers of the 2018 exploration work on the McIntosh Project.</li> </ul>
<b>Exploration done by other parties</b>	<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>• The East Kimberley has been largely explored for base metals and diamonds with no active previous exploration for graphite. Graphite had been noted by Gemutz during regional mapping in the Mabel Downs area for the BMR in 1967, by Rugless mapping and RAB drilling in the vicinity of Melon Patch bore, to the east of the Great Northern Highway in 1993 and has been located during nickel exploration by Australian Anglo American Ltd,</li> </ul>

Criteria	JORC Code explanation	Commentary
		Panoramic Resources Ltd and Thundelarra Resources Ltd over the last 20 years.
<b>Geology</b>	<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>The McIntosh Project graphite schist horizons occur in the high grade terrain of the Halls Creek Mobile Zone of Western Australia. The host stratigraphy is the Tickalara Metamorphic which extend for approximately 130 km along the western side of the major Halls Creek Fault. The metamorphic rocks reach granulite metamorphic facies under conditions of high-temperature and high pressure although the metamorphic grade in the McIntosh Project area appears to be largely upper amphibolite facies with the presence of key minerals such as sillimanite and evidence of original cordierite.</li> <li>Hexagon and GCM have identified potential graphite schist horizons based on GSWA mapping and EM anomalism over a strike length in excess of 15km within the project area, with potential for an additional 35km strike length of graphite bearing material from lower order EM anomalism.</li> </ul>
<b>Drill hole Information</b>	<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 drillholes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drillhole collar</i></li> <li><i>elevation or RL (elevation above sea level in metres) of the drillhole 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> </ul>	<ul style="list-style-type: none"> <li>22 RC holes have been completed for 2,848 metres.</li> <li>One RC pre collar for 51metres was completed.</li> <li>Two Diamond holes for 251metres were completed.</li> <li>Hole locations tabulated and reported in the body of the report.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Data compiled in excel and validated in Datashed by an external data management consultancy.</li> <li>RC and diamond samples were all 1m in length.</li> <li>Metal equivalents are not reported as this is an industrial mineral project where the mineral properties define grade (e.g. flake size and purity).</li> <li>A nominal 3% Total Graphitic Carbon cut-off has been applied in the determination of significant intercepts</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i></li> </ul>	<ul style="list-style-type: none"> <li>Mineralised widths at Mahi Mahi are estimated to be typically between 20m and 70m, compared with RC samples of 1m width. There is a very close relationship between the graphitic schist unit and Total Graphitic Carbon</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.</i></li> </ul>	(TGC%) assays. The presence of graphitic schist is clearly evident in both the RC chips and diamond drill core so that the assay widths can be clearly related to the geological logs.
<b>Diagrams</b>	<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 drillhole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>Relevant diagrams have been included within the Mineral Resource report main body of text.</li> </ul>
<b>Balanced reporting</b>	<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>Exploration results have been reported using a nominal 3% TGC cut off, over a minimum interval length of 3m. Internal dilution of no more than 2m sub 3% TGC has been incorporated.</li> </ul>
<b>Other substantive exploration data</b>	<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>An Xcite EM survey was completed over the tenement in 2016. Conductors highlighted in this survey were targeted for drill testing and resulted in the discovery of the Mahi Mahi deposit.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>Test EM anomalies along strike for potential extensions to mineralisation.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li><i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li> </ul>	<ul style="list-style-type: none"> <li>Primary data was captured into spreadsheet format by the supervising geologist, validated and subsequently loaded into Hexagon's database.</li> <li>Database extracted as an .mdb access file from Datashed and validated before importing into Surpac.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>Data validation procedures used.</i>	<ul style="list-style-type: none"> <li>Additional data validation by Green Critical Minerals; included checking for out of range assay data and overlapping or missing intervals.</li> </ul>
<b>Site Visits</b>	<ul style="list-style-type: none"> <li><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> </ul>	<ul style="list-style-type: none"> <li>Numerous site visits were completed by S. Tomlinson during the 2018 drilling period. The diamond and RC drill rigs were inspecting, sampling procedures checked, RC chips and diamond core logged.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li><i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li> <li><i>Nature of the data used and of any assumptions made.</i></li> <li><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> </ul> <p><i>The factors affecting continuity both of grade and geology.</i></p>	<ul style="list-style-type: none"> <li>Geological interpretation was based on lithology logging, structural logging, geochemical sampling, prospect scale surface mapping and modelled Xcite EM survey data collected in 2016.</li> <li>Drill coverage to ~80m x 80m.</li> <li>Mineralisation wireframe produced based on soft 3% TGC cut-off grade delineating ore/waste boundary. Internal dilution in the main mineralised envelope has been modelled as two domains. Further modelling of mafic intrusive bodies have also been modelled.</li> <li>The base of oxidation and mafic intrusives were also modelled as part of the Mahi Mahi resource.</li> <li>Confidence in the grade and geological continuity is reflected in the Mineral Resource classification.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mahi Mahi deposit resource extends 520m north- northeast to south-southwest. The mineralisation dips ~20° degrees to the southwest and is ~70m thick.</li> <li>Mineralisation is open along strike and at depth.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes</i></li> </ul>	<ul style="list-style-type: none"> <li>The resource was modelled using Geovia's Surpac v6.7 modelling software.</li> <li>Drill hole sample data was flagged from interpretations of the top and base of the mineralisation horizon.</li> <li>Sample length was composited to 1m down hole length.</li> <li>Top grade cuts were not applied.</li> <li>Total Graphitic Carbon (TGC) estimated by Ordinary Kriging (OK) for mineralised domains (1 and 4). Sulfur (S) estimated by OK for mineralised domains (1 to 4).</li> <li>Regression calculations were used to fill attributes SiO<sub>2</sub>, CaO, K<sub>2</sub>O and Na<sub>2</sub>O.</li> <li>Flake size distribution was assigned to domains 1 and 4 based on petrography analysis.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>appropriate account of such data.</i></p> <ul style="list-style-type: none"> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i></li> </ul>	<ul style="list-style-type: none"> <li>Density was assigned based on the average of downhole using a Geovista Dual density logging tool.</li> <li>Statistical analysis was completed to investigate low correlation variances, boundary conditions between domains, fresh/oxide, extrapolation distance, variogram ranges, KNA, parent block size, sub-cell, constraints used for volume model, variable search orientation, sample numbers used, discretisation, validation.</li> <li>TGC mineralisation continuity was interpreted from variogram analyses to have a horizontal range of 170m (north-west to south-east).</li> <li>The entire resource has been classified as Inferred material, due to the drill hole spacing being sparse, but still sufficient to assume continuity of mineralisation. Confidence for the resource in these areas is also from the VTEM survey completed over the area.</li> <li>The maximum extrapolation distance is 40 m along strike and 40 m across strike.</li> <li>Grade estimation was into parent blocks of 40 mE by 40 mN by 5 mRL. Block size was selected based on kriging neighbourhood analysis.</li> <li>Estimation was carried out using ordinary kriging at the parent block scale.</li> <li>The search ellipses were oriented within the plane of the mineralisation.</li> <li>Three estimation passes were used; the first search was based upon the variogram ranges in the three principal directions; the second search was two times the initial search and the third search was four times the initial search, with reduced sample numbers required for estimation.</li> <li>Aproximately 70% of the block grades were estimated in the first pass for domain 1 (main envelope) and 49% for domain 4.</li> <li>The estimated TGC block model grades were visually validated against the input drillhole data, comparisons were carried out against the drillhole data and by northing, easting and elevation slices.</li> <li>There is no production data and so no reconciliation has taken place.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mahi Mahi deposit sits partially below the water table.</li> <li>Moisture content has not been tested</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Based on a statistical analysis of drill data, lower cut-off grade of 3.0% total graphitic carbon was used for determining mineralised material at the Mahi Mahi deposit.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous.</i></li> </ul>	<ul style="list-style-type: none"> <li>It is assumed that extraction will be by open pit mining and that the mineralisation is economic to exploit to currently modelled depths.</li> <li>Mining factors such as dilution and ore loss have not been applied.</li> <li>No assumptions about minimum mining widths or dilution have been made.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous.</i></li> </ul>	<ul style="list-style-type: none"> <li>Petrological assessment of graphite flake size was completed. This concluded that the graphite is &lt;50micron.</li> <li>A review of the geological data suggests that the new targets may have a similar metallurgical response than the Emperor resource.</li> <li>Flotation testing will have to be conducted to confirm these assumptions.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation.</i></li> </ul>	<ul style="list-style-type: none"> <li>No assumptions have been made regarding waste and process residue.</li> <li>Environmental studies will be completed as part of the GCM McIntosh Pre-Feasibility study.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and</i></li> </ul>	<ul style="list-style-type: none"> <li>Dry density was assigned a value of 2.85 (fresh) and 2.65 (oxide) based on 26 dried core samples and water emersion technique carried out by ALS.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>representativeness of the samples.</i></p> <ul style="list-style-type: none"> <li><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> </ul> <p><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p>	
<b>Classification</b>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> </ul> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<ul style="list-style-type: none"> <li>The Mahi Mahi Mineral Resource has been classified in the Inferred category, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code).</li> <li>The mineral resource has been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model, modelled grade continuity and conditional bias measures (slope of the regression and kriging efficiency) as criteria.</li> <li>Measured resource - none defined.</li> <li>Indicated resource – none defined.</li> <li>Inferred material includes the entire resource due to drilling data being sparse, but still sufficient to assume continuity of mineralisation. Confidence for the resource in these areas is also from the VTEM survey completed over the area.</li> </ul> <p>The classification considers all available data and quality of the estimate and reflects the Competent Person's view of the deposit.</p>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>A review of all geological data was undertaken by Green Critical Minerals, with no underlining issues being identified.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person.</i></li> <li><i>The statement should specify whether it relates to global or local estimates, and, if local, state the</i></li> </ul>	<ul style="list-style-type: none"> <li>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the JORC Code (2012 Edition).</li> <li>The mineral resource is a global estimate of tonnes and grade.</li> <li>The confidence intervals have been based on a block informing information.</li> <li>Relative tonnages and grade above the nominated cut-off grades for TGC are provided in the body of this report. Volumes of the collated blocks sub-set by mineralisation domains were multiplied by the dry density value to derive</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>relevant tonnages, which should be relevant to technical and economic evaluation.</i>	<p>the tonnages. The contained graphite values were calculated by multiplying the TGC grades (%) by the estimated tonnage.</p> <ul style="list-style-type: none"> <li>• No production data is available to reconcile results with.</li> </ul>