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## ASX Announcement

# Maiden Resource Estimation for Razafy at Maniry Project

- **Maiden JORC compliant indicated and inferred resource for Razafy of 11.2Mt @ 7.10% TGC at the Maniry Project in Southern Madagascar**
- **Majority of resources within 'Indicated' category, resource broken down as follows:**
  - **Razafy Indicated Resource: 8.0Mt @ 7.22% TGC**
  - **Razafy Inferred Resource: 3.2Mt @ 6.80% TGC**
- **Substantial opportunity to grow graphite resources through exploration of the high grade Razafy Domain – Q4 2018**
- **Resource estimation will form basis of Scoping Study due for completion Q4 2018**

BlackEarth Minerals NL (ASX: BEM) (the **Company** or **BlackEarth**) is pleased to announce a it has taken a major step in its strategy to fast track the development of its 100% owned Maniry Graphite Project in Southern Madagascar with the completion of a maiden JORC compliant mineral resource estimation for the Razafy Graphite Deposit.

The Razafy indicated and inferred resource, comprising of **11.2Mt @ 7.10% Total Graphitic Carbon (TGC)** is summarised below in Table 1. The vast majority of the resource has been classified with a high degree of confidence at an 'Indicated' classification, with the remainder classified as 'Inferred'.

Classification	Tonnes (Mt)	TGC Grade (%)	Contained Tonnes (t)
Razafy Indicated	8.0	7.22	577,600
Razafy Inferred	3.2	6.80	217,600
<b>Total Resources</b>	<b>11.2</b>	<b>7.10</b>	<b>795,200</b>

\*6% Cut off grade

**Table 1 – Mineral Resource Estimates for Maniry Project**

This resource estimate is the culmination of the Company's 74 hole, 5,371m diamond drilling program at Razafy, which was completed earlier this year and will form the foundation of ongoing scoping study activities, which have been progressing in parallel with the resource estimation process. **The Maniry Scoping Study remains on schedule for completion in Q4 2018** and will in turn pave the way for a Feasibility Study (FS) which will be completed in 2019.

To that end, **BlackEarth will be commencing its next phase of exploration in Q4 2018** with the aim of delineating further high-grade graphite within the Razafy Domain proximally to the high grade Razafy Graphite Deposit. Further information about the exploration potential of the Maniry Graphite Project can be found in the ASX announcement (dated 9 August 2018: Razafy Exploration Target) released in parallel with this Resource Estimation announcement.

## Resource Summary

The August 2018 Resource for the Razafy Graphite Deposit reports at total of 11.2Mt @ 7.10% TGC for 795,200 tonnes of contained graphite at a 6% cut off grade. The graphitic mineralisation is currently open along strike in both directions and also down dip. Details of the resource are provided within Table 1.

The key points identified from the work include:

- The resource is based upon 2,396 samples averaging 1.8m in length.
- Representative density measurements highlight the average density of the weathered material at 2.07 m/t<sup>3</sup> and the fresh material at 2.25m/t<sup>3</sup>
- The contact between the graphitic schist and background un-mineralised gneiss is sharp and the contact can be very easily followed from section to section.
- Higher grade domains (+9%) exist within the lenses, infill drilling would define these further.
- The modelled mineralised zones that form the basis of the resource show good continuity and are based on the data from 74 holes for 5,371 m of diamond drilling, of which 66 holes for 4,455m were drilled by BlackEarth this year.
- Refer to JORC 2012 Table found as an appendix to this announcement.

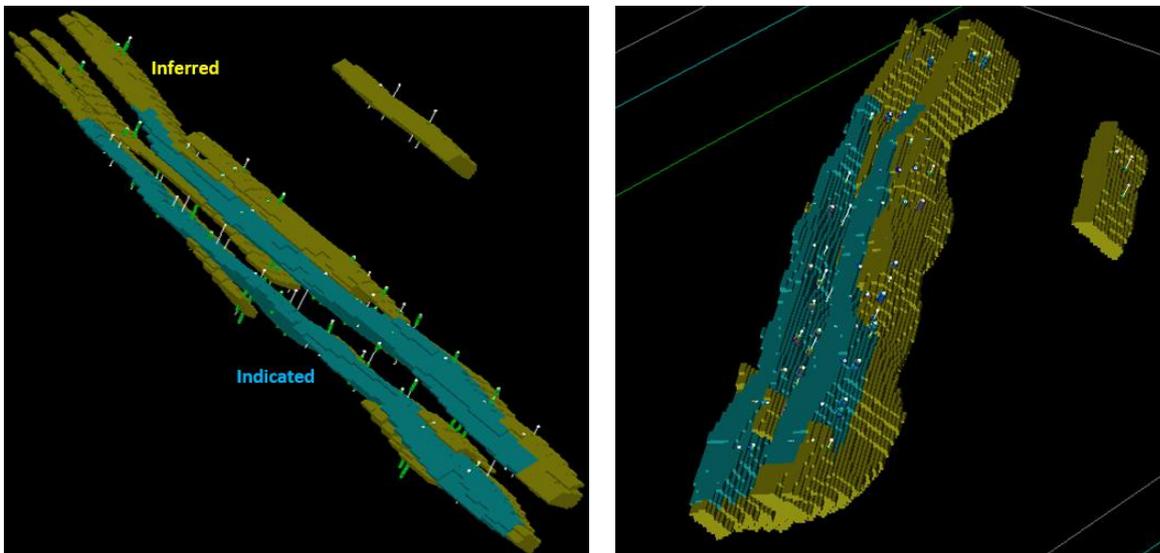


Figure 1 – Razafy Resource Block Models – Inferred and Indicated Resources

## Haja Drilling Update

BEM is also pleased to provide an update of the 2,000m drilling program at the Haja Prospect where 23 of the 25 planned drill holes have been completed. Drilling is progressing well and is expected to be completed within the coming days with a maiden resource estimation in Q4 2018. Previous drilling at the Haja Prospect (see Replacement Prospectus dated 24 November 2017 – page 107) has identified extensive thicknesses of graphite mineralisation including intersections of 70m @ 5.3% Total Graphitic Carbon.

**Managing Director, Tom Revy commented:**

“This is a great milestone for BlackEarth. Following the IPO in January this year, we have delivered the maiden resource within seven months of listing. This resource has delivered a high grade of graphite with favourable mineralogy. I look forward to growing the resource and commencement of our next major deliverable: the scoping study.”

**MEDIA CONTACTS**

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**Competent Person’s Statement**

*The information contained in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr. Peter Langworthy, a member of The Australasian Institute of Mining and Metallurgy. Mr. Langworthy has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that 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.” Mr. Langworthy consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.*

*The information contained in this report that relates to Mineral Resources is based on information compiled by Ms. Annick Manfrino, Principal of Sigma Blue and Manager Geology of Black Earth Minerals. Ms. Manfrino is a member of The Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities 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.” Ms. Manfrino completed a site inspection and is the Competent Person for the resource estimation. Ms. Manfrino consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.*

For more information – [www.blackearthminerals.com.au](http://www.blackearthminerals.com.au)

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**About BlackEarth Minerals NL ( [www.blackearthminerals.com.au](http://www.blackearthminerals.com.au) )**

BlackEarth Minerals NL (ASX: BEM) ("Company") is an ASX listed company focused primarily on the exploration and development of its 100% owned Madagascan graphite projects.



The location of the Company's primary graphite projects: Madagascar (Maniry & Ianapera - above)

The Company's Madagascan projects consist of two primary exploration areas: the main Maniry project ("Maniry") in the south, and the Ianapera project ("Ianapera") in the north. Maniry is highly prospective for large-scale, high-quality graphite deposits. Results, from current diamond drilling have confirmed that the Razafy Prospect (contained within the Maniry Project area) consists of high grade, thick outcropping graphitic mineralisation contained within distinct lenses which remain not only open along strike but also at depth. Recent identification of further lenses to the east also highlights the prospectivity of the immediate area which, based on mapping and previous exploration only represents 5% of the current Maniry Project area.

Ianapera is located approximately 50km north of Maniry. It consists of a series of high-grade outcrops, up to 800m long and 30m wide, of graphite mineralisation within a broader graphite trend. Identified as a large conductive body, potential exists for the presence of a large graphitic mineralised system.

The Company's Western Australian graphite assets include 4 early stage project areas that have been partially explored by a number of companies in the past, with encouraging results reported from several locations.



Table 2 – JORC

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>	<p>Heliborne VTEM (Versatile Time Domain EM Survey) survey flown in 9-30th October 2018 by Geotech Airborne Limited. Approximately 624km<sup>2</sup> area for 3333.5 line km's. Aircraft - AS350-BA Helicopter. Receiver Coil Area 113.1m<sup>2</sup> (1.2m Diameter, 100 turns) Window Channel - Standard 26 CH, 83us to 7828us. Line spacing 200m, 2-4m station spacing. Transmitter loop size - 26m diameter (4 turns). Coordinates - WGS84 - 38S. Base Frequency - 30Hz. Duty Cycle - 37%. Nominal Terrain Clearance - 80m. EM Loop clearance - 41m. Recording Sample - 10 samples per second. Waveform - Trapezoid, Pulse Width 7360us. Peak Current - 180A. Peak Dipole Moment - 382,000 N/A.</p>
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>	NA
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>	NA
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 studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	NA
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	NA
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	As above
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	NA
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	NA
Data spacing and distribution	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Lines flown on 115-295 degree - Parallel with much of the stratigraphy at Maniry
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Lines were flown generally parallel with stratigraphy at Maniry on 200m spaced traverses. This is not ideal and leads to issues with modelling of EM targets. The data is used in this instance as a proxy for mineralisation in the area.
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	NA
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	Data collected was reviewed by Bill Peters SGC - WA Geophysical Consultants

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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	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<p>Work was undertaken upon permits 5394 &amp; 39751</p> <ul style="list-style-type: none"> <li>The tenements are located within the inland South West of Madagascar approximately centred on the township of Ampanihy.</li> <li>Tenements are held 100% by Mada-Aust SARL. Ultimately a wholly owned subsidiary of BlackEarth Minerals NL through Madagascar Graphite Ltd.</li> <li>No overriding royalties are in place</li> <li>There is no native title agreement required</li> <li>Tenure does not coincide with any historical sites or national parkland</li> <li>Semi-arid, thinly vegetated, relatively flat to low lying hills with sub-cropping rock.</li> <li>Tenements are currently secure and in good standing</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Regional mapping by BRGM, Historical diamond drilling and trenching by Malagasy Minerals. Ltd. (2014-2016)
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<p>The project overlies a prominent 20km wide zone consisting of a folded assemblage of graphite and quartz-feldspar schists (&lt;60% graphite), quartzite and marble units, with lesser intercalated amphibolite and leucogneiss.</p> <p>This zone, termed the Ampanihy Belt is a core component of the Neoproterozoic Graphite System. The belt is interpreted as a ductile shear zone accreted from rocks of volcanic and sedimentary origins.</p>
Drill hole Information	<ul style="list-style-type: none"> <li>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: <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> </li> <li>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.</li> </ul>	NA
Data aggregation methods	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	NA
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	NA
Diagrams	<ul style="list-style-type: none"> <li>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.</li> </ul>	NA
Balanced reporting	<ul style="list-style-type: none"> <li>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.</li> </ul>	NA
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	Refer to BEM Prospectus and previous announcements
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Haja resource estimation - Q4 2018 and resumption of field exploration - mapping, rock chipping and trenching

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary	
Database integrity	<ul style="list-style-type: none"> <li>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.</li> <li>Data validation procedures used.</li> </ul>	All data sets have been automatically loaded into an industry standard database. All files have been automatically validated at point of loading and routinely throughout the program.	
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<p>Annick Mantrino, Competent Person for the resource estimate visited the site in March-April 2018</p> <p>All drilling, sampling and sample preparation procedures were considered of industry standard, well supervised and carried out</p>	
Geological interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> </ul>	The confidence of the geological interpretation of the graphitic lenses is considered robust for the purpose of estimating and reporting Indicated and Inferred resources.	
	<ul style="list-style-type: none"> <li>Nature of the data used and of any assumptions made.</li> </ul>	Graphite is hosted within graphitic schists and gneiss	
	<ul style="list-style-type: none"> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> </ul>	The complete extent of the two main lenses outcrop and can be followed by mapping at surface.	
	<ul style="list-style-type: none"> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> </ul>	Trenches have been used with success in early exploration stages to confirm the strike continuity	
	<ul style="list-style-type: none"> <li>The factors affecting continuity both of grade and geology.</li> </ul>	No major faulting or other structural disruption has been mapped in the project area and the location of the drilling intercepts of the graphitic mineralisation confirms the anticipated position of the lenses	
			The boundary between graphitic schists and gneiss and the surrounding material is usually sharp with TGC grades below 0.5% in background material changing to +3% grades in the graphitic lenses, leaving few options to shift the boundaries position.
			Mineralisation envelopes were interpreted on section using a nominal +3% TGC cut-off grade.
Dimensions	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p>The Mineral Resource encompasses the Razafy deposit and a new prospect named East Razafy</p> <p>The Razafy deposit comprises two major lenses -East Main and West Main lenses-, and four minor graphitic lenses adjacent to the main zones.</p> <p>The solids interpreting the two main lenses are 1450m long with a maximum plan width of 65m for the East main lens and 60m for West main lens in the south part of the deposit. The two main lenses extend 155m depth below surface and define the lowest depth below surface at which a resource has been estimated</p> <p>The Razafy block model extends 1 625m along strike, 900m across strike and 200m depth to cover the East Razafy prospect area</p>	
	<ul style="list-style-type: none"> <li>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.</li> </ul>	Total graphitic carbon and sulphur have been estimated by ordinary kriging using a 140m across strike by 50m down dip by 12m across strike search ellipse which defines the outmost distances to which blocks can be extrapolated from drillholes	
	<ul style="list-style-type: none"> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> </ul>	Drill section are spaced regularly at 100m (with the exception of the first northern section which is 200m away from the second section) with drillholes spaced at 30m across sections	
	<ul style="list-style-type: none"> <li>The assumptions made regarding recovery of by-products.</li> </ul>	Kriging parameters for both TGC and sulphur were obtained from modelling the directional variograms (normal variograms) for the two main lenses.	
Estimation and modelling techniques	<ul style="list-style-type: none"> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> </ul>	Nugget values are 20% of the total sill for both elements	
	<ul style="list-style-type: none"> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> </ul>	The grade estimation was completed using GEMS mining software with partial blocks to honour the volume of the grade envelope solids	
	<ul style="list-style-type: none"> <li>Any assumptions behind modelling of selective mining units.</li> </ul>	The block model is based on 25m along strike by 5m across strike by 5m Z, which is considered adequate given the current drill spacing of 100m section lines by 30m spacing	
	<ul style="list-style-type: none"> <li>Any assumptions about correlation between variables.</li> </ul>	Mineralisation envelopes were used as hard boundaries during the interpolation	
	<ul style="list-style-type: none"> <li>Description of how the geological interpretation was used to control the resource estimates.</li> </ul>	The base of oxide surface was used as a hard boundary for the sulphur estimation but as a soft boundary for the total graphitic carbon estimation	
	<ul style="list-style-type: none"> <li>Discussion of basis for using or not using grade cutting or capping.</li> </ul>	No top-cut measure was used as there is no evidence of outliers. The maximum total graphitic carbon value for the 2m sample assays is 15%	
	<ul style="list-style-type: none"> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	The grade estimates were validated visually and statistically to ensure that they honour spatially and statistically the input data.	
Moisture	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	The Resource is reported on a dry tonnage basis	
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	Mineralisation envelopes have been wireframed to an approximate 3% TGC cut-off grade which corresponds to a natural break between background material, which usually presents TGC grades below 0.5%, and the graphitic schists and gneiss with TGC grades greater than 3%.	
Mining factors or assumptions	<ul style="list-style-type: none"> <li>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. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	Based on the orientations, thicknesses and depths to which the graphitic lenses have been modelled and their estimated TGC, the potential mining method is considered to be open pit mining	
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>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. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	The shallow, higher grade nature of the graphitic mineralisation, together with the detailed outcomes from a comprehensive review of the mineralogy undertaken by an independent mineralogist (see ASX Announcement "Razafy mineralogy confirms graphite flake up to 2900 micron" dated 5 July 2018) supports the Company's opinion that the deposit has the potential for eventual economic extraction	

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<p>Environmental factors or assumptions</p>	<ul style="list-style-type: none"> <li>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. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<p>It is assumed that the processing of ore will have a minimal environmental impact. This is based upon other graphite processing operations and basic assumptions on how graphite ore will be processed at Maniry.</p>
<p>Bulk density</p>	<ul style="list-style-type: none"> <li>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 representativeness of the samples.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<p>The bulk density used to report the Mineral Resource is based on 19 measurements made by water displacement method by the Intertek Perth laboratory</p> <p>A 2.07 t/m<sup>3</sup> value was used for the oxide material and 2.17 t/m<sup>3</sup> for the fresh material</p>
<p>Classification</p>	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie 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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<p>The two main lenses are continuous over the strike of the deposit.</p> <p>They can be followed on surface by mapping without interruption and are not disrupted by faulting</p> <p>Trenches completed during the early exploration stages, but not used in the resource estimate, confirm the location at surface of the thickness of the mineralisation estimated by the model</p> <p>With a 100m drill section spacing, and search ellipses of 140mx50mx12m, extrapolation of blocks is limited</p> <p>All minor lenses, including the East Razafy prospect have been classified as Inferred material</p> <p>For the East and West Main lenses, the kriging slope of regression obtained for the total graphitic carbon estimate was used to separate Indicated from Inferred resource at depth. Blocks with a slope of regression greater than 0.5 were classified as Indicated, the other blocks were classified as Inferred</p> <p>The classification is based on a high degree of geological understanding of the mineralisation occurrence and spatial distribution, correlated by systematic drilling information with limited extrapolation</p> <p>The Mineral Resource estimate appropriately reflects the view of the Competent Persons</p>
<p>Audits or reviews</p>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<p>No audit nor review were undertaken for this Mineral Resource Estimate</p>
<p>Discussion of relative accuracy/ confidence</p>	<ul style="list-style-type: none"> <li>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. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<p>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).</p> <p>The mineral resource is a global estimate of tonnes and grade.</p> <p>Relative tonnages and grade above the nominated cut-off grades for TGC are provided in the body of this report.</p> <p>The contained graphite values were calculated by multiplying the TGC grades (%) by the estimated tonnage on a block by block basis.</p> <p>No production data is available to reconcile results with.</p>