ASX Announcement **2 November 2022**

Exploration Update - Duketon Project

HIGHLIGHTS

Duketon North MLEM Survey Phase 2 - Completed

- The EM survey covering the northern sector of the Duketon Project has now been completed with numerous EM anomalies identified that will be the subject of further assessment prior to the decision to drill.

Bulge MLEM Survey – Surveying continuing

- A broad very late time and high amplitude EM anomaly has been identified within the Bulge ultramafic complex, down plunge and immediately west of the Rosie mineralisation. This indicates a highly conductive body at depth.
- Further surveying is underway and expected to be complete within the next two weeks with modelling to follow.

Tate MLEM Survey - Completed

- Several EM anomalies identified both internal and flanking the larger intrusion. These areas are covered by transported sands and very little is known about these intrusions. Further geological and geophysical work is required to put these into context.

Drilling - Commencing

- Diamond drilling planned to commence at the end of this week on multiple targets and will continue through to the end of the year. Targets include:
  - Down plunge Rosie
  - Albany EM and Geochem target
  - Various other targets generated from EM program or from drilling
  - The camp oven target has been downgraded by further EM work and is unlikely to be drilled at this stage

Duketon Mining Ltd (**ASX: DKM**, **"Duketon"** or **"the Company"**) is pleased to announce completion of a significant electromagnetic survey over the northern half of the Duketon North Project, over the two large mafic intrusions at the Tate Project and over part of the Bulge (the host to Rosie and C2 mineral resources). Over 110 line kilometres were completed during these surveys and over 1200 stations were collected. This constitutes a major investment by

the Company using the latest technology to either survey areas of no data or to re-survey areas previously covered by older and less capable systems. This data will underpin the next major exploration push focusing on new discoveries and extending the current resources.

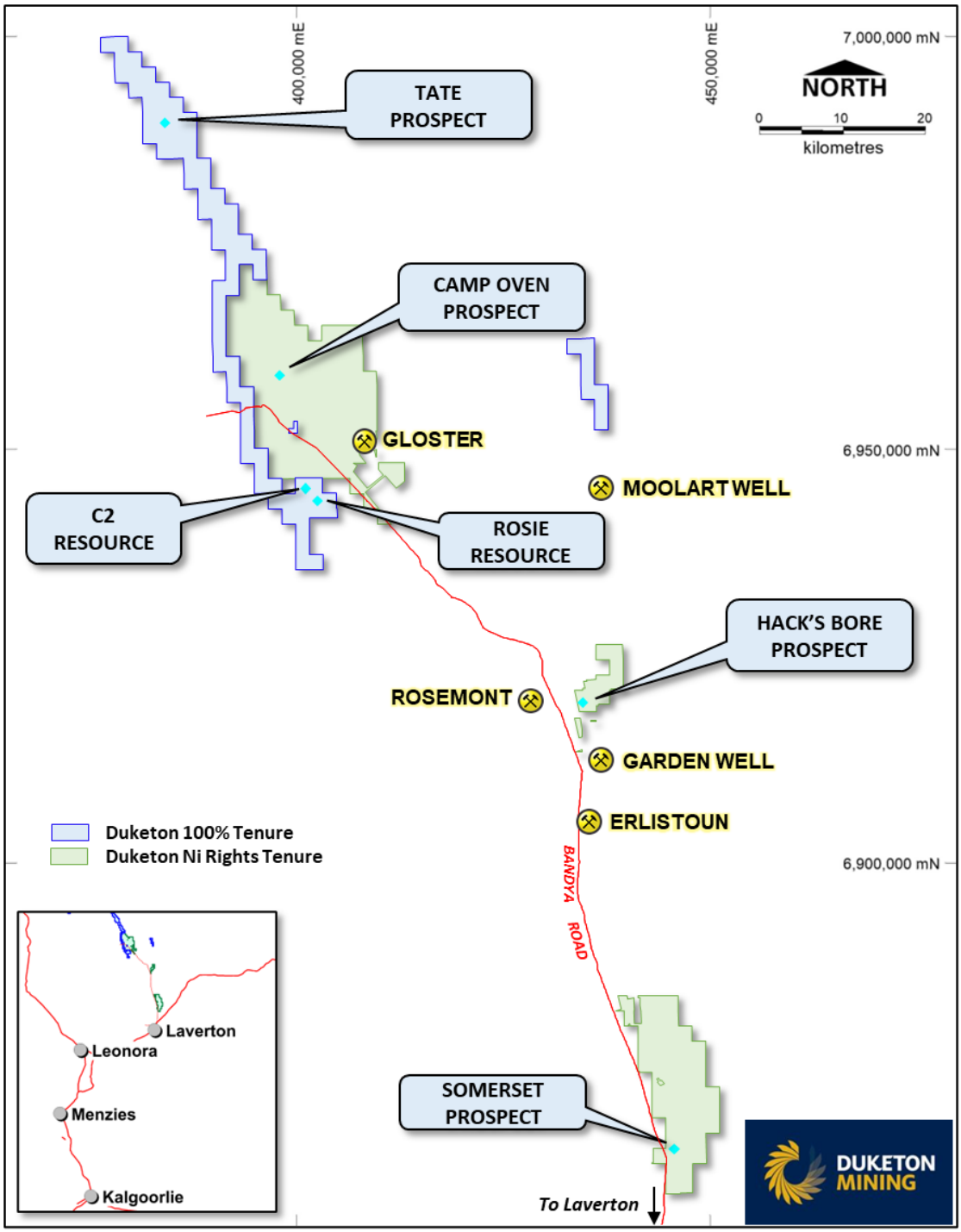

Figure 1. *Location map of the Duketon tenement holdings and location of DKM prospects.*

Duketon North EM Survey Phase 2 - Completed

Phase 2 of the EM survey that was continuing in the northern sector of the Duketon Project has now been completed. Numerous EM anomalies have been identified in this program. These are all mid-time anomalies and require further geological work prior to being drilled.

Bulge EM Survey – Surveying continuing

Whilst the EM crew were on site a decision was made to re-survey a portion of the Bulge ultramafic to the south and to the west of the Rosie Mineral Resource. This was to address two main issues with the pre-existing data. Firstly, the newer systems are more powerful and are less noisy allowing them to receive data later in time which is a proxy for “seeing” deeper. Secondly the orientation and position of the previous data was not optimal to the now know orientation of the geology and the mineralisation.

On the one line that is orientated east west a broad, very late time and high amplitude EM anomaly has been identified internal to the Bulge ultramafic complex. This is down plunge and immediately to the west of the Rosie mineralisation (see Figure 2). This response is indicating that there is a highly conductive body at depth. Surveying is ongoing and once all data is collated it can be effectively interpreted for drill testing.

Tate EM Survey - Completed

The MLEM survey over the Tate project has been completed and has identified several EM anomalies both internal and flanking the larger of the two intrusions. This area is covered by transported sands and very little is known about these intrusions. Further geological and geophysical work is required to put these into context. (see Figure 3).

Drilling - Commencing

Diamond drilling is planned to commence at the end of this week on multiple targets and will continue through to the end of the year. Highest priority targets include;

- Down plunge Rosie
- Albany EM and Geochem target
- Various other targets generated from EM program or from drilling

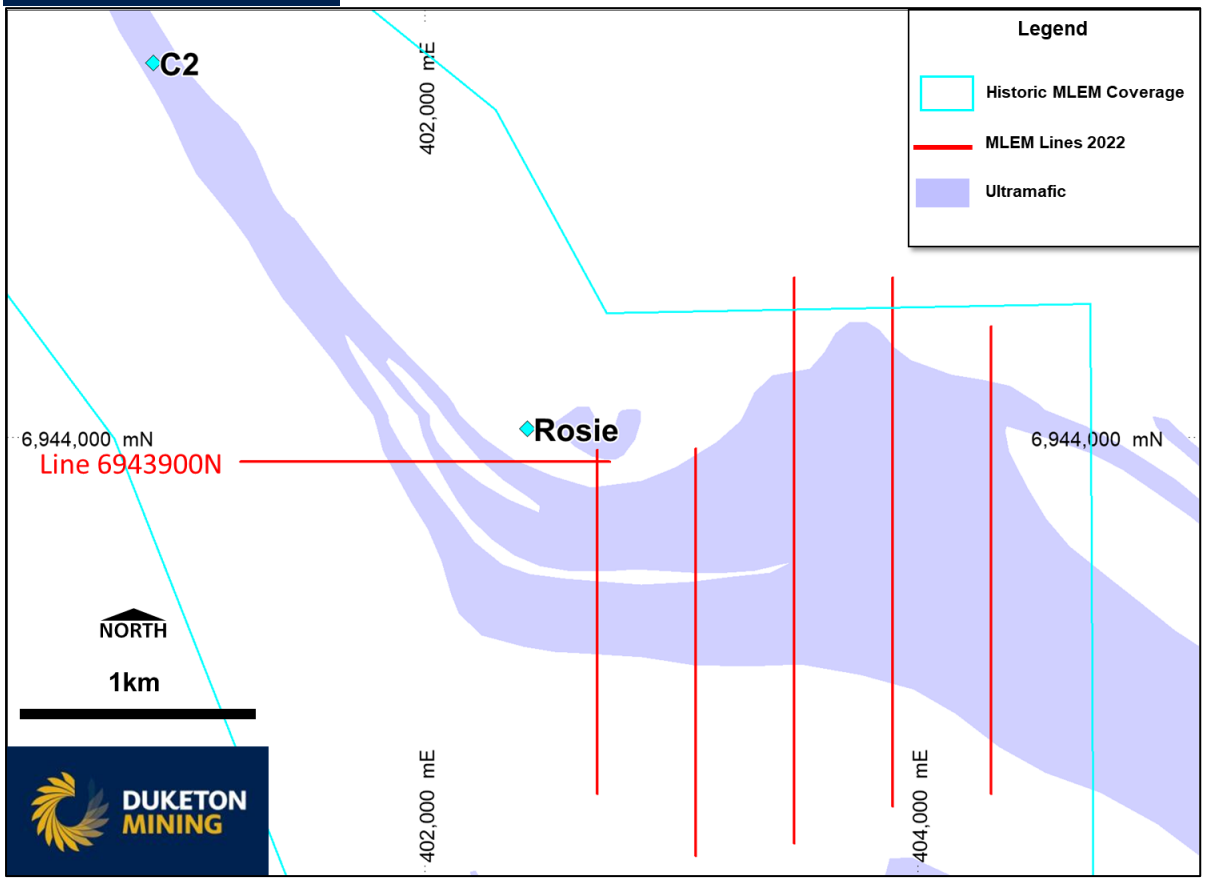

Figure 2. *Map of recently completed EM Lines at The Bulge (red lines) against an interpreted geology image showing the host ultramafic.*

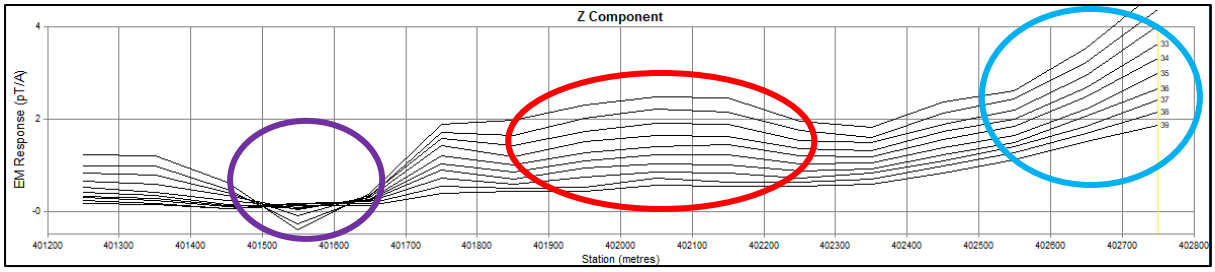

Figure 3. *MLEM profile line 6943900N, channels 30-39 showing a broad, very late time, high amplitude anomaly in red circle. This indicates a highly conductive body at depth (in the order of approx. 5000 Siemens). Response on the right-hand side of the profile in blue is associated with Rosie area. Response to the left-hand side of the profile in purple is west of the ultramafic host rocks.*

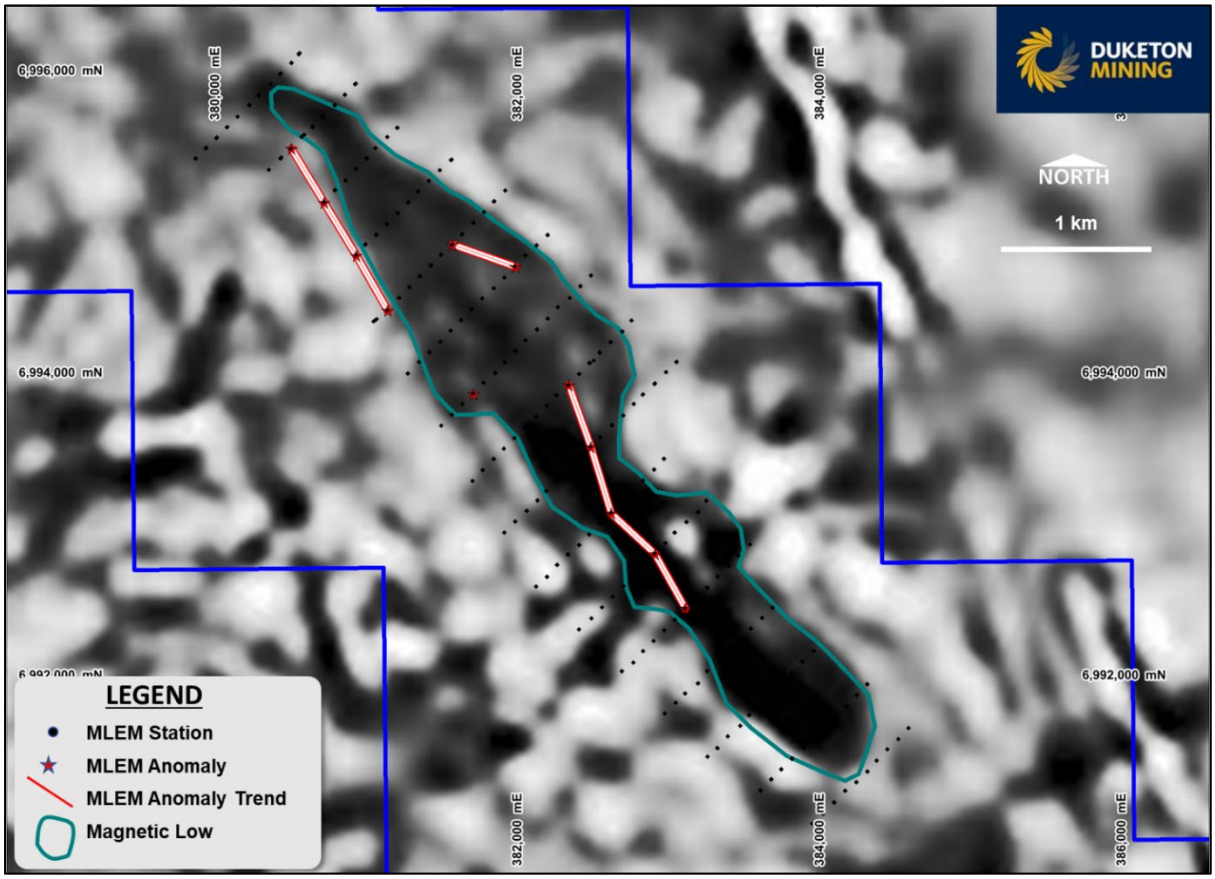

Figure 3. *Map of EM Conductors at Tate against a magnetic image. Black dots are EM stations. Red dots and white lines are EM anomalies.*

Authorised for release by:
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Competent Person Statement:

The information in this release that relates to exploration results is based on information compiled by Ms Kirsty Culver, Member of the Australian Institute of Geoscientists (AIG) and an employee of Duketon Mining Limited. Ms Culver has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a competent person as defined in the JORC Code 2012. Ms Culver consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The information in this release that relates to Geophysical Results and Interpretations is based on information compiled by Karen Gilgallon, Principal Geophysicist at Southern Geoscience Consultants. Karen Gilgallon is a Member of the Australasian Institute of Geoscientists (AIG) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a competent person as defined in the JORC Code 2012. Karen Gilgallon consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.

JORC Table 1

JORC Code, 2012 Edition – Table 1 report – Duketon Project

Section 1 Sampling Techniques and Data – MLTEM

(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.*	• N/A • N/A • N/A • N/A
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).*	• N/A
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• N/A • N/A

Criteria	JORC Code explanation	Commentary
	• *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.*	• N/A
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.* • *The total length and percentage of the relevant intersections logged.*	• N/A • N/A • N/A
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.*	• N/A • N/A • N/A • N/A • N/A • N/A
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*	• N/A • MLEM parameters: ➢ Loop Size – 200m x 200m (single turn) ➢ Transmitter – DRTX ➢ Sensor – 3-component B-field fluxgate magnetometer ➢ Receiver – SMARTem 24

Criteria	JORC Code explanation	Commentary
	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.*	➢ Line Spacing – 200-400m ➢ Station Spacing – 100m ➢ Transmitter Frequency – 1Hz ➢ Current – 75A ➢ Stacks – 128 ➢ Readings – minimum 2 per station
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.*	• N/A
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.*	N/A
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 classifications applied.* • *Whether sample compositing has been applied.*	• N/A • N/A • N/A
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.*	• N/A • N/A

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• N/A
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No external audits or reviews have been conducted apart from internal company review.

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 tenements E38/2834, E38/2916, E38/3142 are owned by Regis Resources Limited (RRL) and tenements E38/3549, E38/3550 are owned by GCXplore Pty Ltd. Duketon Mining Limited have 100% of the nickel rights over the tenements. They are in good standing and there are no known impediments to obtaining a licence to operate in the area. • Tenements M38/1252 and E38/3658 are 100% owned by Duketon Mining Limited and are in good standing and there are no known impediments to obtaining a licence to operate in the area
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous drilling in this area was completed by Cominco, South Boulder Mines Ltd and Independence Group (IGO). • This work has been checked for quality as far as possible and formed the basis of the follow-up conducted as part of the drilling programme presented.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The anomalies presented in the historic data are sourced from typical

Criteria	JORC Code explanation	Commentary
		Archaean Greenstone rocks of the Yilgarn Craton.

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.*
		• N/A

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.*	• N/A • N/A • N/A
Relationship between mineralisation widths and intercept lengths	• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• N/A
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.*	• Refer to figures in document.

Criteria	JORC Code explanation	Commentary
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.*	• N/A
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.*	• Refer to document.
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.*	• Further work may involve drilling of holes, initially aircore and reverse circulation (RC) and more ground geophysical surveys.