

ASX Announcement 30 June 2025

### **BILOELA COPPER-GOLD PROJECT**

### **Gallium Potential Identified at Karita Prospect**

#### **HIGHLIGHTS**

- Regional review of critical metals identified gallium potential in the northern part of the Biloela project at the Karita and Tea Tree prospect areas
- Over 6 km of prospective host rocks for gallium mineralisation
- Gallium-polymetallic mineralisation from <u>Karita prospect</u> returned up to:
  - 54.5 ppm Ga (73.4 ppm Ga<sub>2</sub>O<sub>3</sub>), 0.12 g/t Au, 0.7% Cu;
  - 48.8 ppm Ga (65.6 ppm Ga<sub>2</sub>O<sub>3</sub>), 0.1% Cu; and
  - 44.8 ppm Ga (60.2 ppm Ga<sub>2</sub>O<sub>3</sub>), 0.4% Cu
- Gallium mineralisation at Tea Tree is associated with Cu-Au porphyry related mineralisation:
  - o 38.5 ppm Ga (51.8 ppm Ga<sub>2</sub>O<sub>3</sub>), 1.0 g/t Au, 1.4% Cu; and
  - o 42.4 ppm Ga (57.1 ppm Ga<sub>2</sub>O<sub>3</sub>), 0.14 g/t Au, 0.3% Cu
- Strong association of gallium potential and jarosite anomalism in hyperspectral satellite analysis
- Further assessment of gallium potential ongoing across the Project

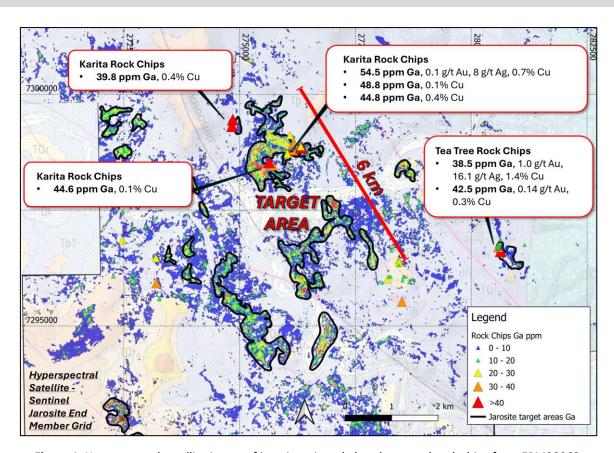


Figure 1. Hyperspectral satellite image of jarosite mineral abundance and rock chips from EPM28063.





Bindi Metals Limited (**ASX: BIM**, "**Bindi**" or the "**Company**") is pleased to announce the results of its critical minerals potential review of the Biloela Project, Queensland (the **Project**).

#### **Critical Metals Review**

Bindi undertook a critical metals review of all results across the Project in light of the export bans imposed by China on gallium, germanium, antimony to the US in December 2024<sup>1</sup>. China supplied ~98% of the world's raw gallium<sup>2</sup>.

In the review, the Karita and Tea Tree prospects were identified to have potential ore grade gallium (>30 ppm³)-polymetallic mineralisation. Over a 2 km zone of intermittent outcrop with strong argillic alteration related to epithermal veining, the Karita Prospect returned (Table 1):

- 54.5 ppm Ga (73.4 ppm Ga<sub>2</sub>O<sub>3</sub>), 0.12 g/t Au, 8 g/t Ag, 0.7% Cu;
- 48.8 ppm Ga (65.6 ppm Ga<sub>2</sub>O<sub>3</sub>), 0.1% Cu;
- 44.8 ppm Ga (60.2 ppm Ga<sub>2</sub>O<sub>3</sub>), 0.4% Cu;
- 46.8 ppm Ga (62.9 ppm Ga<sub>2</sub>O<sub>3</sub>), 0.2% Cu; and
- 39.8 ppm Ga (53.5 ppm Ga<sub>2</sub>O<sub>3</sub>), 3.2 g/t Ag, 0.4% Cu.

At the Tea Tree prospect, copper-gold mineralisation was associated with gallium mineralisation including:

- 38.5 ppm Ga (51.8 ppm Ga<sub>2</sub>O<sub>3</sub>), 1.0 g/t Au, 16.1 g/t Ag, 1.4% Cu, 104 ppm Mo & 0.8% Zn; and
- 42.4 ppm Ga (57.1 ppm Ga<sub>2</sub>O<sub>3</sub>), 0.14 g/t Au, 0.3% Cu, 15 ppm Mo.

At Cave Mountain gold mineralisation was accompanied with moderate gallium up to 30 ppm Ga (40.2 ppm  $Ga_2O_3$ ), 11.4 g/t Au, 7.3 g/t Ag, 1.2% Cu.

#### Hyperspectral Analysis

Hyperspectral analysis of various minerals using Sentinel-2 infrared (VNIR) and shortwave infrared (SWIR) imagery to map out mineral abundance at surface was compared to the rock chips results from the Tea Tree area on the Biloela project. This tool is particularly useful for mapping alteration within epithermal systems such as at Karita. A number of epithermal system globally have been shown to be mineralised in gallium within advanced argillic zones such as Paradise Peak gold deposit in Nevada where jarosite-alunite alteration contains high grade gallium at 84-118 ppm³. Jarosite can readily precipitate in gallium during the oxidation of sulphides under the right hydrothermal conditions⁴.

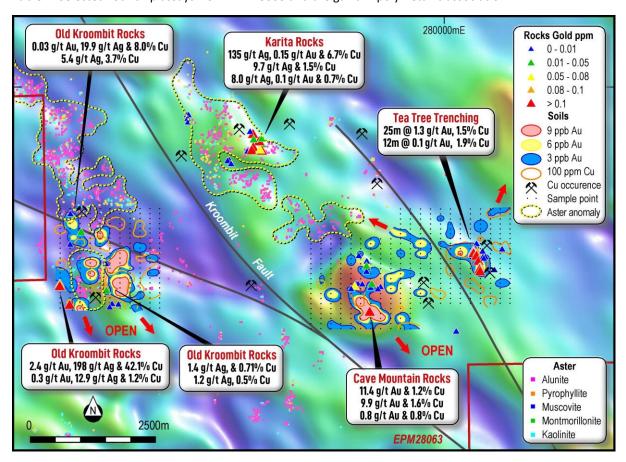
Using this technique, jarosite mineral maps were overlain with gallium rock chip assays from EPM28063 and demonstrated a strong correlation between the two (Figure 1).

As a result, the correlation of jarosite mineral abundance and gallium mineralisation has highlighted several target areas that may indicate further zones of gallium mineralisation – see Figure 1. The priority target area defined at Karita has an anomalous jarosite zone over a strike length of 6 km and significant potential exists for gallium here. A number of other prospective zones have also been identified in the dataset. Further assessment work is required to determine the full mineral potential of gallium within this prospective zone. No drilling has been undertaken on any of these prospective zones.

The 6 km target zone forms a larger prospective zone of 8-10 km of jarosite mineral abundance that represents a bulk tonnage style target for exploration work to focus on.

SampleID	Prospect	Easting	Northing	Ga_ppm	Ga2O3	Au_ppm	Ag_ppm	Cu_ppm	Cu_pct	Fe_pct	Ge_ppm	Mo_ppm	Pb_ppm	Zn_ppm
BM2611	Karita	276,154	7,298,802	54.6	73.39	0.122	8	7050	0.71	4.3	0.25	0.32	2.7	24
BM2630	Karita	276,327	7,298,851	44.9	60.35	0.042	0.83	1835	0.18	6.67	0.11	0.3	3.9	17
BM2631	Karita	276,329	7,298,849	42.8	57.53	0.014	0.91	1350	0.14	4.86	0.09	0.27	4.9	18
BM2632	Karita	276,335	7,298,866	46.8	62.91	0.026	0.67	2290	0.23	2.94	0.06	0.32	3.7	11
BM2634	Karita	276,169	7,298,952	39.8	53.50	0.043	3.17	4110	0.41	3.05	0.06	0.27	4.3	6
BM2655	Karita	275,636	7,298,533	44.6	59.95	0.003	0.52	1125	0.11	3.96	0.07	0.29	3.3	14
BM2663	Karita	274,838	7,299,314	48.8	65.60	0.002	0.18	1250	0.13	3.92	0.07	0.78	2.5	29
BM2665	Karita	274,853	7,299,454	44.8	60.22	-0.001	0.35	3450	0.35	4.29	0.2	0.28	2.4	36
BM2607	Cave Mt	278,499	7,295,515	30	40.33	11.4	7.3	11700	1.17	6.98	0.47	0.23	9.8	56
BM2626	Cave Mt	278,503	7,295,519	30.6	41.13	9.9	10.6	15750	1.58	6.53	0.56	0.2	11.6	45
Qr58	Tea Tree	280,637	7,296,616	42.5	57.13	0.136	1.11	2930	0.29	25	0.14	15.2	18	2060
Qr60	Tea Tree	280,582	7,296,700	38.5	51.75	1.005	16.1	14250	1.43	30.2	0.64	104	29.3	7900

Table 1. Selected rock chip assays from EPM28063 and the gallium-polymetallic association.



**Figure 2**. Location of prospects on EPM28063 and previous exploration results. See BIM ASX announcement 29 April 2024.

#### **Gallium Background**

Solid gallium alloys are used in optics, electronics, and nuclear engineering due to their non-toxicity and resistance to neutron radiation and beta decay. Gallium arsenide (GaAs) is crucial for semiconductor fabrication, especially in computer chips and electronic devices like photovoltaics<sup>2</sup>.

Gallium is also vital in the defence industry, semiconductors, transistors, and electronic circuitry. Gallium nitride (GaN) is used in LEDs, laser diodes, power amplifiers, and solar cells. Gallium enhances component speed and miniaturization, essential for generative Al<sup>2</sup>.





#### Serbia Update

The Serbian legal team continues to progress the Lisa application with discussions ongoing between the Ministry and in-country representatives of Bindi.

#### **Conclusions and Next Steps**

The initial results of the gallium potential within the northern area of the Project are encouraging and further assessment work is required to determine this full potential. The association to jarosite demonstrates significant potential within the tenement area given the extensive surface anomalism.

This announcement has been authorised for release to the market by the Board of Bindi Metals Limited.

- END -

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#### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results is based on information compiled under the supervision of Henry Renou, Non - Executive Director and Exploration Manager of Bindi Metals Limited. Mr. Renou is a member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles 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." Mr. Renou consents to the inclusion in this announcement of the matters based on his information in the form and context in which they appear.

#### References

- 1. The Guardian: China bans exports of key microchip elements to US as trade tensions escalate. By: AFP 4<sup>th</sup> December 2024. Read here: https://www.theguardian.com/world/2024/dec/04/us-china-microchips-export-bans-gallium-germanium
- 2. Center for Strategic and International Studies. Article: Mineral Monopoly China's Control over Gallium Is a National Security Threat By: Matthew P. Funaiole, Brian Hart, and Aidan Powers-Riggs July 18, 2023. Read here: https://features.csis.org/hiddenreach/china-critical-mineral-gallium/
- 3. Rytuba, J.J. et al (2003) Hydrothermal Enrichment of Gallium in Zones of Advanced Argillic Alteration—Examples from the Paradise Peak and McDermitt Ore Deposits, Nevada, Bulletin 2209-C. download: https://pubs.usgs.gov/bul/b2209-c/b2209c.pdf
- 4. Dutrizac, J.E. & Chen, T.T. (2000) The Behaviour of Gallium During Jarosite Precipitation, Canadian Metallurgical Quarterly: 39(1):14. Download here: https://www.researchgate.net/publication/233496115\_The\_Behaviour\_of\_Gallium\_During\_Jarosite\_Precipitation



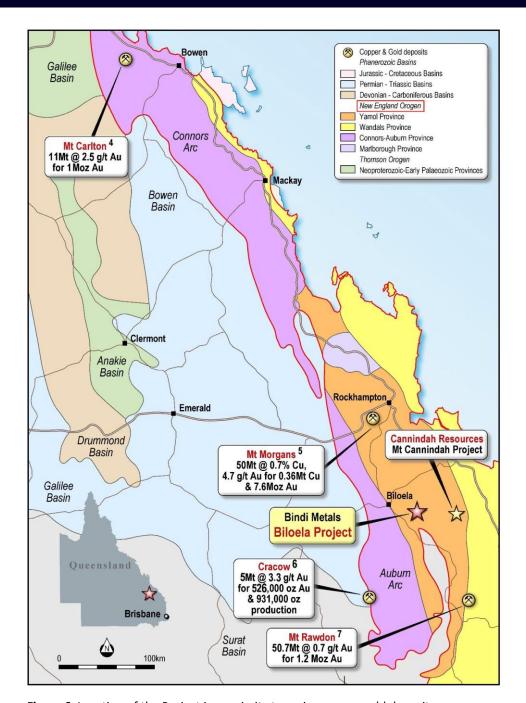


Figure 6. Location of the Project in proximity to major copper-gold deposits

<sup>4.</sup> Evolution Mining ASX Announcement Annual Mineral Resources and Ore Reserves Statement 25 June 2014

<sup>5.</sup> GBM Resources ASX Announcement 6 February 2023

<sup>6.</sup> Aeris Resources ASX Announcement Annual Mineral Resources and Ore Reserves Statement 18 April 2023

<sup>7.</sup> Evolution Mining ASX Announcement Annual Mineral Resources and Ore Reserves Statement 20 April 2017





#### Appendix 1: JORC Tables

#### **Section 1: Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

	s section apply to all succeeding sect				
Criteria	JORC Code explanation	Commentary			
Sampling techniques	<ul> <li>Nature and quality of sampling (egcut 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 measurestaken 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. In cases where findustry 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>	Rock sampling by Bindi Metals is mainly outcrop rock samples, however in the absence of outcrop some float samples have been taken that are interpreted to be sourced close to outcrop. All sample types and descriptions were carefully recorded by the geologist.			
Drilling techniques	<ul> <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>				
Drill sample	Method of recording and assessing				
recovery	core and chip sample recoveries				
	and results assessed.				
	Measures taken to maximise  sample recovery and ensure				
	sample recovery and ensure representative nature of the				
	samples.				
	<ul> <li>Whether a relationship exists</li> </ul>				
	between sample recovery and				



Criteria	JORC Code explanation	Commentary
	grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	<ul> <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 relevant intersections logged.</li> </ul>	Geological descriptions were recorded by Bindi Geologists for each rock sample when collected from the outcrop
Sub- sampling techniques and sample preparation	<ul> <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>	No drilling reported in announcement



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <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</li> <li>adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Bindi QAQC sample procedures comprise the insertion of standard gold samples at a rate of 2 in every 100 samples, blank samples 1 in every 100 samples and field duplicates 3 in every 100 samples. Assays are all within acceptable tolerance and are considered to be adequate for the reporting of Exploration Results.</li> <li>All rock samples by Bindi Metals were assayed by fire assay for gold utilizing a 50 gram charge as well as a 48 element package by four acid digest and ICP-MS analysis at ALS in Brisbane. Both methods are considered total. The assay techniques are considered appropriate for the mineralisation style.</li> <li>Hyperspectral analysis: using spectral unmixing 16 end member minerals can be mapped using Sentinel-2 VNIR imagery have 10 m spatial resolution and two bands of SWIR have 20 m resolution. 16 spectral endmembers were then derived for the image as it is assumed that each 10 x 10 m parcel of ground is a nonnegative linear combination of 16 pure endmembers</li> <li>Each pixel is then expressed as a sum of 16 spectral abundances, most of which will be zero as they are estimated in such a way as to produce a sparse representation of the ten dimensional data in 16 dimensional space.</li> <li>To interpret these spectral endmembers, they are compared to an appropriately resampled spectral library of 481 minerals from the USGS below</li> </ul>
of sampling and	<ul> <li>The verification of significant intersections by either independent or alternative</li> </ul>	2 ag. 2



Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <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> </ul>	<ul> <li>Location of rock and soil samples by Bindi Metals were recorded using a handheld GPS which is considered appropriate for reconnaissance sampling.</li> <li>Coordinate System GDA94/MGA56</li> </ul>
Data spacing and distribution	<ul> <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>	<ul> <li>Sample spacing and procedures are considered appropriate for the reporting of Exploration Results.</li> <li>Rock samples were taken at selected outcrops and historic prospect areas and gold occurrences.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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>	No drilling reported in this announcement It is unknown at this stage the orientation of structures as no drilling has been undertaken on the data reported.
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	Bindi ensured that sample security was maintained to ensure the integrity of sample quality
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No audits or reviews have been conducted for this release given the early stage of the project



#### **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> <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 license to operate in the area.</li> </ul>	<ul> <li>The Biloela project comprises the Flanagan's tenement EPM 27478, the Tea Tree tenement EPM28063 and the Flanagan's North tenement EPM28005 - located 93 km south west of the port of Gladstone in Queensland</li> <li>EPM28005 is subject to native title and an agreement with is in place with the Gaangalu Nation People for management of Cultural Heritage. EPM27478 and EPM28063 are not subject to native title</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Carpentaria Exploration completed detailed work on the Tea Tree prospect on EPM1240 in the period 1973 to 1976</li> <li>This included detailed stream sediment sampling (-#80), outcrop mapping and sampling, costeaning/trenching and IP geophysical surveys at the Tea Tree prospect which they only assayed for copper and zinc</li> <li>The exploration model was to find extensions to the Kroombit copper-zinc mine 6 km to the south where a significant amount of historical mining occurred</li> <li>Detailed exploration Argonaut Resources on EPM 15705 included a regional mapping and sampling program at Tea Tree and Old Kroombit and broad spaced stream sediment survey. Argonaut proposed a porphyry copper style mineralisation model for the Kroombit deposit which resource drilling at Kroombit intersecting skarn like mineralisation and applied this to Tea Tree</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Tea Tree prospect lies within the Devonian Kroombit Beds, a thick pile of predominately intermediate to basic volcanics with interbedded limestones and arenites. This sequence is broken up by a northwest, north east and east fault and fracture system along which many dykes intrude. The Devonian sequence is intruded by diorites and felsic intrusives (Permian?). The Kroombit beds are unconformably overlain by Triassic Muncon Volcanics, Jurassic sandstone and tertiary flood basalts.</li> <li>The mineralisation style is typical for porphyry coppergold deposits</li> <li>Style of mineralisation recorded on the project is vein hosted and replacement style copper-gold mineralisation</li> </ul>
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following	No drilling reported in announcement



Criteria	JORC Code explanation	Commentary
	information for all Material drill holes:  o easting and northing of the drill hole collar o elevation or RL (Reduced Level — elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.  If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	<ul> <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>	<ul> <li>No maximum grade truncations have been applied.</li> <li>Results are reported based on various gallium grades with &gt;40 ppm Ga</li> <li>No metal equivalent values have been reported.</li> <li>Stoichiometric conversion factors are stated in the body of the announcement and can be referenced in appropriate publicly available technical data.</li> <li>Ga converts to Ga2O3 by multiplying by 1.3442</li> </ul>
Relationship between mineralisati	These relationships are particularly important in the reporting of Exploration Results.	The true width of mineralisation has not yet been verified at Tea Tree
on widths and intercept lengths	<ul> <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>	
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of</li> </ul>	See relevant maps in the body of this announcement.



Criteria	JORC Code explanation	Commentary
	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.	
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.	All available data has been presented in figures.
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.	<ul> <li>All meaningful and material exploration data available to the Company is disclosed in the body of this announcement</li> <li>Neil Pendock was contracted to undertake an remote sensing Hyperspectral mineral mapping exercise with key benefits of ASTER imagery:</li> <li>Determine a suite of mineral abundances that can be related to mineralisation</li> <li>Determine an area of alteration via a combination of minerals that can indicate mineralisation.</li> <li>Regional targets identified can then provide confidence to follow up with high resolution and on ground alternatives at a later date.</li> </ul>
Further work	<ul> <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>	Further work is detailed in the body of the announcement.