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# NEW HIGH-GRADE ROCK CHIP DISCOVERY AND POSITIVE GROUND MAGNETIC SURVEY RESULTS AT MOMBUCA

Trenching program underway in Initial Target Zone with follow-up geophysical programs planned as latest exploration results help focus exploration activities

#### Key Points

- Highest grade rock chip discovered to date at the Mombuca Gold Project in SE Brazil 12.2g/t Au.
- Strong magnetic structures highlighted by initial ground magnetic survey results. These structures are coincident with the location of the auriferous quartz veins within the Initial Target Zone ("ITZ").
- New 3D inversion of the ground magnetic survey data to be undertaken in conjunction with a ground Induced Polarisation (IP) survey to target sulphides (pyrite) associated with the high-grade gold identified in surface rock chips.
- The Company's exploration focus continues on the ITZ where an open-ended gold anomaly, extending over a length of 1.5km and varying in width from 50-150m<sup>1</sup>, has been identified from a previous soils survey.
- A trenching program is currently underway on the ITZ. This trenching work will deliver sub-surface geological information where the high grade rock chip samples and extensive historical artisanal mining work has been identified.

Centaurus Metals (ASX Code: **CTM**) is pleased to report further encouraging results from its highly prospective **Mombuca Gold Project** in south-east Brazil, where the discovery of new high-grade surface rock chip samples combined with encouraging results from a recently completed ground magnetic survey continue to assist in focusing exploration activities.

The most recent sample program results have returned the highest rock chip assay seen to date at Mombuca of **12.2 g/t Au** from an-in situ quartz vein with fresh pyrite and limonite along the wall of a newly identified historical artisanal trench.

The previously released stream sediment survey results<sup>2</sup> confirmed that the **Initial Target Zone ("ITZ")** catchment is the most gold anomalous of the catchments that cover the project area. The prospectivity of the ITZ has been further established with additional high-grade results from rock chip samples that cover a suite of auriferous quartz veins located within the ITZ (see Figure 2 and Table 1).

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<sup>&</sup>lt;sup>1</sup> Refer to <u>ASX announcement on 9 July 2015</u> for full details of Mombuca soil sample and exploration program results

<sup>&</sup>lt;sup>2</sup> Refer to <u>ASX announcement on 9 September 2015</u> for full details of Mombuca stream sediment results.



Initial results from the recently completed detailed ground magnetic survey have also highlighted strong magnetic structures coincident with the location of the auriferous quartz veins in the ITZ, providing valuable assistance with exploration targeting. The results are preliminary and the Company is now undertaking more detailed interpretation work including 3D inversion of the survey data.

#### **Ground Magnetic Survey**

The Company has received preliminary results from a recently completed ground magnetic survey. The survey included 83 line kilometres covering a total area of  $18 \text{km}^2$ . Survey lines were orientated north-south with section spacing at 200m and surveys taken every 10m.

Previously completed interpretation work on regional aeromagnetic data, based on the First Vertical Derivative ("1VD") (which emphasizes the near-surface (<200m) features), identified crustal-scale magnetic lineaments that are characterised by both high and low magnetic responses. Preliminary interpretations of the recently completed ground magnetic survey have further defined the location of these structures as seen in Figure 1.



#### Figure 1: Aeromagnetics First Vertical Derivative (left) & Ground Magnetics First Vertical Derivative (right).

Of particular interest to the Company is the magnetic low structure, orientated in an east-south-east direction, which traverses the ITZ and PO1 targets. This trend is coincident with the auriferous quartz veins that have returned rock chip samples of up to 12.2 g/t Au and is on the same orientation as the Brasiliano tectonic transport direction within the Iron Quadrangle.

The magnetic low features within the anomaly may be associated with either hematite-rich zones caused by hydrothermal upgrade of the itabirite or iron oxide depleted zones due to sulfidation of the itabirite, both of which are excellent structural targets for further exploration.

Following these encouraging preliminary results, the Company is now undertaking more detailed interpretation of the ground magnetic survey work, including 3D inversion of the survey data.

Additionally, a ground-based Induced Polarisation (IP) survey is being planned over the ITZ. Given the association of sulphides (pyrite) with the high-grade gold identified at surface, the Company believes that an IP survey should be able to identify the continuation of the sulphides at depth, therefore highlighting excellent drill targets.



#### Initial Target Zone ("ITZ")

Recent rock chip samples from mineralized quartz veins in the ITZ returned the highest values seen at the project to date, including an assay of 12.2g/t Au. These rock chips were taken from the same area as a number of other high grade results, including 9.3g/t Au, 5.6g/t Au and 3.2g/t Au. Locations of the rock chip samples within the ITZ are shown in the map in Figure 2.



Figure 2: Rock chip locations and results in Initial Target Zone – Mombuca Gold Project

These rock chip samples were taken from in-situ quartz veins hosted in sericitic schists or ferruginous quartzite with limonite (of pyrite) and fresh pyrite. The veins are located in a zone that is roughly 350m long and up to 80m wide. Outcropping veins within this zone can be traced for around 50m to 80m before diving undercover.

The Company has recently identified further significant historical artisanal mining throughout this zone where a complex array of trenches up to 5m deep cover the ITZ, orientated parallel to the quartz veins. The Company believes that the garimpeiros mined the veins that held abundant pyrite to depths of up to 5m. The veins that Centaurus has identified at surface to-date are understood to be the "waste" veins that the garimpeiros left behind. The photo in Figure 3 below shows the site of one of the rock chip samples, taken on the edge of a historical artisanal excavation.

A number of adits around this zone have been identified but are closed. To the south of this zone there are a number of adits that are open and are understood to date from the same period as the artisanal diggings in the ITZ. Sampling from these adits returned gold intercepts of up to **6m at 5.3g/t Au** and **8m and 1.8g/t Au** (see Table 2).



#### Figure 3: Positive rock chip samples taken along artisanal excavation in ITZ.



#### **The Mombuca Exploration Program**

The ITZ is the priority exploration target of the Mombuca Project. As discussed above, given the excellent results from the ground magnetic survey program, the Company is now undertaking more detailed interpretation work including 3D inversion of the survey data. Additionally a ground Induced Polarisation (IP) survey is being planned. Given the association of sulphides (pyrite) with the high grade gold identified at surface, an IP survey should outline the continuation of any sulphides at depth.

The Company is currently undertaking a trenching program that will cross-cut the auriferous quartz veins identified in the ITZ. The trenches will give the Company new sub-surface geological information in an area where the high-grade rock chip samples and extensive historical artisanal mining work has been identified.

The results of this work will play an important role in improving the Company's geological understanding of the regional and project scale structures as well gold distribution within the ITZ and greater project area, leading to the definition of drilling targets.

#### **Management Comment**

Centaurus' Managing Director, Darren Gordon, said the Mombuca Gold Project was continuing to evolve as a potentially very significant gold exploration opportunity.

"We continue to develop the Mombuca gold targets using a combination of low-cost field work and geophysical programs" he said. "We are focusing in on the ITZ and have already developed some exciting drill targets. We have a couple of field and geophysical programs that will be finished by the end of the year after which the project will be ready to drill.

"The Mombuca Gold Project continues to develop as an exciting opportunity for Centaurus in line with our broader diversification plans."



#### -ENDS-

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#### **Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by Roger Fitzhardinge who is a Member of the Australasia Institute of Mining and Metallurgy. Roger Fitzhardinge is a permanent employee of Centaurus Metals Limited.

Roger Fitzhardinge has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which they are 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 Reserve'. Roger Fitzhardinge consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.



#### Table 1: Mombuca Gold Project – Rock Chip Samples

| Field Sample* | East   | North   | RL  | Sample Description  | Au (ppm / gpt) |
|---------------|--------|---------|-----|---|----------------|
| IBP-RO-0038   | 674292 | 7851099 | 877 | uartz vein within iron oxides   |                |
| IBP-RO-0039   | 674308 | 7851100 | 870 | artz vein with pyrite and iron oxides   |                |
| IBP-RO-0042   | 674504 | 7851124 | 803 | Quartz vein with iron oxides  | 3.20           |
| IBP-RO-0044   | 671730 | 7849169 | 751 | Soil  | 0.02           |
| 2400057       | 674377 | 7851122 | 859 | Quartz vein with pyrite and limonite  | 1.98           |
| 2400058       | 674375 | 7851103 | 865 | Quartz vein with pyrite, limonite and visible gold  | 3.16           |
| 2400059       | 674311 | 7851144 | 882 | Quartz vein with pyrite and limonite  | 1.55           |
| 2400063       | 674579 | 7851295 | 810 | Itabirite in contact with talc-chlorite schist, local boxworks  | 0.05           |
| 2400078       | 674350 | 7851095 | 870 | Artisanal excavation; Quartz vein with fresh pyrite and limonites within the ferruginous quartzite host | 12.20          |
| 2400079       | 674336 | 7851088 | 869 | Quartz vein with pyrite and limonite; Sn= 190/25  | 0.16           |
| 2400080       | 674341 | 7851072 | 862 | Artisanal excavation; Quartz veins with limonite (of pyrite)  | 0.29           |
| 2400081       | 674299 | 7851100 | 875 | Artisanal excavation; Quartz veins with limonite (of pyrite)  | 1.98           |
| 2400082       | 674270 | 7851119 | 874 | Quartz vein with pyrite and limonite  | 2.93           |
| 2400086       | 674221 | 7851167 | 888 | Quartz vein with pyrite and limonite near a strongly sericitized schist                                 | 1.06           |
| 2400087       | 674283 | 7851149 | 868 | Quartz vein with pyrite and limonite  | 5.64           |
| 2400089       | 677727 | 7850853 | 847 | Quartz vein with pyrite and limonite with sericite alteration; pyrite grains up to 7cm                  | 0.04           |
| 2400094       | 677619 | 7850816 | 841 | Quartz vein with pyrite and limonite  | 0.06           |

\*Only rock chips samples that returned Au > 0.01 ppm have been shown.

### Table 2: Mombuca Gold Project – Historical Face Sampling of Adits

| Adit Number | East   | North   | RL  | Dip | Azimuth | Intersection          |
|-------------|--------|---------|-----|-----|---------|-----------------------|
| IBP-GA-0003 | 673807 | 7850604 | 975 | 0   | 160     | 8m @ 1.8 g/t Au       |
|             |        |         |     |     |         | incl. 2m @ 5.6 g/t Au |
| IBP-GA-0004 | 673770 | 7850578 | 987 | 0   | 110     | 6m @ 5.3 g/t Au       |
|             |        |         |     |     |         | incl. 2m @ 9.6 g/t Au |
| IBP-GA-0009 | 673717 | 7850501 | 935 | 0   | 125     | 4m @ 3.4 g/t Au       |
|             |        |         |     |     |         | incl. 2m @ 6.4 g/t Au |



### APPENDIX A – TECHNICAL DETAILS OF THE MOMBUCA PROJECT, JORC CODE, 2012 EDITION – TABLE 1

# SECTION 1 SAMPLING TECHNIQUES AND DATA

| Criteria   | Commentary   |
|--|--|
| Sampling techniques                                  | <ul> <li>Stream sediment samples were collected at selected points and sieved down to 1.0- 1.5 kg samples using a 100 mesh sieve.</li> <li>Stream sediment samples were delivered to ALS laboratory wet, drying and homogenization was completed at ALS.</li> <li>Soil samples were collected at 25m intervals along 100m spaced grid lines.</li> <li>Surface material was first removed and sample holes were dug to roughly 30cm depth. A 4-5kg sample was taken from the subsoil. The sample was placed in a plastic sample bag with a sample tag before being sent to the lab.</li> <li>The adits were sampled by continuous channel sampling along the mineralised quartz vein (15-30cm width). Chips were taken from the quartz vein and host rock approximately 20cm either side of the vein, results can be found in Table 1.</li> <li>36 surface rock chip/soil samples were collected from in situ outcrops and rolled boulders for chemical analysis. Results can be found in Table 2.</li> </ul>   |
| Drilling techniques                                  | • There is historical drilling on one of the Mombuca tenements for iron ore. These drill results are not referred to in this announcement. No drilling of the gold targets has been conducted.   |
| Drill sample recovery                                | No drilling was conducted.   |
| Logging  | • All outcrop and soil sample points were registered and logged in the Centaurus geological mapping point database.  |
| Sub-sampling<br>techniques and sample<br>preparation | <ul> <li>All rock chip and soil samples were sent to the laboratory without any field preparation.</li> <li>Stream sediment samples were sieved down to 1.0-15kg using a 100 mesh sieve.</li> </ul>  |
| Quality of assay data<br>and laboratory tests        | <ul> <li>Stream sediment samples are first dried in an oven at 60°C and them homogenised before crush and screening to 80 mesh. The pulp is quartered and an aliquot of 50g is sent for chemical analysis.</li> <li>Analysis of the soil samples was completed at ALS Laboratories. Samples are dried at 100°C and crushed and screened to 80 mesh. The pulp is quartered and an aliquot of 50g is sent for chemical analysis.</li> <li>Chemical analysis for soil and stream sediment samples was completed for gold by fire assay and ICP for limit of 0.001ppm as well as multi element using ICP.</li> <li>For the historical adit sample an ore-grade sample metallic screen fire assay was applied.</li> <li>ALS and SGS laboratories insert their own standards at set frequencies and monitor the precision of the XRF analysis. These results reported well within the specified 2 standard deviations of the mean grades for the main elements. Additionally the labs perform repeat analyses of sample pulps at a rate of 1:20 (5% of all samples). These compare very closely with the original analysis for all elements.</li> <li>Laboratory procedures are in line with industry standards.</li> <li>To date no QAQC samples have been inserted by Centaurus for this project.</li> </ul> |
| Verification of<br>sampling and assaying             |  |
| Location of data<br>points                           | • The survey grid system used is SAD-69 23S. This is in line with Brazilian Mines Department requirements. All sample and mapping points are collected using a Garmin hand held GPS.   |



| Data spacing and distribution                                 | <ul> <li>Soil samples were collected with a spacing of 100m x 25m.</li> <li>Stream sediment samples were collected at sample points planned by Centaurus geologist to represent catchment areas of between 500-1,000ha.</li> <li>Sample spacing was deemed appropriate for geochemical studies but should not be considered for Mineral Resource estimations.</li> <li>No sample composting has been applied.</li> </ul>  |
|---|---|
| Orientation of data in<br>relation to geological<br>structure | • The extent and orientation of the mineralisation was interpreted based on field mapping<br>and historical workings. Sample orientation is perpendicular to the main stratigraphic<br>sequence along which mineralisation exists.  |
| Sample security   | • All samples are placed in pre-numbered plastic samples bags and then a sample ticket is placed within the bag as a check. Bags are sealed and placed in larger bags (10 samples per bag) and then transported by courier to the ALS or SGS laboratories in Belo Horizonte. Sample request forms are sent with the samples and via email to the labs. Samples are checked at the lab and a work order is generated by the lab which is checked against the sample request. |
| Audits or reviews   | No audit or review has been conducted on the project to date.   |

### SECTION 2 REPORTING OF EXPLORATION RESULTS

| Criteria                                   | Commentary  |
|--|---|
| Mineral tenement and<br>land tenure status | <ul> <li>The Mombuca Project consists of the tenements DNPM 832.316/2005 (application for Mining Lease), 833.133/2014 (Exploration Licence) and 830.668/2015 (Exploration Licence Application). Granted Exploration Leases have three years of exploration rights that may be extended for a further three years.</li> <li>The tenement 833.133/2014 was acquired from Terrativa Minerais SA. Under the Acquisition Agreement Centaurus will pay a production royalty of 2% to the Vendor on all product sold from this tenement, with the royalty being capable of being converted to a 25% project interest should it be sold to a third party.</li> <li>All mining projects in Brazil are subject to a CFEM royalty, a government royalty of 2% on iron ore revenue (less taxes) and 1% on gold revenue (less taxes).</li> <li>Landowner royalty is 50% of the CFEM royalty.</li> <li>The project is located circa 15km from the federal wilderness park of the Serra do Cipo. The project is outside the buffer zone and exploration and mining is permitted with appropriate environmental licences as held by Centaurus.</li> </ul> |
| Exploration done by other parties          |   |
| Geology                                    | <ul> <li>The Mombuca Project is located within the Espinhaço Super Group (Mesoproterozoic).</li> <li>The target units are part of a metavolcanic-sedimentary sequence of quartzite, ferruginous quartzite, itabirite, mafic and ultramafic schists. This sequence has not been identified in the Brazilian Geological Survey (CPRM) regional mapping and as such it is not fully understood if the sequence is in fact part of the Espinhaço Super Group. The sequence is emplaced in Archean gneissic basement.</li> <li>The sequence generally dips shallowly to the south-east and has been affected by multiple phases of folding. Late-stage thrust faulting is apparent throughout the project area.</li> <li>Later stage mafic intrusives (gabbro and dolerite) are also present throughout the project area.</li> <li>The auriferous quartz veins identified in the adits are generally hosted by the mafic schists and run parallel to the foliation. Iron oxide and sericite alteration is present within the host rock.</li> </ul>   |



| Criteria   | Commentary   |  |  |  |
|--|--|--|--|--|
|  | <ul> <li>The host rocks have undergone intense weathering locally. Sericite, carbonate and talc-chlorite alteration is present in the mafic and ultra-mafic schists. The hots rocks have been further softened through intense weathering process which has further concentrated the iron oxides through the weathering of sulphides. The vein orientation varies slightly across the three gold adits but is generally orientated SW-NE with varying plunge orientations to the ESE.</li> <li>The itabirite is fine-medium grained and composed of quartz, hematite, magnetite, goethite with minor mica and clay minerals. Itabirite thickness varies from 5 to 20 metres and is more compact at depth. Itabirite grade is between 35-50% Fe.</li> </ul> |  |  |  |
| Drill hole Information   | • There is historical drilling on one of the Mombuca tenements for iron ore. These drill results are not referred to in this announcement. No drilling of the gold targets has been conducted.   |  |  |  |
| Data aggregation<br>methods  | <ul> <li>No cut-offs have been applied in reporting of the exploration results.</li> <li>No aggregate intercepts have been applied in reporting of the exploration results.</li> </ul>   |  |  |  |
| Relationship between<br>mineralisation widths<br>and intercept lengths | No drilling was conducted.   |  |  |  |
| Diagrams   | • Refer to Figures 1-3.  |  |  |  |
| Balanced reporting   | • All Exploration Results received by the Company to date are included in this report.   |  |  |  |
| Other substantive<br>exploration data                                  | <ul> <li>Historical geological mapping was carried out by Centaurus geologists.</li> <li>Interpretation of Regional Aeromagnetic and Gamma Spectrometry data that was collected by state agency CODEMIG was completed by geophysics company Geofbras Exploração Geofísica.</li> </ul>  |  |  |  |
| Further work   | • The Company plans to complete further detailed geological mapping, soil sample programs and an IP survey. Also the company plans to further process the ground magnetics data. Based on targets generated from these programs, the Company will consider an initial exploration drilling program.  |  |  |  |