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SUCCESSFUL NICKEL-COBALT BULK SAMPLE PAVES WAY FOR FEASIBILITY-LEVEL TESTWORK PROGRAM AT ITAPITANGA JV

40-tonne bulk sample to be run through Simulus' demonstration plant (the largest of its kind in the Southern Hemisphere) as part of their ongoing earn-in to the Project

Highlights:

- **40-tonne bulk sample successfully collected from the Itapitanga Project in northern Brazil. Sample to be shipped this quarter to Perth, WA to be run through the state-of-the-art demonstration plant owned by Centaurus' new joint venture partner, Simulus Group.**
- **The bulk sample is sufficiently representative to be utilised for Feasibility Study-level testwork programs focusing on flowsheet optimisation.**
- **The demonstration plant run will produce battery-grade nickel and cobalt sulphates as well as high-purity scandium oxide and high-purity alumina. The products will be used for marketing samples and to progress negotiations with potential off-takers.**
- **Previously, 230kg of variability samples of Itapitanga mineralisation were air-freighted to Simulus and arrived in early January for variability leach assessment and downstream metallurgical flowsheet optimisation. Testwork on these samples is currently in progress.**
- **The bulk sample collection demonstrated that the high-grade nickel-cobalt mineralisation at Itapitanga will be free-digging from either at or close to surface, providing further evidence that very low strip ratios can be expected in any future mining operation.**
- **Updates on process optimisation results and a maiden JORC Mineral Resource Estimate for Itapitanga expected to follow shortly.**

Centaurus Metals (ASX Code: CTM) is pleased to announce that it has successfully collected a 40-tonne bulk sample from the **Itapitanga Nickel-Cobalt Project Joint Venture** ("Itapitanga" or "the Project"), located in northern Brazil, with the sample on route to Western Australia for its JV partner and battery metal specialist, Simulus Group ("Simulus"), to undertake Feasibility Study-level testwork at their demonstration plant in Perth.

Since executing an innovative earn-in joint venture agreement with Centaurus in November 2018, the joint venture partners have moved rapidly to advance development of the Itapitanga Project, with Centaurus arranging for delivery of 230kg of variability samples to Simulus in early January for advanced metallurgical test work at their Perth laboratory and the partners jointly completing the bulk sampling program.

Under the terms of the joint venture, Centaurus is free-carried to a Decision to Mine at Itapitanga with Simulus, a leader in battery metal process technology, currently funding all development costs¹.

¹ Please refer to ASX Announcement on 27 November 2018 : Centaurus Secures Nickel-Cobalt Development JV at Itapitanga

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Following delivery of the 230kg sample, Simulus initiated the collection of the 40-tonne bulk sample, which in turn was completed this week under the supervision of Simulus' Managing Director, Mr Brett Muller, and Centaurus' Exploration Manager, Mr Roger Fitzhardinge.

The 40-tonne bulk sample of nickel and cobalt mineralisation has now departed the Itapitanga site and will be shipped from Belem, northern Brazil to Perth, Western Australia to be run through Simulus' demonstration plant, the largest of its kind in the Southern Hemisphere. The shipment time is expected to be 60 days.

The bulk sample will provide a sufficiently large and representative ore sample for Feasibility Study-level flowsheet optimisation to be undertaken, allowing the flowsheet currently being proposed by Simulus to be confirmed and the requisite engineering design data to be collected.

The demonstration plant program will also provide battery-grade nickel and cobalt sulphates and samples of high-purity scandium oxide and high-purity alumina for marketing purposes and negotiations with potential off-take partners.

The collection of the bulk metallurgical sample has also allowed a more visual in-situ assessment of the mineralisation. In-situ reconciliation of drill program results and lithological and weathering surfaces interpretations will be completed along with multiple large-scale bulk density measurements over the coming weeks.

The bulk sample collection process also provided the partners with an opportunity to undertake a preliminary assessment of the excavation process for any future mining along with initial groundwater studies to assess site water quality and availability near a number of potential plant locations. Based on the trench work completed (Figure 1), that reached around 10m in depth, it is expected that most of the high-grade nickel-cobalt ore will be free dig from surface.

Assay information from the trenching will provide further support for the maiden JORC resource estimation for the project in the near future.

Management Comment

Centaurus' Managing Director, Mr Darren Gordon, said the rapid ramp-up of the next phase of work at Itapitanga as part of the newly-signed joint venture with Simulus had been impressive with the Simulus technical team working collaboratively with the Centaurus exploration team on site in Brazil as planned under the joint venture.

"To be sending a 40-tonne bulk sample to Perth for testing at Simulus' demonstration plant for Feasibility Study level flowsheet definition and piloting within two months of signing the agreement, and only 12 months since first acquiring the project, is a great result for the ongoing development of the Project. Simulus is exactly what we were looking for in a partner – a specialist to focus on process development and engineering aspects while we continue to focus on resource definition and project licensing in Brazil under a joint venture structure that allows Centaurus to recoup all of its direct project costs as Simulus earn into the Project."

With our Itapitanga field activities being directed and funded by Simulus, we can look to direct our funds towards exploration of our high quality Salobo West Copper-Gold Project where our drilling and clearing licence is currently being assessed by the environmental agency following completion of a Vegetation inventory survey late last year."

Simulus' Managing Director, Mr Brett Muller, said: *"It was great to be able to get out to site and see the project first-hand. We were able to quickly and easily collect a representative sample of the high-grade nickel-cobalt mineralisation via free-digging just below surface – which bodes well for a future low-cost mining scenario. Once the flowsheet optimisation testwork and piloting work is completed over the coming months, we will have advanced the process flowsheet to a Feasibility Study level."*

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Figure 1 – Bulk sample collection at the Itapitanga Nickel-Cobalt Project – January 2019



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**APPENDIX A – TECHNICAL DETAILS OF THE ITAPITANGA NICKEL-COBALT PROJECT, JORC CODE, 2012 EDITION – TABLE 1
SECTION 1 SAMPLING TECHNIQUES AND DATA**

Criteria	Commentary
Sampling techniques	<ul style="list-style-type: none"> • Trench sampling for the 40-tonne bulk sample was taken from three trenches. Trench sites were determined using RC and auger drill data. 1 tonne samples were taken along the length of the trenches at 5 metre intervals and placed into big bags. • Horizontal channel samples were taken of each trench. The channel sample height was 1.0m above the sample bench and approximately 3-5kg of sample was collected. • Soil samples were collected at roughly 100-150m intervals along a fence line oblique to the mineralisation. Surface material was first removed and sample holes were dug to roughly 30cm depth. A 2-3kg 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. • Surface rock chip/soil samples were collected from in situ outcrops and rolled boulders for chemical analysis. • Auger samples are taken by a hand-held auger. Sections are 200-400m apart with 50-100m between holes. Care is taken to try to remove up hole contamination from the auger bit during sampling. A 3-5kg sample was taken from the bit. The sample is placed in a plastic sample bag with a sample tag before being sent to the laboratory. • The first phase of RC drilling involves drill sections that are 200 or 400m. Generally there is 100m spacing between drill holes on sections. Samples are split to make 3-5kg samples, a twin 3-5kg sample is kept for metallurgical testwork. The sample is placed in a plastic sample bag with a sample tag before being sent to the laboratory.
Drilling techniques	<ul style="list-style-type: none"> • Auger drilling was completed using a hand-held auger with a 200mm auger bit. Drilling depth is determined by drill refusal. • RC drilling was completed using a face sampling hammer (4.5"). Sample is collected from the sample cyclone in large plastic sample bags. Samples are then split either by riffle splitters or manually (fish bone method) where there is high moisture content. • All RC holes were sampled on 1m intervals. Sample size, sample recovery estimate and conditions were recorded. • All holes drilled to date have been vertical.
Drill sample recovery	<ul style="list-style-type: none"> • RC sample weights are taken for all samples and a recovery estimate is made where the sample is not wet. Where the sample is wet a visual estimate of the sample recovery is made. To date the estimated recovery is approximately 80%, which is considered acceptable for a nickel-cobalt laterite deposit. • To ensure the representative nature of the sample the cyclone and sample hoses are cleaned after each metre of drilling. The rig has two cyclones to facilitate the process. Additionally, extra care is taken when drilling through the water table or other zones of difficult ground conditions.
Logging	<ul style="list-style-type: none"> • All trenches were logged and photographed. • All outcrop and soil sample points were registered and logged in the Centaurus geological mapping points database. • Geologists complete a visual log of the RC samples on 1m intervals at the time of drilling. Logging captures colour, rock-type, mineralogy, alteration and mineralisation style. A hand-held XRF is also used to take real time geochemical readings to assist in the logging process. Logging is both qualitative and quantitative. • Chip trays have been collected, photographed and stored for all drill holes to-date.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • 1m samples were taken from the cyclone and then split by rifle splitter (if dry) or manually (if wet) using the fish-bone technique. Sample weight is between 3-5kg. • QAQC: A blank sample is inserted at the start of each hole. Standards (3 different standards are used on a rotating basis) are inserted every 20 samples. Field duplicates are completed every 20 samples. • Sample sizes are appropriate for the nature of the mineralisation. • All geological samples were received and prepared by SGS Geosol Laboratories in Parauapebas, Brazil as 0.5-5kg samples. They were dried at 105°C until the sample was completely dry (6-12hrs), crushed to 90% passing 3mm and reduced to 200-300g. The samples were pulverised to 95% passing 150µm and split further to 50g aliquots for chemical analysis.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • Chemical analysis for metal oxides is determined using XRF analysis (XRF79C). Fusion disks are made with pulped sample and the addition of a borate based flux. Analysis at SGS is for a 12 element suite. LOI is determined by thermo-gravimetric analysis at 1000°C. Fusion/XRF analysis is considered to be an industry standard to analyse nickel-cobalt laterite ore. • Chemical analysis was completed for gold by fire assay and ICP for limit of 0.001ppm as well as multi element using ICP (IC40B) for select samples. • SGS Geosol Laboratories insert their own standards at set frequencies and monitor the precision of the XRF and ICP analysis. These results reported well within the specified 2 standard deviations of the mean grades for the main elements.

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	<ul style="list-style-type: none"> • Additionally, the laboratories 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. • Laboratory procedures are in line with industry standards.
Verification of sampling and assaying	<ul style="list-style-type: none"> • All samples were collected by Centaurus field geologists. All assay results were verified by alternative Company personnel and the Competent Person before release. • All RC sampling is completed by Centaurus field staff under supervision of Centaurus geologists. Logging is entered into the Centaurus database (MS-Access) on site. SGS Geosol send assay results as csv files which are imported into the Centaurus database by geologists. All data is validated by Centaurus geologists and the Exploration Manager. • Although no RC twin holes have been completed to date good correlation has been observed between the RC drill results and the auger result.
Location of data points	<ul style="list-style-type: none"> • To date drill collars have been picked up using hand-held GPS units. Drill collars and the project topography will be surveyed once the first phase of drilling is complete. • The survey grid system used is SAD-69 22S. This is in line with Brazilian Mines Department requirements. No mapping points are reported.
Data spacing and distribution	<ul style="list-style-type: none"> • Soil sampling was completed on 200-400m line spacing with 50m between samples. • Auger drilling was completed on 200-400m line spacing with 50-100m between holes. • The first phase of RC drilling was completed primarily on 400m line spacing with 100m between drill holes. There are localised cases where the section spacing is 200m and there is 50m between holes on section. • No sample compositing has been applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • The extent and orientation of the mineralisation was interpreted based on initial field mapping, soil sampling, auger drilling and regional geophysical interpretations. • All drill holes to date are vertical and give a true width of the laterite mineralisation.
Sample security	<ul style="list-style-type: none"> • All samples were placed in plastic sample bags and then numbered. Bags are sealed and placed in larger bags (10 samples per bag) and then transported to the SGS Geosol laboratory in Parauapebas, PA. Sample request forms are sent with the samples and via email to the laboratory. Samples are checked at the laboratory and a work order is generated by the laboratory which is checked against the sample request.
Audits or reviews	<ul style="list-style-type: none"> • The Company is not aware of any audit or review that has been conducted on the project to date.

SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • The Itapitanga Project includes one exploration licence 850.475/2016, for a total area of circa 50km². • The Itapitanga Project is part of an earn-in Agreement where the project partner Simulus can earn up to an 80% interest in the Project via delivery of a Definitive Feasibility Study. Centaurus will be free-carried throughout the various exploration and evaluation phases until financing is arranged and a decision to mine is made, refer to ASX Announcement on 27 November 2018: Centaurus Secures Nickel-Cobalt Development JV at Itapitanga. • All mining projects in Brazil are subject to a CFEM royalty, a government royalty of 2% on base metals revenues. • Landowner royalty is 50% of the CFEM royalty. • The project is located primarily in farming land.
Exploration done by other parties	<ul style="list-style-type: none"> • The company is not aware of any historical exploration.
Geology	<ul style="list-style-type: none"> • The Itapitanga Project forms part of the southern extension of the ultramafic-mafic intrusive complex (2.8Ga) that intrudes the Archean Xingu basement granites in the western region of the Carajás Mineral Province. • Nickel-cobalt laterite mineralisation generally occurs from surface and is associated with the ferruginous laterite of the ultramafic protore. Nickel mineralisation is associated with the saprolite that underlies the ferruginous laterite.
Drill hole Information	<ul style="list-style-type: none"> • Assay results have been received for 155 drill holes for a total of 4,309m drilled. • Refer to ASX Announcement dated 28 August 2018 for full detail on RC drill results.
Data aggregation methods	<ul style="list-style-type: none"> • Continuous sample intervals are calculated via weighted average. Significant intersections considered a 0.50 % nickel or 0.08% cobalt cut-off and 2m maximum internal waste. • There are three significant intersections for scandium only that considered a 20g/t scandium cut-off and 2m maximum internal waste. ICP assay results (scandium) only received up to ITAP-RC-18-084. • Refer to ASX Announcement 28 August 2018 for detail on all drill results.
Relationship between mineralisation widths and	<ul style="list-style-type: none"> • All RC holes are vertical and have intersected the complete mineralisation profile into the underlying un-mineralised protore. It is considered the holes are 90° to mineralisation and therefore

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Criteria	Commentary
intercept lengths	intersections are considered to be of true width.
Diagrams	<ul style="list-style-type: none"> Refer to Figure 1.
Balanced reporting	<ul style="list-style-type: none"> All exploration results received by the Company to date are included in this report or can be referenced to previous ASX releases.
Other substantive exploration data	<ul style="list-style-type: none"> The Company is working with the CPRM geological and geophysical regional data set (Carajás – Área I (1047)). The Company is working with the SRTM topographical surface (30m resolution). Dry bulk density estimations have been carried out on in situ samples. Samples were taken using a 30cm steel mould that is cut into the in-situ laterite mineralisation. Samples were then weighed wet and dry. The average dry bulk density for the mineralisation is 1.5 t/m³.
Further work	<ul style="list-style-type: none"> The Company has made applications for drilling in the vegetated and wetland areas that were not drilled in the first campaign. Auger drilling is ongoing for these areas that were not accessed under current drilling permits. Additional metallurgical samples have been taken for further processing testwork.