

18 February 2020

## INITIAL METALLURGICAL TEST WORK DELIVERS STRONG INCREASE IN METAL RECOVERIES AT JAGUAR NICKEL SULPHIDE PROJECT

25% increase in nickel recoveries achieved compared with historical metallurgical results

- Nickel recoveries of over 80% achieved from initial metallurgical float tests for the Jaguar South Deposit.
- The Jaguar South composite has been tested using a traditional nickel flowsheet (as used by nickel sulphide mines in Western Australia), achieving a concentrate grading 16% nickel at a nickel recovery of 82%.
- Initial results boost metal production by >25% compared to previously announced historical test work.
- Samples from the Onça Preta Deposit are being composited for testing and are expected to achieve even higher recoveries due to the coarser crystal nature and favourable non-sulphide gangue composition.
- Metallurgical and flowsheet development is ongoing.

Centaurus Metals (ASX Code: **CTM**) is pleased to announce highly encouraging results from initial metallurgical test work on drill core from the Jaguar Nickel Sulphide Project in northern Brazil, with a nickel recovery of 82% and 16% nickel concentrate grade achieved from flotation test work on the first composite from the Jaguar South Deposit.

The Company commenced metallurgical test work on the Jaguar Project on the basis of a focused, high-grade project rather than a bulk tonnage, low-grade operation as historically studied by Vale. The test work has so far included mineralogical understanding, comminution and flotation test work.

Centaurus' Managing Director, Mr Darren Gordon, said the outcomes of the preliminary metallurgical test work for the Jaguar South mineralised zone reflected the benefits of targeting a smaller, high-grade project using industry-standard flotation techniques that are widely used in the WA nickel sulphide industry.

*"The recoveries that we are seeing in our first float tests are around 25% better than those previously delivered in historical test work, and this will have a significant positive impact on future project economics. These initial results – coupled with the continued success of our high-grade in-fill drilling program – are the key drivers to developing a robust high-grade nickel operation."*

*"With shallow, high-grade mineralisation, strong metal recoveries, close proximity to low cost power, an engaged labour force from an experienced mining jurisdiction and ample good quality water, we believe we have all the ingredients for a quality nickel sulphide development and we look forward to progressing the work required to bring this to fruition."*

**Australian Office**  
Centaurus Metals Limited  
Level 3, 10 Outram St  
WEST PERTH WA 6005

**Brazilian Office**  
Centaurus Brasil Mineração Ltda  
Avenida Barão Homem de Melo, 4391  
Salas 606 e 607 - Estoril  
Belo Horizonte - MG - CEP: 30.494.275  
BRAZIL

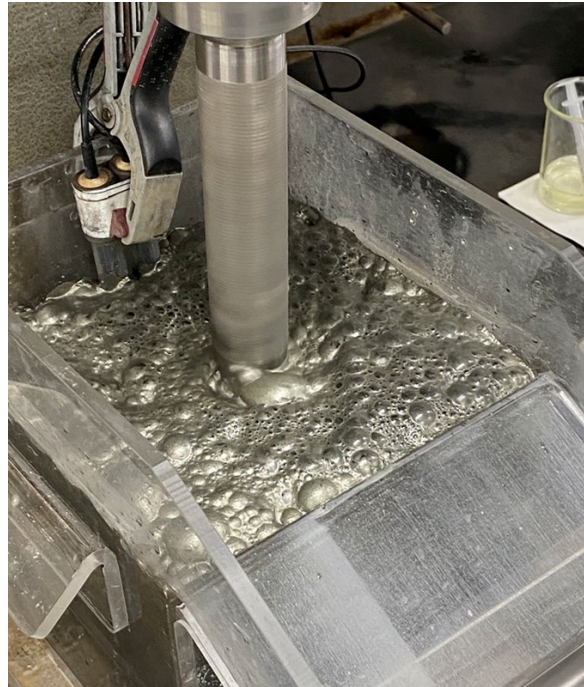
**ASX: CTM**  
ACN 009 468 099  
office@centaurus.com.au  
Telephone: +61 8 6424 8420



## Flotation

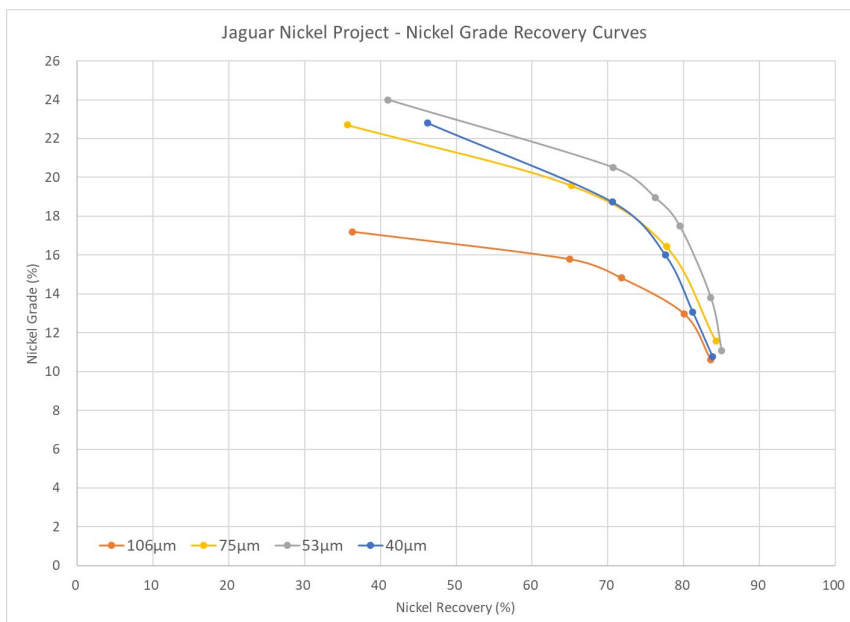
Flotation testing of core has initially focused on the Jaguar South mineralised zone (JAG001). A composite of this zone has been developed containing a head grade of 1.63% Ni and this composite has been tested using a traditional nickel flowsheet (as used by nickel sulphide mines in Western Australia) as well as traditional reagents and process conditions for nickel flotation circuits.

**Figure 1: Jaguar Rougher Nickel Concentrate**



Metallurgical test work is being undertaken at ALS Metallurgy (based in Balcatta, Perth) with initial results indicating that the best recoveries are achieved at 80% passing ( $P_{80}$ ) primary grinds in the 53-75 $\mu\text{m}$  range (Figure 2). This results in recoveries of +80% in producing an excellent quality concentrate (16% Ni) with low arsenic and high Fe: MgO (~5.5:1), which are all favourable and highly desirable in the nickel concentrate market.

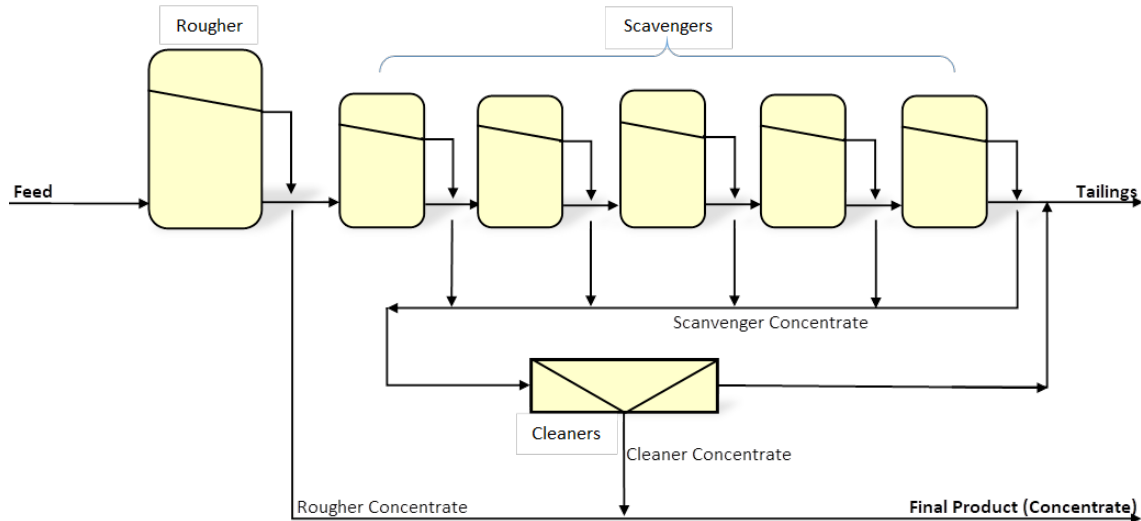
**Figure 2: Effect of Grind Size on Grade Recovery Relationship**





The results outlined above are from simple rougher testing only and further flowsheet development is ongoing (Figure 3). This test work is expected to further improve the recoveries of nickel metal in the final product.

**Figure 3: Future Cleaner Flotation Flowsheet**

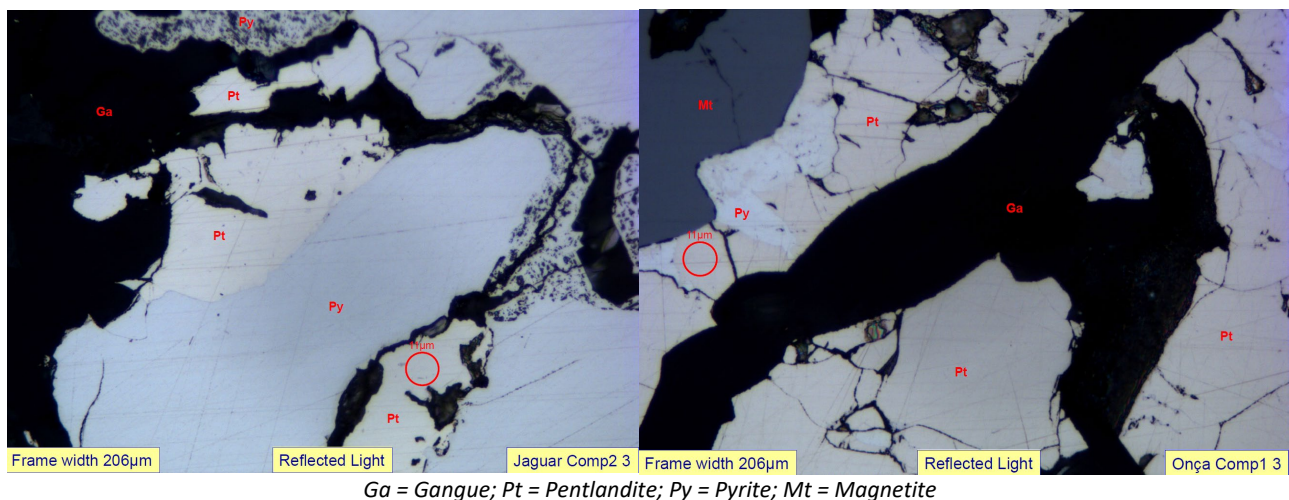


**Mineralogy**

Initial mineralogical investigation of the both the Jaguar South and Onça Preta composite samples have aligned well with the Company’s initial understanding of the Project. McArthur Ore Deposit Assessments (MODA) in Burnie Tasmania has started the mineralogical characterisation of the mineralisation so that domaining of the different ore zones can be completed to rapidly increase the confidence level, quality and understanding of the degree of variability within the Project.

The mineralogy work will be a continually evolving study over the duration of the planned drilling works.

**Figure 4: Photomicrographs of the Jaguar (left) and Onça (right) composites demonstrating the coarse nature of the sulphides**



Work is ongoing on all metallurgical fronts with the flotation test work results from the Onça Preta composite expected in the coming weeks.

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## Comminution

Based on the flotation results achieved, a moderate 53 -75µm primary grind range has been selected as the best metallurgical response for the Jaguar South ore. The ore (and waste) have been tested to determine comminution parameters, identifying that both the mineralised and waste zones are both moderately hard and have low-abrasive properties – indicating that a conventional, low risk, semi-autogenous/ball mill circuit (SABC) will be suitable for the targeted production profile.

Once more samples have been tested, a preliminary milling circuit design will be completed. This work is expected to be completed by end of Q1 2020.

**-ENDS-**

For further enquiries please contact:

**Nicholas Read**

Read Corporate

M: +61 419 929 046

T: +61 8 9388 1474

Authorised for release by:

**Darren Gordon**

Managing Director

Centaurus Metals Ltd

T: +61 8 6424 8420