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## CENTAURUS APPOINTS AUSENCO AS LEAD ENGINEER FOR THE JAGUAR NICKEL PROJECT DEFINITIVE FEASIBILITY STUDY

Industry-leading engineering firm Ausenco to deliver both the process and non-process plant infrastructure components of the DFS utilising its Australian and Brazilian offices

- > Ausenco appointed as Lead Engineer for the Jaguar Nickel Project Definitive Feasibility Study (DFS).
- Under the scope of the appointment, Ausenco will focus both on process plant engineering and selected non-process infrastructure (NPI) engineering services for the DFS – and will coordinate the overall delivery of the DFS in conjunction with experienced Centaurus in-house operational personnel.
- Ausenco will leverage its in-country experience within its Brazilian office to ensure that construction costs and productivity assessments align with and reflect those to be achieved in the Carajás Mineral Province, where the Jaguar Nickel Project is located.
- > Other DFS activities currently being managed by the Company are progressing well.

Centaurus Metals (ASX Code: **CTM**) is pleased to announce the appointment of leading global engineering group Ausenco as Lead Engineer for the completion and delivery of the Definitive Feasibility Study (DFS) on its flagship 100%-owned **Jaguar Nickel Sulphide Project** in northern Brazil. The DFS is targeted for completion by the end of 2022.

The appointment, which follows a thorough evaluation and competitive tender process undertaken by the Company, marks another important step towards the development of the Jaguar Project.

Ausenco is an Australian company with a long and successful history in the minerals and mining sector providing processing solutions, design engineering and project execution services globally. Ausenco boasts strong experience in the processing methods planned for Jaguar Project as well as project studies and construction experience in South America through its offices in Belo Horizonte (Brazil), Santiago (Chile) and Lima (Peru). Ausenco has assembled a study team with both strong technical skills and detailed local knowledge of construction in Brazil, and importantly, the Carajás Mineral Province.

Ausenco's experience with regard to study and project delivery into Brazil includes the Araguaia Nickel Project (Horizonte Minerals) Feasibility Study, the Serrote Copper Project (Appian) Feasibility Study and Basic Engineering, the Santa Luz Gold Project (Equinox Gold) Feasibility Study and Detailed Design and the Aurizona Gold Project (Equinox Gold) expansion and restart.

Elsewhere in the world, Ausenco has built a number of successful flotation concentrators including EPCM delivery of the massive Mina Justa Copper Project in Peru and the EPC delivery of the Carrapateena Copper-Gold Project in Australia.

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Ausenco's study and project delivery work for complex base metal hydrometallurgical flowsheets includes the Sepon Copper Project in Laos (pressure oxidation, solvent extraction and electrowinning) and the Mina Justa Copper Project in Peru (vat leach, solvent extraction and electrowinning).

Ausenco will provide the majority of study services through its Perth office, with technical and engineering support from its Belo Horizonte office, to ensure that engineering designs conform to Brazilian standards and that capital and operating costs reflect local supply and installation costs. Ausenco's key global hydrometallurgical subject matter experts are based in the Perth office.

Centaurus Managing Director, Mr Darren Gordon, said the appointment of the highly respected engineering group marked another important milestone in its development timeline.

"We are very pleased to be partnering with Ausenco to complete the process plant and associated infrastructure components of the Jaguar Nickel Project DFS. Ausenco has a long and respected track record of achievement in project studies and delivery, not only within Australia and Brazil, but also globally. The quality of the team Ausenco has been able to commit to the project at a time in our industry when competition for skilled personnel is very tight is, we believe, reflective of the size and quality of the Jaguar Nickel Project, its robust economics and the likelihood that the DFS will result in the Project moving rapidly from the study to the implementation phase.

"Since the Value-Added (Nickel Sulphate) Scoping Study was released to the market on 31 May 2021, our teams in Brazil and Perth have been working diligently to expand the Mineral Resource and continue the comprehensive metallurgical testwork programs to provide the detailed information required to underpin a Definitive Feasibility Study. We now look forward to working with Ausenco to deliver the DFS by the end of 2022."

#### Project Development Update

# Ausenco

Ausenco, through its teams in Perth, Australia and Belo Horizonte, Brazil will deliver the process plant and nonprocess infrastructure components of the DFS and provide overall coordination of the final DFS Report.

Working together with the in-house Centaurus Project team and specialist consultants who have already been engaged previously, the Ausenco scope of work includes:

- Review and verification of metallurgical testwork and process flowsheet development conducted to date.
- Finalisation of the process flow sheet and completion of process plant design.
- Development of non-process plant infrastructure inclusive of offices, workshops, warehousing, water supply, site services and water treatment facilities.
- Development of the project implementation plan and project risk assessment.
- Estimation of capital and operating costs for those areas under their design scope and also the construction costs for the tailings storage facility (IWL).
- Coordination and delivery of the final DFS Report.

Other disciplines of the DFS will be managed by Centaurus using a combination of internal resources and external consultants. The external consultants currently engaged to work on the DFS include:





#### **Geotechnical Investigations**

A geotechnical drill program designed to obtain soil strength and material characterisation data for foundation design and construction materials for the process plant site, tailings storage facilities and waste dump locations is nearing completion. The investigation, which commenced in Q4 2021, will be completed toward the end of Q1 2022. Data from this program will enable the tailings storage facility design to be completed and for the process plant layout to be finalised.

#### **Metallurgical Testwork**

Since the Jaguar Nickel Project update announced on 8 December 2021, the ongoing metallurgical testwork programs have been progressing well, particularly in relation to:

- The technically and commercially viable options for copper, zinc and cobalt by-product production at Jaguar;
- The multifaceted chemical reactions within the pressure oxidation leach circuit under a variety of operating conditions through computer modelling with METSIM; and
- The detailed pressure oxidation (POX) process flowsheet design to take forward to the next stage of POX testwork.

The PQ drill core intercepts, which arrived in Australia at the end of 2021, are now in the process of being sampled for ore sorting, comminution and bulk flotation purposes. Bulk flotation testwork is underway (see figure to the right).

The concentrate samples produced from the bulk flotation testwork will be used in the next phase of hydrometallurgical testwork which includes the pressure oxidation program and the commencement of solvent extraction and crystalliser programs.

As a result of the sampling process moving slower than originally anticipated due to the backlog of work in the laboratories in Perth, it is now anticipated that the hydromet testwork program with ALS will be completed in early Q2 2022 rather than the end of Q1 2022 as previously announced.

#### **Infrastructure**

#### Power

Powerline design has been completed and lodged with the local power distribution company, Equatorial, Pará, for approval. Engagement with local land-holders along the powerline route has commenced in order to reach agreement on compensation for land disturbance and access.

#### Roads

Site road access upgrades necessary to improve wet season access to site has been completed in conjunction with the São Felix do Xingu and Tucumã municipal authorities. Road surface improvement and drainage work have upgraded 45km of access road, including 44 drains/culverts, with the quality of the road being a vast improvement on what was previously there.

A civil engineering consultancy has been engaged to design bridge upgrades at eight locations along the road to site to improve safety for both light and heavy traffic. A geotechnical drilling program will commence shortly to support bridge foundation design planned for completion over the next couple of months. The geotechnical drilling for bridge foundation testing will commence once Geotech drilling at the plant site has been completed.







For further information on the Company please visit <u>www.centaurus.com.au</u> to view our latest corporate presentation or contact:

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