ASX Announcement



ASX:CVV

5 May 2022

CARAVEL COPPER PROJECT

PFS UPDATE

Highlights

- Capital cost estimates for the Project's Stage 1 process plant and infrastructure have been received from lead engineer Ausenco
- The Stage 1 capital estimate has increased from ~\$500M to ~\$700M or ~40%
- The cost estimate increases are mainly attributable to:
 - A 20% increase (~\$100M) for project scope changes relating to increased throughput (secondary crushing), power, water, tailings storage and roads
 - A 20% increase (~\$100M) due to cost increases in labour, materials, freight and energy in line with current market conditions
 - Contingency and Project Delivery provisions are included within the above costs
- Initial mining equipment costs have been estimated at \$140M for an electrified and autonomous mining fleet
- Mining equipment is expected to be vendor financed independent of project finance
- Estimate for all-in sustaining cost (AISC) for mining is \$3.13/t
- The increased capital costs represent less than 10% of the project's free cashflow. NPV will be impacted by higher up-front capital relative to discounted cashflow over the mine life
- These capital cost estimates are undergoing further review and optimisation and are provided as guidance ahead of the final PFS report
- Key project elements are now well advanced and technically de-risked. Overall understanding and confidence in Project economics has grown substantially

Project Capital Estimate Update

Preliminary capital cost estimates for the process plant and associated infrastructure have now been received from Ausenco, the lead engineer for the Pre-Feasibility Study. These estimates are undergoing further review and optimisation and are provided here as guidance on the expected costs to be reported in the PFS.

Mining capital costs have also been finalised based on detailed costings provided by equipment vendors in consultation with Caravel mining engineers and mining consultants Orelogy.

Where appropriate, the costs are presented in reference to the 2021 Scoping Study numbers to provide context (see ASX announcement dated 4 November 2022). All costs are presented as Australian dollars. The variations to the previous study may be due to both changes in the scope of the work and variations in cost estimates, which are described separately.

Compared to 2021 Scoping Study the Project's Stage 1 (revised 13.9Mtpa throughput) capital estimate for processing and infrastructure has increased by approximately \$200M from ~\$500M to ~\$700M, or 40%. Details of cost increases are outlined below:

Capital costs for process plant and infrastructure

As reported in April, project engineering studies proposed mill throughput to increase by 1.9Mt, from 12 Mtpa to 13.9Mtpa resulting in an additional ~5,000 tonnes of Cu in concentrate per annum for total annual production of ~40,000tpa Cu in Stage 1 and ~61,000tpa Cu in Stage 2 (see ASX Announcement 6 April 2022).

The increase in capital costs can be attributed to two main factors:

- A 20% increase (~\$100M) to capital costs due to scope changes and increased engineering design relating to power infrastructure, water supply, tailings storage, road infrastructure and the addition of secondary crushing to increase throughput.
- A 20% increase (~\$100M) in costs for inputs such steel, concrete, energy, labour and freight which have reached record highs in recent months, resulting in increased costs estimates for the processing plant and support infrastructure. This also flows through into equipment costs for all other areas.

Contingency and Project Delivery cost provisions, which are included in the two areas above have increased by ~\$30M as a function of the increased direct costs.

Capital costs for mining fleet

Mining costs for the PFS are based on an owner operator fleet utilising automation and electric power technology (ACE). This fleet has been priced using detailed vendor information at an initial capital cost estimated at \$140M for commencement of operation. Owner mining has been selected due to the Project's long mine life and to secure the benefits of electrification and automation which are not widely used by contract mining operators due to the shorter time frame of most contracts. ACE operations offer significant advantages in efficiency, productivity and ESG measures.

Using the new capital costs, all-in sustaining cost (AISC) for mining is estimated to be \$3.13/t mined and \$7.14/t of ore (based on the ore/waste ratio of 1.28:1). The AISC is a 7% increase over the Scoping Study estimate for contract mining of \$2.93/t mined, however the current cost estimate is

significantly lower than current market rates for contract mining which have increased substantially since the 2021 Scoping Study. These low mining cost rates are an important fundamental advantage for the project.

It is expected that vendor financing will be available for the equipment purchase and discussions on terms are in progress.

Basis for cost estimates

The estimate accuracy for the Ausenco capital cost estimate is $\pm 25\%$ and is equivalent to an AACE Class 4 estimate. To support the development of capital and operating cost estimates within a $\pm 25\%$ accuracy, the study refined the process design, process flow sheets and mass balance based on results from metallurgical test work. These formed the basis for equipment sizing, development of mechanical and civil model, preliminary discipline MTOs and market-based pricing for major equipment.

Summary and Discussion

The increased capital costs are significant however they are in line with the change of scope relating to increased plant throughput and the increased costs relating to labour, materials, energy and freight. In aggregate, the increased costs are less than 10% of the project's free cashflow, however they will have a higher impact on NPV is as the capital is up front cost and the cashflows are discounted over the mine life.

The increased costs, particularly around the infrastructure which can support a larger project, may favour the higher throughput option that is currently deferred until Stage 2 to reduce up-front capex and shorten the lead time to production. Further studies will investigate the benefit of commencing at the higher throughput of ~27.8Mtpa from the start of the project rather than as a staged approach. This is being considered as part of the finalisation of the PFS.

Further review and optimisation of these capital estimates is continuing ahead of the final PFS reporting which is due later this month.

This announcement is authorised for release by Managing Director, Steve Abbott.

For further information, please contact:

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Competent Persons Statements

The information in this report that relates to Exploration Results is based on and fairly represents information compiled by Mr Peter Pring. Mr Pring is Senior Exploration Geologist with Caravel Minerals. Mr Pring is a shareholder of Caravel Minerals and is a member of the Australasian Institute of Mining and Metallurgy. Mr Pring has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Pring consents to the inclusion in this report of the matters based on information in the form and context in which they appear.

The information in this report that relates to Mineral Resources is based on and fairly represents information compiled by Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd). Mr Barnes is a shareholder of Caravel Minerals. Mr Barnes is a member of both the Australasian Institute of Mining and Metallurgy and the Australasian Institute of Geoscientists. Mr Barnes has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Barnes consents to the inclusion in this report of the matters based on information in the form and context in which they appear.

Information in this announcement relating to Mineral Resources is extracted from the ASX release dated 23 November 2021. Caravel Minerals Limited confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the Mineral Resource continue to apply and have not materially changed. Caravel Minerals Limited confirms that the form and context in which the Competent Persons' findings are presented in this announcement have not been materially modified from the original market announcement.

Previous Disclosure The information in this report is based on the following Caravel Minerals ASX Announcements, which are available from the Caravel Minerals website www.caravelminerals.com.au and the ASX website www.asx.com.au:

- 25 August 2021 "Bindi Deposit Updated Geological Model"
- 4 November 2021 "Scoping Study Caravel Copper Project"
- 23 November 2021 "Major Mineral Resource Upgrade Caravel Copper Project"
- 17 February 2022 "PFS Update Caravel Copper Project"
- 6 April 2022 "PFS Update Caravel Copper Project"
- 3 May 2022 "Drilling Results Bindi Copper Deposit"

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.

Forward Looking Statements This document may include forward looking statements. Forward looking statements include, but are not necessarily limited to, statements concerning Caravel Minerals planned exploration programmes, studies and other statements that are not historic facts. When used in this document, the words such as "could", "indicates", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward looking statements. Such statements involve risks and uncertainties, and no assurances can be provided that actual results or work completed will be consistent with these forward looking statements.

ABOUT Caravel minerals

Caravel Minerals Limited (ASX:CVV) is advancing Pre-Feasibility Studies for the Caravel Copper Project – a large-scale, long-life copper mining and processing project located 150km northeast of Perth in Western Australia's Wheatbelt region. Current mineral resources for Measured, Indicated and Inferred are 1.18 billion tonnes at 0.24% Cu for 2.84Mt contained Cu (0.1% cut-off), making Caravel Australia's largest undeveloped copper project based on contained Cu. The Project will use conventional open-pit mining and simple flotation processing methods to process 12Mtpa of ore from years 1 to 5 ramping up to 24Mtpa from year 6. Copper will be sold as a concentrate and exported via road through local ports with ~35,000 tpa copper in concentrate in years 1 to 5 and ~65,000 tpa copper in concentrate from year 6. Current mine life is >25 years.