



Nebo - Babel Study Update

HIGHLIGHTS

- **Confirmation of preferred “Staged” Project scenario to reduce start-up costs**
- **Significant reduction in capital and operating costs**
 - **Pre-Production capex reduced by 24%**
 - **Power generation costs reduced by 30%**
- **Review of concentrate transport and logistics options completed**

Cassini Resources Limited (ASX:CZI) (“Cassini” or the “Company”) is pleased to provide an update on the important progress being made in the evaluation of the Nebo-Babel nickel - copper deposits (the “Project”) at the West Musgrave Project in Western Australia.

The Company’s ongoing work on the Project has focussed on re-optimisation at various commodity prices and production profiles to determine the preferred development pathway. In addition, review of pre-production capital and operating costs has resulted in significant reductions in both these areas.

Confirmation of Staged Development Scenario

The work to date has resulted in an improved understanding of the optimal development pathway for the Nebo-Babel deposits. The Company’s preferred “Staged” scenario anticipates an initial high-grade, 1.0 - 1.5mtpa processing capacity mine, ramping up to a 4mtpa operation after 4 - 5 years. This staged approach will:

- Result in lower pre-production capital expenditure;
- Take advantage of the shallow, higher grade, higher margin resources available at both Nebo and Babel;
- Reduce project risk by establishing cashflow and operating expertise prior to implementing the 4Mtpa expansion;
- Allow greater optionality around the timing of implementation of the expansion;
- Allow for mining and processing of the lower grade resources at a larger operational scale, therefore minimising unit production costs; and
- Preserve the optionality of the large resource base not currently in the mine plan.

Key Study Work Outcomes

Economic Evaluation

Multiple Whittle optimisations were carried out to evaluate the impact of changes in commodity prices and different metallurgical recoveries on the scale and profitability of the Project. This work was augmented by incorporating differing mining and processing costs to reflect different possible project scales.

High level pit scheduling has been undertaken to sequence pit staging for improved payback via high value ore early in the mine schedule, while deferring waste stripping where possible.

Review of Pre-Production Capital and Non-Processing Infrastructure Costs

Reviewing pre-production capital to identify reductions where possible has been a focus. The review has led to overall capital expenditure savings of 24%. A summary of capital expenditure reductions is detailed in Table 1. As a result of the updated study work, the Company has gained greater certainty in the following areas:

- Road construction and upgrade costs have been reduced after a review of the existing road access route yielded substantial reductions in the amount of upgrade work required on the Great Central Road and the Warburton – Jameson Road;
- EPCM costs have been adjusted in line with the current contracting environment;
- The village size has been increased, however the additional cost has been more than offset by a reduction in construction cost;
- Water supply costs have increased to allow for a “worst case” scenario where water supply is only available from aquifers located a substantial distance away from the Project; and
- In the Scoping Study, it was proposed to upgrade the Jameson airstrip, 35km north of the Project. The Company has since elected to construct an on-site all weather airstrip for certainty of uninterrupted operations.

Scenario	Pre-Production Capital (A\$m)	Expansion Capital (A\$m)	Total Construction (A\$m)
Scoping Study (1.5mtpa expanding to 4.0mtpa)	319	202	521
Study Update (1.0mtpa expanding to 4.0mtpa)	244	236	480
Capital expenditure difference	-75	+34	-41

Table 1. Comparison of Scoping Study vs Updated Study capital expenditure forecast (includes contingency).

Review of Operating Costs

The company has updated Scoping Study operating costs to reflect;

- Adoption of a hybrid wind-diesel power generation solution, taking advantage of the relatively high, year round, wind energy available in the West Musgrave region. Energetics Pty Ltd were engaged to carry out a Renewables Energy Options Study to investigate the potential use of wind, solar, compressed natural gas and liquid natural gas. The outcomes of this work identified a hybrid wind-diesel power supply system as being highly favourable in delivering a significantly lower levelised cost of energy (LCOE) to the project in the order of 30% less than the original Scoping Study;
- Unit mining contractor rates were reviewed and modified upwards slightly;
- Concentrate logistics costs were confirmed and included the review of an alternative transport route via Geraldton Port (see Figure 1); and
- Road maintenance costs for site access were reviewed and revised upwards.



Figure 1. West Musgrave Project concentrate transport options.

Upcoming Study Work

The Company has reconsidered its initial study program and intends to significantly “front load” the technical investigations for the Project into the PFS stage to provide a clearer and more robust Project execution pathway. This will have the complementary effect of reducing the scope of the DFS stage.

The next phase of Project evaluation, technical assessment and approvals work is currently being planned in light of the decision to adopt a staged project. Key to this next phase is to garnering significantly improved understanding in a number of areas, including:

- The metallurgical performance of the resource;
- The Project water supply;
- Establishing pit slope parameters;
- Better delineation of high value/high consequence resources that provide mill feed in the early phases of the mine schedule; and
- Executing an environmental approvals program.

Accordingly, the Company is building a comprehensive PFS/DFS evaluation and approvals program to incorporate all of the above.

The new timeline for this PFS work will be monitored in line with the Company’s capital management strategy.

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Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Mr Greg Miles, who is an employee of the company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the 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 Miles consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The Company is not aware of any new information or data, other than that disclosed in this report, that materially affects the information included in this report and that all material assumptions and parameters underpinning Mineral Resource Estimates and Exploration Results as reported in the market announcements dated 13 and 15 April 2015, continue to apply and have not materially changed.