

ASX ANNOUNCMENT

# HIGI

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ASX Code: CMM

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#### **Board of Directors:**

Mr Heath Hellewell Executive Chairman

Mr Peter Langworthy
Non-Executive Director

Mr Stuart Pether Non-Executive Director

Ms Debra Bakker Non-Executive Director

### **Issued Capital:**

Shares 747.9M Options 56.7M Share Price A\$0.069 Market Cap. A\$51.6M

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# KARLAWINDA OPTIMISATION STUDY DELIVERS SIGNIFICANT INCREASE IN PROJECT NPV TO \$243 MILLION

Debt financing discussions now entering final stage with credit-approved term sheets expected in August

#### **HIGHLIGHTS**

- Optimisation of the key inputs to the October 2017 Feasibility Study for the 1.5moz<sup>1</sup> Karlawinda Gold Project has now been completed, following the recent increase in Ore Reserve.
- The pre-tax Project NPV<sub>(8)</sub> has increased by 69% to \$243m at an improved IRR of 36%, with Project pay back reduced to 2.5 years.
- Total upfront capital costs have been reduced by approximately 10% to \$132.0m and significant improvements to the process flowsheet have been identified, resulting in higher throughput of oxide and laterite ores and lower operating costs.
- The mine life has been increased by 2 years to 8.5 years, with a 25% increase in LOM gold production to 823koz recovered at a LOM AISC of \$1038oz. The LOM strip ratio is relatively unchanged at 4.8:1.
- Optimisation of the mining schedule has smoothed material movements which has materially enhanced the cashflow generation in the first two years of production.
- A significant reduction in processing costs has also been achieved due to reductions in power costs, higher throughput of oxide and laterite ore and improved operational efficiencies.
- Debt financing discussions with banks will now enter the final stage and credit-approved terms sheets are expected to be received in August with completion later in the September 2018 Quarter.
- Competitive tender process for contract mining underway and expected to be finalised in July 2018.

Capricorn's Executive Chairman, Heath Hellewell, said: "In parallel with the final stages of permitting the Karlawinda Gold Project, our team have also been working with our consultants to further enhance the value of the Project - and the results have been fantastic."

The value of the Project has increased by approximately \$100 million with improved rates of return and quicker payback. This outstanding result highlights the serious potential of our Project and brings us even closer to becoming Australia's newest significant gold producer"

<sup>1.</sup> Capricorn report that it is not aware of any new information or data that materially affects the information included in the Reserve and Resource announcement dated 29th May 2018 and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and there have been no adverse material changes

## KARLAWINDA GOLD PROJECT OPTIMISATION STUDIES

Capricorn Metals Ltd (ASX: CMM) ("Capricorn" or "the Company") is pleased to announce the results of a recently completed Optimisation Study for its flagship 100%-owned Karlawinda Gold Project in WA's Pilbara which has resulted in significant improvements to the economic parameters of the project.

The Optimisation Study is one of several activities undertaken since the completion of the October 2017 Feasibility Study (*see ASX announcement dated 23 October 2017*), in parallel with ongoing work to finalise the project's permitting requirements. These activities have included:

- The award of a key contract tender for the EPC Design and Construct contract (see ASX announcement dated 23 April 2018) and associated trade-off studies;
- The completion of an updated Ore Reserve estimate (see ASX announcement dated 29 May 2018) and subsequent mine re-design and re-scheduling; and
- Optimisation studies in relation to project power and other key cost inputs.

The improvements to the key economic parameters of the Project identified in the Optimisation Study are set out in Table 1 below:

TABLE 1: KARLAWINDA GOLD PROJECT ECONOMIC PARAMETERS

		October 2017	June 2018	
Parameters	Unit	Feasibility Study	Optimisation	Increase/Decrease
Processing Plant & Infrastructure Capital Costs <sup>1</sup>				
3.0 Mtpa Process Plant <sup>2</sup>	A\$m	98.7	88.1	- 10.7%
Plant & Other Infrastructure	A\$m	33.2	36.7	+ 10.5%
Indirect Costs	A\$m	14.5	7.2	- 50.3%
Total (including contingency)	A\$M	146.3	132.0	- 9.8%
Capital Cost/LOM Gold Production	A\$/oz	221	160	- 27.6%
Capital Cost / Pre-Tax NPV		1.02	0.54	- 47.1%
LOM Sustaining Capital Costs <sup>3</sup>	A\$m	22.8	22.0	- 3.5%
LOM Mining Equipment Capital Cost <sup>4</sup>	A\$m	50.5	46.7	-7.5%
Production Summary				
Life of Mine (LOM)	Years	6.5	8.5	+ 30.8%
LOM Strip Ratio	Waste:Ore	4.7:1	4.8:1	+ 2.1%
LOM Gold Production	Oz	660,995	823,413	+ 24.6%
LOM Average Annual Gold Production	Oz	101,685	96,872	- 4.7%
Processing Rate – oxide	Mtpa	3.75	4.0	+ 6.7%
Processing Rate – primary	Mtpa	3.0	3.0	-
LOM Average Gold Recovery	%	92.6	92.1	- 0.5%
LOM Operating Costs				
Mining <sup>5</sup>	A\$/t milled	13.8	14.1	+ 2.2%
Processing (Laterite/Oxide)	A\$/t milled	9.9	9.0	- 9.1%
Processing (primary)	A\$/t milled	13.0	11.7	- 10.0%
Processing (Average LOM)	A\$/t milled	12.0	10.8	- 10.0%
Administration	A\$/t milled	2.58	2.50	- 3.1%
C1 Costs	A\$/oz	991	1011	+ 2.0%
AISC	A\$/oz	1025	1038	+ 1.3%
Project Economics <sup>6</sup>				
LOM Revenue	A\$m	1091	1408	+ 29.1%
LOM Pre-Tax Operating Cashflow	A\$m	413	556	+ 34.6%
NPV <sub>8</sub> (Pre-Tax)	A\$m	144	243	+ 68.9%
NPV <sub>8</sub> (Post-Tax)	A\$m	97	166	+71.6%
IRR (Pre-Tax)	%	30.5	36.4	+ 19.3%
Payback (Post-Tax)	Years	3.1	2.5	- 19.3%

<sup>&</sup>lt;sup>1</sup> Amounts shown for the capital costs include contingency amounts.

<sup>&</sup>lt;sup>6</sup> October 2017 Feasibility Study at A\$1,650/oz and 2018 Optimised Study at A\$1,700/oz.



<sup>&</sup>lt;sup>2</sup> The October 2017 Feasibility Study processing plant capital excluded the capital amount for ball mill installation. An amount of \$9.6 million was included as sustaining capital in the Feasibility Study at the end of Year 2. The Optimisation Study now includes the ball mill from project commencement and is included in the process plant capital cost. Capital costs shown include contingency amounts which vary between 0% and 15% depending on capital item.

<sup>&</sup>lt;sup>3</sup> Includes mine closure costs.<sup>4</sup> Assumes owner operator load and haul mining

<sup>&</sup>lt;sup>5</sup> Diesel costs increased to \$0.85/litre in Optimisation Study from \$0.70/litre (after diesel fuel rebate and net of GST). Excludes capital cost for mining fleet. Including mining fleet capital increases Feasibility Study mining cost to \$16.20/tonne milled and Optimisation Study mining cost to \$15.80/tonne (before interest and insurance costs).

#### PLANT & INFRASTRUCTURE CAPITAL COSTS

- Following a tender evaluation process, GR Engineering provided the Company with a contract price of A\$88.1 million to design and construct the process plant along with an additional \$5 million for other supporting plant infrastructure for a total Lump Sum Turnkey Price of \$93.1 million - thereby fixing most of the initial construction and development costs of the Project.
- A subsequent review of capital cost estimates for other infrastructure outside of the scope of the GR
  Engineering contract has now been completed. A modest escalation in capital cost estimates for the
  accommodation camp and access road construction (following modifications to the access road route) has
  resulted in a slight increase in capital costs for non-plant infrastructure.
- A review of the timing of the owners' costs component of the indirect capital costs has seen some personnel
  costs re-allocated to operating costs.
- Trade-off studies completed during the plant construction tender process resulted in a reduction of \$9.6 million in sustaining capital due to expenditure associated with the delayed installation of a ball mill into the comminution circuit being brought forward to project start up and included in upfront capital costs. The bulk of this saving in sustaining capital has been offset by an increased allowance in sustaining capital due to the increase in the life of the project along with a more conservative increase in the overall allowance for sustaining capital as a proportion of total capital costs following further independent review.
- Mining equipment capital costs for the proposed mining fleet, assuming mining is undertaken on an owner operator basis for the load and haul component, have been reduced following optimisation of the mining fleet because of re-scheduling of material movements over the life of mine (Figure 1). Capricorn has commenced a competitive mining contract tender process and a final decision on the preferred mining scenario (contract versus owner-operator) will be made once this tender process is completed.

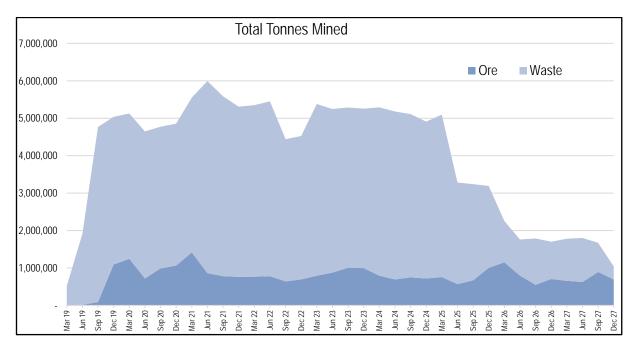


Figure 1. Optimised Material Movement Schedule

(The previous Feasibility schedule peaked at 7,000,000t/qtr over four Quarters from March 2020, before settling at 5,000,000t/qtr. This optimised schedule is much "smoother" having more consistent material movement rates over a longer period.)



#### PRODUCTION SUMMARY

- With the recent increase in the Ore Reserve estimate for the Project, the mine life (based on current reserves) has increased to 8.5 years.
- The life-of-mine strip ratio has increased marginally despite a 24.6% increase in total gold production for the project. Average life-of-mine annual gold production has decreased slightly.
- Improvements in the comminution circuit during the initial oxide phase of the project result in higher average annual throughput for approximately the first two years of production.
- Average life-of-mine gold recovery has decreased marginally due to an increase in lower grade ore in the life-of-mine schedule and the effect of "constant loss to tail" assumptions in calculating average recoveries.

# **OPERATING COSTS**

- Average mining costs have increased due to escalation in diesel prices over the last six months. This
  increase was partially offset by savings resulting from optimisation of the mine schedule and consequent
  reduction in the mining fleet.
- Improvements to the process flowsheet along with changes to the proposed Project power supply arrangements whereby onsite power generation is fuelled by gas transported to site via a lateral pipeline connected to the main Goldfields Gas Pipeline has resulted in a reduction in processing costs over the life of the Project. The increased mine life also resulted in a reduction of unit power costs due to certain tariffs relating to third party power infrastructure costs being amortised over a longer period.
- Slightly lower average life-of-mine grade, slightly lower average life-of-mine recoveries and an increase in average mining costs has resulted in a modest increase in average all in sustaining costs (AISC) per ounce after a positive offset from lower processing costs.

# **PROJECT ECONOMICS**

- The pre-tax Project NPV<sub>(8)</sub> has increased to \$243 million due to reductions in capital costs and the increase
  in total gold life-of-mine production. An increase in gold price assumptions to A\$1,700/oz, which is more
  reflective of the prevailing market, also has a positive impact.
- Improved Project cash flow dynamics due to optimised mine scheduling within the expanded open pit has
  allowed for a 4-stage, rather than 3-stage open pit mine design. This allows for deferral of waste movement
  and has a positive impact on cash-flows. Project economics are also enhanced by increased throughput of
  oxide and laterite ore. These improvements result in Project pay back being reduced to 2.5 years and IRR
  improving significantly to 36.4%.

#### **NEXT STEPS**

Capricorn is working with several short-listed banks with the aim of finalising the debt component of the Project financing in the September 2018 Quarter.

Based on the May 2018 Ore Reserve upgrade and resultant optimised mine schedule, Capricorn has commenced a competitive mining contractor tender process for both drill/blast and the load/haul contracts individually and in combination. This tender process will be finalised before the end of July 2018 and a final decision on the preferred mining scenario will be made once tenders have been reviewed.



For and on behalf of the Board

Heath Hellewell Executive Chairman

For further information, please contact:

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#### Competent Persons Statement

The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled or reviewed by Mr. Michael Martin who is Chief Geologist and a full-time employee of the Company. Mr. Michael Martin is a current Member of the Australian Institute of Geoscientists and has sufficient experience, which is relevant to the style of mineralisation and types of deposit under consideration and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Martin consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to Ore Reserves for Bibra is based on information compiled by Mr Daniel Donald. Mr Donald is an employee of Entech Pty Ltd and is a Member of the Australian Institute of Mining and Metallurgy (MAusIMM, #210032). Mr Donald has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity currently being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Donald consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Capricorn Metals confirms that it is not aware of any new information or data that materially affects the information included in the previous ASX announcements on Mineral Resources (29/5/2018) and Metallurgy (19/6/2017) and, in the case of estimates of Mineral Resources, Ore Reserves, Plant operating costs and Metallurgy, all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not materially changed from previous market announcements.

#### Forward Looking Statements

This announcement may contain certain "forward-looking statements" which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation of belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. The detailed reasons for that conclusion are outlined throughout this announcement and all Material Assumptions are disclosed.

However, forward looking statements are subject to risks, uncertainties, assumptions and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements.

Such risks include, but are not limited to resource risk, metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as governmental regulation and judicial outcomes.

For a more detailed discussion of such risks and other factors, see the Company's Annual Reports, as well as the Company's other filings. Readers should not place undue reliance on forward looking information. The Company does not undertake any obligation to release publicly any revisions to any "forward looking statement" to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

The Company has concluded it has a reasonable basis for providing the forward-looking statements that relate to the Karlawinda Feasibility Study that are included in this announcement and which has been prepared in accordance with the JORC code (2012) and ASX Listing Rules.

