



# KARLAWINDA DEFINITIVE FEASIBILITY STUDY UPDATE

Project activities advancing on time and on budget

## ASX ANNOUNCEMENT

4 October 2016

Australian Securities  
Exchange Code: CMM

ABN: 84 121 700 105

## Board of Directors:

Mr Guy LeClezio  
*Non-Executive Chairman*

Mr Peter Thompson  
*Managing Director*

Mr Peter Langworthy  
*Technical Director*

Mr Heath Hellewell  
*Non-Executive Director*

## Issued Capital:

Shares 486.9M  
Options 17.3M  
Share Price A\$0.14  
Market Cap. A\$68.167M

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## KEY POINTS

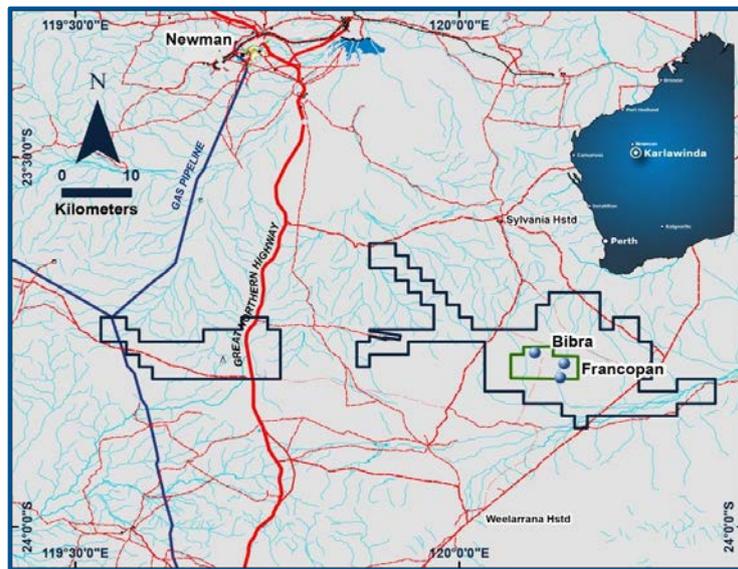
- 50,000m resource in-fill drilling more than 50% complete
- Drilling scheduled for completion by mid-November
- Resource upgrade targeted for late November/early December
- Water bore drilling identifies suitable water supply source near plant site
- 30 diamond holes completed for metallurgical testwork purposes
- Testwork program to commence shortly to underpin Feasibility Study
- Environmental approvals process underway with no red flags identified
- Discussions advancing with Native Title Group to secure grant of Mining Lease

**4<sup>th</sup> October 2016:** Capricorn Metals Ltd (ASX: CMM) is pleased to provide an update on the progress of the Definitive Feasibility Study ("DFS") at the Company's 100%-owned Karlawinda Gold Project in Western Australia.

Study activities that cover resource drilling, metallurgical sample collection, geotechnical evaluation, engineering studies and permitting have advanced on time and within the projected budget. The overall DFS remains on track for delivery by mid-2017, paving the way for financing and development of the Karlawinda Gold Project.

The Karlawinda Project is located near the town of Newman in the Pilbara region of Western Australia (Figure 1). Capricorn Metals is currently undertaking a fast tracked Definitive Feasibility Study ("DFS") on the large-scale Bibra Gold resource. The DFS includes 60,000m of RC and diamond drilling both to increase the classification of the resource and to expand the resource.

The Bibra Gold Deposit Inferred Resource currently stands at 25.5mt @ 1.1g/t Au for 914,000oz (see Appendix 1 for details).



*Figure 1: Location Map: Karlawinda Gold Project*

## RESOURCE DRILLING

The 50,000m program of resource drilling to convert the majority of the current Inferred Resource to Measured and Indicated status has now reached the half way point, with 25,000m of RC drilling now complete. The focus on drilling and sampling quality has been maintained throughout the program.

With the completion of diamond drilling activities for metallurgical and geotechnical purposes, it is anticipated that the remaining drilling component will accelerate from this point. All resource drilling activities are scheduled for completion by mid-November, at which time an update to the resource will be undertaken.

## HYDROGEOLOGY

Recent drilling (656m) has identified an area immediately west of the proposed open pit that has produced significant quantities of groundwater. Airlift pumping has shown yields of up to 5.6 litres per second. Production bores would be expected to generate higher yields. The identified borefield area lies between 2.5km and 4.5km from the proposed process plant site, thereby keeping pumping costs to a minimum.

Water quality is sub-potable, which suggests that it is highly suitable as process water and would result in low reagent (cyanide and lime) consumption.

In addition to the water exploration activities, a program of airlift pumping was completed within the current optimised pit shell. This information will now be incorporated into the hydrogeological modelling for pit dewatering and borefield parameter estimation.

A surface hydrology site investigation will be undertaken shortly to confirm catchment areas and drainage lines to enable the design of water management structures to be determined.

## METALLURGY

A total of 30 diamond drill holes (2,633m) have been drilled in order to generate samples to expand the current metallurgical dataset. Samples have been dispatched to the laboratory and the testwork program will commence in the short term and is expected to take approximately four months to complete.

This work will build on the already available detailed metallurgical testwork, and allow detailed modelling of metallurgical parameters on all geological domains within the Bibra deposit. All previous metallurgical testwork has confirmed that Bibra mineralization is free-milling and non-refractory, with average gold recoveries of 91%, including 25-30% from Gravity.

## GEOTECHNICAL

A program of 5 geotechnical diamond holes (895m) has been completed as part of the current drilling program and this core is currently being logged. These data will be used to confirm the slope design parameters for both the Stage I and Final pit.

## ENVIRONMENTAL

Meetings have been held with the relevant government agencies regarding their information requirements to inform their decisions on approval route. As a result of these discussions, a number of relevant surveys to address specific data gaps will occur over the coming months. None are expected to represent an impediment to development but merely ensure that the regulators have available to them, a complete dataset.

No red flags have to date been identified which could provide environmental impediments to the planned Bibra mine development.

## ENGINEERING

Detailed plant engineering work for the Feasibility Study will be staged and will commence once the comminution (crushing and grinding) testwork has been completed.

Other studies due to commence shortly are investigations into the site civil geotechnical requirements and tailings characterisation for the Tailings Storage Facility ("TSF") design.

## MINING LEASE

The period for further Native Title applications over the Bibra Mining Lease has now closed, with no further applications submitted. This leaves the sole claimant group over this application as the Niyayaparli people, with whom positive discussions have advanced with regard to an access agreement.

## MANAGEMENT COMMENT

Capricorn's Managing Director, Mr Peter Thompson, said the Company was making excellent progress with the DFS work, with all key components progressing on track and on budget.

*"Importantly, the drilling has gone extremely well and thrown up no surprises with the results to date either meeting or exceeding our expectations," he said.*

*"We remain on track to deliver a resource upgrade for Bibra immediately following the completion of this drilling campaign in mid-November, and to deliver the completed DFS by mid-2017.*

*"Our focus on data quality and comprehensive testwork should result in a significantly de-risked gold development, paving the way for project financing and the start of construction in the second half of next year – which in turn will put Capricorn firmly on track to join the ranks of mid-tier gold producers in 2018."*

### **For and on behalf of the Board**



**Peter Thompson**  
**Managing Director**

### **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. Peter Langworthy, Technical Director, who is a Member of the Australian Institute of Mining and Metallurgy. Mr. Peter Langworthy is a full time Director of Capricorn Metals Limited 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. Peter Langworthy consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.*



Aerial photo showing extent and spacing of resource drilling



RC drill rig in operation



Aerial view of RC drill rig in operation



Diamond core logging and processing



Accommodation camp set-up

## APPENDIX 1 – RESOURCE TABLE

**Table 1 – Resource Summary (see ASX announcement dated 4 July 2016)**

The June 2016 Inferred Resource for the Bibra gold deposit now reports at **25,500,000 tonnes @ 1.1g/t for 914,000 ounces of contained gold**. The resource is reported at a 0.5g/t Au cut-off grade and is constrained within an optimized open pit shell using a gold price of A\$1750/oz. Details of the resource are provided in Table (1).

<b>TABLE (1): Bibra Gold JORC Open Pit Inferred Resource Estimate (as at June 30, 2016)</b>			
<b>Domain</b>	<b>Tonnes</b>	<b>Grade (g/t Au)</b>	<b>Ounces</b>
Laterite	2,100,000	1.3	85,000
Saprolite	4,300,000	1.0	142,000
Transition	1,500,000	1.2	58,000
Fresh	17,600,000	1.1	629,000
<b>Total</b>	<b>25,500,000</b>	<b>1.1</b>	<b>914,000</b>

### Notes on the Inferred Mineral Resource:

1. Refer to JORC 2012 Table (1) below for full details.
2. Discrepancy in summation may occur due to rounding.
3. The mineralisation has been wireframe modelled using a 0.3g/t Au assay cut-off grade. The resource estimate has been reported above a block grade of 0.5g/t Au.
4. The resource has been constrained by a A\$1750/ounce conceptual optimal pit shell.
5. Ordinary Kriging was used for grade estimation utilising Surpac software v6.6.2.
6. Grade estimation was constrained to blocks within each of the mineralisation wireframes.