



## **Gryphon to complete Banfora BFS based on a 2.0Mtpa operation, expandable to +4.0Mtpa**

### **Highlights**

- Gryphon concludes decision for the initial development of a 2.0Mtpa processing plant at world class Banfora Gold Project.
- Study phase engineering completed on a staged 2.0Mtpa “start-up” operation will ensure lower initial capital costs and be readily up-scaled to +4.0Mtpa at a later date.
- Flow sheet definition completed for the 2.0Mtpa throughput option based on definitive metallurgical testwork program conducted by ALS Ammtec and managed by Lycopodium Minerals.
- Bankable Feasibility Study (“BFS”) and Environmental and Social Impact Assessment (“ESIA”) on the initial 2.0Mtpa Operation on track for completion in early 2013. Followed immediately by commencement of permitting in February.
- Notice of Intention to Award issued to the world’s leading Semi Autogenous Grinding (“SAG”) Mill supplier, Outotec, for the purchase of a new 7MW SAG Mill for Banfora Gold Project.
- SAG Mill specifications support a 2.0Mtpa processing plant, accounting for variability of ore characteristics across Nogbele, Fourkoura, Samavogo and Stinger gold deposits.
- SAG Mill sizing has been optimised for potential future addition of a Ball Mill to expand throughput from 2.0Mtpa to +4.0Mtpa.
- SAG Mill identified as a key long-lead item; early works will underpin Gryphon’s objective of first gold pour at the Banfora Gold Project by the end of 2014.

#### **Corporate Directory**

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Stephen Parsons  
Managing Director  
Didier Murcia  
Non-Executive Director  
David Netherway  
Non-Executive Director  
Andrea Hall  
Non-Executive Director

Steven Zaninovich  
Chief Operating Officer  
Matthew Bowles  
Head of Corporate Development  
Beth Michetti  
Chief Financial Officer  
Alex Eastwood  
General Counsel & Co Secretary

**Advancing the world class  
4.5 Moz Banfora Gold  
Project, Burkina Faso,  
West Africa**

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Commenting on the decision-making process for the selected mining operation at Banfora Gold Project, Gryphon Managing Director Steve Parsons said:

*"The process and mine design have now been concluded for a 2.0Mtpa configuration. Capital and operating cost estimates together with reserve recoverability are well-advanced for the optimised case, in order to support completion of the BFS in early 2013.*

*"Comminution modelling and process plant layout design for the 2.0Mtpa circuit support a readily up-scalable operation to +4Mtpa, through the addition of a Ball Mill and extension of the leaching circuit and associated support services.*

*"Gryphon is also pleased to announce that following a competitive tender process it has issued a formal Notice of Intention to Award to Outotec, for the supply of a Single Stage SAG Mill for the Banfora Gold Project. Under the terms of the agreement, Outotec will conduct the critical detailed engineering works for the specification of all SAG Mill components and secure key manufacturing contracts with its sub-suppliers.*

*"Successfully completing the recent \$31.3 million equity raising has given Gryphon the opportunity to fast-track critical early works required for the development of the Banfora Gold Project and secure the SAG Mill, the longest lead piece of equipment required for the project.*

*With the BFS for an initial 2.0Mtpa operation drawing to a close over the coming weeks, an early start to completing detailed mill designs is essential to underpin the company's objective of first gold being poured at Banfora before the end of 2014."*

## **Project Throughput Selection**

The final plant design for a 2.0Mtpa operation has been completed by Gryphon's consultants and remains based on an open pit, conventional CIL gold extraction circuit. Benefits of the staged 2.0Mtpa 'start-up' operation include:

- Readily Expandable – process design parameters concluded for the 2.0Mtpa configuration that confirm upgradability to +4.0Mtpa
- lower initial capital costs savings of approximately \$100 million over a 3.5Mtpa case
- considered prudent in the current financial and capital climate
- basis for process plant and infrastructure designs are essentially the same, comprising conventional CIL with single stage SAG Milling, expandable through addition of a Ball Mill and extension of the leaching circuit and support services.

Master composite metallurgical test work, previously completed by ALS Amtec and supervised by Lycopodium, confirms the outstanding metallurgical characteristics and gold recoveries at the Banfora Gold Project. Variability metallurgical testwork has been completed on various ore types and head grades and provides further confirmation of the master composite testwork, retaining average gold recoveries for life of mine of 91%; with oxide recoveries as high as 96%.

The results of the master composite and variability test work supports the suitability of the selected CIL plant design. The design targets a relatively coarse grind size of 106 microns and comprises a comminution circuit with primary crushing followed by a single stage SAG Mill with a recycle pebble crusher. Gold extraction is then achieved through a standard CIL circuit followed by elution, electrowinning and smelting.

## **SAG Mill Order**

Gryphon completed a competitive tendering process during the course of the feasibility study. As a result of this process, Gryphon has paid a deposit for the purchase of a new 7.3m diameter x 7.3m EGL (effective grinding length) grate discharge, Semi Autogenous Grinding (“SAG”) Mill with a 7,000kW drive from Outotec, one of the world’s largest suppliers of specialist grinding mills with extensive experience in supplying, installing and commissioning mills in many West African countries, including Burkina Faso, Ghana, Mali and Cote d’Ivoire.

A Notice of Intention to Award has been signed and the terms agreed with Outotec include a key condition for completion of initial detail design and engineering works for the mill and negotiating manufacturing time-slots with key sub-suppliers prior to a full and final commitment from Gryphon to proceed. To complete these “early works”, Outotec will be paid a deposit with Gryphon holding the option to proceed in full to commence manufacturing works on or before 15 February 2013, retaining unrestricted rights for termination at or prior to that time without incurring additional cost.

Overall mill delivery is approximately 60 weeks from the date of execution of the Notice of Intention to Award and the negotiations with Outotec resulted in a better price than originally estimated.

The mill will be capable of processing at a design rate of 2.0Mtpa for the 70% Primary: 30% Oxide average life of mine ore blend. Gryphon expects to achieve improved throughputs with higher oxide percentages, likely to be scheduled in the early years of production.

Comminution circuit modelling completed by OMC for the selected circuit comprises a Primary Jaw Crusher, the Single Stage Mill with variable speed drive and Recycle Cone Crusher. Modelling work predicts that the design throughput of 2.0Mtpa will be maintained even when processing 100% primary ore, via a combination of higher ball charges and maximum speed.

## **Heap Leach Studies**

Results of the heap leach testwork are expected in Q1/2013, separate to the current BFS and targeting additional ounces to the planned CIL operation.

Preliminary results from column leach test work on bulk trench samples across three portions of the maiden inferred resource of 49Mt @ 0.6g/t for 0.93Moz gold of the lower gold grade ‘halo mineralisation’ at the Nogbele gold deposit indicate a real potential for successful heap leach gold recoveries (Refer to ASX announcement of 09/07/2012 for full details). These original results are extremely encouraging with column cyanidation leach testwork showing excellent extractions with average recoveries of 93% after only 45 days in the columns.

Recent drill core samples taken from the Nogbele area are representative of both Nogbele granitoid, mafic and sediment oxide with head assay grades in the range of 0.6 g/t gold.

Prefeasibility level heap leach testwork has commenced at SGS Lakefield laboratories in Western Australia. Testwork is being supervised by world heap leach experts Kappes, Cassiday & Associates Australia Pty Ltd who will undertake a detailed review of the results on these new samples and the next steps to potentially unlocking heap leachable lower grade gold in addition to the proposed CIL operation.

## **Project Development Timeline**

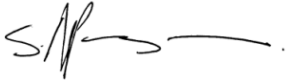
Based on the progress made by Gryphon in the development of the Banfora Gold Project, completing the definitive feasibility study drilling program supported by engineering and mine design, the project development timeline remains focussed on pouring first gold by the end of 2014 (Refer Figure One).

## Background | Banfora Gold Project - Burkina Faso, West Africa

The Banfora Gold Project, at 4.5 million resource ounces of gold, is one of the largest undeveloped gold projects in West Africa and certainly growing in scale on the world stage. The project is located in the south-west of Burkina Faso, West Africa, in a major gold producing district host to such world class gold deposits as Tongon (4.2Moz) Syama (6.5Moz) and Morila (6.5Moz). The project is owned 100% by Gryphon and contains continuous exploration licenses covering approximately 1,200 square kilometres of a major gold district. The project is easily accessible by road and is in close proximity to the town of Banfora and the major city of Bobo-Dioulasso. Grid power is located approximately 30 kilometres from the eastern boundary of the project

Detailed information on all aspects of Gryphons' projects can be found on the Company's comprehensive website [www.gryphonminerals.com.au](http://www.gryphonminerals.com.au).

Yours faithfully



### **Steve Parsons** Managing Director

#### Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Steve Parsons and Mr Sam Brooks who are members of the Australian Institute of Geoscientists. Mr Parsons and Mr Brooks are full time employees of Gryphon Minerals. Mr Parsons and Mr Brooks have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Parsons and Mr Brooks consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr. Dmitry Pertel, who is a member of the Australian Institute of Geoscientists. Mr. Pertel is an employee of CSA Global Pty. Ltd. Mr. Pertel has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Pertel consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to mining engineering has been compiled by Mr Stuart Cruickshanks, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Cruickshanks is a full-time employee of the company. Mr Cruickshanks has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cruickshanks consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### Investors

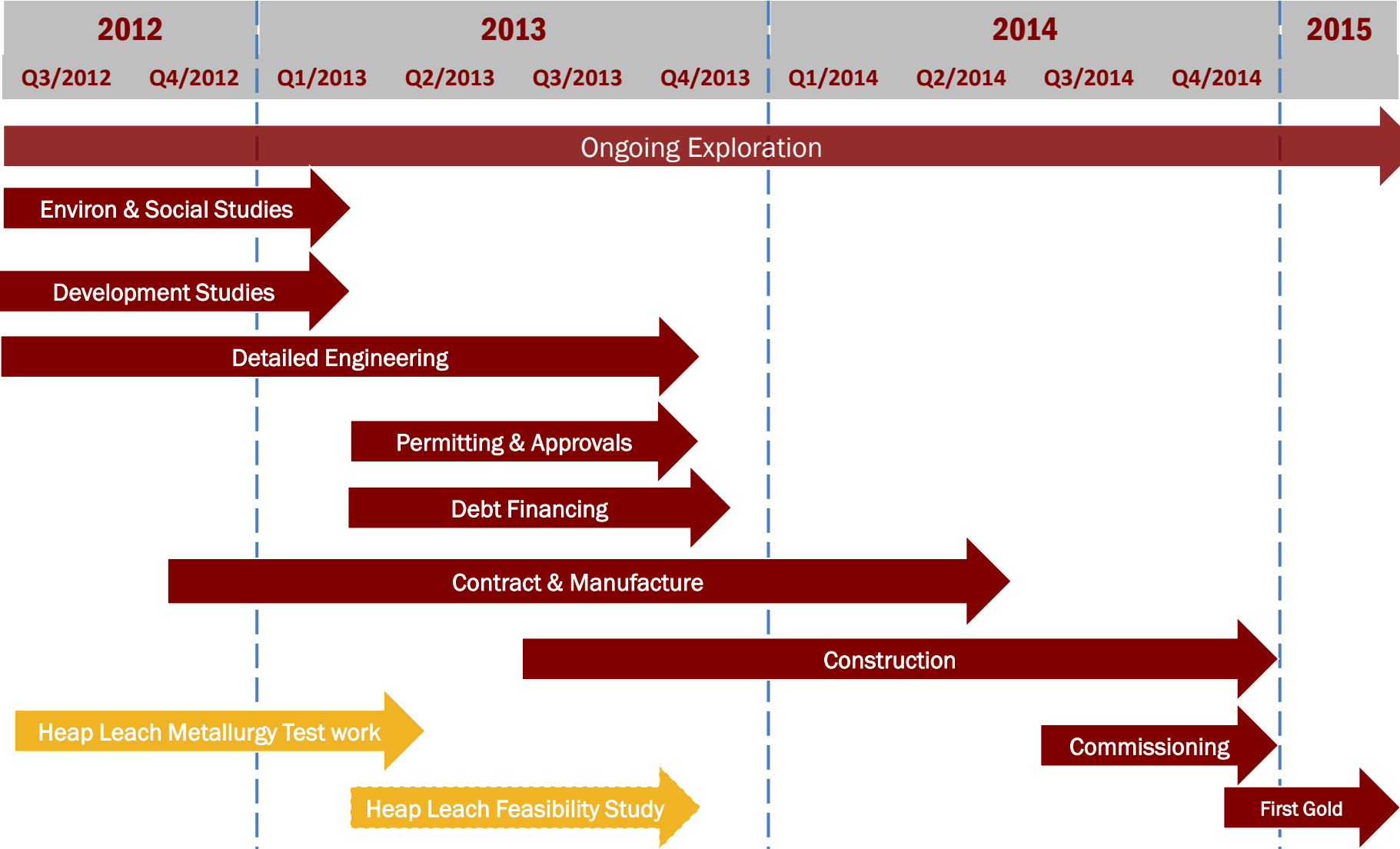
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# Figure One

## Clear path to production



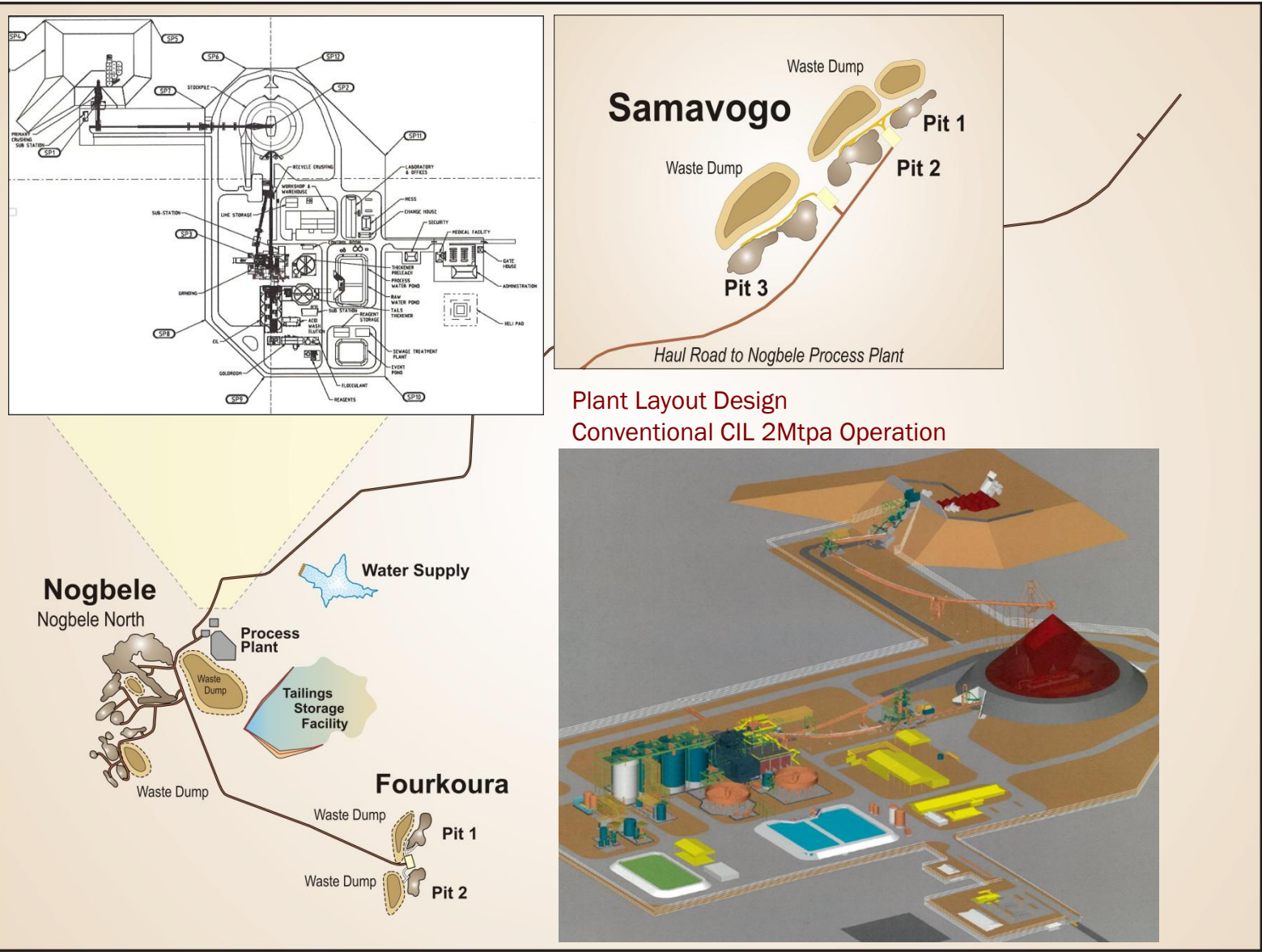
Notes:

1. In line with anticipated resource growth in 2012



# Figure Two | Banfora Gold Project

## Plant location - Nogbele Gold Deposit



Plant Layout Design  
Conventional CIL 2Mtpa Operation

# Figure Three | Banfora Gold Project

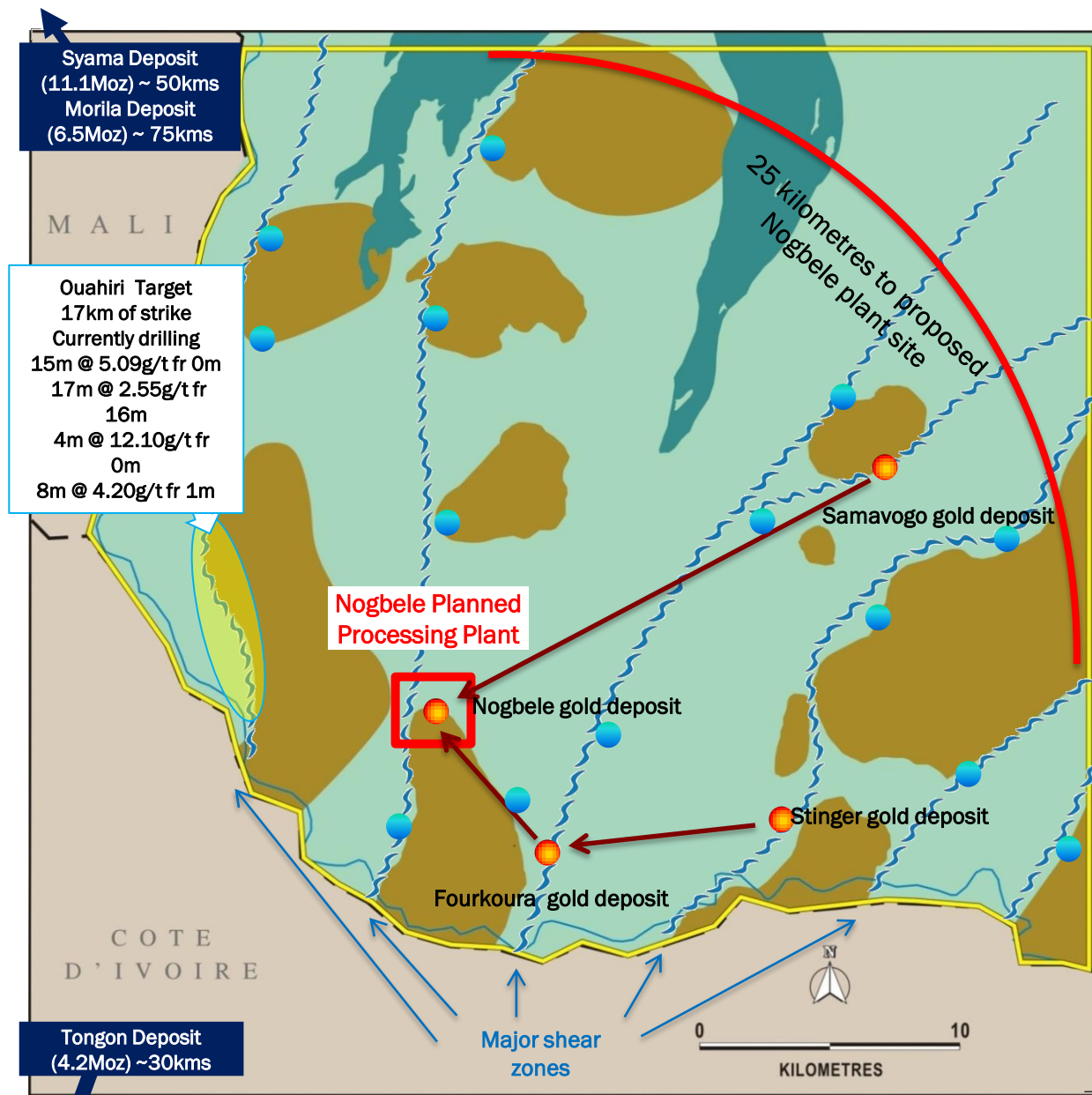
## 4.5 million oz gold and growing



Refer to ASX release 09/07/12 JORC & NI43-101 Compliant

- Project area +1200km<sup>2</sup>
- Over 120km of highly prospective regional shear zones
- So far less than 10% have been drill tested
- 4.5Moz gold at the Nogbele, Fourkoura Samavogo & Stinger gold deposits
- Engineering studies show plant location at the Nogbele gold deposit
- Satellite deposits to be trucked to the central processing plant at Nogbele

- Resource growth
- Aiming for next resource growth
- High Priority walk up drill targets



# Figure Four | West Africa

## World class gold districts

