



GRYPHON
MINERALS LIMITED

Corporate Directory

Non-Executive Chairman
Mel Ashton

Managing Director
Stephen Parsons

Non-Executive Directors
Didier Murcia
Bruce McFadzean

Company Secretary
Carl Travaglini

Advancing the 3.6 Moz Banfora Gold Project, Burkina Faso¹

- Low cost
- Heap Leach 1.4g/t gold
- High grade CIL 2.8g/t gold
- Easily expandable

On track for success:

- A\$12.2 million cash²
- Fully Mine permitted ✓
- Bankable Feasibility Study ✓
- Exploration Upside ✓

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ASX CODE

GRY

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Resource drilling to commence at the 3.6Moz Banfora Gold Project

- Gryphon will shortly commence an initial 17,000 metre Reverse Circulation (RC) & Diamond Drilling (DD) program targeting:
 - a) Additional open pit-able oxide material at the Nogbele & Stinger deposits.
 - b) The highly prospective Ouahiri & Kafina targets ready for potential maiden resource drilling.
 - c) Testing of high grade underground potential below the Nogbele North open pit deposit.
- The new drill program will follow up on previous reconnaissance drilling at the Ouahiri & Kafina targets that have included (refer ASX 1/9/10 & 17/7/2014):
 - 11m @ 3.83 g/t** from 53m
 - 1m @ 123 g/t** from 66m
 - 4m @ 12.09 g/t** from 0m
 - 2m @ 15.81 g/t** from 43m.
- High grade mineralization will be targeted at the Nogbele North Deposit for additional open pit-able oxide material as well as high grade underground material. Previous drill results have included (refer ASX 6/5/15⁴):
 - 2m @ 148.62 g/t** gold from 35m (including **1m @ 296.40 g/t**)
 - 3m @ 120.53 g/t** gold from 61m (including **1m @ 358.01 g/t**)
 - 4m @ 152.65 g/t** gold from 19m (including **1m @ 569.01 g/t**)
 - 10m @ 14.74 g/t** gold from 29m
 - 8m @ 10.85 g/t** gold from 132m.
- The Company is currently undertaking an engineering cost review to bring operating costs into line with current market rates for key cost drivers, such as cyanide, cement, fuel and contractor mining rates. The company expects to update the market as to the results of the new costs on completion of the study in the coming weeks.

Gryphon Minerals Limited (ASX:GRY) is pleased to advise that an initial 17,000 metre RC and DD drilling program will shortly commence following on from target definition auger drilling at its flagship 3.6Moz Banfora Gold Project in Burkina Faso, West Africa. A geological review has demonstrated the potential for expansion of the existing open pit resources, through drill ready shallow targets at existing deposits of Nogbele and Stinger, in addition to new targets at Ouahiri and Kafina, all within trucking distance of the proposed processing plant adjacent to the Nogbele deposit. Further to these shallow targets, a review undertaken of underground targeting conducted at Nogbele North has highlighted the potential to add further high grade material to the current development scenarios beneath the current pits.



Steve Parsons Managing Director of Gryphon Minerals said:

“The Company is excited to be recommencing drilling at the Banfora Gold Project targeting known mineralisation close to, and extending current open pit designs at the Nogbele and Stinger deposits as well as testing the potential for high grade lodes below the Nogbele North open pit design that may add future value through underground mining extraction.

The proposed drill program will also test shallow targets at the Ouahiri and Kafina prospects that currently sit outside of the current defined resource estimate and are in close proximity to the proposed processing plant.

In addition to the drilling, the Company is currently undertaking a review of the operating costs quoted in the August 2014 Bankable Feasibility Study⁵, in order to show the benefits of cost reductions in key current market areas; such as cement, cyanide, diesel, mining contractor and owner operator rates.

The Company is looking forward to this value adding drill program and will keep the market informed as to ongoing results from the drilling and anticipates to have a new resource estimate available at the end of the completed program.”

Proposed Drilling Program

Gryphon Minerals will commence an initial 17,000 metre program of RC and Diamond Drilling at its 100% owned Banfora Gold Project, targeting resource expansion through shallow oxide targets, and separately testing the potential for high grade quartz lode style hosted mineralization with underground potential, specifically at the Nogbele North deposit.

The shallow oxide portion of the proposed drill program will look to extend resource drilling at the Nogbele and Stinger deposits, and in addition test the Ouahiri and Kafina prospects that are currently not included in the resource estimate.

A JORC Exploration Target is proposed of potential underground material below the Nogbele North open pit design of approximately 3.5 to 4.5Mt @ 5 to 7g/t gold for 560,000oz to 1,000,000oz gold (refer ASX 18/4/16³). The northern “nose” of the Nogbele granite and mafic contact is a high priority target for testing for new high grade gold mineralisation (Refer Figure 1 below).

The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to allow for the estimation of a Mineral Resource, and it is uncertain whether further exploration will result in a Mineral Resource at the target.

To test the high grade underground potential at Nogbele North, a short program of diamond drill holes is planned to intersect the known high grade lodes approximately 350 metres below surface, and approximately 100 to 200 metres below the base of the open pit designs. This initial first pass drill program is planned to test the continuation of high grade quartz lodes at depth below the open pits.

Gryphon will keep the market updated as and when results in each area have been received and geologically reviewed.



Figure 1: Shallow Oxide Drill Program Target Areas - Nogbele:

Figure 1 shows target areas for the shallow oxide drill program at the Nogbele deposit, with district geology over 1VD aeromagnetics and Nogbele pit outlines for 2Mtpa Heap Leach.

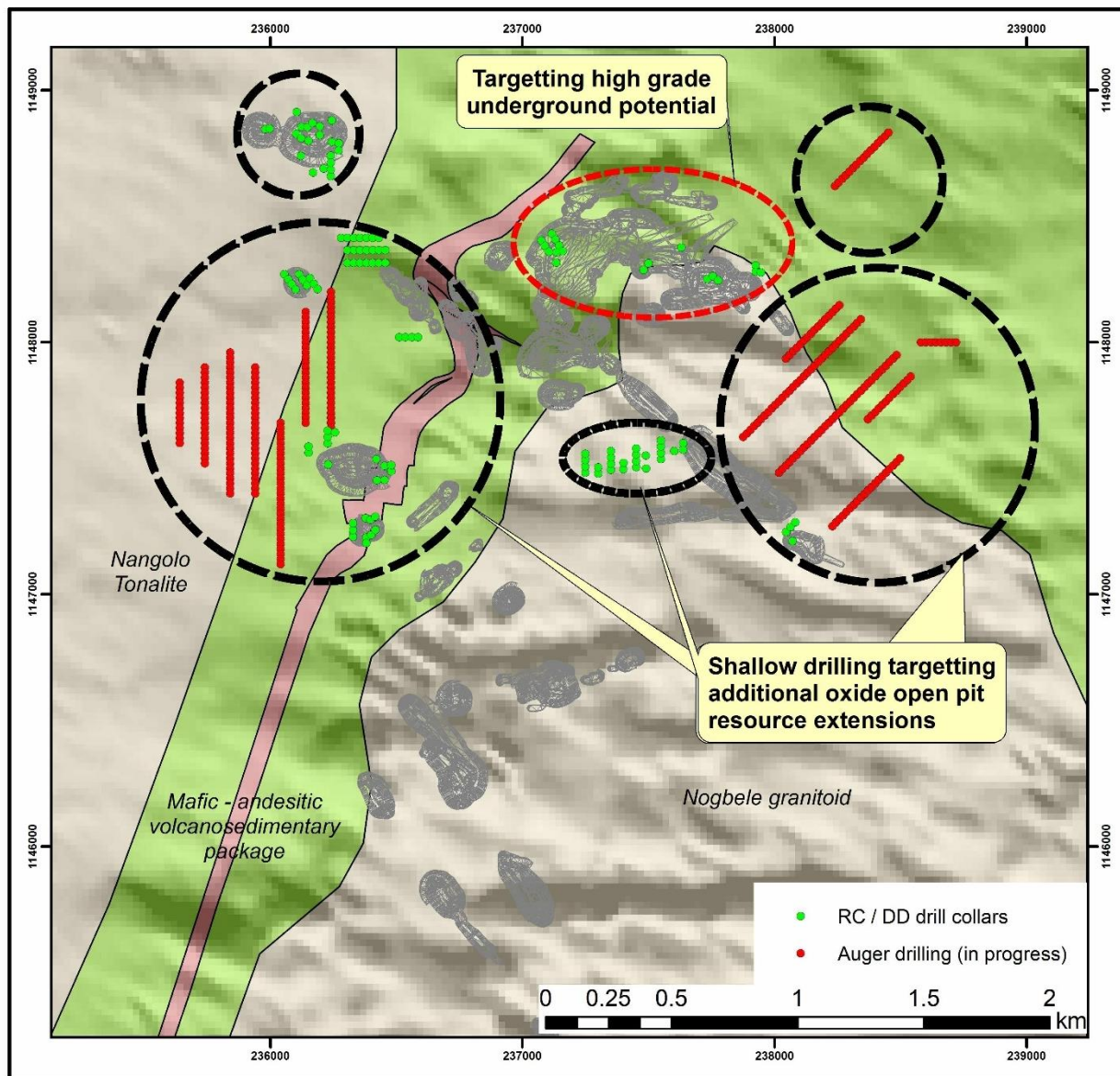




Figure 2: Shallow Oxide Drill Program Target Areas - Ouahiri Prospect:

Refer ASX announcements of 1/9/10 and 17/7/2014 for detail of the drill results annotated in this figure.

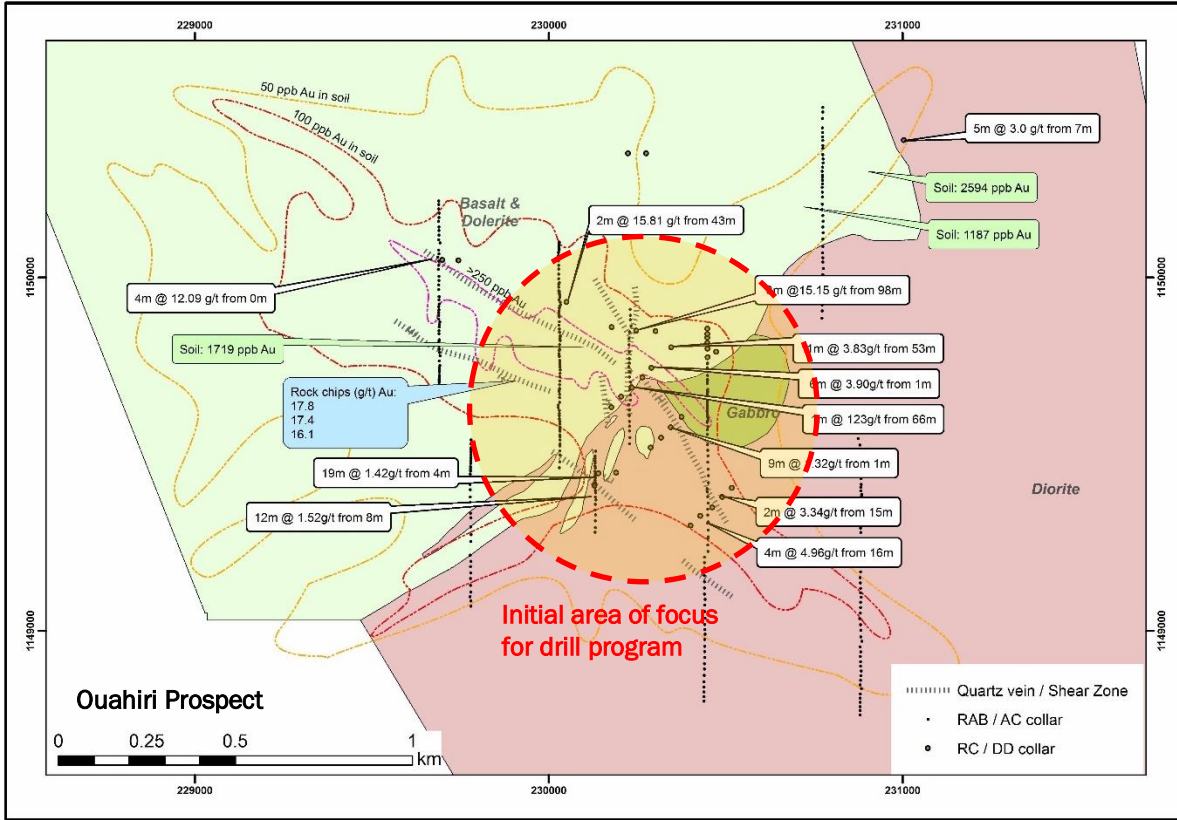


Figure 3: Nogbele North Deposit: Summary of drill results from high grade main vein lodes

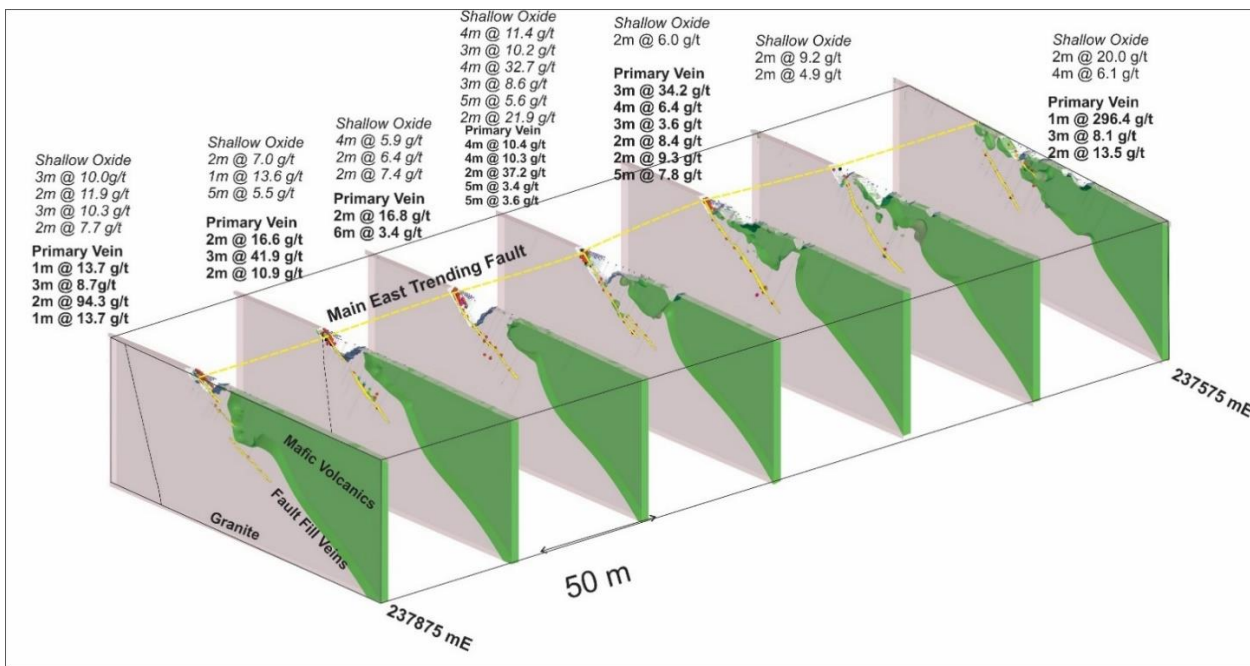




Figure 4: Nogbele North open pit design with high grade gold mineralization in grade control drilling

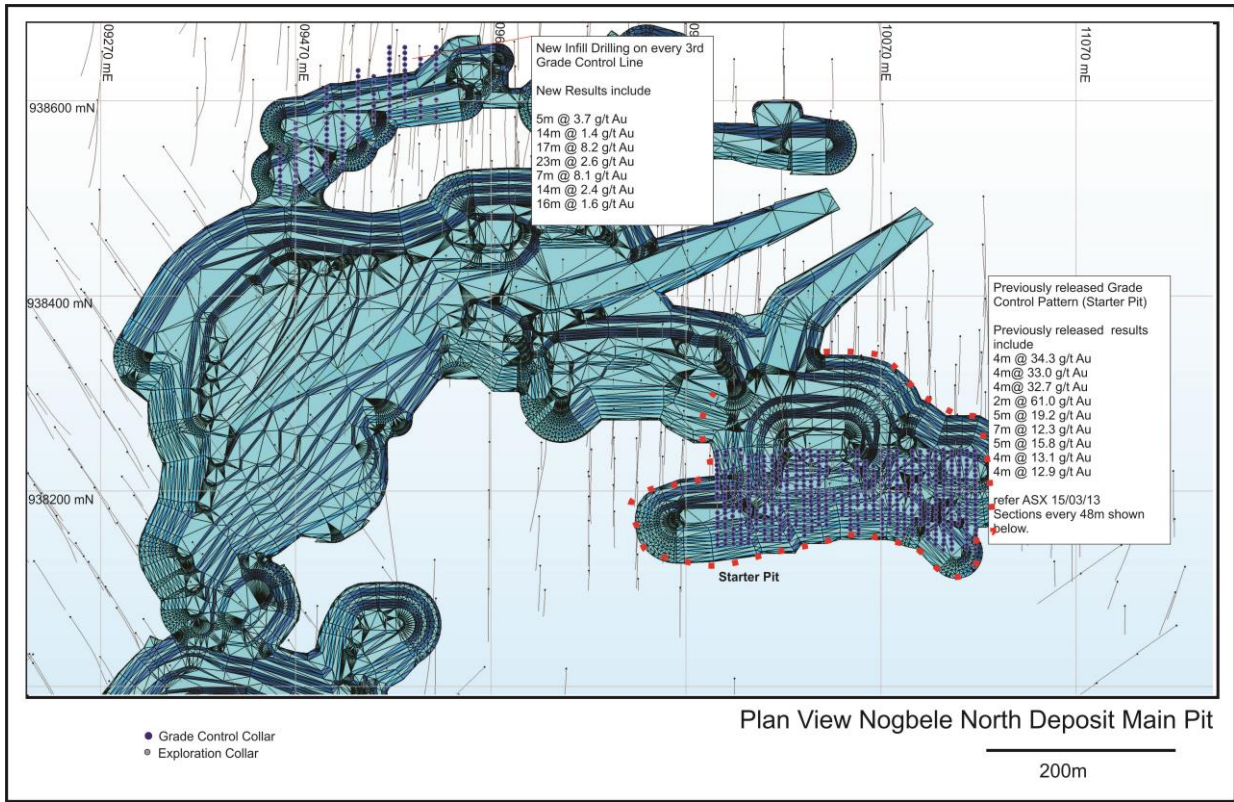
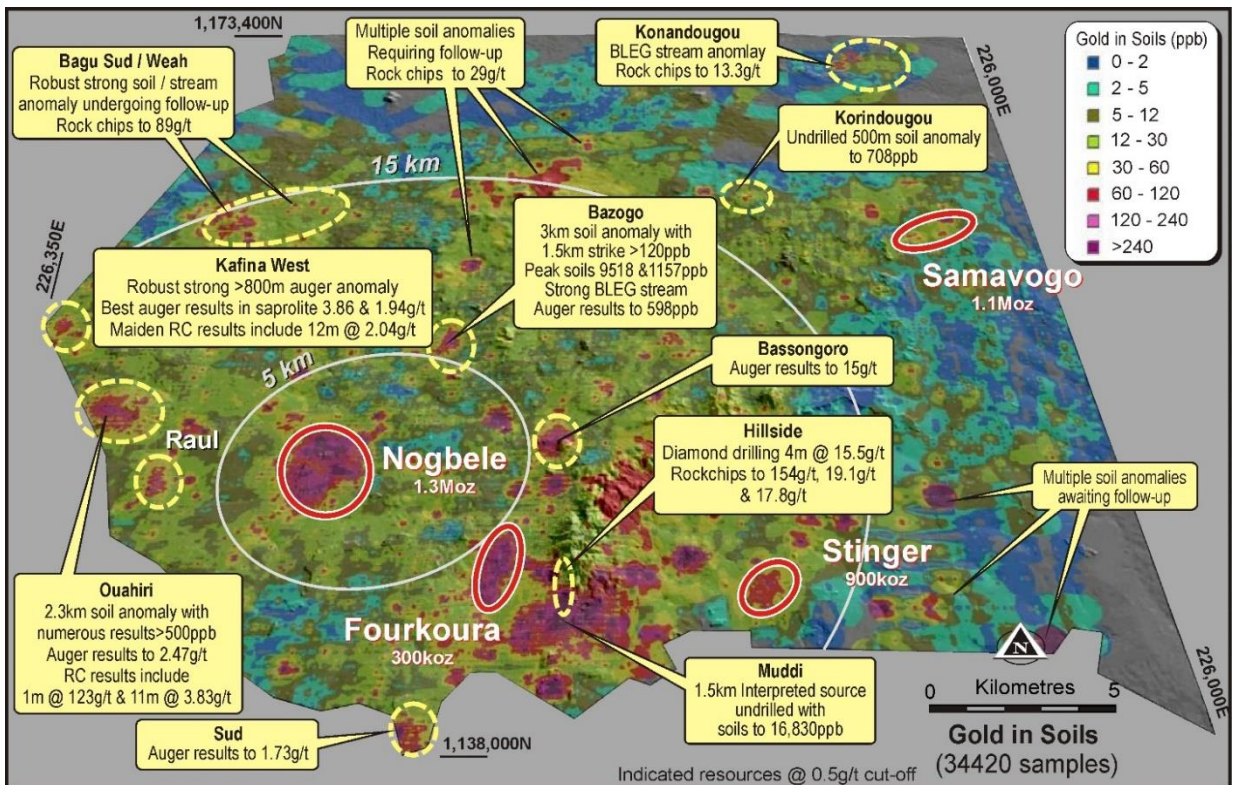


Figure 5: Multiple High Priority targets in close proximity to the proposed plant location at Nogbele





Detailed information on all aspects of Gryphons' projects can be found on the Company's website:
www.gryphonminerals.com.au.

Yours faithfully

Steve Parsons
Managing Director

Competent Person Statement

The information in this report that relates to the Exploration Target at the Company's Banfora Gold Project, Burkina Faso is based on and fairly represents information which has been compiled by Mr Sam Brooks who is a member of the Australian Institute of Geoscientists. Mr Brooks has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person, as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Brooks is a full time employee of Gryphon Minerals and has consented to the inclusion of the matters in this report based on his information in the form and context in which it appears.

Footnotes

1. For more information on the 3.6Moz Resource estimate, refer to ASX announcement dated 4 February 2014. Gryphon Minerals is not aware of any new information or data that materially effects the information included in the said announcement.
2. Includes cash balance and market value of listed investments at 31 March 2016. Refer to March 2016 quarterly activities report released to the ASX on 29 April 2016 for further details.
3. For full details refer to ASX announcement dated 18 April 2016. Gryphon Minerals is not aware of any new information or data that materially affects the information included in the said announcement. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to allow for the estimation of a Mineral Resource, and it is uncertain whether further exploration will result in a Mineral Resource at the target.
4. For full details refer to ASX announcement dated 6 May 2015. Gryphon Minerals is not aware of any new information or data that materially affects the information included in the said announcement.
5. For full details refer to ASX announcement dated 4 August 2014. Gryphon Minerals is not aware of any new information or data that materially affects the information included in the said announcement.