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**Advancing the 4.9Moz¹
Banfora Gold Project
Burkina Faso
West Africa**

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Excellent recoveries of up to 85% from heap leach test work Banfora Gold Project, Burkina Faso

Highlights

- Excellent gold recoveries confirmed from heap leach test work of typical oxide and transitional ore at the Nogbele deposit, Banfora Gold Project, Burkina Faso.
- Recoveries of up to 85% gold and averaging 78% gold after a short leach time of only 30 days.
- Testing was undertaken on a range of lithologies of low grade 'halo' material with a head grade averaging 0.69g/t gold.
- Test work results show:
 - A coarse crush size of 25 millimetres
 - Moderate cement additions (5 - 6kg/t)
 - Low cyanide consumption (0.2-0.4kg/t)
 - Fast leach time of 30 days for average 78% gold
 - Good permeability and low slump levels
- Work was overseen by Kappes Cassiday & Associates Australia who are world experts in Heap Leaching.
- The Banfora Gold Resource estimate includes material at Nogbele deposit of 49.4 Mt between 0.4 and 0.9 g/t cut offs for 0.9Moz gold¹ that could be potentially amenable to heap leach processing.
- A scoping study is anticipated in the coming weeks to determine the economic benefits of a heap leach operation run in conjunction with the 2Mtpa Carbon in Leach process defined in the Banfora Project bankable feasibility study.

Gryphon Minerals Limited (ASX:GRY) is pleased to announce excellent metallurgical recoveries confirmed from further heap leach test work from the lower grade gold 'mineralised halo' at the Nogbele gold deposit, at the Company's flagship Banfora Gold Project in Burkina Faso, West Africa.

Gryphon Minerals Managing Director Stephen Parsons commented "The results of this latest test work programme confirm the amenability of the Nogbele oxide and transitional material to heap leach processing and has the potential to treat the low grade halo material that is currently uneconomic."

Mr Parsons also said "The upcoming scoping study work will quantify the economic benefits of an additional heap leach operation run in conjunction with the currently defined 2Mtpa CIL processing path."



Heap Leach Studies, Banfora Gold Project

Following from the excellent results from initial heap leach amenability test work conducted in 2012, Kappes Cassiday & Associates Australia (KCAA) was engaged to supervise a more detailed test work programme. The initial 2012 programme was conducted on samples collected from trenches. All samples were within 5m depth from the surface.

This latest test work programme confirms

- gold recoveries of 73% - 85% were achieved with low cyanide consumption of 0.2 – 0.4kg/t.
- Fast leaching rates, with most of the recoverable gold extracted after 30 days.
- The columns operated without evidence of poor permeability, and slump levels were low.

The results of the test work programme confirm the amenability of the Nogbele oxide and transitional material to heap leach processing and has the potential to treat low grade material that is currently uneconomic.

To confirm the heap leach amenability of material across the full depth of the oxide weathering profile 550kg of samples were collect from HQ diamond drill core at depths ranging from 1m to 66m from the surface. Transition samples were included in the sampling. All samples were collected from the low grade zones of the Nogbele deposit.

Three main composites were made up from the samples with composited head grades as follows:

- Main Composite 1 (MC-1) : 0.85 g/t
- Main Composite 2 (MC-2) : 0.66 g/t
- Main Composite 3 (MC-3) : 0.55 g/t

Whole core was shipped to SGS Lakefield Oretest laboratories in Perth for a full test work programme including:

- Crush size determination
- Agglomeration testing
- Percolation testing
- Column test work in 2m columns at the determined crush size

To determine crush size for the column test intermittent bottle roll tests were carried out at 32mm and 12.5mm crush sizes. The tests were performed on the 10 sub-composite samples. Nine of the composites yielded a gold extraction of at least 70% at either the -32mm or -12.5mm crush size. The average gold extraction for all tests was 79.3%. The test results showed little benefit from the finer crush size. An intermediate size of 25mm was selected for the column testwork.

Agglomeration and percolation tests were conducted on the main composites to establish the cement additions required to generate suitable agglomerates for the column leaching. Cement additions of 4, 8 and 12kg/t were tested. Acceptable results were produced under all test conditions. Higher percolation results, and generally lower slump measurements, were obtained with increasing cement addition. Cement additions of 5-6kg/t were used for the subsequent column test work.

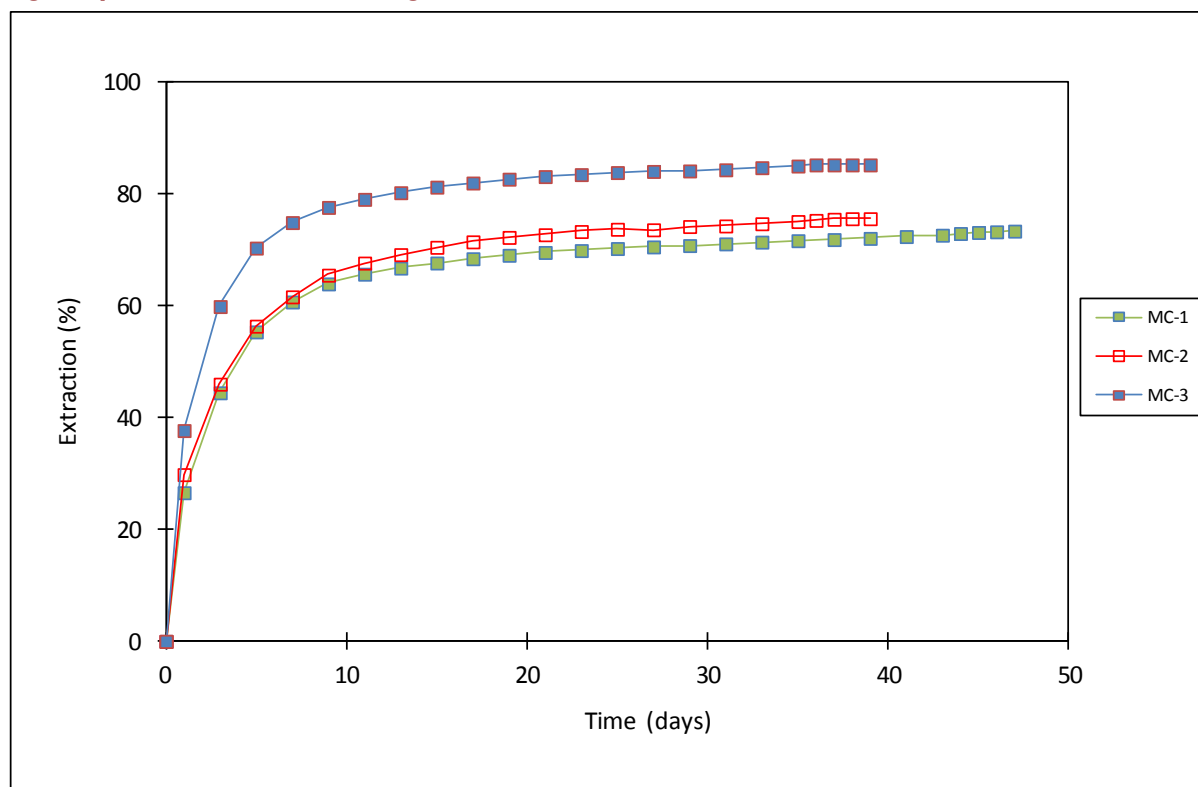
A 2m column leach test was performed on each main composite sample. The test results are summarised in Table 1 and Figure 1 below.



Table 1 | Test results

Main Comp. ID	Leach Duration (days)	Residue Grade (Au g/t)	Extracted Grade (Au g/t)	Calc. Head (Au g/t)	Au Extraction (%)	NaCN Cons. (kg/t)
MC-1	43	0.23	0.62	0.85	73.4	0.37
MC-2	35	0.16	0.50	0.66	75.6	0.22
MC-3	35	0.08	0.47	0.55	85.2	0.17

Figure 1 | Test results - leach time and gold extraction



The results show gold recoveries of 73% - 85% were achieved with low cyanide consumption of 0.2 - 0.4kg/t. The leaching rates were fast, with most of the recoverable gold extracted after 30 days. The columns operated without evidence of poor permeability, and slump levels were low. An analysis of the heap leach residue indicated that the lower recovery from MC-1 was associated with coarse gold contained in the sample.

The results of the test work programme confirm the amenability of the Nogbele oxide and transitional material to heap leach processing and has the potential to treat low grade material that is currently uneconomic. The study work will quantify the economic benefits of a heap leach operation in conjunction with the currently defined CIL processing path.



Background | Banfora Gold Project - Burkina Faso, West Africa

The Banfora Gold Project at 4.9 million¹ 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.

Yours faithfully

Stephen Parsons
Managing Director

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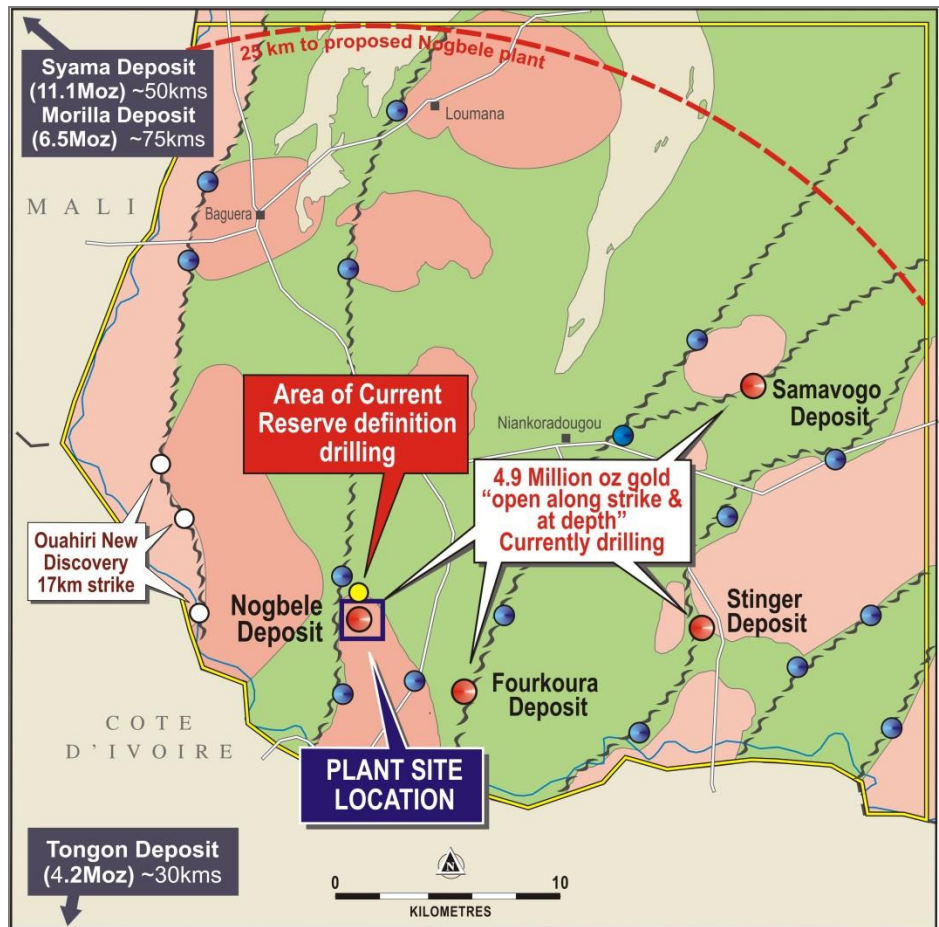
Competent Person

The information in this release that relates to Mineral Resources, Ore Reserves, Exploration Results and other scientific and technical information is based on information compiled by or under the direction of Randall Pyper, General Manager for Kappes, Cassiday & Associates Australia Pty Ltd, who is a Fellow of The Australasian Institute of Mining and Metallurgy and a consultant to Gryphon Minerals Limited. Mr Pyper has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration, and to the activity which he is undertaking, to qualify as a Competent Person as defined in the JORC Code. Mr Pyper consents to and has approved the inclusion in this release of the matters based on this information in the form and context in which it appears, including sampling, analytical and test data underlying the results.

Footnote 1: Refer to Appendix One for further details of resource and reserve estimates



Figure 2 | Location of drill results at Nogbele Gold Deposit - Banfora Gold Project



- **Current gold deposits**
- **Area of recent drill results**
- **High priority targets for drill testing**



Figure 3 | Banfora Gold Project - High Priority Regional Targets

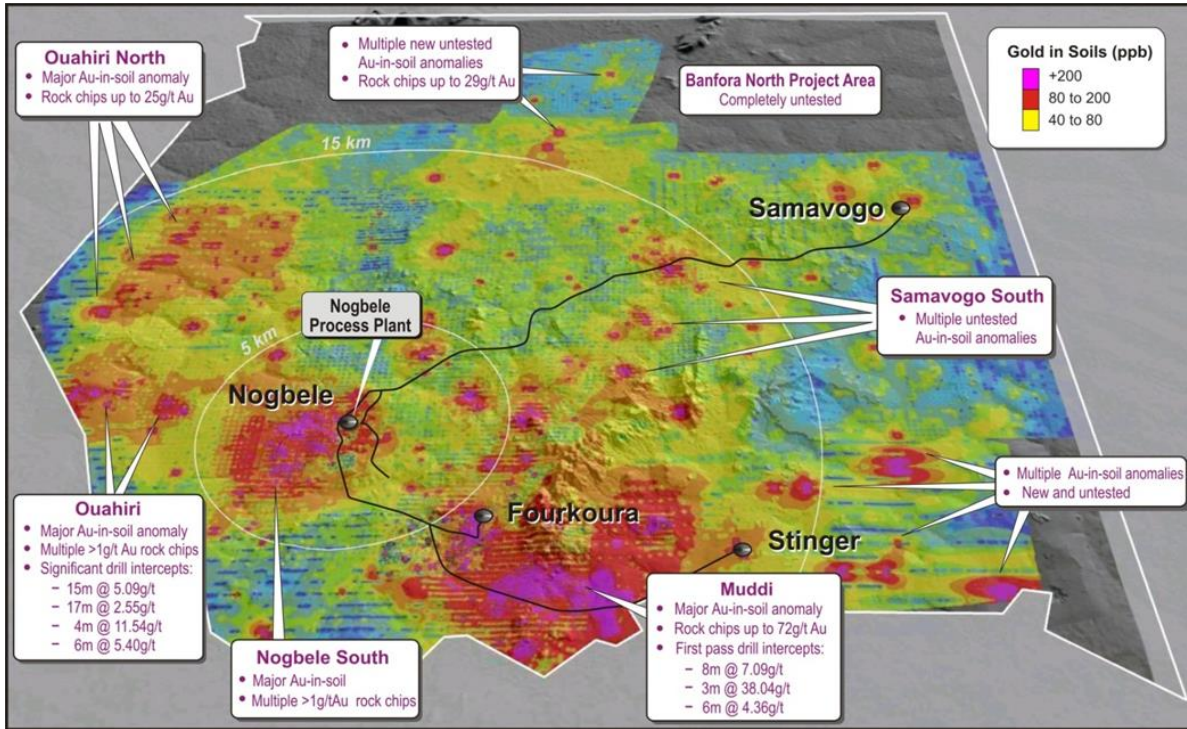
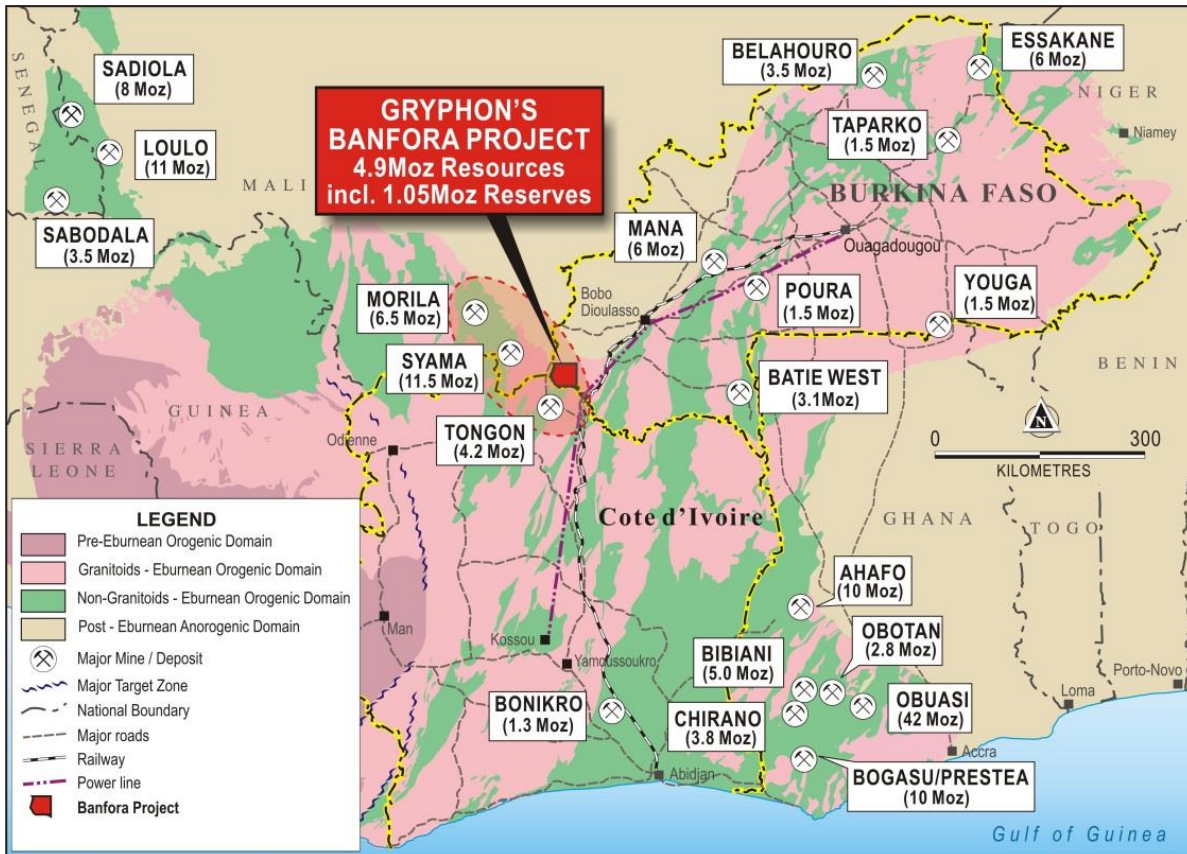


Figure 4 | Banfora Gold Project - Burkina Faso



Appendix 1 | Banfora Gold Project Resource & Ore Reserve Estimates

Mineral Resource Estimates

Table 1 | Banfora Gold Project Resource Estimate @ 0.9g/t Lower Cut

	Category	Tonnage (Mt)	Grade (g/t)	Contained Metal (Moz)
Total	Measured	3.7	2.1	0.26
Banfora Gold Project	Indicated	36.0	2.1	2.45
0.9 lower cut	Total M&I	39.7	2.1	2.71
	Inferred	18.5	1.7	1.04
	Total:	58.2	2.0	3.73

Table 2 | Banfora Gold Project Resource Estimate @ 0.5g/t Lower Cut

	Category	Tonnage (Mt)	Grade (g/t)	Contained Metal (Moz)
Total	Measured	6.3	1.5	0.31
Banfora Gold Project	Indicated	65.9	1.5	3.09
0.5 Lower Cut	Total M&I	72.3	1.5	3.40
	Inferred	39.3	1.2	1.49
	Total:	112	1.4	4.89

Ore Reserve Estimates

Table 3 | Banfora Gold Project Ore Reserves Estimate

Deposit	Category	Tonnage (Mt)	Grade (g/t)	Contained Metal (Moz)
Total	Proved	2.7	1.77	0.16
Banfora Gold Project	Probable	14.0	1.98	0.89
	Total:	16.7	1.95	1.05

NB: Nogbele oxide and transition reported at a 0.5g/t cut-off grade ("COG"), remainder at 0.6 g/t COG

Refer to ASX announcement on 31/01/2013 for further details of the resource and reserve estimates.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Sam Brooks who is a member of the Australian Institute of Geoscientists. Mr Brooks is a full time employee of Gryphon Minerals. Mr Brooks has 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 Brooks 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 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 Ore Reserves has been compiled by Mr Quinton de Klerk, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr de Klerk is an employee of Cube Consulting Pty Ltd. Mr de Klerk 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 de Klerk consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.