Optimisation Studies Demonstrate Robust Economics for Banfora Gold Project, Burkina Faso

Potential for a low-cost heap leach start-up operation returning a strong NPV, IRR and short payback at US$1200/oz gold

Highlights

- Optimisation studies demonstrate robust project economics across a range of conventional Heap Leach (HL) and Carbon In Leach (CIL) development options, highlighting low capital & operating costs, significant free cash flow and excellent NPV & IRR's.
- Results highlight a preferred low cost start-up Heap Leach operation that will generate strong returns in a lower gold price environment and is highly leveraged to any gold price increases.

Highlights Summary for 2Mtpa Heap Leach Operation at US$1200/oz gold:

Annual production	71,000 oz Au (+80,00 oz Au first 3 years)
In pit inventory	800,000 oz Au
Life of Mine	8.7 years
Average gold grade	1.44g/t Au
Cash Costs (C1)	$665/0z
NPV undiscounted[1]	$206 million
NPV @ 5% discount[1]	$154 million
IRR	39%
Payback	2.1 years
Capex[2]	$79 million

Notes: all dollars are stated in $US
[1]NPV excludes contingencies
[2]excludes project working capital & contingencies

- The 2Mtpa Heap Leach operation can be easily upscaled with either additional Heap Leach or CIL capacity for low capital requirements at a later date using cash flow.
- The Company is now finalising a Bankable Feasibility Study (BFS) on its preferred Heap Leach option based on the strong project economics.
- Final mining approvals and granting of the Mining Permit are well advanced with the Company being recently awarded its Environmental Permit (refer ASX 28/1/14).
- The Company has **$48 million in cash and investments** (ASX 24/01/14) which will cover a major portion of the funding for the development of the Project. With a manageable funding requirement remaining the Company has now recommenced financing discussions with a number of leading international banks and anticipates awarding a mandate to financiers by the end of Q1 2014.

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The Heap Leach results are at Scoping Study level. The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.'

In discussing 'reasonable prospects for eventual economic extraction' in Clause 20, the Code requires an assessment (albeit preliminary) in respect of all matters likely to influence the prospect of economic extraction including the approximate mining parameters by the Competent Person. While a Scoping Study may provide the basis for that assessment, the Code does not require a Scoping Study to have been completed to report a Mineral Resource.

Scoping Studies are commonly the first economic evaluation of a project undertaken and may be based on a combination of directly gathered project data together with assumptions borrowed from similar deposits or operations to the case envisaged. They are also commonly used internally by companies for comparative and planning purposes. Reporting the general results of a Scoping Study needs to be undertaken with care to ensure there is no implication that Ore Reserves have been established or that economic development is assured. In this regard it may be appropriate to indicate the Mineral Resource inputs to the Scoping Study and the processes applied, but it is not appropriate to report the diluted tonnes and grade as if they were Ore Reserves.

While initial mining and processing cases may have been developed during a Scoping Study, it must not be used to allow an Ore Reserve to be developed.

In regard to these results the Managing Director, Steve Parsons said:

"The results show that the Banfora Gold Project is resilient in a low gold price environment and has robust economics from either Heap Leach or CIL development options.

We are extremely excited by the Heap Leach potential due to its considerably lower and manageable capital requirement, low operating costs, resilience in a lower gold price environment and significant NPV and IRR's.

The Heap Leach development route will give the Company leverage to any potential increase in the gold price by easy and low cost expandability through cash flow with additional Heap Leach or CIL plant capacity at a later date.

The Banfora Gold Project gives Gryphon shareholders and stakeholders strong leverage to any increased gold price as well as to any future gold discoveries.

The Company is progressing financing arrangements with major lenders as well as the completion of Feasibility Studies and mine permitting, which will allow for a clear path forward for the commencement of early site works followed by development and construction soon after."

The Heap Leach study shows robustness in a low gold price environment as well as strong leverage to any future increase in the gold price

The Heap Leach development option shows a very strong resilience to a lower gold price and also shows very good upside in a rising gold price environment. At a higher than US$1200 base case gold price scenario the operation would warrant easy and low cost up-scaling through increased Heap Leach throughput, or with the addition of a CIL plant.

Figure 1: 2Mtpa Heap Leach Economic Sensitivities to Gold Price

		Based on Measured and Indicated Resource estimate only		
Gold Price US$/oz		900	**1200**	1500
Physicals				
Plant Feed	Mt	10	**17**	24
Grade	g/t	1.72	**1.44**	1.31
Strip Ratio	W:O	2.4	**2.6**	2.7
Annual Au production	koz/yr	87	**71**	64
Total Au Production	koz	430	**614**	780
Total Au Contained	koz	550	**800**	1,030
Mine Life	Yr	5.0	**8.7**	12.2
Cash Flow Analysis				
Revenue	US$M	$520	**$737**	$938
Generated Cashflow[1]	US$M	$147	**$289**	$498
NPV[2] undiscounted	US$M	$65	**$206**	$410
NPV[2] @ 5%	US$M	$51	**$154**	$301
IRR		23%	**39%**	53%
Cash Cost (C1)	US$/oz	$522	**$665**	$763
All in sustaining costs (includes C1 cash costs, royalties, refining costs & sustaining capital)	US$/oz	$631	**$777**	$890

[1] Cashflow generated by operation, undiscounted and excludes capital costs
[2] NPV excludes contingencies

Optimisation Studies Completed| Banfora Gold Project

Gryphon Minerals Limited (ASX:GRY) is pleased to announce the results of the Optimisations Studies ("Studies") at its flagship Banfora Gold Project in Burkina Faso.

The Company over the past seven months has undertaken optimisation studies on a number of alternative development options that are appropriate for the current gold market conditions.

Initiatives for capital cost reduction have been the main focus of the optimisation studies, in conjunction with examining project economics across a range of gold prices, plant throughputs and optimum process route.

While the base case 2Mtpa CIL operation presented in the BFS released on 31 January 2013 is still considered the optimal option under stronger gold market prices, in the current market the studies focused on the following:

- Demonstrating the robust project economics of the Banfora Gold Project in a lower gold price environment;
- Re-optimising overall capital and operating costs of the project in key areas such as power supply, consumables, direct costs and contract mining tenders;
- A start-up 1Mtpa CIL plant size to significantly reduce upfront capital costs and resulting in anticipated high grade mill feed in the first few years through a small size operation, whilst maintaining the optionality for future expansion; and
- A 2Mtpa simple open pit heap leach operation, targeting significantly lower capex and resilience in a lower gold price environment that can be easily expanded with cash flow at a later date.

Studies were undertaken on a range of lower gold price environments with US$1200 used as the base case scenario. Optimisation and sensitivities were undertaken on measured and Indicated resource estimates only (inferred excluded for these studies) with gold prices ranging from US$900/oz to US$1500/oz.

The results indicate that:

- The heap leach options are more robust at lower gold prices.
- The larger 2Mtpa CIL option converts more of the resource to pit inventory due to the higher process recoveries for the primary material.
- The 2Mtpa heap leach performs better across the range of gold prices due to the lower capital and operating costs.

Figure 2: Comparison Summary of preferred heap Leach with the CIL options (US$1200 oz gold)

	2Mtpa Heap Leach (preferred option)	1Mtpa CIL	2Mtpa CIL Optimised from BFS (31/1/13)
Avg. Annual Production	**71 koz Au**	68 koz Au	101 koz Au
Avg. Gold grade	**1.44g/t**	2.30g/t	1.71 g/t
Avg. Cash Cost (C1)	**US$665/oz**	US$766/oz	US$747/oz
Capital costs[1]	**US$79M**	US$93M	US$145M
NPV[2] Undiscounted	**US$206M**	US$110M	US$170M
IRR	**39%**	24%	21%
Mine Life	**8.7 years**	7.5 years	8 years
Payback	**2.1 years**	2.9 years	2.9 years

[1] excludes contingencies and project working capital
[2] NPV excludes contingencies

The Company engaged a number of independent specialist consultants to assist with the optimisation studies. Lycopodium Minerals Pty Ltd advised on CIL capital and operating costs, SENET Pty Ltd completed the heap leach processing costing and Kappes Cassiday & Associates Australia (KCAA) and SGS Lakefield Oretest undertook the heap leach test work. Environmental and social studies were carried out primarily by Intersocial and Experiens (a Burkina Faso specialist company). Refer to table in Appendix 2.

Optimised capital cost and operating cost estimates for each of the development options are presented in US dollars unless otherwise stated. The studies were completed at a scoping level of accuracy with an overall level of confidence of +/- 30%.

Summary of the Heap Leach Studies:

Results from the optimisation studies clearly highlight that the Heap Leach development option has the potential to generate strong investment returns in a lower gold price environment. Pit optimisations were conducted at US$1200/oz in conjunction with sensitivity analyses that predict clear upside at higher gold prices to support a plant capacity expansion of either heap leach or CIL, as well as the ability to remain profitable and withstand a lower gold price environment.

The estimated initial capital cost of US$79M (excluding contingencies and working capital) for the construction of a 2Mtpa Heap Leach facility and associated infrastructure is significantly lower when compared with the potential CIL options. This provides the Company with a low cost development path to production which, when combined with the robust economics at low gold prices, is manageable and attractive to project financiers.

The capital costs also include a significant investment in the compensation, resettlement and livelihood restoration for the impacted communities, from which Gryphon continues to receive overwhelming support, evidenced by the recent granting of our Environmental Permit (refer ASX announcement 28/01/14).

Pit optimisation work was conducted over the updated Mineral Resource Estimate on Measured and Indicated resources only (refer Appendix 3) resulting in approximately 800,000 ounces of contained gold, and a production profile over 8.7 years of mine life averaging 71,000 ounces per year, at an average grade of 1.44 g/t gold, low strip ratio of 2.6 and estimated C1 cash costs of a low US$665/oz.

This average head grade is comparatively high for heap leach operations in the region, and by mining the higher grade zones at the Nogbele deposit up front, the operation will produce approximately 80,000 ounces per annum for the first 3 years. This has the benefit of a quick pay-back period of 2.1 years, an excellent IRR before tax of 39% and undiscounted NPV of $206 million.

The mining operation proposes engagement of a mining contractor using conventional truck and shovel open pit methods. Mining contract tenders were called in early 2013, and updates will be sought as part of the next stage of development.

The processing facility design is based on proven, conventional heap leach technology common to other projects in West Africa, at a processing rate of 2Mtpa. Feed to the process plant will be mined via open cut, truck and shovel methods, with approximately 50% of oxide material mined being “free digging” (able to be mined without need for drill and blasting).

Figure 3: 2Mtpa Heap Leach Highlights (US$1,200/oz gold)

Heap Leach Plant Feed	[Mt]	17.3
Grade	g/t	1.44
Strip Ratio	W:O	2.6
Annual Gold production	koz/yr	71
Total Gold Production	koz	614
Total Contained Gold	koz	800
Mine Life	yr	8.7
Capital Costs	US$M	79
Plus contingencies & project working capital		16
Revenue @ US$1200/oz	US$M	$737
Generated Cashflow	US$M	$289
NPV[1] undiscounted	US$M	$206
NPV[1] @ 5% Discount Rate	US$M	$154
IRR		39%
Cash Cost (C1)	US$/oz	$665
All in sustaining costs (includes C1 cash costs, royalties, refining costs & sustaining capital)	US$/oz	$777

[1] NPV excludes contingencies

Excellent gold recoveries have so far been confirmed from a number of heap leach column tests undertaken on bulk trench samples from near surface and HQ diamond drill core at depth within portions of the Nogbele deposit. Based on this test work and additional bottle roll tests on the deposits, what is believed to be conservative recoveries were adopted for the optimisation studies of: 85% for oxide material, 74% for transitional and 65% in primary/sulphide.

The Company is currently completing additional heap leach metallurgical test work using diamond drill core material to verify recoveries from other portions of the deposits including the fresh/sulphide material and to test high grade material from the Nogbele deposit. These results will be incorporated into the feasibility Study due for completion in the June Quarter.

The layout of the operation will enable the heap leach processing facilities to be up-scaled at a later date, potentially funded from project cash flows. Analysis of measured indicated and inferred resources at higher gold prices supports an increase in throughput to a 4Mtpa Heap Leach processing facility or additional CIL capacity. Pit optimisations were conducted at a higher than base case scenario, instead using a US$1400 ounce gold price on the basis of the expanded plant being operational from year 3. Results highlight a potential increase in undiscounted NPV to US$398 million and IRR of 53%, with minimal capital outlays, which could be further enhanced with the conversion of inferred resources, increased gold recoveries from fresh/sulphide material and further gold discoveries.

Figure 4: Expanded Heap Leach to 4Mtpa Heap

Note: First two years of production at US$1200/oz and after expanding to 4Mtpa the remainder is at US$1400/oz gold price)

Heap Leach Plant Feed	[Mt]	28.6
Grade	[g/t]	1.20
Strip Ratio	[W:O]	2.4
Annual Gold production yrs 1 & 2	[koz/yr]	79
Annual Gold production yrs +3	**[koz/yr]**	**108**
Total Gold Production[1]	[koz]	834
Total Contained Gold	[koz]	1,103
Mine Life	[Yr]	8.2
INITIAL CAPITAL COST[2]	[US$M]	79
UP-SCALE CAPITAL COST[2]	**[US$M]**	**34**
Revenue	[US$M]	$1,076
Generated Cashflow	[US$M]	$510
NPV Undiscounted[3]	[US$M]	$398
NPV @ 5% Discount Rate[3]	[US$M]	$299
IRR		53%
Cash Costs (C1)	[US$/oz]	$678

[1] Only M&I resources have been used for this.
[2] Excludes project working capital and contingencies.
[3] NPV excludes contingencies.

Heap Leach Capital & Operating Costs

The 2Mtpa Heap Leach capital costs to develop the Project are relatively low in comparison to similar sized CIL development options. The estimated initial capital cost is US$79 million (excluding contingencies and project working capital) for the construction of a 2Mtpa Heap Leach facility and associated infrastructure.

The 2Mtpa Heap Leach provides the Company with a low cost development path to production which, when combined with the robust economics at low gold prices, is manageable and attractive to project financiers.

At a higher than US$1200 base case gold price scenario the operation could warrant easy up-scaling through increased Heap Leach throughput, or with the addition of a CIL plant.

Figure 5: 2Mtpa Heap Leach Capital Cost Estimate

Capital Costs	US$M
Construction Establishment	2.2
Processing Facility	23.6
Leach Pads	8.1
Infrastructure	14.7
EPCM	9.5
Owner's Costs[1]	20.7
Total Initial Capital	**78.8**
Plus contingencies & project working capital	16.4

[1] includes resettlement costs, compensation costs and pre-production costs

Sustaining capital over the 8.7 year mine life at US$1200 gold is US$29 million (approximately US$47/oz gold produced).

The capital costs also include a significant investment in the compensation, resettlement and livelihood restoration for the impacted communities, from which Gryphon continues to receive overwhelming support, evidenced by the recent granting of our Environmental Permit (refer ASX announcement 28/01/14).

Figure 6: 2Mtpa Heap Leach Operating Cost Estimate

Operating Costs		US$
Mining[1]	$/t mined	3.23
Processing	$/t processed	8.17
General & Admin	$/t processed	2.60

[1] contractor mining

The operating costs for each of the development options include all direct costs for the production of gold doré from the Banfora Gold Project. Estimates are presented in US dollars and are based on quantities determined from the respective pit optimisations for all material types across the various deposits. Costs have been derived from first principles estimation, factoring and bench marking similar operations and other sources including:

- Estimates prepared for the Bankable Feasibility Study (ASX 31/1/13).
- Consultant's database of costs from similar projects.
- Quotations and rates provided by contractors and suppliers with experience in the region.
- Sustaining costs for extension of heap leach pads and ponds, plus ongoing compensation and resettlement.

Heap Leach Mining & Pit Optimisation

The mining operation proposes engagement of a mining contractor using conventional truck and shovel open pit methods. The heap leach facility will process approximately 17Mt of plant feed over an 8.7 year mine life at an average head grade of 1.44 g/t gold. The waste to plant feed strip ratio [W:O] will be 2.6 giving an average annual total material movement of approximately 7.1Mt.

Plant feed material will be trucked from the three satellite deposits of Samavogo, Fourkoura and Stinger to the processing facility adjacent to the Nogbele deposit. The Nogbele deposit contributes approximately 68% of the total pit inventory, which comprises 79% oxide and transitional material with an average vertical depth of oxide material of 40 metres.

Heap Leach Processing

The process design is based on proven, conventional heap leach technology with an initial production capacity of 2Mtpa that can be upscaled at a later date. The process route comprises two stage crushing followed by cement agglomeration and overland conveying to heap leach pads. The pad area includes full plastic (HDPE) lining, conveyor stacking in two 10 metre lifts, and drip irrigation with dilute cyanide solution. Pregnant solution is treated at a dedicated Adsorption-Desorption-Recovery (ADR) plant via elution, electro winning and smelting to produce gold doré.

Metallurgy

The Banfora ores are all ‘non-refractory’, typically 'free-milling' with a high gold recovery by cyanidation leach and low to moderate reagent consumptions.

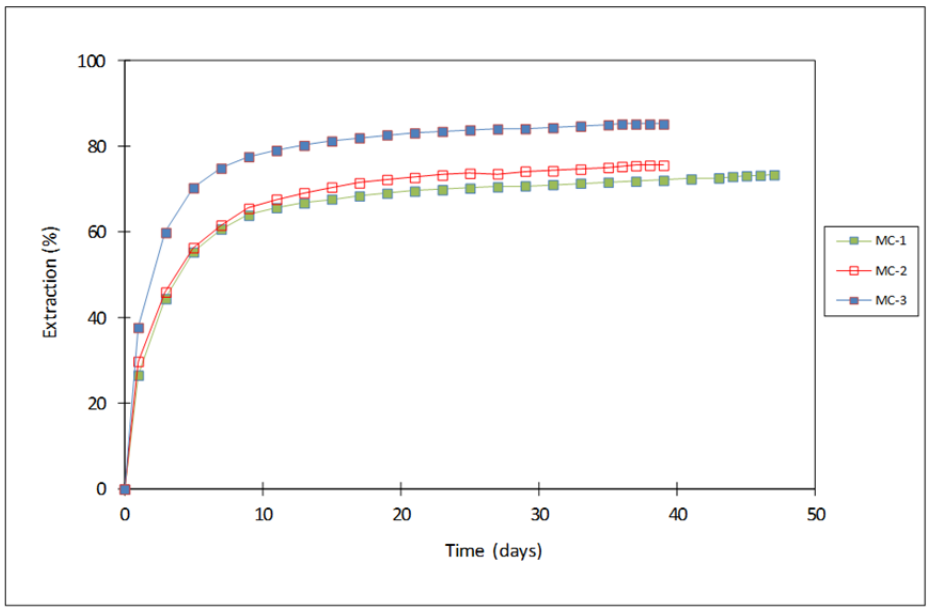
In determining the metallurgical response of orebody to cyanidation, two Heap Leach testing programs were conducted. The initial test program was conducted on trench samples of oxide material with the most recent program on drill core composites representing oxide and transition types. KCAA was involved in development and monitoring of the main program.

This test work programme confirmed gold recoveries of up to 85% were achieved with low cyanide consumption and with fast leaching rates, with most of the recoverable gold was extracted after 30 days. The 550kg of samples used were collected from HQ diamond drill core, comprising Nogbele oxide and transitional material at depths ranging from 1m to 66m from the surface. Intermittent bottle roll tests performed on 10 sub-composite samples concluded a crush size of 25mm for the column test work (refer ASX announcement 27/05/13).

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
- Good permeability and low slump levels

Figure 7: Column test results – leach time and gold extraction



Metallurgy – Fresh/Sulphide upside

Metallurgical results from the fresh rock (sulphide) samples are extremely encouraging and further work will be undertaken on this potentially very large fresh rock resource that is currently not included in any pit designs.

As part of the optimisation work, a total of 8 samples were selected from low grade fresh material at Nogbele. An average grade between 0.5 g/t and 1.0 g/t was selected and 5 kg of material was assayed from existing core. Analysis was conducted by BIGGS laboratory in Ouagadougou, Burkina Faso, using the intermittent bottle roll technique designed by KCAA to provide indicative results of column leach testing.

Recoveries from the intermittent bottle roll test work were very encouraging, with an average recovery of 64.5% and a maximum recovery of 74.5%. The fresh/sulphide resource at Banfora is very large of which currently only a small portion is included in the open pit designs, meaning there is potentially upside to expanding the pit designs deeper.

The Company intends to complete additional heap leach metallurgical testwork sufficient to support completion of a Feasibility Study on a heap leach operation at the Banfora Gold Project. Additional core material has been collected including high grade material from the Nogbele deposit, and samples from Samavogo deposit. Column tests are scheduled to commence this quarter at SGS Lakefield laboratories in Perth, Western Australia, with all testwork management and flowsheet definition undertaken by KCAA on behalf of the Company.

Summary of Mineral Resource Estimates

As part of the optimisation studies the Company has reviewed and undertaken a revised calculation of the Banfora Gold Project resource estimates.

The key factors taken into account with calculating new resources include:

- A lower gold price environment (factoring in the significant drop in gold price from its highs and the previous resource estimate calculations).
- A more robust technique of Multiple Indicator Kriging (MIK) with block support adjustment and Ordinary Kriging (OK) estimation methods has been used that is more aligned with the Heap Leach mining option.
- Mining dilution is incorporated with the new resource estimate as previously it was taken into account at the mine design stage.
- Wireframe depths have been reduced below the pit floors due to a lower gold price and fresh rock metallurgical recoveries associated with the Heap Leach processing route.

The key outcomes from the change in the resource estimates from the previous (ASX 31/1/13) released resource are:

- A robust mineral resource estimate that is aligned with Heap Leach style mining and processing.
- Mining dilution has been taken into account within the new resource for portions of the deposit that warrant it.
- Measured and Indicated resource estimates have decreased a minor amount while inferred estimates have had a larger decrease due to the factors mentioned above.
- Any sustained increase in the gold price at a later date and /or an increase in metallurgical recoveries from the fresh (sulphide) material regarding Heap Leach processing and / or mine processing design and scale (HL or CIL) has the potential to result in an increase the size of the mineral resource estimate.

Details of how the new estimate has been derived as well as tables and figures are reported in Appendix 3.

The total mineral resource estimate for the Banfora Gold Project for 0.5g/t & 1.0g/t lower cuts currently stands at:

Lower cut (g/t)	Measured			Indicated			Measured + Indicated			Inferred			Total		
	Tons (Mt)	Grade g/t Au	Gold (MOZ)	Tons (Mt)	Grade g/t Au	Gold (MOZ)	Tons (Mt)	Grade g/t Au	Gold (MOZ)	Tons (Mt)	Grade g/t Au	Gold (MOZ)	Tons (Mt)	Grade g/t Au	Gold (MOZ)
0.5	**7**	**1.4**	**0.3**	**60**	**1.4**	**2.7**	**67**	**1.4**	**3.0**	**16**	**1.3**	**0.7**	**83**	**1.4**	**3.6**
1.0	3	2.3	0.2	29	2.1	1.9	32	2.1	2.2	8	1.9	0.5	40	2.1	2.6
1.5	2	2.9	0.2	16	2.8	1.4	18	2.8	1.6	4	2.6	0.3	22	2.8	1.9

Notes:
Refer to detailed tables and information on derivation in appendix 3.
Rounding applied at 2 significant figures.
For the Heap Leach studies a lower cut off of 0.5g/t gold has been used for the calculations as highlighted above.

Permitting

Gryphon was awarded the Environment Permit for the development of the Banfora Gold Project by the Burkina Faso Ministry of Environment and Sustainable Development on 28 January 2014 (refer to ASX Announcement 28/01/14). This is a great achievement for the Company and the penultimate step toward securing the Mining Licence.

The Company remains firmly on track in the final stage of the Mine Permitting process and anticipates the Mining Licence to be awarded before the end of the March quarter 2014.

A final presentation to the National Commission of Mines is due to take place during the March 2014 quarter, at which it is anticipated the Burkina Faso Government will confirm its approval for the Project and grant the formal Mining Licence.

Community and Benefits to Burkina Faso

Gryphon continues its corporate social responsibility work in Burkina Faso and relationships with the local stakeholders of the Project continues to strengthen through Community Consultation Committee (CCC) meetings which are held on a regular basis. The CCC is made up of around 80 representatives of government, communities, and other stakeholders. Its membership includes human rights and local capacity development NGOs, who work together to help ensure that the workings of the CCC is appropriate to the project's operating context and that engagement with communities is on the basis of informed participation.

The Project continues to enjoy the support of a specialist resettlement consulting group with relevant experience in Burkina Faso, who work closely with project staff to ensure that resettlement activities are coordinated with the Project's broader community relations priorities.

The Company takes its commitment to becoming a leader in environmental and social responsibility very seriously as well as progressing towards meeting the world class standards of the IFC (a member of the World Bank Group) and Equator Principles.

Along with the development and production at Banfora it is expected that significant benefits will be enjoyed by the local economy through investment, job creation (both directly and indirectly) and training and development. The completed operation is expected to employ some 200 workers in addition to the shorter term jobs created during construction. Gryphon is committed to using local contractors wherever possible and it is intended that a majority of expatriate staff will be replaced by local workers after the first few years of steady-state production.

Project Funding

Gryphon has while finalising its optimisation studies maintained close and regular contact with a number of leading international banks and financiers regarding potential funding solutions for the Banfora Gold Project. The Company is confident the results of the optimisation studies highlighting the robust economics on a low gold price, low capital costs, strong cash flows and early capital payback will be attractive to lenders.

With a relatively small and manageable funding requirement remaining, the Company has recommenced formal funding discussions and anticipates awarding a mandate to financiers by the end of the March quarter 2014. The Company currently has a cash and investments of A$48 million and no debt (ASX 24/1/14).

Path Forward

The Company intends to complete additional heap leach metallurgical test work sufficient to support completion of a full Feasibility Study on a Heap Leach operation at the Banfora Gold Project. Final samples have been collected and column tests are being undertaken this quarter at SGS Lakefield laboratories in Perth, Western Australia, with all test work management and flowsheet definition undertaken by KCAA on behalf of the Company.

On the back of these results the Company will finalise the Feasibility Study by the end of Quarter 2, 2014. The program of works will require feasibility design work to proceed in parallel with the additional testwork.

In addition, subject to board approvals and final mine permitting, the Company will take advantage of the dry season to commence site establishment early works which would include road upgrades, construction camp preparation work, detail design and storage facilities at the project.

Figure 8: Banfora Gold Project – A clear path forward to gold production

Complete Mine Permitting	Q1 2014
Complete additional metallurgical test work	Q2 2014
Heap Leach Feasibility Study	Q2 2014
Mandate from financiers for project debt	Q1 2014
Complete Heap Leach Permits	Q3 2014
Commence early site works [1]	Q3 2014
Secure project debt facility	Q4 2014
Commence Construction	Q4 2014
Plant commissioning	Q4 2015
First gold	Q1 2016

[1]Road upgrade, construction camp preparation work, detail design, storage facilities

Exploration upside

The Company is extremely excited by the huge exploration upside at the Banfora Gold Project to follow on from the large resource base that Gryphon Minerals has discovered on the property to date. The Company intends to expand on this already significant gold resource estimate over the coming years by continuing its highly successful exploration strategy with its skilled and experienced exploration team.

Plans are currently underway for the next drill programme at Banfora to follow up on the newly identified high grade gold targets recently released (refer to ASX release 29/01/14) from our low cost exploration approach undertaken during 2013.

The drill programme is targeting:

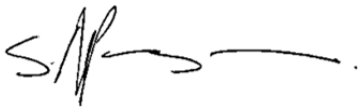
- Shallow oxide material
- High gold grades
- Within the proposed mine permit or within easy trucking distance to the proposed plant site

The Company believes right now the pipeline for new discoveries at Banfora is arguably the best it has been since Gryphon started exploring the project and is look forward to drilling these targets over the next few months.

Presentation

An updated Corporate Presentation along with further information on all aspects of Gryphon's projects can be found on the ASX announcements platform or on the Company's comprehensive website **www.gryphonminerals.com.au**.

Yours faithfully



Stephen Parsons
Managing Director

Competent Persons Statement

The information in this report that relates to the Exploration Results, is based on information 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 which they are undertaking 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. This information was prepared and first disclosed under JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

The information in this report that relates to the Minerals Resources at the Nogbele and Fourkoura Deposits, is based on information 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 which they are undertaking 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.

The information in this report that relates to the Mineral Resources at the Stinger and Samavogo Deposits, is based on information compiled by Mr Dmitry Pertel who is a member of the Australian Institute of Geoscientists. Mr Pertel has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration and to the activity which they are undertaking 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 Pertel is a full time employee of CSA Global Pty Ltd 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. This information was prepared and first disclosed under JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

The information in this report that relates to the Ore Reserves, is based on information compiled by Mr Quinton de Klerk who is a member of the Australasian Institute of Mining and Metallurgy. Mr de Klerk has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration and to the activity which they are undertaking 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 de Klerk is a full time employee of Cube Consulting Pty Ltd 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. This information was prepared and first disclosed under JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

Forward Looking Statements

This release contains forward-looking statements. Wherever possible, words such as "intends", "expects","scheduled", "estimates", "anticipates", "believes", and similar expressions or statements that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved, have been used to identify these forward-looking statements. Although the forward-looking statements contained in this release reflect management's current beliefs based upon information currently available to management and based upon what management believes to be reasonable assumptions, The Company cannot be certain that actual results will be consistent with these forward-looking statements. A number of factors could cause events and achievements to differ materially from the results expressed or implied in the forward-looking statements. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Forward-looking statements necessarily involve significant known and unknown risks, assumptions and uncertainties that may cause the Company's actual results, events, prospects and opportunities to differ materially from those expressed or implied by such forward-looking statements. Although the Company has attempted to identify important risks and factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors and risks that cause actions, events or results not to be anticipated, estimated or intended, including those risk factors discussed in the Company's public filings. There can be no assurance that the forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, prospective investors should not place undue reliance on forward-looking statements. Any forward-looking statements are made as of the date of this release, and the Company assumes no obligation to update or revise them to reflect new events or circumstances, unless otherwise required by law. This release may contain certain forward looking statements and projections regarding: estimated, resources and reserves; planned production and operating costs profiles; planned capital requirements; and planned strategies and corporate objectives.

Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. They are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors many of which are beyond the control of the Company. The forward looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. The Company does not make any representations and provides no warranties concerning the accuracy

Appendices:

1. **Carbon In Leach (CIL) 1 & 2Mtpa Technical Information**
2. **Other Information**
3. **Mineral Resource Estimate Information & Tables**

Appendix 1 Carbon In Leach (CIL) 1 & 2Mtpa Technical Information

CIL 1 & 2Mtpa Highlights & Economic Sensitivities

Much of the basis for the CIL optimisation work was taken from the original BFS undertaken on a 2Mtpa CIL development scenario for the Banfora Gold Project. For more background detail please refer to the ASX release: BFS 31 January 2013.

The BFS was managed and collated by Lycopodium Minerals Pty Ltd ("Lycopodium") in Perth, Western Australia.

The Bankable Feasibility Study (BFS) released to the ASX on 31 January 2013 proposed a contract mining operation and a conventional industry standard CIL 2Mtpa gold processing plant, along with associated infrastructure, to mine and process approximately 16.7Mt of ore from defined ore reserves over an initial eight-year period; based on a 30:70 oxide:primary LOM ore blend. The plant had been designed for up scaling to +4Mtpa at a later date, potentially funded from project cash flows.

As part of the optimisation studies conducted over the past seven months, the Company engaged again with Lycopodium to provide a more capital cost effective solution for the 2Mtpa case, and also to review lower throughput scenarios in an effort to minimise up-front capital expenditure, but without compromising project economics.

The optimisation study work resulted in the Company further investigating the potential economic viability of a 1Mtpa "start-up" CIL operation, in lieu of the higher capex 2Mtpa option. The results of the study on CIL options is presented in the figures below.

Figure 9: CIL 1 & 2 Mtpa Operating Highlights (based on US$1,200/oz gold)

		1Mtpa	2Mtpa
CIL Plant Feed	[Mt]	7.5	16.0
Grade	[g/t]	2.30	1.71
Strip Ratio	[W:O]	5.3	4.3
Annual Gold Production	[koz/yr]	68	101
Total Gold Production	[koz]	515	808
Total Contained Gold	[koz]	557	877
Mine Life	[Yr]	7.5	8.0
Capital Costs [1]	[US$M]	93	145
Revenue @ $1200/oz	[US$M]	$619	$970
Generated Cashflow	[US$M]	$191	$315
NPV[2] Undiscounted	[US$M]	$110	$170
NPV[2] @ 5% Discount Rate	[US$M]	$78	$119
IRR		24%	21%
Cash Cost (C1)	[US$/oz]	$766	$747

[1] excludes contingencies and project working capital

[2] excludes contingencies

Figure 10: CIL 1 & 2 Mtpa Economic Sensitivities

1Mtpa CIL, US$1200/oz		Based on Measured and Indicated Resource estimate only		
Gold Price US$/oz		900	**1200**	1500
Physicals				
CIL Plant Feed	Mt	3.7	**7.5**	13.2
Grade	g/t	2.85	**2.30**	2.01
Strip Ratio	W:O	4.9	**5.3**	5.9
Annual Au production	koz/yr	85	**68**	60
Total Au Production	koz	318	**515**	788
Total Au Contained	koz	342	**557**	853
Mine Life	Yr	3.7	**7.5**	13.2
Cash Flow Analysis				
Revenue	US$M	$382	**$619**	$945
Generated Cashflow	US$M	$86	**$191**	$268
NPV[1] undiscounted	US$M	$5	**$110**	$187
NPV[1] @ 5%	US$M	-$3	**$78**	$210
IRR		-2%	**24%**	38%
Cash Cost (C1)	US$/oz	$591	**$766**	$931

2Mtpa CIL, US$1200/oz		Based on Measured and Indicated Resource estimate only		
Gold Price US$/oz		900	**1200**	1500
Physicals				
CIL Plant Feed	Mt	7.6	**16.0**	27.8
Grade	g/t	2.11	**1.71**	1.46
Strip Ratio	W:O	3.8	**4.3**	4.8
Annual Au production	koz/yr	126	**101**	86
Total Au Production	koz	477	**808**	1,199
Total Au Contained	koz	514	**877**	1,306
Mine Life	Yr	3.8	**8.0**	13.9
Cash Flow Analysis				
Revenue	US$M	$572	**$970**	$1,439
Generated Cashflow	US$M	$139	**$315**	$537
NPV[1] undiscounted	US$M	-$6	**$170**	$392
NPV[1] @ 5%	US$M	-$6	**$119**	$282
IRR		-2%	**21%**	28%
Cash Cost (C1)	US$/oz	$569	**$747**	$926

[1] excludes contingencies

Capital & Operating costs

Optimised capital cost estimates for each of the development options are presented in US dollars.

Operating costs for each of the development options include all direct costs for the production of gold doré from the Banfora Gold Project. Estimates are presented in US dollars and are based on annual throughput determined in the respective pit optimisations for primary, transitional and oxide material. Costs have been derived from first principles estimation, factoring and bench marking similar operations and other sources including:

- Estimates prepared for the Bankable Feasibility Study.
- Consultant's database of costs from similar projects.
- Quotations and rates provided by contractors and suppliers with experience in the region.
- Sustaining costs associated with the CIL mine life, plus ongoing compensation and resettlement.

Mining & Pit Optimisation

The project will be mined by a mining contractor using open pit methods including drilling and blasting, excavation and haulage. Ore will be trucked from the three satellite deposits of Samavogo, Fourkoura and Stinger to the processing plant at the Nogbele deposit.

The optimisations have been predicated on conventional open pit mining techniques as the majority of the defined mineral resources at BGP are within 150 m depth from the surface and of a lode style mineralisation requiring a relatively high degree of selectivity. The material to be excavated will predominately need to be blasted with some free dig material near surface. Given these conditions, conventional open pit mining techniques using drill and blast with material movement by hydraulic excavator and trucks will be employed.

CIL Processing

The optimisation studies assessed both a 1Mtpa and 2Mtpa conventional CIL processing plant and includes a single stage milling circuit (SAG Mill) and conventional CIL gold recovery processes. The mill is designed for a 30/70 oxide/sulphide blend for the LOM and using a coarse grind of 106µm will result in average gold recoveries of 92.0%.

The process plant design for the optimised cases differed in philosophy from the BFS case. With the focus on reducing capital costs, several plant features were modified in response to this objective.

The major modifications in the plant design investigate for opportunities in cost reduction included:

- Primary jaw crusher re-sized to meet "fit for purpose" throughput – the BFS crusher was oversized in order to meet the demands of the future 4Mtpa expanded plant.
- Crushed ore surge bin and stockpile removed in favour of direct feed from crusher to mill, without a transfer station. This approach has the potential to increase down time of the mill and CIL circuits during maintenance.
- Single stage SAG mill but without the pebble recycle crusher included in the BFS case. The approach being that oxide material would be prioritised up front, and the recycle crusher can be deferred until the harder primary material is fed to the plant.
- Exclusion of tailings thickener with water demands met by the water harvest dam and supplemented by water bores in the event of severely dry years.
- CIL circuit incorporating five stages only (was six stages with the BFS) resulting in a slight decrease in recovery of primary material, but with space to add an additional tank in the future.

- The cheaper Zadra elution circuit replaces the BFS Anglo-American elution circuit, with electrowinning and gold smelting to recover gold from the loaded carbon to produce doré.
- Reduced up front capacity of the tailings storage facility (TSF) to defer costs.
- General reduction in size of buildings and more use of lower cost construction.
- General revision to the extent of road upgrades, deferring some of the higher cost culverts to post construction.
- Revision of EPCM costs including implementation of an integrated management team in conjunction with the Owners Team to share all responsibilities. EPCM costs also reduced in AUD terms due to a combination of exchange rate changes, and increased market competitiveness since the BFS estimates were completed in 4Q12.
- Removal of the overhead power line option proposed in the BFS base case, and utilise "over the fence" HFO generator solutions to remove the capex burden, in the knowledge that operating costs will increase.
- Modified mine sequencing to allow deferral of compensation and resettlement costs around Nogbele Central deposit.
- Use of pre-used equipment with viable options discovered for crushing and conveying and the SAG Mill.
- Construction accommodation costs reduced by use of tented options in place of block work dwellings.

Both plant designs have been designed with the ability for production capacity to be increased at a future date.

CIL Metallurgy

The detailed metallurgical testwork programme conducted for the BFS confirmed a conventional CIL process route for gold extraction, with a coarse grind size of 80% passing 106 µm. The Banfora ores are all 'non-refractory', typically 'free-milling' with a high gold recovery by cyanidation leach and low to moderate reagent consumptions; average gold recovery is predicted to be 92%.

The Nogbele, Fourkoura, Samavogo and Stinger ores were all included in the BFS testwork program and proved to have similar comminution and metallurgical characteristics. Ore mineralisation is classified into three main types based on rock alteration and degree of weathering; namely oxide, transition and primary, with approximately 40% of the deposit under the CIL processing option in the oxide category.

Oxide ores are typically low to moderately abrasive, low competency ores with low comminution energy requirements. Primary ores are typically abrasive, medium to high competency ores with average to above average comminution energy requirements.

Appendix 2 | Other Information

Project Location

The Banfora Gold Project (Gryphon 90% Burkina Faso Govt 10%) covers 1,200 kilometres square and is located in south west Burkina Faso, West Africa, approximately 510 kilometres by road south-west of Ouagadougou and 778 kilometres from the port city of Abidjan (Cote d'Ivoire). A 100 kilometre sealed road connects Banfora town to the city of Bobo-Dioulasso with Burkina Faso's capital city Ouagadougou, a further 350 kilometres away.

Figure 11 | Banfora Gold Project - Burkina Faso

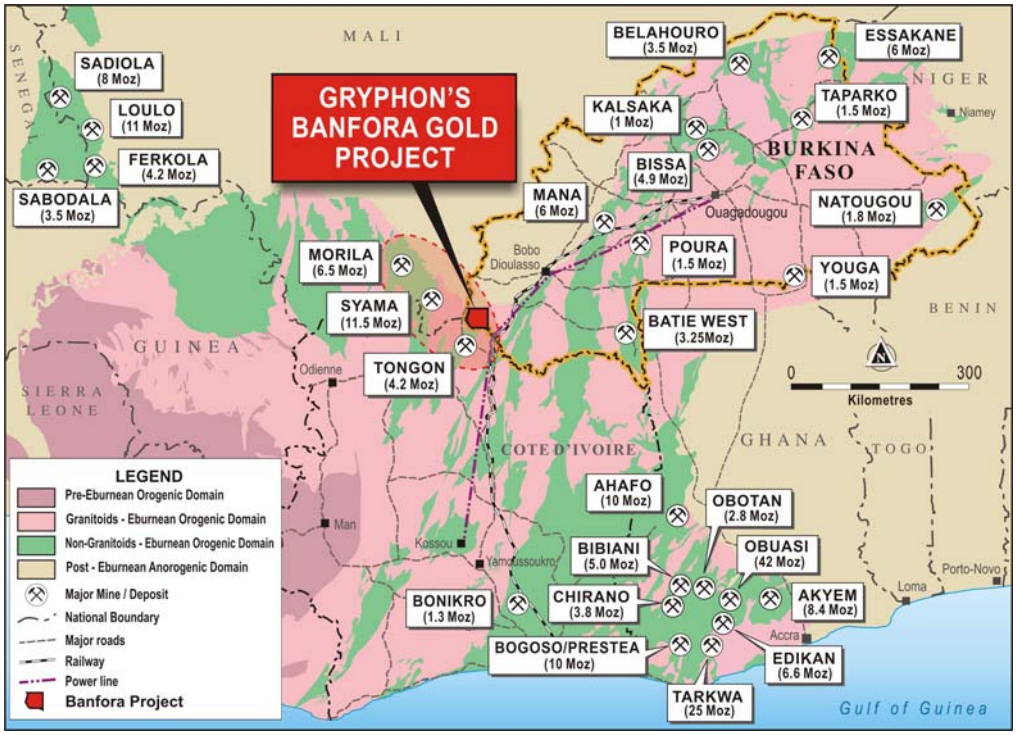


Figure 12 | Independent specialist consultants that advised on the optimisation studies.

Contribution by	Area
SENET Pty Ltd	Heap leach processing
Kappes Cassiday / SGS Laboratories	Heap leach Testwork
Peter O'Bryan & Associates	Mine Geotechnical
Lycopodium Minerals	CIL Capital & Operating costs estimates
Knight Piésold	Site engineering for roads and surrounding infrastructure
Intersocial Consulting	Resettlement studies and action plan
Experiens, SWS and MBS Environmental	Environmental baseline studies and impact assessment

Appendix 3 | Resource Estimate Information

For the optimisation study work a new resource has been estimated for the Nogbele and Fourkoura deposits at the Banfora Gold Project. The new estimate has been produced by Sam Brooks, a full time employee of Gryphon Minerals. Mr Brooks has 10 years experience in the exploration and resource estimation of orogenic gold systems and is a member of the Australian Institute of Geoscientists. Mr Brooks is qualified to act as a Competent Person for the estimation of Mineral Resources. Independent third party check estimates and parameter reviews have been received as part of the estimation process.

The Stinger and Samavogo Deposits have not been re-estimated from the resource produced by CSA Global, Perth Ltd (refer ASX 31/01/13).

Details of how the new estimate has been derived are reported below and in the Tables that follow.

The total Resource estimate for the Banfora Gold project using a 0.5g/t lower cut currently stands at:

67MT @ 1.38g/t for 3.0 Moz of Measured and Indicated and 16MT @ 1.30g/t for 0.66 Moz of inferred*

*rounded to 2 significant figures

New Estimate Methodology for Nogbele and Fourkoura

The new resource has been estimated using a combination of Multiple Indicator Kriging (MIK) with block support adjustment and Ordinary Kriging (OK) estimation methods. Full details of the method are included in the table below: Banfora Gold Project Mineral Resource Estimate Table 1.

The following rational was applied to the deposit modelling and estimation:

At Nogbele and Fourkoura a significant portion of the mineralisation is related to disseminated sulphide or stockwork and/or sheeted vein related mineralisation. These areas are characterised by more diffuse boundaries and grade populations that are not easily constrained by lithological boundaries generally characterised by high coefficients of variation. These domains were modelled using grade shell boundaries designed to capture all anomalous mineralisation at a nominal 0.2 g/t edge grade.

Estimation was conducted using Multiple Indicator Kriging to 25m x 25m x 10m panels. Data was composited to 3m and estimation conducted using an expanding three pass search. A total of 14 indicators thresholds were used to cover the global range of grades. Change of support was applied to the panels using a 5m x 5m x 2.5m selective mining unit (SMU) with an indirect-lognormal block support correction and volume variance correction factor. An information effect was incorporated into the support correction with an 8m x 6m x 5m grade control spacing.

At the Nogbele deposit, in areas where lode style quartz veining is the dominant mineralization style, a vein geological model has been produced. These zones are characterised by narrow (1-10m width) laminated strike parallel quartz veins hosted on east trending and north-west trending fault planes. Individual veins extend up to several hundred metres and are generally high tenor. These domains are well supported by surface outcrop, structural information from diamond

drilling and numerous RC interceptions, including trial grade control spaced drilling on an 8m x 6m grid to test the continuity of geology and grade. A nominal low grade halo was also modelled to constrain mineralised wall rocks.

Estimation to the vein domains was conducted using Ordinary Kriging with hard boundaries applied to the vein domains. A 15m x 15m x 5m parent cell was used for the estimation and the estimate was conducted on 2m composites using an expanding three pass search. Blocks were coded with a vein and a low grade halo percentage with each ore type estimated separately.

Comparison with Previous Resource Estimate (refer ASX 31/1/13)

The new resource estimate at Nogbele and Fourkoura is a change in approach from the previous estimate both in the modelling and estimation approach for the majority of the ore body. The estimate has been produced to incorporate new drilling at the two deposits conducted since the previous estimate.

Significant effort has gone into improving the confidence of the local estimate since the previous model, including infill drilling, trial grade control and the use of multiple indicator kriging.

At the 0.5 g/t cut off at Nogbele the new resource reports a 10.0% reduction in grade and a 21.4% reduction in contained metal of Measured and Indicated resources.
At the 0.5 g/t cut off at Fourkoura the new resource reports a 9.5% reduction in grade and 13.8% reduction in contained metal in Indicated category resources.
Inferred category resources at both prospects have been significantly reduced with a 44% reduction in contained metal at Nogbele and a 30.3% reduction in contained metal at Fourkoura.

The change in estimate can be attributed to the following factors:

- Change in estimation technique for large portions of Nogbele and all of Fourkoura of the ore body from a linear method (Ordinary kriging) to a non- linear estimation method (Multiple indicator kriging) producing a recoverable model.
- Restriction of the mineralisation particularly at depth due to the change in modelling method. This has significantly reduced the inferred ounces extrapolated below drilling.
- Minor changes from infill drilling conducted since the last estimate At Nogbele an additional 1124 holes has been drilled for 60,355 m has been completed (Additional drilling included 695 RC trial grade control holes for 23,545 m) and an additional 41 holes for 4,167 m at Fourkoura.

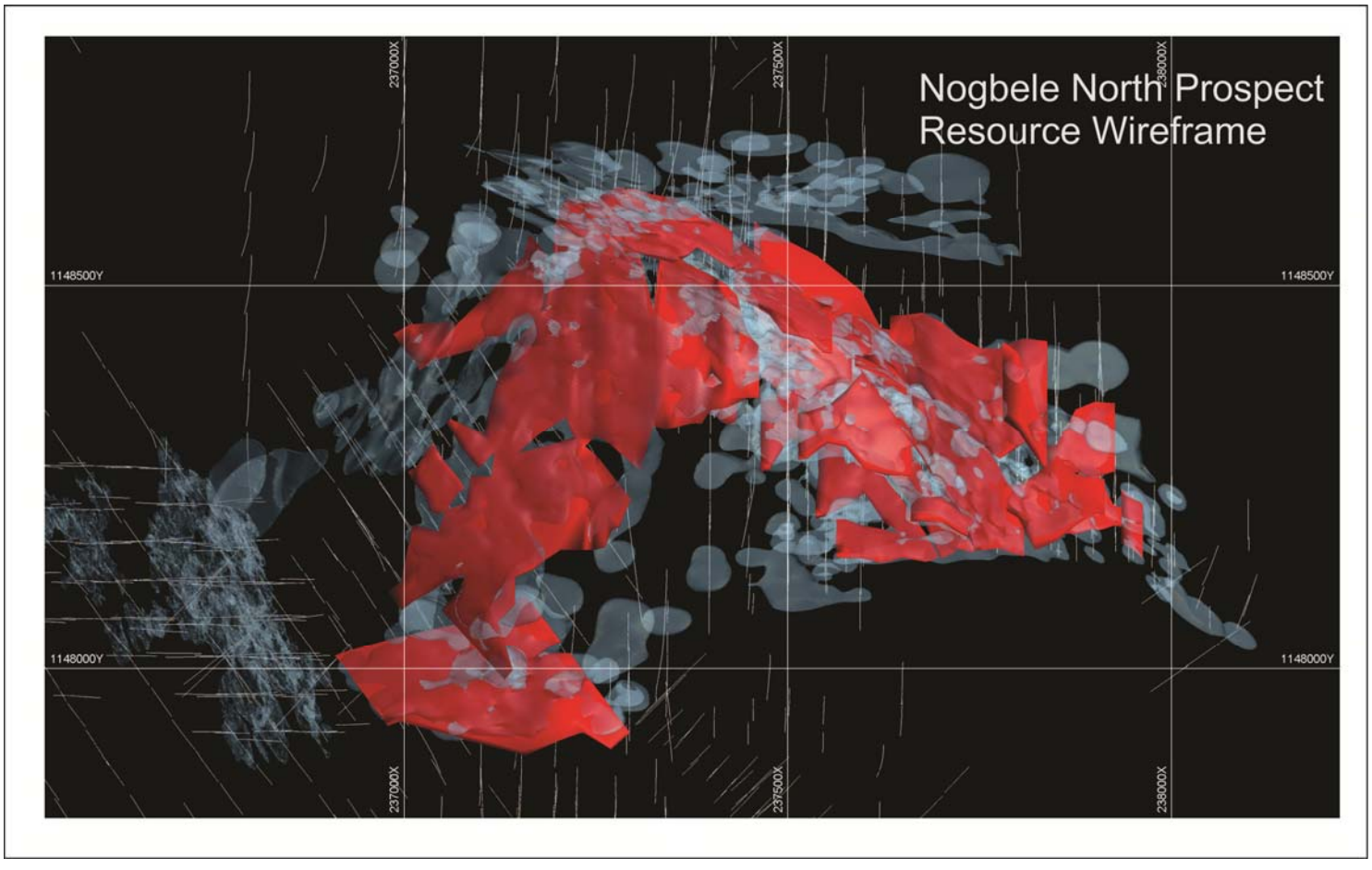
Banfora Gold Project: Global Mineral Resource Estimate at 0.5g/t lower cut:

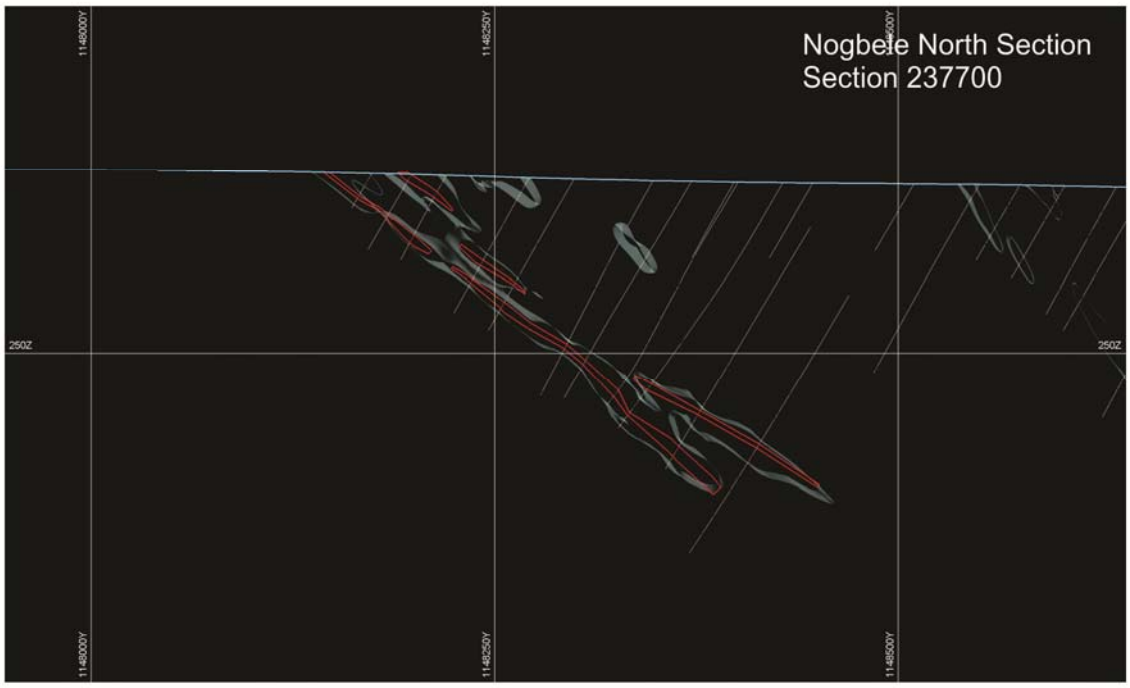
								Global 0.5 lower Cut								
		Measured			Indicated			Measured + Indicated			Inferred			Total		
	Tonnes (Mt)	Grade g/t Au	Contained Gold (MOZ)	Tonnes (Mt)	Grade g/t Au	Contained Gold (MOZ)	Tonnes (Mt)	Grade g/t Au	Contained Gold (MOZ)	Tonnes (Mt)	Grade g/t Au	Contained Gold (MOZ)	Tonnes (Mt)	Grade g/t Au	Contained Gold (MOZ)
Nogbele	6.68	1.45	0.31	26.46	1.23	1.05	33.14	1.28	1.36	0.97	1.12	0.04	34.12	1.27	1.40
Fourkoura				7.26	1.18	0.28	7.26	1.18	0.28	1.13	1.14	0.04	8.39	1.18	0.32
Samavogo				12.50	1.77	0.71	12.50	1.77	0.71	8.52	1.33	0.36	21.02	1.59	1.07
Stinger				14.26	1.39	0.64	14.26	1.39	0.64	5.26	1.31	0.22	19.52	1.37	0.86
	6.68	**1.45**	**0.31**	**60.48**	**1.37**	**2.67**	**67.16**	**1.38**	**2.98**	**15.88**	**1.30**	**0.66**	**83.04**	**1.37**	**3.64**

Banfora Gold Project: Global Mineral Resource Estimate at a range of lower cuts from 0.0 to 1.5g/t gold:

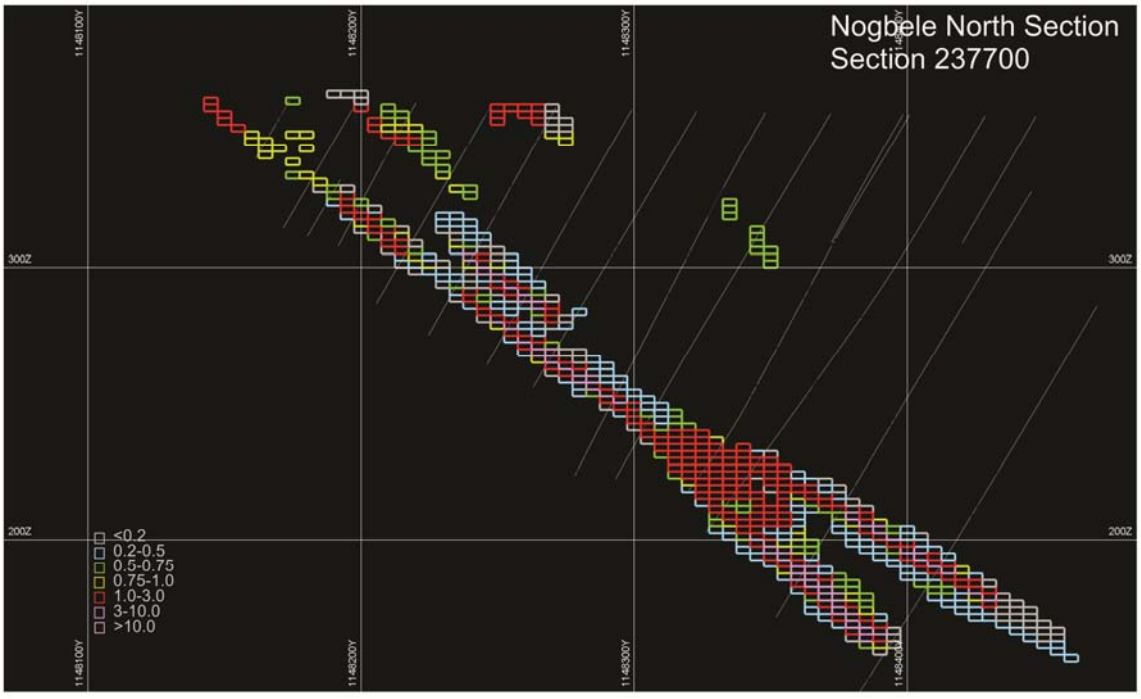
							Global Banfora								
Lower		Measured			Indicated			Measured + Indicated			Inferred			Total	
cut (g/t)	Tonnes (Mt)	Grade g/t Au	Contained Gold (MOZ)	Tonnes (Mt)	Grade g/t Au	Contained Gold (MOZ)	Tonnes (Mt)	Grade g/t Au	Contained Gold (MOZ)	Tonnes (Mt)	Grade g/t Au	Contained Gold (MOZ)	Tonnes (Mt)	Grade g/t Au	Contained Gold (MOZ)
0	11.6	0.96	0.36	89.4	1.03	2.95	101.0	1.02	3.31	21.3	1.04	0.71	122.3	1.02	4.02
0.1	11.2	1.00	0.36	87.2	1.05	2.95	98.3	1.05	3.31	20.4	1.09	0.71	118.7	1.05	4.02
0.2	10.7	1.04	0.36	82.6	1.10	2.93	93.2	1.10	3.28	20.0	1.11	0.71	113.2	1.10	4.00
0.3	9.5	1.13	0.35	76.2	1.17	2.88	85.8	1.17	3.22	19.2	1.14	0.70	105.0	1.16	3.93
0.4	8.1	1.27	0.33	68.6	1.26	2.79	76.7	1.27	3.12	17.6	1.22	0.69	94.2	1.26	3.81
0.5	6.7	1.45	0.31	60.5	1.37	2.67	67.2	1.38	2.98	15.9	1.30	0.66	83.0	1.37	3.64
0.6	5.6	1.62	0.29	52.2	1.50	2.53	57.8	1.52	2.82	14.1	1.39	0.63	71.9	1.49	3.45
0.7	4.7	1.80	0.27	44.7	1.65	2.37	49.4	1.66	2.64	12.2	1.51	0.59	61.6	1.63	3.23
0.8	4.0	1.98	0.26	38.3	1.80	2.22	42.4	1.82	2.47	10.6	1.61	0.55	53.0	1.78	3.03
0.9	3.5	2.14	0.24	33.1	1.95	2.07	36.6	1.97	2.32	9.2	1.74	0.51	45.8	1.92	2.83
1	3.1	2.29	0.23	28.8	2.10	1.94	31.9	2.12	2.17	7.8	1.87	0.47	39.7	2.07	2.64
1.1	2.8	2.43	0.22	25.2	2.25	1.82	28.0	2.27	2.04	6.8	1.99	0.44	34.8	2.21	2.48
1.2	2.6	2.56	0.21	22.3	2.39	1.71	24.8	2.41	1.92	5.8	2.14	0.40	30.6	2.36	2.32
1.3	2.3	2.69	0.20	19.9	2.53	1.62	22.2	2.55	1.82	5.0	2.28	0.37	27.2	2.50	2.19
1.4	2.1	2.82	0.19	17.8	2.67	1.53	19.9	2.69	1.72	4.4	2.42	0.34	24.3	2.64	2.06
1.5	2.0	2.94	0.18	16.1	2.80	1.45	18.0	2.82	1.63	3.8	2.56	0.32	21.9	2.77	1.95

Nogbele Gold deposit (Northern Area) showing resource wireframe and drill hole traces: Banfora Gold Project





Cross section showing vein and halo model for Nogbele North, veins are shown in red outline and are hard boundaries for the resource estimate.



Cross section showing OK resource model for Nogbele North, reblocked to SMU With the average Au grade for Vein and Halo mineralisation displayed

Banfora Gold Project Mineral Resource Estimate Table:

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	• Sampling methods undertaken include reverse circulation drilling (RC) and diamond drilling (DD). At Nogbele a total of 236,468 m of RC 9,326 m of diamond drilling and 21,900 m of RC pre-collar and diamond tail has been completed. At Fourkoura a total of 27251 m of RC, 1693.49 m diamond drilling and 769.17 m of RC pre-collar and diamond tail has been completed. Drilling at Nogbele has been completed on 25 m x 25 m spacing. At Fourkoura drilling has been completed on 50 m x 25 m spacing.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• All drilling and sample collection carried out to industry standards. Drill hole collar locations were surveyed by trained site based technicians using real time differential GPS (DGPS) to a sub decimetre accuracy in horizontal and vertical position. Signal correction completed using the Omnistar network. Vertical precision was supplemented using a Digital Surface Model created from WorldView-2 stereo imagery incorporating DGPS ground control points. Down hole drill hole surveys were undertaken by the drill contractor utilizing a Reflex EZ-Shot down hole survey instrument and by single shot Eastman Cameras. Survey intervals of 30m and end of hole were routinely collected. No strongly magnetic rock units are present within the deposit which may upset magnetic based readings.
	• *Aspects of the determination of mineralization that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralization types (eg submarine nodules) may warrant disclosure of detailed information.*	• RC samples were collected on 1m intervals from the cyclone and split using a four tier riffle splitter to provide an approximate 3.0kg sample. DD holes of HQ and NQ diameter were completed. Half core sampling a predominantly 1m interval of the DD was undertaken. Residual core has been preserved onsite.

Criteria	JORC Code explanation	Commentary
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Reverse circulation comprises 88 % of the drilling at Nogbele and 92% of the drilling at Fourkoura. • HQ diamond and RC pre-collar with diamond tails comprises 12 % of the drilling at Nogbele and 8% of the drilling at Fourkoura. • Diamond core was oriented using spear, and Reflex core orientation. • Diamond holes were generally pre-collared with RC to the base of oxidation before being cased and continued with HQ core.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• RC chips were visually logged for moisture content and the recovered sample weight was recorded at time drilling on a 1m basis. Down hole recovery weights were graphically logged to check for sample accumulation during rod change. • Diamond core recovery was logged and recorded by company technicians at the drill rig and recorded into the database. No significant core loss was encountered • Data used to verify recoveries and sample quality. Drilling terminated if wet samples or poor recovery encountered during RC drilling. • The drill materials are of good recovery and quality and no bias is expected from sample loss or contamination. Drilling was routinely stopped when sample issues occurred and the hole redrilled.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All drill chips logged on site for geology, alteration and mineralization for incorporation into geological models qualitatively. • All core logged for geology, alteration and structure on the basis of oriented core marks. • Selected diamond holes have been geotechnically logged for inclusion in geotechnical studies for pit wall stability. • Magnetic susceptibility and bulk density completed on all core quantitatively. Bulk density was recorded using the water

Criteria	JORC Code explanation	Commentary
		displacement method. • All core and chips are photographed for digital storage • All drillholes have been logged in full
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Core has been sampled by cutting half core. No field duplicate data was submitted for core • Riffle splitting dry samples using a tiered splitter to 4 kg sample and submitted for analysis • Sampling methods are industry standard and are appropriate for the type of drilling • All RC samples weighed and riffle split to ensure acceptable recoveries. Core recoveries logged before cutting. • For RC chips field duplicate sample collected every 20 samples and submitted to the laboratory to assess precision of the riffle splitting. Field duplicate data is routinely reviewed and showed acceptable precision and variability. • Field duplicate data indicates acceptable variability indicating coarse gold is not a significant issue in the sampling.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Gold assays were obtained by using a 50g charge for a lead collection fire assay with an AAS finish. This is considered to be total gold estimate. Assaying was conducted in Ougadougou by BIGGS Laboratories. • Not applicable • Certified reference materials, blanks and duplicates are regularly inserted into the sample preparation and analysis process with approximately 10% of all samples being related to quality control. A total of 300 samples were dispatched to Genalysis Laboratory in Perth, Western Australia for umpire analysis.

Criteria	JORC Code explanation	Commentary
		• Data is reviewed before being accepted into the database. Any batches failing QAQC analysis resubmitted for check assays. Dataset QAQC contains acceptable levels of precision and accuracy.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Significant intersections have been reviewed by a number of independent geological consultants as well as staff geologists including the Competent Person (CP). • Diamond and RC holes have both been twinned with RC holes at both prospects. Visual inspection between the sections shows there is a good correlation between the original hole and the twin hole in both geology and tenor. • All sample and recovery data is recorded to paper forms at the time of drilling. Data is then keypunched into controlled excel templates with validation. Geological logging is directly logged into template log sheets by Toughbook computer. The templates are then provided to an internal database manager for loading using Datashed. Referential integrity is checked as part of the data loading process into Datashed. • No adjustment has been made to the assay data
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used* • *Quality and adequacy of topographic control.*	• Drill hole collar locations were surveyed by trained site based technicians using real time differential GPS (DGPS) to a sub decimetre accuracy in horizontal and vertical position. Signal correction completed using the Omnistar network. Vertical precision was supplemented using a Digital Surface Model created from WorldView-2 stereo imagery incorporating DGPS ground control points. Down hole drill hole surveys were undertaken by the drill contractor utilizing a Reflex EZ-Shot down hole survey instrument and by single shot Eastman Cameras. Survey intervals of 30m and end of hole were routinely collected. No strongly magnetic rock units are present within the deposit which may upset magnetic based readings. Diamond core was oriented using spear, and Reflex core orientation. • All coordinates were collected in WGS 84

Criteria	JORC Code explanation	Commentary
		datum WGS84 Zone 30 N projection. • Topographic control is based on World View 2 stereoscopic processed image rectified to surveyed control points, providing additional <1m RL precision. Adequate precision has been attained for Mineral Resource Estimation (MRE) and mine planning.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Nogbele Deposit drilling has been conducted on a 25m x 25m grid. Two small areas of 300 m x 100 m x 30 m have been drilled to 8m x 6m spacing to test continuity to grade control detail. • Fourkoura Deposit drilling has been conducted on a 50 m x 25 m grid • Data spacing is sufficient to provide adequate detail for the estimation of Measured, Indicated and Inferred MRE. • Samples were composited to 4m for first pass assay, any results obtaining greater than 0.1 g/t Au were resubmitted as 1m uncomposited data.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• All drilling has been oriented as closely as practical to the known geological orientations. Where multiple orientations are present a drill orientation was selected to best cover the most significant orientations. All drilling was completed between 55-60 degrees dip at the collar shot.
Sample security	• *The measures taken to ensure sample security.*	• Samples are removed from the field immediately upon drilling and stored in a secure compound for sub sampling and preparation for lab dispatch. Samples are collected directly from site by the laboratory. Sample submission forms are sent in paper form with the samples as well as electronically to the laboratory. Reconciliation of samples occurs prior to commencement of sample preparation of dispatches.
Audits or	• *The results of any audits or reviews of*	• All QA/QC data is reviewed in an ongoing

Criteria	JORC Code explanation	Commentary
reviews	*sampling techniques and data.*	basis and reported in monthly summaries. All QAQC data up until December 2012 has been reviewed and documented by CSA Global of Perth. Data subsequent to this period has been reviewed by the CP for this release.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• All work has been conducted on the Banfora Gold Project, which comprises 6 exploration tenements, namely Nogbele (Arrete No. 2004 00-085/MCE/SG/DGMC), Nianka (Arrete No. 2004-00-086/MCE/SG/MGC), Dierisso (Arrete No. 2005 05-096/MCE/SG/DGMGC), Nianka Nord (Arrete No. 2005/5-094/MCE/SG/DGMGC), Zeguedougou (Arrete No. 2005/ 05-095/MCE/SG/DGMGC), Nogbele Sud (Arrete No. 2012-000322/MCE/SG/DGMGC). • Gryphon Minerals Ltd is 100% holder of the Exploration Permits • No historical sites, wilderness or national park are located in the permit area • Relocation of a number of local houses will be required for development • The exploration tenements are in good standing and an operating license application is currently being processed. • There are no known impediments to the granting of this application
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No data contained in the MRE dates to previous explorers. All data in the MRE has been collected by Gryphon Minerals.
Geology	• *Deposit type, geological setting and style of mineralization.*	• The Banfora Gold Project covers greenstone belts and intra belt granitoids of the Proterozoic Birimian Shield. The oldest rocks within the concession are interpreted to be tholeitic to calc-alkaline basalts, andesites and volcaniclastic sediments. Predominately mafic, volcano-sedimentary packages dominate the younger parts of the local stratigraphy. Numerous phases of plutonic activity have intruded the earlier sequences ranging from gabbroic to granitic in

Criteria	JORC Code explanation	Commentary
		composition. Known mineralization is structurally controlled and widely associated with hematite, iron carbonate, sericite, pyrite and locally albitic alteration. Both the mafic volcano-sedimentary packages and the coarse grained intrusive rocks host significant mineralization in the project area. • The Nogbele resource occurs as multiple zones within the Nogbele Granodiorite pluton and adjacent mafic volcanics to the west. Currently defined resources occur within a 2.5 kilometre radius around the contact zone. Mineralised zones vary from sericite pyrite altered laminated lode style quartz vein zones and hematite, sericite, pyrite, iron carbonate, altered zones with little quartz veining. • The Fourkoura Mineral Resource occurs within single and multiple sub-parallel shears with 2.4 kilometre of strike. Mineralization is associated with iron carbonate, pyrite alteration in the felsic intrusive adjacent to the Fourkoura Dolerite and in a quartz-gabbro.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• No new exploration results accompany this announcement
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of*	• No new exploration results accompany this announcement

Criteria	JORC Code explanation	Commentary
	metal equivalent values should be clearly stated.	
Relationship between mineralization widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• No new exploration results accompany this announcement
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Maps, cross sections and model views accompany previous releases. No new exploration results accompany this announcement
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All mineralized intercepts for the resource have been previously reported
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Discussed in detail in next section
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• There are numerous targets for additional from surface mineralization in the project area, refer to ASX release 28/01/14 for the most recent list

Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Hard copy ticket books kept for all sampling data for referral, all digital entry is reviewed with hardcopy data as required. Gryphon Minerals Ltd database manager ensures referential integrity of all data through use of Datashed before data is loaded into database. All data transfer between laboratory and Gryphon is electronic. • Data is validated for acceptable ranges before

Criteria	JORC Code explanation	Commentary
		entry into database. All data was validated for overlapping intervals, missing intervals, large drill hole deviations using Micromine drill hole database validation. Detected errors are fed back into the database.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The CP for this release has made numerous site visits to the project since January 2007. The most recent site visit was conducted in in May 2013. • No issues have been identified in the data or exploration results that would affect the quality of the MRE.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any*	• The current geological interpretation at Nogbele is supported by significant drilling, structural information from oriented core and surface outcrop information. • The MRE comprises two distinct approaches to the modeling of the resource wireframes and domaining. At Nogbele, in areas where lode style quartz veining is the dominant mineralization style, a vein geological model has been produced. These zones are characterized by narrow (1-10m width) laminated strike parallel quartz veins hosted on east trending and North-West trending fault planes. Individual veins extend up to several hundred metres and are generally high tenor. These domains are well supported by surface outcrop, structural information from diamond drilling and numerous RC interceptions, including trial grade control spaced drilling on an 8m x 6m grid to test the continuity of geology and grade. A nominal low grade halo was also modeled to constrain mineralised wall rocks. • At Nogbele and Fourkoura a significant portion of the mineralisation is related to disseminated sulphide or stockwork and/or sheeted vein related mineralisation. These areas are characterised by more diffuse boundaries and grade populations that are not easily constrained by lithological boundaries generally characterised by high coefficients of variation. These domains were modelled using grade shell boundaries designed to capture all anomalous mineralisation at a nominal 0.2 g/t edge grade. Where the nominal 0.2 g/t halo was used, wireframes were constructed on the basis of 0.2 g/t indicator grade shells produced on 5m composited data to a 2 m x 2 m x 2m block size. Probability of exceeding this grade

Criteria	JORC Code explanation	Commentary
	assumptions made. • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	was viewed and an appropriate contour selected to capture all mineralisation and preserve the continuity. • A point kriging approach to modelling was used for a distinct area of the orebody at Nogbele North-East to model the low grade halo material. Structural controls were incorporated into the estimate based on a detailed structural model and the interpolation was undertaken on Gaussian transformed data. Resultant model was subsequently reviewed visually and the volumes checked against manual wireframing. • All vein domains were manually wireframed on a sectional basis, clipping to drill holes. • See above • In the areas where vein domain boundaries where used, the geological model has a significant effect on the resulting estimation, both controlling the tonnage and the recoverable grade. For this reason vein boundaries were only applied in areas of higher geological confidence through the data listed above. In the areas modeled by a nominal 0.2 g/t edge grade, the model is controlled by the assay data and the model and estimation technique applied are less susceptible to the geological model. • Where vein domains have been used, geology has been used to control the estimate. In other areas the estimate is controlled by an edge grade relating to mineralization tenor. • Mineralization of all styles at Nogbele are strongly associated and controlled by the presence of lamprophyric and mafic dykes which have been variably sheared and altered. These dykes are important in the structural continuity. Tenor can be locally controlled by the interactions with these dykes. In areas with the laminated quartz veins, grade and continuity is strongly controlled by the presence of the laminated quartz veins. • At Fourkoura the main ore shoot is controlled by a felsic phase in the quartz gabbro, elsewhere in the gabbro mineralization is more diffuse and lower tenor.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the*	• The Nogbele Deposit consists of multiple ore bodies over a 1.6 km radius around the nose of the Nogbele Granodiorite. Mineralization has been reported to a maximum depth of

Criteria	JORC Code explanation	Commentary
	Mineral Resource.	200m below surface with all mineralization from surface. • The Fourkoura Deposit has been modeled for a strike length of 1.6 km and is reported to a maximum depth of 160m below surface.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	• The new estimate has been conducted using a combination of Multiple Indicator Kriging (MIK) with block support adjustment and Ordinary Kriging (OK) estimation methods. • Data viewing and wireframing and compositing were performed using Micromine software. Statistical analysis, variography and resource estimation including change of support has been conducted using Isatis software. Leapfrog was used to generate the low grade halo wireframe for a single area at Nogbele North East. • MIK Domains- Sample flagging was conducted on the basis of the 0.2 g/t indicator grade shell envelopes, Data was composited to 3m down hole intervals and a total of 14 indicators were selected to span the global range of grades. Indicator models incorporated into the estimate were experimentally modeled semivariograms completed on declustered data. Estimation to panels was completed in a 3 pass expanding search. A minimum of 20-24 samples and maximum of 32 samples were allowed in a single sector search depending on the domain being estimated. Theoretical support correction was conducted on the directional Au variogram to a 5mE x 5mN x 2.5mRL SMU with an information effect incorporated on an 8mE x 6mN x 5mRL final sampling grid. Panels were post processed using a power model for the upper tail to control the influence of outliers in the upper grade bin. Post processing was validated against the theoretical support grade tonnage for the theoretical support correction to the SMU. • OK Domains- Sample flagging was conducted by mineralized vein and halo interpretation and composited to 2m sample length. A smaller composite size to that employed in the

Criteria	JORC Code explanation	Commentary
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	MIK was necessitated by the generally narrower vein intercepts. Composited data was viewed in 3D to assess the distribution of high grade outliers in the data set, and high grade cuts applied on a domain basis selected at the break in the cumulative distribution. In areas where high grade samples were locally well supported, representing a real high grade population a more relaxed high grade cut was applied and the influence of the sample data controlled by distance restriction to the nearest block for composite data over a defined threshold. Estimation to panels was completed in a 3 pass expanding search. A minimum of 6 samples and maximum of 14 samples were allowed in a single sector search. • The Nogbele and Fourkoura deposits have been estimated previously by CSA Global Perth ltd using OK and a grade based geological interpretation. Results of the estimate were compared in the context of the previous estimate. As would be expected, with the comparison of a MIK to a OK estimate a shift towards more tonnage and less grade in the grade tonnage was noted particularly at the higher grade cut offs. The current estimate has restricted interpretation at depth below the drill holes significantly which explains a significant portion of the discrepancy in the inferred resources for the two resources. Check estimates for a portion of the orebody were estimated using MIK by an independent third party using a different approach to the edge domaining and change of support. Results were compared to these estimates with the new estimate conforming well to the check estimate. The portion of the orebody estimated by OK was also checked by MIK estimate to evaluate the impact of the geological domaining. A shift lower in the grade was noted relative to the fully diluted OK model. Trial grade control data was estimated using conditional simulation by two independent third parties and the results used to validate the two models. The CP has elected to use OK for the estimation of the area on the basis of the comparison between
	• *The assumptions made regarding recovery of by-products.*	
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage 36characterization).*	
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	

Criteria	JORC Code explanation	Commentary
	• *Any assumptions behind modeling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	the MIK estimate and the interpreted geology and results of the grade control. • Resource model is for gold only • There are no deleterious identified at either Nogbele or Fourkoura • The MIK estimated domains have been estimated to a 25mE x 25mN x 10mRL panels, approximating the drill spacing at Nogbele. • The OK estimated domains have been estimated to a 15mE x 15mN x5mRL. This block size was selected to approximate half drill spacing and retain common subdivision for a 5mE x 5mN x 5mRL selective mining unit (SMU). • In MIK estimated domains a block support adjustment was applied to the panels to estimate the recoverable gold within the modeled panel. The shape of the local block gold has been assumed to be lognormal and an indirect lognormal correction method has been applied. An information effect has been incorporated into the change of support. A SMU size of 5mE x 5mN x 2.5mRL has been chosen for the support correction. • Resource model is for gold only • The MIK domains were controlled by the low grade halo and estimation searches oriented in the main plane of the structure. The OK domains were modeled using vein hard boundaries which separated the populations of high grade material from the low grade wall rocks. • Covered above

Criteria	JORC Code explanation	Commentary
		• MIK estimates were validated by restricted kriging to the SMU size and the global grade tonnage compared to the MIK model. OK estimates were validated by swath plots of the block grade vs. composite grade on an Easting Northing and RL basis. Domain statistics of the estimate were also compared to the domain composite statistics. Where available trial grade control conditional simulation results were used to check against estimate.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The MRE is estimated on a dry bulk density basis
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The deposit is expected to be mined by open pit mining, a range of cut offs are reported that cover the anticipated cut offs that are likely to be used in an open pit gold operation. The 0.5 reporting cut off has been used to provide comparison with previous resource estimates and as the likely economic cut off for the current BFS on a 2 Mt CIL operation.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Mining is anticipated to be open pit mining with a selective mining unit of 5mE x 5mN x 2.5mRL
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Detailed metallurgical test work has been conducted on the Banfora ores as part of the BFS study. Results of the test work indicated average recoveries of 92.5% for oxide, 96.8% for transition and 89.3 for primary material with conventional CIL processing and a 106 micron grind size.
Environmenta	• *Assumptions made regarding possible waste*	• An Environmental and Social Impact

Criteria	JORC Code explanation	Commentary
l factors or assumptions	*and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	Assessment (ESIA) has been completed based on a 2Mtpa CIL processing plant. All relevant surveys and impact assessments were made. Waste rock characterization studies showed the material to be non-acid generating and have no significant metal contaminates. Tailings characterization and full TSF documentation were also included. . • Gryphon Minerals Ltd has been granted an environmental permit as part of the progress towards the granting of the mining lease (refer ASX 28/01/14)
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density calculated using water displacement method, oxide core oven dried and plastic shrink wrapped before data recorded to preserve voids. A total of 136 samples of oxide and transitional material and 3659 samples recorded form fresh material at Nogbele. • Bulk density was assigned as 1.8 tm^3 for oxide, 2.5 tm^3 for transitional, 2.7 tm^3 for granitoid and 2.8 tm^3 for mafic volcanic/Gabbro • A bulk density of 2.0 tm^3 was assigned to the oxide vein domains, there are currently insufficient data recordings in the bulk density data set to cover this material, and the increase in bulk density has been used to account for the lack of weathering in the oxidation profile. This assumption is based upon experience at other deposits applying this modeling method.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The estimate has been classified according to the sample distribution in the kriging neighborhood and confidence in the geological interpretation. • Input data is of high quality and suitable for the estimation of resources on the basis of QAQC and recovery data, measured category has only been assigned to distinct areas where the sample neighborhood is sufficiently well informed and the geological model is of high confidence and backed up by a number of lines of evidence . The deposits are well drilled with sufficient drill hole density to satisfy the requirements of reporting for Measured, Indicated and Inferred resources. • The classification is consistent with the CPs view of the deposit.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The current resource has not been reviewed or audited.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The relative accuracy is covered by the classification of Measured, Indicated and Inferred resources. • A combination of statistical and geostatistical procedures are used where appropriate to quantify confidence and relative accuracy. • No Production data is available